Oracle® Communications Policy Management

OSSI XML Interface Definitions Reference

Release 12.4

E89534 Revision 01

March 2018

ORACLE®

Oracle Communications Policy Management OSSI XML Interface Definitions Reference, Release 12.4

Table of Contents

List of Tables

Part I

Introductory Information

Topics:

This section of the Oracle Communications Policy Management (OSSI) Definitions Reference provides a description of the OSSI as well as important resource information associated with this reference guide.

Chapter 1

About This Guide

Topics:

This chapter contains an overview of this guide, describes how to obtain help, where to find related documentation, and provides other general information.

Introduction

This guide describes the Operation Support System Interface (OSSI) Definitions Interface . This interface enables an operator or third-party system to programmatically push configuration information to and retrieve operational statistics from the policy server deployment using XML queries.

Scope and Audience

This guide is intended for operators or third-party systems who are responsible for pushing configuration information to and retrieving operational statistics from a policy server deployment.

How This Guide is Organized

The information in this guide is divided into the following major sections:

- The first part, *Introductory Information*, includes:
  - *About This Guide*, which contains general information about this guide, the organization of this guide, and how to get technical assistance.
- The second part, *Functionality Used in Both Wireless and Cable Modes*, includes:
  - *Schema Definitions and Request Specifications*, which describes the schema definitions and request specifications used within the OSSI XML interface for both wireless and cable modes.
  - *Common Responses and Commands*, which describes the generic response format for many of the commands, used and the commands that are common to the various OSSI interfaces.
  - *About the Operational Measurements Interface*, which describes the interface used to retrieve operational counters from the system.
  - *Identity Management*, which describes the interface that enables the CMP to configure user names, passwords and roles using the OSSI interface.
  - *Policy Table Interface*, which describes an interface that enables you to generalize multiple similar policies into a single policy, simplifying processes such as adding new policies, modifying existing policies, and checking consistency among policies.
  - *Topology Interfaces* , which enables you to manage and query topology-related objects, such as applications and traffic profiles.
- The third part, *Wireless Mode*, describes all the functionality used in the wireless mode, which includes:
  - *Topology Interface for Wireless Mode*, which describes the interface that allows wireless users to manage and query network elements, paths, and other topology-related objects within the system.

- *Subscriber Interface for Wireless Mode*, which describes the interface that enables wireless users to manage and query quota profiles and quota conventions within their system.
- *Operational Measurement Interface for Wireless Mode* describes the various operational measurements, (OM) groups, and the individual OM statistics specific to the wireless mode.

- The fourth part, *Cable Mode*, describes all the functionality used in the cable mode, which includes:
  - *Topology Interface for Cable Mode*, which describes the interface that enables cable users to manage and query network elements within the system.
  - *Subscriber Interface for Cable Mode*, which describes the interface that enables cable users to manage and query accounts and tiers within their system.
  - *Operational Measurement Interface for Cable Mode*, which describes the various operational measurements (OM) groups and the individual OM statistics specific to the cable mode.

Related Publications

For information about additional publications related to this document, refer to the Oracle Help Center site. See *Locate Product Documentation on the Oracle Help Center Site* for more information on related product publications.

Locate Product Documentation on the Oracle Help Center Site

Oracle Communications customer documentation is available on the web at the Oracle Help Center (OHC) site, *http://docs.oracle.com*. You do not have to register to access these documents. Viewing these files requires Adobe Acrobat Reader, which can be downloaded at *http://www.adobe.com*.

1. Access the Oracle Help Center site at *http://docs.oracle.com*.
2. Click **Industries**.
3. Under the Oracle Communications subheading, click the **Oracle Communications documentation** link.
   The Communications Documentation page appears. Most products covered by these documentation sets will appear under the headings “Network Session Delivery and Control Infrastructure” or “Platforms.”
4. Click on your Product and then the Release Number.
   A list of the entire documentation set for the selected product and release appears.
5. To download a file to your location, right-click the **PDF** link, select **Save target as** (or similar command based on your browser), and save to a local folder.

Customer Training

Oracle University offers training for service providers and enterprises. Visit our web site to view, and register for, Oracle Communications training:

http://education.oracle.com/communication

To obtain contact phone numbers for countries or regions, visit the Oracle University Education web site:

www.oracle.com/education/contacts

My Oracle Support (MOS)

MOS (*https://support.oracle.com*) is your initial point of contact for all product support and training needs. A representative at Customer Access Support (CAS) can assist you with MOS registration.

Call the CAS main number at 1-800-223-1711 (toll-free in the US), or call the Oracle Support hotline for your local country from the list at *http://www.oracle.com/us/support/contact/index.html*. When calling, make the selections in the sequence shown below on the Support telephone menu:

1. Select **2** for New Service Request
2. Select **3** for Hardware, Networking and Solaris Operating System Support
3. Select one of the following options:
   - For Technical issues such as creating a new Service Request (SR), Select **1**
   - For Non-technical issues such as registration or assistance with MOS, Select **2**

You will be connected to a live agent who can assist you with MOS registration and opening a support ticket.

MOS is available 24 hours a day, 7 days a week, 365 days a year.

Emergency Response

In the event of a critical service situation, emergency response is offered by the Customer Access Support (CAS) main number at 1-800-223-1711 (toll-free in the US), or by calling the Oracle Support hotline for your local country from the list at *http://www.oracle.com/us/support/contact/index.html*. The emergency response provides immediate coverage, automatic escalation, and other features to ensure that the critical situation is resolved as rapidly as possible.

A critical situation is defined as a problem with the installed equipment that severely affects service, traffic, or maintenance capabilities, and requires immediate corrective action. Critical situations affect service and/or system operation resulting in one or several of these situations:

- A total system failure that results in loss of all transaction processing capability
- Significant reduction in system capacity or traffic handling capability
- Loss of the system's ability to perform automatic system reconfiguration
- Inability to restart a processor or the system
- Corruption of system databases that requires service affecting corrective actions
- Loss of access for maintenance or recovery operations
- Loss of the system ability to provide any required critical or major trouble notification

Any other problem severely affecting service, capacity/traffic, billing, and maintenance capabilities may be defined as critical by prior discussion and agreement with Oracle.

Part II

Functionality Used in Both Wireless and Cable Modes

Topics:

This section is divided into chapters that define functionality common to both wireless and cable modes. The following chapters provide this information in greater detail:

- *Schema Definitions and Request Specifications*: defines schema (OssiXmlRequestResponse.xsd, OssiXmlCommon.xsd, OssiXmlToplogy.xsd, etc.) and request specifications (using HTTP POST) for the OSSI.
- *Common Responses and Commands*: defines the generic response format for many of the commands used as well as the commands that are common to the various OSSI.
- *About the Operational Measurements Interface*: defines the interface used to retrieve operational counters from the system.
- *Identity Management*: allows the CMP to configure user names, passwords, and roles using the OSSI.
- *Policy Table Interface*: lets you generalize similar policies into a single policy that represents the policy structure, plus policy tables that capture the differences.
- *Topology Interfaces* : lets you manage and query topology-related objects such as applications and traffic profiles.

Chapter 1

Schema Definitions and Request Specifications

Topics:

This chapter provides detailed information on schema definitions and request specifications used within the OSSI XML interface.

Schema Definitions

To enable message validation and to accurately specify the syntax of each of the messages, the following XML schema definitions are provided.

- OssiXmlRequestResponse.xsd: defines the XmlInterfaceRequest tag and the associated sub-element type definition. This XSD file is used to validate add/update requests.
- OssiXmlCommon.xsd defines the schema for global types and requests used in all interfaces.
- OssiXmlTopology.xsd defines the schema for the topology interface.
- OssiXmlSubscriber.xsd defines the schema for the subscriber interface such as AddAccount and UpdateAccount.
- OssiXmlOm.xsd defines the schema for the OM interface and the OSSI OM stats query and response type defintion.
- OssiXmlRuntimeResponse.xsd defines the runtime response type such as: SubscriberLog, SubscriberRealtimeStats, and ResponseType.
- OssiXmlUserMgr.xsd defines the user, role-related type (such as: AddRole and AddSysAdminUser).
- Export.xsd is generated according to the data model (dal.xml) during the build phase and includes miscellaneous types.

Request Specifications

Each of the requests and responses defined within the previous schema definitions are sent to and received from the Oracle Communications Policy Management Configuration Management Platform (CMP) using HTTPS messages. Specifically, an HTTP POST message is sent containing the specific request message. The HTTP response contains a response message indicating status and returning any data as required.

For an application desiring to use the OSSI, the only requirement is the ability to send an HTTP POST and to process any response. This guide contains examples that use the command line utility wget to send an HTTP POST request that contains data specified in an XML file as input and returns an output XML file. The example that follows demonstrates the basic wget options; additional options are available but are not described here. Please note that the request URL is case sensitive and must be entered as seen here.

Note: The CMP system has a global setting that controls how often statistics are available to the OSSI. Therefore, the availability of statistics is dependent upon when the statistics are available to OSSI. For more information, see the *CMP User's Guide* appropriate for your mode of operation.

```
> wget --post-file=input.xml --output-document=output.xml
"http://1.2.3.4/mi/xmlInterfaceRequest.do?user=test&pwd=test"
--timeout=0 --progress=dot <
```

Where the following describes each parameter:

- `--post-file=input.xml` (Required)

  Indicates the request input XML file.

- `--output-document=output.xml` (Optional)

  Names the output file. If unspecified, the default filename is the URL string indicated in the wget request.

- `http://1.2.3.4/mi/xmlInterfaceRequest.do?user=test&pwd=test` (Required)

  The HTTP request URL, including the authentication credentials.

- `--timeout=0` (Optional)

  Sets the network timeout to seconds. The default for this value is 900 (15min). A value of 0 disables timeout checking completely.

- `--progress=dot` (Optional)

  Display the progress bar on the request.

Since the request must include authentication credentials, you must specify a user with the necessary privileges to perform the desired operations. The default CMP Administrator and Operator roles have the appropriate privileges for all OSSI operations. You can create a custom role if it includes the necessary privileges. For more information on roles and privileges, see the *CMP User's Guide* appropriate for your mode of operation.

Chapter 2

Common Responses and Commands

Topics:

This chapter describes the generic response format for many of the commands used and the commands that are common to theOSSI.

Common Responses

This section describes the generic response format to many of the commands. The response format follows the generic response tag defined in the XSD files. The following are examples of successful and failed operations.

Example XML Response for a Successful Operation

The following is an example of an XML response for a successful operation.

```
<?xml version="1.0" ?>
<Response>
    <Result>0</Result>
    <Command type="XmlInterfaceResponse">
        <Success count="2">Successfully imported 2 network elements.</Success>
        <Failure count="0"></Failure>
    </Command>
</Response>
```

Example XML Response for an Operation that Fails at the System Level

The following is an example of an XML response for an operation that fails at the system level (for example, a malformed request).

```
<?xml version="1.0" ?>
<Response>
    <Result>103</Result>
    <Command type="XmlInterfaceResponse">
        <Success count="0"></Success>
        <Failure count="1">Incorrectly formatted XML. The element type
        "NetworkElementStats" must be terminated by the matching end-tag
        "</NetworkElementStats>".</Failure>
    </Command>
</Response>
```

Example XML Response for an Operation that Includes an Application-level Failure

The following is an example of an XML response for an operation that includes an application-level failure.

```
<?xml version="1.0" ?>
<Response>
    <Result>0</Result>
    <Command type="XmlInterfaceResponse">
        <Success count="0"></Success>
        <Failure count="1">Failed to import 1 network elements.
        Network Element includes an invalid NetworkElementType.
        Network Element: RouterA</Failure>
```

```
    </Command>
</Response>
```

The following is an example of an XML response for a policy deployment operation that includes an application-level failure.

```
<?xml version="1.0" ?>
<Response>
    <Result>103</Result>
    <Command type="XmlInterfaceResponse">
        <Success count="0"></Success>
        <Failure count="1" code="240001">
       Incorrectly formatted XML. The element type "AddPolicy" must be terminated
 by the matching end-tag"AddPolicy".
        Failed to import Policy: ‘3G APN(3G UE) QoS-UL-HighLimit_V1’.
        </Failure>
    </Command>
</Response>
```

Result and Failure Codes

Many of the OSSI commands can return a numeric result code in the response message. This code represents the status of the operation at the system level and shows whether the command itself could be executed or not. *Table 1: Result Codes* describes the possible result codes.

Table 1: Result Codes

Code	Description
0	The command was valid at a system level.
100	There was a general failure due to an internal server error.
101	The command failed authentication; the account or password does not match between the OSSI and the URL.
102	An input stream error occurred (for example, the requested data exceeds maximum size). The maximum size for a single request is 20,000,000 bytes. An example of the error message is: `errors.importExport.variableMessageMaxFileSize=Import file exceeds max size of 20M`.
103	The request is malformed; for example, the XML tags may be invalid. Refer to the XSD of the OSSI query and ensure that no characters appear before the XML header (<?xml version="1.0" encoding="UTF-8"?>).
104	The policies or policy server configuration could not be pushed to an off-line Policy Management device. Re-apply after the Policy Management device is ready.
105	The Policy Management OSSI interface is not supported by the current mode.

The policy and policy group commands described in *Policies and Policy Groups* can return a six-digit failure code in the response message. This code represents the root cause of the failed operation. *Table 2: Policy/Policy Group Failure Codes* describes the possible failure codes.

Table 2: Policy/Policy Group Failure Codes

Code	Description
0	Successful operation.
000001	Message length is incorrect.
000006	Database error.
000007	Internal error.
240001	Operational file format error.

Common Commands

This section describes commands that are common to the various OSSI interfaces. These include:

- Get Version:

  Enables you to request the OSSI API version number, as a string (for example, 2.0.3). This enables you to verify that the OSSI interface being used is the version expected, ensuring that the commands operate as specified for that version.

- Distribute Updates:

  Enables you to trigger an immediate distribution of any pending data changes to the policy servers. This enables you to queue up many changes in the Oracle Communications Policy Management Configuration Management Platform (CMP) before sending them all at one time to the policy servers in the deployment. Alternatively, changes can be distributed one-by-one on a per-command basis. The following types of data are pushed down to the policy servers as part of this request:

  - Topology data, which includes network elements and paths.
  - Tiers
  - Subscriber accounts

- Serving Gateway/MCC-MNC Mapping:

  Enables you to verify input XML files.

- Query Absolute Values for Statistics:

  Enables you to retrieve absolute values when Stats.Interval.Enabled. is set to false.

Get Version

The following examples show both the request and response that are defined in the XSD files for the GetVersion tag.

The following is an example of the request that follows the GetVersion tag.

```
<?xml version="1.0" encoding="UTF-8" ?>
<XmlInterfaceRequest>
    <GetVersion></GetVersion>
</XmlInterfaceRequest>
```

The following example response to the previous request follows the generic Response tag.

```
<?xml version="1.0" ?>
<Response>
    <Result>0</Result>
    <Command type="XmlInterfaceResponse">
        <Success count="1">2.2.14</Success>
        <Failure count="0"></Failure>
    </Command>
</Response>
```

Distribute Updates

The following examples show the requests and responses that are defined in the XSD files for the DistributeUpdates tag.

The following is an example of the request that follows the DistributeUpdates tag.

```
<?xml version="1.0" encoding="UTF-8" ?>
<XmlInterfaceRequest>
    <DistributeUpdates></DistributeUpdates>
</XmlInterfaceRequest>
```

The optional ForceSynchronization attribute can be used to force a complete resynchronization of the CMP and Multimedia Policy Engine (MPE) databases. The default value for this attribute is false.

Typically, using this attribute should not be necessary because the system should always be kept in-sync automatically; it is provided as a fail-safe measure for unforeseen circumstances. Performance is impacted from using this attribute, so it should not be used unless deemed necessary by Policy Management support personnel. The following is an example of this attribute:

```
<?xml version="1.0" encoding="UTF-8" ?>
<XmlInterfaceRequest>
    <DistributeUpdates ForceSynchronization="true"></DistributeUpdates>
</XmlInterfaceRequest>
```

The following example response to the previous request follows the generic Response tag.

```
<?xml version="1.0" ?>
<Response>
    <Result>0</Result>
    <Command type="XmlInterfaceResponse">
       <Success count="3">Topology updates successful. Tier updates successful.
 Account updates successful.</Success>
        <Failure count="0"></Failure>
```

```
    </Command>
</Response>
```

Serving Gateway/MCC-MNC Mapping

The following example shows the request and response defined in the XSD files for the SgwMapping tag.

The following is an example of the request that follows the SgwMapping tag.

```
<?xml version="1.0" encoding="UTF-8" standalone="yes" ?>
<XmlInterfaceRequest>
  <AddSgwMapping>
   <SgwMapping>
    <Name>test</Name>
    <Description>description for the mcc-mnc
    mapping</Description>
    <MccMnc>111111</MccMnc>
    <SgwIpAddress>
     <IpAddress>10.0.0.129</IpAddress>
    </SgwIpAddress>
   </SgwMapping>
  </AddSgwMapping>
</XmlInterfaceRequest>
```

The following example response to the previous request follows the generic Response tag.

```
<?xml version="1.0" ?>
<Response>
    <Result>0</Result>
    <Command type="XmlInterfaceResponse">
        <Success count="1">Successfully imported 1
 Serving Gateway/MCC-MNC Mappings.</Success>
        <Failure count="0"></Failure>
    </Command>
</Response>
```

Query Absolute Values for Statistics

The following example shows the request and response that is defined in the XSD files for the Statistics tag.

Note: If Stats.Interval.Enabled is set to true (meaning that Persistent Interval Statistics is in use), then the CMP does not collect absolute counter values.

The following is an example of the request that follows the Statistics tag.

```
<?xml version="1.0" encoding="UTF-8" ?>
<XmlInterfaceRequest>
    <Statistics/>
</XmlInterfaceRequest>
```

The following example response to the previous request follows the generic Response tag.

```
<?xml version="1.0" ?>
  <Statistics>
    <DiameterAfPeerLatencyStats>
    Absolute statistics values are not available.
    </DiameterAfPeerLatencyStats>
</Statstics>
```

Chapter 3

About the Operational Measurements Interface

Topics:

The Operational Measurements (OM) XML interface is used to retrieve operational counters from the system. This chapter describes the interface and how it should be used.

Time Zones and Start/End Times

OM responses include sample buckets, each with a specified start and end time. These values are returned in UTC (Coordinated Universal Time) format, which is the international time standard. The CMP system has no information about the time zone of the originating request and is therefore unable to return a localized time zone to the user.

The XSD files define request/responses with the following:

```
<!-- Time Range -->
<xsd:element name="StartTime" type="xsd:dateTime" minOccurs="1" maxOccurs="1"/>
<xsd:element name="EndTime" type="xsd:dateTime" minOccurs="1" maxOccurs="1"/>
```

The type is defined as **“xsd:dateTime”**. This is a UTC format. This data type describes instances identified by the combination of a date and a time.

Its lexical space is the extended format:

[-]*CCYY*-*MM*-*DD*T*hh*:*mm*:*ss*[Z|(+|-)*hh*:*mm*]

The time zone may be specified as Z (UTC) or (+|-)hh:mm. Time zones that are not specified are considered localized to the CMP system.

The following are examples of valid format values for xsd:dateTime:

- 2007-03-26T21:32:52Z

  UTC format. This is the default response format for all timestamps. It is also the recommended format for user requests.

- 2007-03-26T21:32:52+02:00

  This format is localized time with 2 hour offset to UTC time.

- 2007-03-26T19:32:52

  This format is localized time interpreted as localized to the CMP system.

- 2007-03-26T19:32:52+00:00

  This format is localized time with no offset.

Note: All date and time numbers are two digits. For example, 3:00am, April 5th, 2008, is written as 2008-04-05T03:00:00.

A request to retrieve statistics can be made either in UTC or as a time that is localized to the CMP system. Oracle recommends that users make their requests in UTC format to remain consistent with the UTC output. UTC is also recommended because end users may not be aware they are making requests from a different time zone from the CMP system and therefore may not be accounting for that difference when analyzing results. If the MPE systems, CMP, system and end user are all in different time zones, the user would be attempting to correlate values and draw conclusions from the reported statistics across all of those time zones.

Counter Reset and Failover

MPE and MRA systems write historical data to a distributed COMCOL database and save it for 24 hours.

Note: The CMP system stores cluster-level interval statistics to its own database. Data is available for an external OSS system to retrieve after the end of the next interval period.

You can reset statistics by selecting a specific Stats Collection Period value on the **Stats Settings** page of the CMP GUI. Any pre-set intervals are reset to regular intervals of every 5, 10, 15, 20, 30, or 60 minutes afterwards. (See the *CMP User's Guide* for details.) When the statistics collection period is changed, the database is purged. All memory counters are reset to 0. This means that the delta values calculated for the time period during which the reset occurred are not accurate.

For example, if at the StartTime the SuccessSessionCount value is 100 minutes, and a reset occurred that reset the count to 0, then the next reported delta would be -100. If the SuccessSessionCount started at 100, and during the sample time period five successful sessions completed, then a reset occurred after which 10 more sessions completed successfully, then the resulting delta for that time period would be -90. This example shows that some information is lost; the response will indicate this with the IsComplete flag set to false. In either case, the value could not be seen as an accurate representation of activity for that time and should be ignored. For this reason, negative delta values are always returned as 0.

The CMP system will get incomplete interval stats from MPE or MRA systems in the following conditions:

- The active MPEor MRA system switches over one or more times within an interval period.
- MPE or MRA system has initially started up.
- Under high-load conditions, the MPEor MRA system cannot store data to the database at the end of an interval cycle (within a margin of a few seconds).

Comparisons Between the CMP GUI and OM Statistics

Relationships between the OM XML responses and the CMP reports GUI can be drawn and used for comparison.

The OM XML interface persists statistic values over time. This tool is intended for historical analysis of statistics and can be used to track usage. The interface enables you to request data over a user-defined time range and returns data for that period. The default behavior for this interface is to return data as delta values. The delta is calculated as the positive change in value between the start and end times returned in Sample buckets. Certain non-cumulative statistics are always reported as absolutes, and those individual statistics are explicitly documented. This behavior can also be changed to return absolute values for all statistics; even those that are cumulative in nature (see *OM Statistics Requests*).

The Reports page in the Policy Server section of the CMP GUI displays statistics in real time (see the *CMP User's Guide* for details). The intent of this page is for monitoring current statistics. The page dynamically updates the displayed statistics every 10 seconds. These statistics are categorized by protocol. The default behavior of this page displays statistics as absolute values. There is a Show Deltas button at the top of the pages can be used to switch the display to calculated delta values. The delta

value shown is the difference between the current value and the last refresh of the page (approximately 10 seconds).

The top section on any statistics page, contained within the CMP GUI, usually correlates with the Message Processing Stats of the OM XML interface. The individual statistics for each Network Element can be found in the section at the bottom of the reporting page. These statistics correlate with the Network Element Stats of the OM XML interface.

Labels for specific statistics may differ between the CMP GUI and the OM XML interface responses. The specific types of statistics displayed may also differ by protocol. While the CMP GUI can use labels and statistics specific to a certain protocol, the OM XML interface requests must use generic language across protocols in order to remain consistent with published XSD definitions.

For deployments that collect statistics across multiple protocols, for example PCMM and Dynamic Quality of Service, the CMP GUI displays statistics for each protocol individually. However, in the XML interface, the statistics for available protocols are summarized in the response. For example, session count statistics for Packet Cable Multi-media and DQoS would be added together to display with each network element.

Note: Statistics for individual protocols cannot be displayed separately.

For additional details for the Reports/Statistics section of the CMP GUI, see the *CMP User's Guide*.

OM Statistics Requests

These are the two OM statistic requests used in the OSSI.

- *Attributes and Child Tags*
- *Recorded Timestamp and Request Time Range*

Attributes and Child Tags

The following attributes can be used with any of the OM Statistics requests as part of the QueryOMStats tag:

- DeltaCount

  Cumulative values that list the positive change in that value since the last recorded time period. By setting the DeltaCount attribute to false, you can request that all statistics be returned as absolute values instead.

  Note: Absolute values are the total values since the beginning of time.

  Some statistics are always returned as absolute values. These non-cumulative statistics have values that can increase or decrease over time; for example Upstream and Downstream Bandwidth or active Session Counts. These statistics are explicitly called out in this guide as always returning absolute values.

  The following is an example of the DeltaCount attribute:

```
<?xml version="1.0" encoding="UTF-8"?>
<QueryOmStats DeltaCount="false">
    <StartTime>2006-10-12T11:15:00Z</StartTime>
    <EndTime>2006-10-12T11:25:00Z</EndTime>
```

```
    <NetworkElementStats></NetworkElementStats>
</QueryOmStats>
```

- AggregateTimeSamples

  An attribute that enables you to request that all sample buckets in the response be aggregated into a single sample bucket. This attribute enables you to request data for a time period and see a summary of all recorded data for that specific time period, rather than all the individual samples that make up the requested time period.

  The following is an example of the AggregateTimeSamples attribute:

```
<?xml version="1.0" encoding="UTF-8"?>
<QueryOmStats AggregateTimeSamples="true">
    <StartTime>2006-10-12T11:15:00Z</StartTime>
    <EndTime>2006-10-12T11:25:00Z</EndTime>
    <NetworkElementStats/>
</QueryOmStats>
```

The following child tags are available for OM XML commands.

- StartTime/EndTime

  These tags define the time range in which all statistical data recorded is returned.

  Note: The EndTime tag is an optional tag. If an EndTime tag is not specified, the time range extends from StartTime and continues until the current time. This provides a means to capture the most up-to-date data.

  The following is an example of the StartTime/EndTime child tags:

```
<?xml version="1.0" encoding="UTF-8" ?>
<QueryOmStats>
    <StartTime>2006-10-26T14:30:00Z</StartTime>
    <EndTime>2006-10-26T14:35:00Z</EndTime>
    <PolicyServerStats/>
    <IsComplete>true</IsComplete>
</QueryOmStats>
```

- PolicyServer

  This optional tag is specified as a child tag of some individual statistic groups. This tag enables you to request statistics specific to an individual MPE or a set of MPE servers. The default behavior displays statistics for all MPE servers.

  The following is an example of the PolicyServer child tag:

```
<?xml version="1.0" encoding="UTF-8" ?>
<QueryOmStats>
    <StartTime>2006-10-26T14:30:00Z</StartTime>
    <EndTime>2006-10-26T14:35:00Z</EndTime>
    <PolicyServerStats>
        <PolicyServer>Atlanta105</PolicyServer>
    </PolicyServerStats>
</QueryOmStats>
```

Recorded Timestamp and Request Time Range

The OM Statistics task runs on a scheduled interval and is time stamped, for increased accuracy, as information is received from the MPE servers. For example, if the OM Statistics task starts at 12:00:00, the statistics recorded for MPE1 do not have to be time stamped until 12:00:01, and MPE2 at 12:00:02, and so on.

This detail impacts the way the captured data is requested through the XML interface. It ensures that all the desired data is returned as part of the response. To ensure correct results, if the intent is to retrieve data for a full 24-hour period, the start and end times should extend beyond the intended 24-hour period to ensure that any delayed results returned for an MPE are included in the response.

For example, to retrieve statistics recorded for the entire day of March 10, the following request time range is recommended (note that the EndTime is 15 minutes past midnight) to extend beyond the 24-hour period:

```
<StartTime>2008-03-10T00:00:00Z</StartTime>
<EndTime>2008-03-11T00:15:00Z</EndTime>
```

Chapter 4

Identity Management

Topics:

Identity Management (IDM) allows the CMP to configure user names, passwords, and roles using OSSI. It also enables queries of user scopes and roles.

About Identity Management

The Identity Management system connects to a CMP through an HTTP or HTTPS interface. The user must specify idm for the operation parameter in the requested URL, similar to `http://127.0.x.x/mi/xmlInterfaceRequest.do?user=supervisor&pwd=password&operation=idm`.

The account used for connecting the OSSI to the CMP is a regular CMP user account, with the default global scope and the following privileges:

- Show privilege for OSSI Import/Export
- Read-Write privilege for user management

The Identity Management feature enables you to perform the following tasks:

- *Add a User*

  Create one or more users, or update the parameters for a current user overwriting them with new parameters.

- *Update a User*

  Update parameters for one or more users.

- *Query a User*

  Query one user if the Name element occurs, or all users if the Name element does not exist.

- *Delete a User*

  Delete one or more users.

Add a User

Note: This query is not available to Policy servers in NW-CMP mode.

The following examples show the request and response that are defined in the XSD files for the AddSysAdminUser tag.

Successful Request

This request follows the AddSysAdminUser tag defined in the XSD files.

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<XmlInterfaceRequest>
  <AddSysAdminUser>
    <SysAdminUser>
      <Name>admin1</Name>
      <Description>The default administrator user with all
privileges</Description>
      <Password>camiant</Password>
      <LockedStatus>0</LockedStatus>
      <RoleRef>
        <Name>Administrator</Name>
```

```
      </RoleRef>
      <ScopeRef>
        <Name>Global</Name>
      </ScopeRef>
    </SysAdminUser>
  </AddSysAdminUser>
</XmlInterfaceRequest>
```

The AddSysAdminUser operation parameters are:

- Name (Required):

  250 characters (string); can only contain the characters A–Z, a–z, 0–9, period (.), hyphen (-), and underline (_)

- Description (Optional):

  250 characters (string)

- Password (Required):

  A clear text

- LockedStatus (Required):

  0 = unlocked; 1 = locked

- RoleRef (Required):

  Can specify only one role

- ScopeRef (Required):

  Can specify multiple scopes

Successful Response

This response follows the AddSysAdminUser tag defined in the XSD files.

```
<?xml version="1.0" ?>
<Response>
  <Result>0</Result>
  <Command type="XmlInterfaceResponse">
  <Success count="1">Successfully imported 1 User(s).</Success>
  <Failure count="0"></Failure>
 </Command>
</Response>
```

The AddSysAdminUser errors that a user may receive are:

- ERROR_USER_INVALID_NAME

  `Invalid User Name for: '{$UserName}'`

  UserName is an empty string.

- ERROR_USER_INVALID_ROLE_NAME

  `Invalid Role Name for: '{$RoleName}'`

RoleName is an empty string, or RoleName exceeds max length (250 characters), or there is more than one Role defined.

- ERROR_USER_INVALID_SCOPE_NAME

  `Invalid Scope Name for: '{$ScopeName}'`

  ScopeName is an empty string, or ScopeName is exceeds max length (250 characters).

- ERROR_USER_ROLE_LINK

  `The user: {$UserName}'s associated role does not exist. Please create it first.`

  RoleName is not defined in CMP.

  .

- ERROR_USER_NOROLE_OR_NOSCOPE

  `User: '{$Username}' must have an associated Role and Scope.`

  Non-Role or non-Scope is defined in OSSI command.

- ERROR_USER_NAME_TOO_LONG

  `User Name exceeds max length for: '{$UserName}'`

  UserName exceeds max length (250 characters).

- ERROR_USER_DESCRIPTION_TOO_LONG

  `User Description exceeds max length. User: '{$UserName}'`

  Description exceeds max length (250 characters).

- ERROR_USER_SCOPE_LINK

  `The user: {$UserName}'s associated scope does not exist. Please create it first.`

  ScopeName is not defined in CMP.

- ERROR_SCHEMA_INVALID

  If the input OSSI command cannot match the schema specification, there is an error-message response to the operator. For example, if you define a LockStatus with a string, the following message is reported:

  ```
  Error parsing import file: Error parsing import file:
  cvc-datatype-valid.1.2.1: 'ABC' is not a valid value for 'integer'.
  ```

ERROR_USER_INVALID_NAME Request

This request follows the AddSysAdminUser tag defined in the XSD files.

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<XmlInterfaceRequest>
  <AddSysAdminUser>
    <SysAdminUser>
      <Name></Name>
      <Description>The default administrator user with all
```

```
privileges</Description>
      <Password>oracle</Password>
      <LockedStatus>0</LockedStatus>
      <RoleRef>
        <Name>Administrator</Name>
      </RoleRef>
      <ScopeRef>
        <Name>Global</Name>
      </ScopeRef>
    </SysAdminUser>
  </AddSysAdminUser>
</XmlInterfaceRequest>
```

ERROR_USER_INVALID_NAME Response

The following error response occurs when the user name is invalid.

```
<?xml version="1.0" ?>
<Response>
  <Result>0</Result>
   <Command type="XmlInterfaceResponse">
   <Success count="0"></Success>
   <Failure count="1">Failed to import 1 User(s).

   Invalid User Name for: ""</Failure>
  </Command>
</Response>
```

ERROR_USER_INVALID_ROLE_NAME Request

This request follows the AddSysAdminUser tag defined in the XSD files.

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<XmlInterfaceRequest>
  <AddSysAdminUser>
    <SysAdminUser>
      <Name>admin1</Name>
      <Description>The default administrator user with all
privileges</Description>
      <Password>oracle</Password>
      <LockedStatus>0</LockedStatus>
      <RoleRef>
        <Name></Name>
      </RoleRef>
      <ScopeRef>
        <Name>Global</Name>
      </ScopeRef>
    </SysAdminUser>
  </AddSysAdminUser>
</XmlInterfaceRequest>
```

ERROR_USER_INVALID_ROLE_NAME Response

The following error response occurs when the role name is invalid.

```
<?xml version="1.0" ?>
```

```
<Response>
 <Result>0</Result>
  <Command type="XmlInterfaceResponse">
  <Success count="0"></Success>
  <Failure count="1">Failed to import 1 User(s).
  <Invalid Role Name for: "admin1"</Failure>
</Command>
</Response>
```

ERROR_USER_INVALID_SCOPE_NAME Request

This request follows the AddSysAdminUser tag defined in the XSD files.

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<XmlInterfaceRequest>
  <AddSysAdminUser>
    <SysAdminUser>
      <Name>admin1</Name>
      <Description>The default administrator user with all
privileges</Description>
      <Password>oracle</Password>
      <LockedStatus>0</LockedStatus>
      <RoleRef>
        <Name>Administrator</Name>
      </RoleRef>
      <ScopeRef>
        <Name></Name>
      </ScopeRef>
    </SysAdminUser>
  </AddSysAdminUser>
</XmlInterfaceRequest>
```

ERROR_USER_INVALID_SCOPE_NAME Response

The following error response occurs when the scope name is invalid.

```
<?xml version="1.0" ?>
<Response>
  <Result>0</Result>
  <Command type="XmlInterfaceResponse">
  <Success count="0"></Success>
  <Failure count="1">Failed to import 1 User(s).

  Invalid Scope Name for: "admin1"</Failure>
</Command>
</Response>
```

ERROR_USER_ROLE_LINK Request

This request follows the AddSysAdminUser tag defined in the XSD files.

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<XmlInterfaceRequest>
  <AddSysAdminUser>
    <SysAdminUser>
```

```
      <Name>admin1</Name>
      <Description>The default administrator user with all
privileges</Description>
      <Password>oracle</Password>
      <LockedStatus>0</LockedStatus>
      <ScopeRef>
        <Name>Not Exist Global</Name>
      </ScopeRef>
    </SysAdminUser>
  </AddSysAdminUser>
</XmlInterfaceRequest>
```

ERROR_USER_ROLE_LINK Response

The following error response occurs when the associated role does not exist for the user.

```
<?xml version="1.0" ?>
<Response>
  <Result>0</Result>
  <Command type="XmlInterfaceResponse">
  <Success count="0"></Success>
  <Failure count="1">Failed to import 1 User(s).

  User: "admin1" must have an associated Role and Scope.</Failure>
</Command>
</Response>
```

ERROR_USER_NOROLE_OR_NOSCOPE Request (Scope: Global)

This request follows the AddSysAdminUser tag defined in the XSD files.

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<XmlInterfaceRequest>
  <AddSysAdminUser>
    <SysAdminUser>
      <Name>admin1</Name>
      <Description>The default administrator user with all
privileges</Description>
      <Password>oracle</Password>
      <LockedStatus>0</LockedStatus>
      <RoleRef>
        <Name>Not Exits Administrator</Name>
      </RoleRef>
      <ScopeRef>
        <Name>Global</Name>
      </ScopeRef>
    </SysAdminUser>
  </AddSysAdminUser>
</XmlInterfaceRequest>
```

ERROR_USER_NOROLE_OR_NOSCOPE Response (Scope: Global)

The following error response occurs when the role does not exist for the user.

```
<?xml version="1.0" ?>
<Response>
```

```
  <Result>0</Result>
  <Command type="XmlInterfaceResponse">
  <Success count="0"></Success>
  <Failure count="1">Failed to import 1 User(s).

  The user: admin1's associated role does not exist. Please create it
first.</Failure>
</Command>
</Response>
```

ERROR_USER_NOROLE_OR_NOSCOPE Request (Scope: Not Exist Global)

This request follows the AddSysAdminUser tag defined in the XSD files.

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<XmlInterfaceRequest>
  <AddSysAdminUser>
    <SysAdminUser>
      <Name>admin1</Name>
      <Description>The default administrator user with all
privileges</Description>
      <Password>oracle</Password>
      <LockedStatus>0</LockedStatus>
      <RoleRef>
        <Name>Administrator</Name>
      </RoleRef>
      <ScopeRef>
        <Name>Not Exist Global</Name>
      </ScopeRef>
    </SysAdminUser>
  </AddSysAdminUser>
</XmlInterfaceRequest>
```

ERROR_USER_NOROLE_OR_NOSCOPE Response (Scope: Not Exist Global)

The following error response occurs when the scope does not exist for the user.

```
<?xml version="1.0" ?>
<Response>
  <Result>0</Result>
  <Command type="XmlInterfaceResponse">
  <Success count="0"></Success>
  <Failure count="1">Failed to import 1 User(s).

  The user: admin1's associated scope does not exist. Please create it
first.</Failure>
</Command>
</Response>
```

Update a User

Note: This query is not available to Policy servers in NW-CMP mode.

The following examples show the requests and responses that are defined in the XSD files for the UpdateSysAdminUser tag.

Request

This request follows the UpdateSysAdminUser tag defined in the XSD files.

```
<XmlInterfaceRequest>
  <UpdateSysAdminUser>
    <SysAdminUser>
      <Name>admin1</Name>
      <Description>New The default administrator user with all
         privileges</Description>
      <LockedStatus>0</LockedStatus>
      <RoleRef>
        <Name>Administrator</Name>
      </RoleRef>
      <ScopeRef>
        <Name>Global</Name>
      </ScopeRef>
    </SysAdminUser>
  </UpdateSysAdminUser>
</XmlInterfaceRequest>
```

The UpdateSysAdminUser operation parameters are:

- Name (Required)

  250 characters (string); can only contain the characters A–Z, a–z, 0–9, period (.), hyphen (-), and underline (_).

- Description (Optional)

  250 characters (string)

- Password (Optional)

  A clear text

- LockedStatus (Optional)

  0 = unlocked; 1 = locked

- RoleRef (Optional)

  Can specify only one role

- ScopeRef (Optional)

  Can specify multiple scopes

The probable errors a user may receive are as follows:

- ERROR_USER_NAME_NOT_EXIST

  `Specified User does not exist: '{$UserName}'`

  The specified user is not in system.

- ERROR_USER_INVALID_NAME

  `Invalid User Name for: '{$UserName}'`

User Name is an empty string.

- ERROR_USER_NAME_TOO_LONG

  `User Name exceeds max length for: '{$UserName}'`

  UserName exceeds max length (250 characters).

- ERROR_USER_DESCRIPTION_TOO_LONG

  `User Description exceeds max length. User: '{$UserName}'`

  Description exceeds max length (250 characters)

- ERROR_USER_NOROLE_OR_NOSCOPE

  `User: '{$Username}' must have an associated Role and Scope.`

  Non-Role or non-Scope is defined in OSSI command.

- ERROR_USER_INVALID_ROLE_NAME

  `Invalid Role Name for: '{$RoleName}'`

  RoleName exceeds max length (250 characters), or There is more than one Role defined.

- ERROR_USER_INVALID_SCOPE_NAME

  `Invalid Scope Name for: '{$ScopeName}'`

  ScopeName exceeds max length (250 characters).

- ERROR_USER_ROLE_LINK

  `The user: {$UserName}'s associated role does not exist. Please create it first.`

  RoleName is an empty string, or RoleName is not defined in CMP.

- ERROR_USER_SCOPE_LINK

  `The user: {$UserName}'s associated scope does not exist. Please create it first.`

  ScopeName is an empty string, or ScopeName is not defined in CMP.

- ERROR_SCHEMA_INVALID

  If the input OSSI command cannot match the schema specification, thereis an error-message response to the operator. For example, if you define a LockStatus with a string, the following message is reported:

  ```
  Error parsing import file: Error parsing import file:
  cvc-datatype-valid.1.2.1: 'ABC' is not a valid value for 'integer'.
  ```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
 <Result>0</Result>
```

```
  <Command type="XmlInterfaceResponse">
  <Success count="1">Successfully updated 1 User(s).</Success>
  <Failure count="0"></Failure>
</Command>
</Response>
```

ERROR_USER_NAME_NOT_EXIST Request

This request follows the UpdateSysAdminUser tag defined in the XSD files.

```
<XmlInterfaceRequest>
  <UpdateSysAdminUser>
    <SysAdminUser>
      <Name>NotExistadmin1</Name>
      <Description>New The default administrator user with all
         privileges</Description>
      <LockedStatus>0</LockedStatus>
      <RoleRef>
        <Name>Administrator</Name>
      </RoleRef>
      <ScopeRef>
        <Name>Global</Name>
      </ScopeRef>
    </SysAdminUser>
  </UpdateSysAdminUser>
</XmlInterfaceRequest>
```

ERROR_USER_NAME_NOT_EXIST Response

The following error response occurs when the user name does not exist.

```
<Response>
  <Result>0</Result>
   <Command type="XmlInterfaceResponse">
   <Success count="0"></Success>
   <Failure count="1">Failed to update 1 User(s).

   Specified User does not exist: "NotExistadmin1"</Failure>
 </Command>
</Response>
```

ERROR_USER_NOROLE_OR_NOSCOPE Request

This request follows the UpdateSysAdminUser tag defined in the XSD files.

```
<XmlInterfaceRequest>
  <UpdateSysAdminUser>
    <SysAdminUser>
      <Name>admin1</Name>
      <Description>New The default administrator user with all
         privileges</Description>
      <LockedStatus>0</LockedStatus>
      <RoleRef>
        <Name>not exist Administrator</Name>
      </RoleRef>
      <ScopeRef>
```

```
        <Name>Global</Name>
      </ScopeRef>
    </SysAdminUser>
  </UpdateSysAdminUser>
</XmlInterfaceRequest>
```

ERROR_USER_NOROLE_OR_NOSCOPE Response

The following error response occurs when the role specified for the user does not exist.

```
<Response>
 <Result>0</Result>
   <Command type="XmlInterfaceResponse">
   <Success count="0"></Success>
   <Failure count="1">Failed to update 1 User(s).

   The user: admin1's associated role does not exist. Please create it
first.</Failure>
 </Command>
</Response>
```

ERROR_USER_NOROLE_OR_NOSCOPE Request

This request follows the UpdateSysAdminUser tag defined in the XSD files.

```
<XmlInterfaceRequest>
  <UpdateSysAdminUser>
    <SysAdminUser>
      <Name>admin1</Name>
      <Description>New The default administrator user with all
         privileges</Description>
      <LockedStatus>0</LockedStatus>
      <RoleRef>
        <Name>Administrator</Name>
      </RoleRef>
      <ScopeRef>
        <Name>Not exist Global</Name>
      </ScopeRef>
    </SysAdminUser>
  </UpdateSysAdminUser>
</XmlInterfaceRequest>
```

ERROR_USER_NOROLE_OR_NOSCOPE Response

The following error response occurs when the specified scope does not exist for the user.

```
<Response>
 <Result>0</Result>
   <Command type="XmlInterfaceResponse">
   <Success count="0"></Success>
   <Failure count="1">Failed to update 1 User(s).

   The user: admin1's associated scope does not exist. Please create it
first.</Failure>
 </Command>
</Response>
```

ERROR_USER_INVALID_ROLE_NAME Request

This request follows the UpdateSysAdminUser tag defined in the XSD files.

```
<XmlInterfaceRequest>
  <UpdateSysAdminUser>
    <SysAdminUser>
      <Name>admin1</Name>
      <Description>New The default administrator user with all
         privileges</Description>
      <LockedStatus>0</LockedStatus>
      <RoleRef>
        <Name>123</Name>
      </RoleRef>
      <RoleRef>
        <Name>Administrator</Name>
      </RoleRef>
      <ScopeRef>
        <Name>123</Name>
      </ScopeRef>
    </SysAdminUser>
  </UpdateSysAdminUser>
</XmlInterfaceRequest>
```

ERROR_USER_INVALID_ROLE_NAME Response

The following error response occurs when the role name either exceeds the maximum length of 250 characters, or there is more than one Role defined.

```
 <Response>
   <Result>0</Result>
   <Command type="XmlInterfaceResponse">
   <Success count="0"></Success>
   <Failure count="1">Failed to update 1 User(s).

   Invalid Role Name for: "admin1"</Failure>
 </Command>
</Response>
```

Delete a User

Note: This query is not available to Policy servers in NW-CMP mode.

The following examples show the requests and responses that are defined in the XSD files for the DeleteSysAdminUser tag.

Request

This request follows the DeleteSysAdminUser tag defined in the XSD files.

```
<XmlInterfaceRequest>
  <DeleteSysAdminUser>
    <SysAdminUser>
```

```
      <Name>admin1</Name>
    </SysAdminUser>
  </DeleteSysAdminUser>
</XmlInterfaceRequest>
```

The DeleteSysAdminUser operation parameters are as follows:

- Name (Required):

  250 characters (string); can only contain the characters A–Z, a–z, 0–9, period (.), hyphen (-), and underline (_).

The probable DeleteSysAdminUser errors a user may receive are as follows:

- ERROR_DELETE_FAILURE:

  `Error deleting User Name: {$UserName}`.

  The specified user does not exist, or Admin user is specified.

If deletion is successful, the number of deleted users will be reported.

Response

The response to this request:

```
<Response>
<Result>0</Result>
<Command type="XmlInterfaceResponse">
<Success count="1">Deleted 1 users.</Success>
<Failure count="0"></Failure>
</Command>
</Response>
```

ERROR_DELETE_FAILURE Request

This request follows the DeleteSysAdminUser tag defined in the XSD files.

```
<XmlInterfaceRequest>
  <DeleteSysAdminUser>
    <SysAdminUser>
      <Name>admin1</Name>
    </SysAdminUser>
  </DeleteSysAdminUser>
</XmlInterfaceRequest>
```

ERROR_DELETE_FAILURE Response

The response to this request when the specified user name does not exist:

```
<Response>
<Result>0</Result>
<Command type="XmlInterfaceResponse">
<Success count="0"></Success>
<Failure count="1">Failed to delete 1 user.
```

```
Error deleting User Name: admin1</Failure>
</Command>
</Response>
```

Query a User

The following example shows the request and response that is defined in the XSD files for the QuerySysAdminUser tag. If the Name element occurs, the CMP queries only the corresponding user; otherwise, all users are queried.

Request

This request follows the QuerySysAdminUser tag defined in the XSD files.

```
<XmlInterfaceRequest>
    <QuerySysAdminUser>
      <Name>admin</Name>
    </QuerySysAdminUser>
</XmlInterfaceRequest>
```

The QuerySysAdminUser operation parameters are as follows:

- Name (Optional

  250 characters (string); can only contain the characters A–Z, a–z, 0–9, period (.), hyphen (-), and underline (_)

If the query is successful, the list of users is returned in XML as a response with the following fields for each user.

The output fields for the QuerySysAdminUser operation are as follows:

- Name

  The name of the user

- Description

  The description of the user

- Password

  The password fo the user, encrypted

- LockedStatus

  0 = locked, 1 = unlocked

- RoleRef

  The associated role

- ScopeRef

  The associated scope; there can be multiple scopes.

Response

The response to this request:

```
<ConfigurationData version="7.5.0">
    <SysAdminUser>
        <Name>admin</Name>
        <Description>The default administrator user with all
privileges</Description>
        <Password>835154D6D3FA2C3575AA700A54AB9F6492E7ABB7</Password>
        <LockedStatus>0</LockedStatus>
        <RoleRef>
            <Name>Administrator</Name>
        </RoleRef>
        <ScopeRef>
            <Name>Global</Name>
        </ScopeRef>
    </SysAdminUser>
</ConfigurationData>
```

Query User Role

The following example shows the request and response that is defined in the XSD files for the QueryRole tag. If the Name element occurs, the CMP queries the corresponding role with the name; otherwise, it queries all roles.

Request

This request follows the QueryRole tag defined in the XSD files.

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<XmlInterfaceRequest>
    <QueryRole>
      <Name>Administrator</Name>
    </QueryRole>
</XmlInterfaceRequest>
```

The QueryRole operation parameters are as follows:

- Name (Optional)

  250 characters (string); can only contain the characters A–Z, a–z, 0–9, period (.), hyphen (-), and underline (_)

If the query is successful, the list of users is returned in XML as a response with the following fields for each user.

The output fields for the QueryRole operation are as follows:

- Name

  The name of the role

- Description

The description of the role

- RolePrivilege

  The privilege with privilege name and access level assigned to the Role. There can be multiple privileges.

Response

The response to this request:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<ConfigurationData version="7.5.0">
    <Role>
        <Name>Administrator</Name>
        <Description>The default role with all privileges</Description>
        <RolePrivilege>
            <Privilege>policy server</Privilege>
            <Level>40</Level>
        <RolePrivilege>
            <Privilege>Network Element</Privilege>
            <Level>Read-Write</Level>
        </RolePrivilege>
        <RolePrivilege>
          <Privilege>Application</Privilege>
          <Level>Read-Write</Level>
        </RolePrivilege>
        <RolePrivilege>
            <Privilege>Policy Library</Privilege>
            <Level>Read, Deploy, and Write</Level>
        </RolePrivilege>
        <RolePrivilege>
            <Privilege>Template Library</Privilege>
            <Level>Read-Write</Level>
        </RolePrivilege>
        <RolePrivilege>
            <Privilege>User Management</Privilege>
            <Level>Read-Write</Level>
        </RolePrivilege>
        <RolePrivilege>
            <Privilege>Manager Event and Audit Logs</Privilege>
            <Level>Read-Write</Level>
        </RolePrivilege>
        <RolePrivilege>
            <Privilege>Tasks</Privilege>
            <Level>Read-Write</Level>
        </RolePrivilege>
        <RolePrivilege>
            <Privilege>License Management</Privilege>
            <Level>Read-Write</Level>
        </RolePrivilege>
        <RolePrivilege>
            <Privilege>Traffic Profiles</Privilege>
            <Level>Read-Write</Level>
        </RolePrivilege>
        <RolePrivilege>
            <Privilege>XML Import / Export</Privilege>
            <Level>Show</Level>
        </RolePrivilege>
        <RolePrivilege>
            <Privilege>Operational Measurements</Privilege>
```

```
            <Level>Read-Only</Level>
        </RolePrivilege>
        <RolePrivilege>
            <Privilege>Charging Server</Privilege>
            <Level>Read-Write</Level>
        </RolePrivilege>
        <RolePrivilege>
            <Privilege>Time Period</Privilege>
            <Level>Read-Write</Level>
        </RolePrivilege>
        <RolePrivilege>
            <Privilege>Policy Import / Export</Privilege>
            <Level>Read-Write</Level>
        </RolePrivilege>
        <RolePrivilege>
            <Privilege>Alarms</Privilege>
            <Level>Read-Write</Level>
        </RolePrivilege>
        <RolePrivilege>
            <Privilege>Audit Log User Info</Privilege>
            <Level>Show</Level>
        </RolePrivilege>
        <RolePrivilege>
            <Privilege>Password Strength</Privilege>
            <Level>Read-Write</Level>
        </RolePrivilege>
        <RolePrivilege>
            <Privilege>Event Log</Privilege>
            <Level>Read-Write</Level>
        </RolePrivilege>
        <RolePrivilege>
           <Privilege>Audit Log</Privilege>
           <Level>Read-Write</Level>
        </RolePrivilege>
  </Role>
</ConfigurationData>
```

A subset of the RolePrivilege element will be outputted in XML based on the mode selected by the operator. The output XML cannot be imported to the CMP again.

Query User Scope

The following example shows the request and response that is defined in the XSD files for the QueryScope tag. If the Name element occurs, the CMP queries only the corresponding scope, otherwise all scopes are queried.

Request

This request follows the QueryScope tag defined in the XSD files.

```
<XmlInterfaceRequest>
    <QueryScope>
      <Name>Global</Name>
    </QueryScope>
</XmlInterfaceRequest>
```

If query is successful, the list of the scopes are returned in XML as a response. If no Ref element occurs, it means the scope is a global scope in system.

The QueryScope operation parameters are as follows:

- Name (Optional)

  250 characters (string); can only contain the characters A–Z, a–z, 0–9, period (.), hyphen (-), and underline (_)

If the query is successful, the list of the roles will be returned in XML as a response.

The output fields for the QueryScope operation are as follows:

- Name

  The name of the scope.

- Description

  The description of the scope.

- ResourceControllerGroupRef

  The name set for the manageable MPE server.

- MRAGroupRef:

  The name set for the manageable MRA server.

- NetworkElementGroupRef:

  The name set for the manageable Network Elements.

Response

The response to this request:

```
<ConfigurationData version="7.5.0">
    <Scope>
        <Name>Global</Name>
        <Description>The default scope that automatically contains all items in
 the system</Description>
    </Scope>
</ConfigurationData>
```

A subset of the Ref element is in the XML file based on the mode selected. The output XML cannot be imported to the CMP again.

Chapter 5

Policy Table Interface

Topics:

Table-driven policies allow you to generalize multiple similar policies into a single policy that represents the policy structure, plus a policy tables that capture the differences. These tables make processes such as adding, modifying, deleting policies, and checking consistency among policies much simpler and less error prone.

Note: For information on working with policies and policy groups in Wireless mode, see *Policies and Policy Groups*.

About Policy Tables

Policy tables can be imported or exported to OSSI using the CMP. See the section about importing and exporting from the CMP database in the *CMP Wireless User Guide* for details on using OSSI.

Policy tables can be exported to OSSI and then edited or replaced. Tables can also be imported from the OSSI back to the CMP with changes, as new tables, or to delete an existing table.

The format for both export and import must be the same and must include:

- The name of the policy table
- The description of the policy table
- The names of the columns
- The data types of the columns
- The designation of which columns are keys
- The policy context variables for key columns
- The values in the cells

Exported Policy Table XML

The exported policy table is an XML file. Descriptions of the fields are given after the table.

To receive correct results, the XML for a policy table must maintain the integrity of that table.

This is an example of a policy table in XML format.

```
<?xml version="1.0" encoding="UTF-8" standalone="yes" ?>
<XmlInterfaceRequest>
<AddPolicyTableData>
 <PolicyTableData>
  <Name>T</Name>
  <Description>ABC</Description>
 <Table>
 <Header>
  <Field Type="smartString255" Key="true" Field="TA">TA</Field>
</Header>
 <Record Name="1330657994893">
  <Field Field="TA">TA</Field>
</Record>
 <Record Name="1330657994894">
  <Field Field="TA">TAssssss</Field>
</Record>
</Table>
</PolicyTableData>
 <PolicyTableData>
  <Name>T2</Name>
  <Description>TABLE11111111111111111111111111</Description>
 <Table>
 <Header>
  <Field Type="smartString255" Key="true" Field="TA">TA</Field>
</Header>
 <Record Name="1330657994893">
  <Field Field="TA">TA</Field>
```

```
</Record>\
<Record Name="1330657994894">
  <Field Field="TA">TAssssss</Field>
</Record>
</Table>
</PolicyTableData>
</AddPolicyTableData>
</XmlInterfaceRequest>
```

The fields are:

- Name:

  The name of the policy table that was exported.

- Description:

  This description is copied from the CMP.

Add a Policy Table

Note: This query is not available to Policy servers in NW-CMP mode.

You can use OSSI to add a policy table, or if the policy-table name does not exist in the CMP, you can use the interface to modify a table.

When naming a new table, the length limitation for the name is 255 characters; it can only contain the characters A–Z, a–z, 0–9, period (.), hyphen (-), and underline (_). The description field is a free-form text that identifies the policy table and has a limit of 250 characters.

Note: If the length of either the name or description is exceeded, of it the name contains invalid characters, the import fails.

The following example shows the code to import a policy table named Sample1.

```
<?xml version="1.0" encoding="UTF-8" ?>
<XmlInterfaceRequest>
<AddPolicyTableData>
  <Name>Sample 1</Name>
  <Description>Sample 1</Description>
<Table>
 <Header>
  <Field Type="smartString255" Key="true" Field="TA">TA</Field>
</Header>
 <Record Name="1330657994893">
  <Field Field="TA">TA</Field>
</Record>
<Record Name="1330657994894">
  <Field Field="TA">TAssssss</Field>
</Record>
</Table>
</AddPolicyTableData>
<</XmlInterfaceRequest>
```

Modify a Policy Table

Note: This query is not available to Policy servers in NW-CMP mode.

You can use OSSI to change a policy table that is already in the CMP.

If the table name does not exist in the CMP, the import will fail.

A column cannot be changed or removed if it is being used in a policy or policy template. If the XML in a column is changed or removed, the import will fail.

The modify function supports these types of edits:

- Editing the name and description of policy tables
- Adding, removing, and reordering columns
- Editing a column's name, data type, and key status
- Adding, removing, and reordering rows
- Changing the data within the cells

The following example import shows the XML command to modify for a Policy Table named Sample 1.

```
<?xml version="1.0" encoding="UTF-8" ?>
<XmlInterfaceRequest>
<UpdatePolicyTableData>
  <Name>Sample 1</Name>
     <Table>
<Header>
  <Field Type="smartString255" Key="true" Field="TA">TA</Field>
</Header>
 <Record Name="1330657994893">
  <Field Field="TA">TA</Field>
</Record>
<Record Name="1330657994894">
  <Field Field="TA">TAssssss</Field>
</Record>
</Table>
     </UpdatePolicyTableData>
</XmlInterfaceRequest>
```

Delete a Policy Table

Note: This query is not available to Policy servers in NW-CMP mode.

You can use OSSI to delete a policy table that is already in CMP.

Note: If the policy table is currently used in a policy or policy template, the import fails.

The following example shows the XML command to a policy table named Sample 1.

```
<?xml version="1.0" encoding="UTF-8" ?>
<XmlInterfaceRequest>
```

```
<DeletePolicyTableData>
  <Name>Sample 1</Name>
</DeletePolicyTableData>
</XmlInterfaceRequest>
```

Chapter 6

Topology Interfaces

Topics:

The Topology interface enables you to manage and query topology-related objects such as applications and traffic profiles.

- Applications: These are services in the network (for example, VoIP) where Quality of Service (QoS) is managed.
- Traffic profiles: Are a set of parameters and values that are used in protocol messages to define QoS for sessions.

Applications

An application is a service in the network (for example, VoIP) for which Quality of Service (QoS) is managed.

Add Application

Note: This query is not available to Policy servers in NW-CMP mode.

The following examples show the request and response that are defined in the XSD files for the AddApplication tag.

Request

This request follows the AddApplication tag defined in the XSD files.

```
<XmlInterfaceRequest>
    <AddApplication>
       <Application>
          <Name>VoD</Name>
          <Description>Video on Demand</Description>
          <LatencySensitive>true</LatencySensitive>
          <Tracked>true</Tracked>
          <UpGatesPerSession>1</UpGatesPerSession>
          <DownGatesPerSession>1</DownGatesPerSession>
          <TrackingTimeoutTime>240</TrackingTimeoutTime>
          <TrackingTimeoutUnit>1</TrackingTimeoutUnit>
       </Application>
    </AddApplication>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
    <Result>0</Result>
    <Command type="XmlInterfaceResponse">
        <Success count="1">Successfully imported 1 applications.</Success>
        <Failure count="0"></Failure>
    </Command>
</Response>
```

Update Application

Note: This query is not available to Policy servers in NW-CMP mode.

The following examples show the request and response that are defined in the XSD files for the UpdateApplication tag.

Request

This request follows the UpdateApplication tag defined in the XSD files.

```
<XmlInterfaceRequest>
        <UpdateApplication>
        <Application>
            <Name>VoD</Name>
            <Description>Video on Demand</Description>
            <LatencySensitive>false</LatencySensitive>
            <UpGatesPerSession>3</UpGatesPerSession>
        </Application>
    </UpdateApplication>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
    <Result>0</Result>
    <Command type="XmlInterfaceResponse">
        <Success count="1">Successfully updated 1 applications.</Success>
        <Failure count="0"></Failure>
    </Command>
</Response>
```

Delete Application

Note: This query is not available to Policy servers in NW-CMP mode.

The following examples show the request and response that are defined in the XSD files for the DeleteApplication tag.

Request

This request follows the DeleteApplication tag defined in the XSD files.

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<XmlInterfaceRequest>
    <DeleteApplication>
      <Name>VoD</Name>
    </DeleteApplication>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
    <Result>0</Result>
    <Command type="XmlInterfaceResponse">
        <Success count="1">Deleted 1 applications.</Success>
```

```
        <Failure count="0"></Failure>
    </Command>
</Response>
```

Query Application

The following examples show the request and response that are defined in the XSD files for the QueryApplication tag.

Request

This request follows the QueryApplication tag defined in the XSD files.

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<XmlInterfaceRequest>
    <QueryApplication/>
</XmlInterfaceRequest>
```

Response

The response to this request follows the Application tag defined in the ConfigurationData section in the XSD files.

```
<ConfigurationData version="2.1.6">
   <Application>
      <Name>VoD</Name>
      <Description>Video on Demand</Description>
      <LatencySensitive>true</LatencySensitive>
      <Tracked>true</Tracked>
      <UpGatesPerSession>1</UpGatesPerSession>
      <DownGatesPerSession>1</DownGatesPerSession>
      <TrackingTimeoutTime>240</TrackingTimeoutTime>
      <TrackingTimeoutUnit>1</TrackingTimeoutUnit>
   </Application>
</ConfigurationData>
```

Traffic Profiles

A traffic profile is a set of parameters and their values, which are used in protocol messages to define QoS for sessions.

Add Traffic Profile

Note: This query is not available to Policy servers in NW-CMP mode.

The following examples show the request and response that are defined in the XSD files for the AddTrafficProfile tag.

Request

This request follows the AddTrafficProfile tag defined in the XSD files.

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
XmlInterfaceRequest>
    <AddTrafficProfile>
        <QosProfile>
            <Name>default-rule-traffic-profile</Name>
            <ProfileType>0</ProfileType>
            <QosProfileType>Diameter QoS</QosProfileType>
            <QosProfileProfileParam>
                <ProfileParamUid>param.diameter.qosProfile.profileTypeNumber
                    </ProfileParamUid>
                <ParamValue>10</ParamValue>
            </QosProfileProfileParam>
            <QosProfileProfileParam>
                <ProfileParamUid>param.diameter.qosProfile.qci
                    </ProfileParamUid>
                <ParamValue>3</ParamValue>
            </QosProfileProfileParam>
            <QosProfileProfileParam>
                <ProfileParamUid>param.diameter.qosProfile.maxAuthUL
                    </ProfileParamUid>
                <ParamValue></ParamValue>
            </QosProfileProfileParam>
            <QosProfileProfileParam>
                <ProfileParamUid>param.diameter.qosProfile.maxAuthDL
                    </ProfileParamUid>
                <ParamValue></ParamValue>
            </QosProfileProfileParam>
            <QosProfileProfileParam>
                <ProfileParamUid>param.diameter.qosProfile.minRateUL
                    </ProfileParamUid>
                <ParamValue></ParamValue>
            </QosProfileProfileParam>
            <QosProfileProfileParam>
                <ProfileParamUid>param.diameter.qosProfile.minRateDL
                    </ProfileParamUid>
                <ParamValue></ParamValue>
            </QosProfileProfileParam>
            <QosProfileProfileParam>
                <ProfileParamUid>param.diameter.qosProfile.ARP.PriorityLevel
                    </ProfileParamUid>
                <ParamValue></ParamValue>
            </QosProfileProfileParam>
            <QosProfileProfileParam>
                <ProfileParamUid>param.diameter.qosProfile.ARP
                    .PreemptionCapability</ProfileParamUid>
                <ParamValue></ParamValue>
            </QosProfileProfileParam>
            <QosProfileProfileParam>
                <ProfileParamUid>param.diameter.qosProfile.ARP
                    .PreemptionVulnerability</ProfileParamUid>
                <ParamValue></ParamValue>
            </QosProfileProfileParam>
            <QosProfileProfileParam>
                <ProfileParamUid>param.diameter.qosProfile
                    .ResourceAllocationNotification</ProfileParamUid>
                <ParamValue></ParamValue>
            </QosProfileProfileParam>
        </QosProfile>
        <QosProfileGroup>
```

```
            <Name>group1</Name>
            <Description></Description>
            <RootGroup>true</RootGroup>
            <ElementRef>
                <Name>default-rule-traffic-profile</Name>
                <SubGroup>false</SubGroup>
            </ElementRef>
        </QosProfileGroup>
    </AddTrafficProfile>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
    <Result>0</Result>
    <Command type="XmlInterfaceResponse">
       <Success count="1">Successfully imported 1 Traffic Profile(s).</Success>

        <Failure count="0"></Failure>
    </Command>
</Response>
```

Add Traffic Profile Enhancement

Note: This query is not available to Policy servers in NW-CMP mode.

The following examples show the request and response that are defined in the XSD files for the AddTrafficProfile tag.

Note: The Sd protocol supports only App Detection Control (ADC) profiles.

Request

This request follows the AddTrafficProfile tag defined in the XSD files.

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
XmlInterfaceRequest>
    <AddTrafficProfile>
        <QosProfile>
            <Name>CAM-44498-1</Name>
            <ProfileType>0</ProfileType>
            <QosProfileType>PCC Rule</QosProfileType>
            <QosProfileProfileParam>

<ProfileParamUid>param.diameter.pccRule.profileTypeNumber</ProfileParamUid>
                <ParamValue>13: {someVariableName} </ParamValue>
            </QosProfileProfileParam>
            <QosProfileProfileParam>
                <ProfileParamUid>param.diameter.pccRule.name</ProfileParamUid>
                <ParamValue>rule1:{someVariableName}</ParamValue>
            </QosProfileProfileParam>
            <QosProfileProfileParam>
                <ProfileParamUid>param.diameter.pccRule.qci</ProfileParamUid>
                <ParamValue>2:{someVariableName}</ParamValue>
            </QosProfileProfileParam>
```

```
            <QosProfileProfileParam>

<ProfileParamUid>param.diameter.pccRule.maxAuthUL</ProfileParamUid>
                <ParamValue>512000:{someVariableName}</ParamValue>
            </QosProfileProfileParam>
            <QosProfileProfileParam>

<ProfileParamUid>param.diameter.pccRule.maxAuthDL</ProfileParamUid>
                <ParamValue>512000:{someVariableName}</ParamValue>
            </QosProfileProfileParam>
            <QosProfileProfileParam>

<ProfileParamUid>param.diameter.pccRule.minRateUL</ProfileParamUid>
                <ParamValue></ParamValue>
            </QosProfileProfileParam>
            <QosProfileProfileParam>

<ProfileParamUid>param.diameter.pccRule.minRateDL</ProfileParamUid>
                <ParamValue></ParamValue>
            </QosProfileProfileParam>
            <QosProfileProfileParam>

<ProfileParamUid>param.diameter.pccRule.ARP.PriorityLevel</ProfileParamUid>
                <ParamValue></ParamValue>
            </QosProfileProfileParam>
            <QosProfileProfileParam>

<ProfileParamUid>param.diameter.pccRule.ARP.PreemptionCapability</ProfileParamUid>

                <ParamValue></ParamValue>
            </QosProfileProfileParam>
            <QosProfileProfileParam>

<ProfileParamUid>param.diameter.pccRule.ARP.PreemptionVulnerability</ProfileParamUid>

                <ParamValue></ParamValue>
            </QosProfileProfileParam>
            <QosProfileProfileParam>

<ProfileParamUid>param.diameter.pccRule.ServiceIdentifier</ProfileParamUid>
                <ParamValue></ParamValue>
            </QosProfileProfileParam>
            <QosProfileProfileParam>

<ProfileParamUid>param.diameter.pccRule.RatingGroup</ProfileParamUid>
                <ParamValue></ParamValue>
            </QosProfileProfileParam>
            <QosProfileProfileParam>

<ProfileParamUid>param.diameter.pccRule.MonitoringKey</ProfileParamUid>
                <ParamValue></ParamValue>
            </QosProfileProfileParam>
            <QosProfileProfileParam>

<ProfileParamUid>param.diameter.pccRule.ReportingLevel</ProfileParamUid>
                <ParamValue></ParamValue>
            </QosProfileProfileParam>
            <QosProfileProfileParam>
               <ProfileParamUid>param.diameter.pccRule.Online</ProfileParamUid>

                <ParamValue></ParamValue>
            </QosProfileProfileParam>
            <QosProfileProfileParam>
              <ProfileParamUid>param.diameter.pccRule.Offline</ProfileParamUid>
```

```
                <ParamValue></ParamValue>
            </QosProfileProfileParam>
            <QosProfileProfileParam>

<ProfileParamUid>param.diameter.pccRule.MeteringMethod</ProfileParamUid>
                <ParamValue></ParamValue>
            </QosProfileProfileParam>
            <QosProfileProfileParam>

<ProfileParamUid>param.diameter.pccRule.FlowStatus</ProfileParamUid>
                <ParamValue>2</ParamValue>
            </QosProfileProfileParam>
            <QosProfileProfileParam>

<ProfileParamUid>param.diameter.pccRule.FlowDescriptions</ProfileParamUid>
                <ParamValue></ParamValue>
            </QosProfileProfileParam>
            <QosProfileProfileParam>

<ProfileParamUid>param.diameter.pccRule.Precedence</ProfileParamUid>
                <ParamValue></ParamValue>
            </QosProfileProfileParam>
            <QosProfileProfileParam>

<ProfileParamUid>param.diameter.pccRule.ServiceFlowDetection</ProfileParamUid>
                <ParamValue></ParamValue>
            </QosProfileProfileParam>
        </QosProfileGroup>
    </AddTrafficProfile>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<?xml version='1.0' ?>
<Response>
    <Result>0</Result>
    <Command type="XmlInterfaceResponse">
       <Success count="1">Successfully imported 1 Traffic Profile(s).</Success>

        <Failure count="0"></Failure>
    </Command>
</Response>
```

Update Traffic Profile

Note: This query is not available to Policy servers in NW-CMP mode.

The following examples show the request and response that are defined in the XSD files for the UpdateTrafficProfile tag.

Request

This request follows the UpdateTrafficProfile tag defined in the XSD files.

```
<<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<XmlInterfaceRequest>
    <UpdateTrafficProfile>
        <QosProfile>
            <Name>default-rule-traffic-profile</Name>
            <ProfileType>0</ProfileType>
            <QosProfileType>Second Predefined PCC Rule</QosProfileType>
        </QosProfile>
   </UpdateTrafficProfile>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
    <Result>0</Result>
    <Command type="XmlInterfaceResponse">
        <Success count="1">Successfully updated 1 Traffic Profile(s).</Success>

        <Failure count="0"></Failure>
    </Command>
</Response>
```

Delete Traffic Profile

Note: This query is not available to Policy servers in NW-CMP mode.

The following examples show the request and response that are defined in the XSD files for the DeleteTrafficProfile tag.

Request

This request follows the DeleteTrafficProfile tag defined in the XSD files.

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<XmlInterfaceRequest>
    <DeleteTrafficProfile>
      <Name>default-rule-traffic-profile</Name>
    </DeleteTrafficProfile>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
    <Result>0</Result>
    <Command type="XmlInterfaceResponse">
```

```
        <Success count="1">Deleted 1 Traffic Profile(s).</Success>
        <Failure count="0"></Failure>
    </Command>
</Response>
```

Query Traffic Profile

The following examples show the request and response that are defined in the XSD files for the QueryTrafficProfile tag that queries all traffic profiles:

Request

This request follows the QueryTrafficProfile tag defined in the XSD files.

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<XmlInterfaceRequest>
    <QueryTrafficProfile/>
</XmlInterfaceRequest>
```

Response

The response to this request follows the QosProfile tag defined in the ConfigurationData section in the XSD files.

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<ConfigurationData version="">
        <QosProfile>
            <Name>default-rule-traffic-profile</Name>
            <ProfileType>0</ProfileType>
            <QosProfileType>Predefined PCC Rule</QosProfileType>
            <QosProfileProfileParam>
            <ProfileParamUid>param.diameter.pccPredefRule.profileTypeNumber
            </ProfileParamUid>
            <ParamValue>11</ParamValue>
            </QosProfileProfileParam>
            <QosProfileProfileParam>
            <ProfileParamUid>param.diameter.pccPredefRule.name
              </ProfileParamUid>
            <ParamValue>PCRF-DEFAULT</ParamValue>
            </QosProfileProfileParam>
            <QosProfileProfileParam>
            <ProfileParamUid>param.diameter.pccPredefRule.description
              </ProfileParamUid>
            <ParamValue>This is the static rule that gets applied by default
              </ParamValue>
            </QosProfileProfileParam>
        </QosProfile>
        <QosProfile>
            <Name>p2p-rule-traffic-profile</Name>
            <ProfileType>0</ProfileType>
            <QosProfileType>Predefined PCC Rule</QosProfileType>
            <QosProfileProfileParam>
            <ProfileParamUid>param.diameter.pccPredefRule.profileTypeNumber
              </ProfileParamUid>
            <ParamValue>11</ParamValue>
            </QosProfileProfileParam>
```

```
            <QosProfileProfileParam>
          <ProfileParamUid>param.diameter.pccPredefRule.name </ProfileParamUid>

            <ParamValue>P2P-RATE-LIMIT-64K</ParamValue>
            </QosProfileProfileParam>
            <QosProfileProfileParam>
            <ProfileParamUid>param.diameter.pccPredefRule.description
</ProfileParamUid>
            <ParamValue>Rule limits bit-torrent and other peer to peer
applications
              to 64Kbps downstream</ParamValue>
            </QosProfileProfileParam>
     </QosProfile>
</ConfigurationData>
```

Part III

Wireless Mode

Topics:

This section is dedicated to the using the the OSSI XML interface specifically for the wireless mode.

The OSSI XML interface for wireless mode is divided into the following areas:

- Topology interface

  Enables wireless users to manage and query network elements and policies in the system.

- Subscriber interface

  Enables wireless users to manage and query quota profiles, quota conventions, and field mapping profiles.

- Operational measurements (OM) interface

  Enables wireless users to retrieve statistical data from the system.

Each of these interfaces is described in detail in later chapters in this part of the document.

Chapter 1

Topology Interface for Wireless Mode

Topics:

The topology interface enables wireless users to manage and query network elements, paths, MRA Associations, policies and policy groups, and other topology-related objects within the system.

Network Elements

A network element represents a node in the network (cable or wireless), such as a router, CMTS, PDSN, B-RAS, and so on. The network elements can be organized into logical groups that subdivide the network space. network elements have the following attributes that can be requested:

- SctpEnabled

  Whether the network element supports Diameter over SCTP.

- Capacity

  The capacity of the network.

- InitiateDirectConnection

  The Diameter connection port of the TDF element network.

- TdfPort

  The Diameter connection port of the TDF element network.

- ReconnectDelay

  The delay period, in seconds, after a Diameter connection fails.

- WatchDogInterval

  The time interval of the watchdog monitor.

- ResponseTimeout

  The time period before the connection response times out.

Note: Depending on your system configuration, not all attributes may be present.

Note: The same attributes are also used in the Update Network Element operation.

The following sections describe the available network tags.

Add a Network Element in Wireless Mode

Note: This query is not available to Policy servers in NW-CMP mode.

The following example shows the request and response that is defined in the XSD files for the AddNetworkElement tag.

Note: See *Network Elements* for a complete description of Network Elements and Network Element Groups.

Request

This request follows the AddNetworkElement tag defined in the XSD files.

The following example creates a new Network Element to represent a router in the network. It also creates a group and puts the router in that group.

The router contains the following attributes:

- Name (unique identifier)

  Router 23

- Description

  Core router for the north east

- HostName (IP address or DNS hostname)

  12.1.x.x

- NeID (another unique identifier):

  112222

- Capacity (aggregate capacity in bps)

  456000

The group contains the following attributes:

- Name

  NE Group 1

- Description

  All core routers

```
<?xml version="1.0" encoding="UTF-8" ?>
<XmlInterfaceRequest>
 <AddNetworkElement>
    <NetworkElement>
        <Name>Router 23</Name>
        <Description>Core router for the north east</Description>
        <HostName>12.1.x.x</HostName>
        <NeId>112222</NeId>
        <NetworkElementType>PGW</NetworkElementType>
        <NeSubType></NeSubType>
        <Capacity>456000</Capacity>
    </NetworkElement>
    <NetworkElementGroup>
        <Name>NE Group 1</Name>
        <Description>All core routers</Description>
        <RootGroup>true</RootGroup>
        <ElementRef>
        <Name>router 23</Name>
        <SubGroup>false</SubGroup>
        </ElementRef>
    </NetworkElementGroup>
 </AddNetworkElement>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

The example XML response that follows represents a successful operation that creates a new network element and/or groups:

```
<Response>
    <Result>0</Result>
    <Command type="XmlInterfaceResponse">
        <Success count="2">Successfully imported 1 network elements.
        Successfully imported 1 group.</Success>
        <Failure count="0"></Failure>
    </Command>
</Response>
```

The example XML response that follows represents an operation that includes both a success and a failure (for example, an attempt to update a group's description field (success), and add an unknown network element router 24 to the group NE Group 1 (failed)).

```
<Response>
    <Result>0</Result>
    <Command type="XmlInterfaceResponse">
        <Success count="1">Successfully updated 1 groups.</Success>
        <Failure count="1">Failed to update 1 groups.  Network Element Group
update returned an error attempting to add the following: router 24
Group NE Group 1</Failure>
    </Command>
</Response>
```

Update a Network Element in Wireless Mode

Note: This query is not available to Policy servers in NW-CMP mode.

The following example shows the request and response that are defined in the XSD files for the UpdateNetworkElement tag.

Note: See *Network Elements* for a complete description of Network Elements and Network Element Groups.

Note: For a list of all the attributes that can be associated with a network element, see *Topology Interface for Wireless Mode*.

Request

This request follows the UpdateNetworkElement tag defined in the XSD files.

The following example shows the XML command to change the Capacity attribute of the network element named Router 23 to the value 4567000.

```
<XmlInterfaceRequest>
   <UpdateNetworkElement>
       <NetworkElement>
           <Name>Router 23</Name>
           <Capacity>4567000</Capacity>
       </NetworkElement>
   </UpdateNetworkElement>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
    <Result>0</Result>
    <Command type="XmlInterfaceResponse">
        <Success count="1">Successfully updated 1 network elements.</Success>
        <Failure count="0"></Failure>
    </Command>
</Response>
```

Delete Request for Update Network Element in Wireless Mode

The following examples show the delete request and response that are defined in the XSD files for the UpdateNetworkElement tag.

Note: See *Network Elements* for a complete description of Network Elements and Network Element Groups.

Note: For a list of all the attributes that can be associated with a network element, see *Topology Interface for Wireless Mode*.

Request

This delete request follows the UpdateNetworkElement tag defined in the XSD files.

The following example is a request for the ManualSubnet operation to delete a network element.

```
<XmlInterfaceRequest>
   <UpdateNetworkElement>
       <NetworkElement>
           <Name>cmts17o</Name>
            <Description></Description>
            <HostName>10.60.25.170</HostName>
            <BackupHostName></BackupHostName>
            <NetworkElementType>CMTS</NetworkElementType>
            <NeSubType>None</NeSubType>
            <Managed>true</Managed>
            <PcmmPort>3918</PcmmPort>
            <DqosPort>0</DqosPort>
            <ReadCommunity></ReadCommunity>
            <Capacity>0</Capacity>
            <X>0</X>
            <Y>0</Y>
            <ManualSubnet operation=”delete”>
                <IpAddress>1.1.1.0</IpAddress>
                <Mask>24</Mask>
       </NetworkElement>
   </UpdateNetworkElement>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
    <Result>0</Result>
    <Command type="XmlInterfaceResponse">
        <Success count="1">Successfully updated 1 network elements.</Success>
        <Failure count="0"></Failure>
    </Command>
</Response>
```

Add Network Element to Group

Note: This query is not available to Policy servers in NW-CMP mode.

The following example shows the request and response that are defined in the XSD files for the AddNetworkElementToGroup tag.

Request

This request follows the AddNetworkElementToGroup tag defined in the XSD files.

The following example shows the XML command to add three network elements (Router 2, Router 34, and Router 131) to a group (Group 1).

```
<XmlInterfaceRequest>
   <AddNetworkElementToGroup>
       <GroupName>Group 1</GroupName>
       <Name>Router 2</Name>
       <Name>Router 34</Name>
       <Name>Router 131</Name>
   </AddNetworkElementToGroup>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
    <Result>0</Result>
    <Command type="XmlInterfaceResponse">
        <Success count="3">Added 3 elements to a group.</Success>
        <Failure count="0"></Failure>
    </Command>
</Response>
```

Remove Network Element from Group

Note: This query is not available to Policy servers in NW-CMP mode.

The following example shows the request and response that are defined in the XSD files for the RemoveNetworkElementFromGroup tag.

Request

This request follows the RemoveNetworkElementFromGroup tag defined in the XSD files.

The following example shows the XML command to remove two network elements (Router 34 and Router 131) from a group (Group 1).

```
<XmlInterfaceRequest>
   <RemoveNetworkElementFromGroup>
       <GroupName>Group 1</GroupName>
       <Name>Router 34</Name>
       <Name>Router 131</Name>
   </RemoveNetworkElementFromGroup>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
    <Result>0</Result>
    <Command type="XmlInterfaceResponse">
        <Success count="2">Removed 2 elements from group.</Success>
        <Failure count="0"></Failure>
    </Command>
</Response>
```

Delete Network Element

Note: This query is not available to Policy servers in NW-CMP mode.

The following example shows the request and response that are defined in the XSD files for the DeleteNetworkElement tag.

Request

This request follows the DeleteNetworkElement tag defined in the XSD files.

The following example shows the XML command to delete two network elements (Node 1 and Node 2).

```
<XmlInterfaceRequest>
   <DeleteNetworkElement>
      <Name>Node 1</Name>
      <Name>Node 2</Name>
   </DeleteNetworkElement>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
    <Result>0</Result>
    <Command type="XmlInterfaceResponse">
        <Success count="2">Deleted 2 elements.</Success>
        <Failure count="0"></Failure>
    </Command>
</Response>
```

Delete Network Element Group

Note: This query is not available to Policy servers in NW-CMP mode.

The following example shows the request and response that are defined in the XSD files for the DeleteNetworkElementGroup tag.

Request

This request follows the DeleteNetworkElementGroup tag defined in the XSD files.

The following example shows the XML command to delete two network element groups (Group 1 and Group 2).

```
<?xml version="1.0" encoding="UTF-8" ?>
<XmlInterfaceRequest>
<DeleteNetworkElementGroup>
    <Name>Group 1</Name>
    <Name>Group 2</Name>
</DeleteNetworkElementGroup>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
    <Result>0</Result>
    <Command type="XmlInterfaceResponse">
        <Success count="2">Deleted 2 network element groups.</Success>
        <Failure count="0"></Failure>
    </Command>
</Response>
```

Query Network Elements

Note: This query is not available to Policy servers in S-CMP mode.

The following examples show the requests and responses that are defined in the XSD files for the QueryNetworkElement tag.

Example 1 Request

This request follows the QueryNetworkElement tag defined in the XSD files.

XML for querying multiple network elements by name.

```
<?xml version="1.0" encoding="UTF-8" ?>
<XmlInterfaceRequest>
    <QueryNetworkElement>
        <Name>NE A</Name>
        <Name>NE B</Name>
</QueryNetworkElement>
</XmlInterfaceRequest>
```

Example 2 Request

This request follows the QueryNetworkElement tag defined in the XSD files.

XML for querying all network elements and groups.

```
<?xml version="1.0" encoding="UTF-8" ?>
<XmlInterfaceRequest>
    <QueryNetworkElement>
    </QueryNetworkElement>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<ConfigurationData version="2.1.6">
    <NetworkElement>
        <Name>vod-1</Name>
        <Description/>
        <HostName/>
        <BackupHostName/>
        <NeId>vod-1</NeId>
        <NetworkElementType>Server</NetworkElementType>
        <NeSubType>None</NeSubType>
        <Capacity>0</Capacity>
        <X>0</X>
        <Y>0</Y>
        <ManualSubnet>
           <IpAddress>88.0.0.0</IpAddress>
           <Mask>8</Mask>
        </ManualSubnet>
    </NetworkElement>
    <NetworkElement>
        <Name>erx-1</Name>
        <Description/>
        <HostName/>
        <BackupHostName/>
        <NeId>erx-1</NeId>
        <NetworkElementType>B-RAS</NetworkElementType>
        <NeSubType>ERX</NeSubType>
        <Capacity>0</Capacity>
        <X>0</X>
        <Y>0</Y>
```

```
        <ManualSubnet>
           <IpAddress>1.0.0.0</IpAddress>
           <Mask>8</Mask>
        </ManualSubnet>
        <NEInterface>
           <Name>8/0</Name>
           <Description/>
           <Capacity>0</Capacity>
        </NEInterface>
        </NetworkElement>
        <NetworkElement>
           <Name>router-1</Name>
           <Description/>
           <HostName/>
           <BackupHostName/>
           <NeId>router-1</NeId>
           <NetworkElementType>Router</NetworkElementType>
           <NeSubType>None</NeSubType>
           <Capacity>0</Capacity>
           <X>0</X>
           <Y>0</Y>
         </NetworkElement>
         <NetworkElement>
           <Name>router-2</Name>
           <Description/>
           <HostName/>
           <BackupHostName/>
           <NeId>router-2</NeId>
           <NetworkElementType>Router</NetworkElementType>
           <NeSubType>None</NeSubType>
           <Capacity>0</Capacity>
           <X>0</X>
           <Y>0</Y>
         </NetworkElement>
         <NetworkElement>
           <Name>mx-1</Name>
           <Description/>
           <HostName>10.60.100.101</HostName>
           <BackupHostName/>
           <NeId/>
           <NetworkElementType>Wireline Gateway</NetworkElementType>
           <NeSubType>MX Series</NeSubType>
           <Capacity>0</Capacity>
           <X>0</X>
           <Y>0</Y>
           <DiameterRealm>jupiter.com</DiameterRealm>
           <ManualSubnet>
              <IpAddress>11.0.0.0</IpAddress>
              <Mask>8</Mask>
           </ManualSubnet>
           <Nediameterid>
           <NediameteridStr>mx.jupiter.com</NediameteridStr>
          </Nediameterid>
        </NetworkElement>
</ConfigurationData>
```

Time Periods

A time period defines a set of related time slots that receives the same QoS (for example, the peak time of network usage is Monday through Friday from 9:00 am to 5:00 pm).

Add Time Period

Note: This query is not available to Policy servers in NW-CMP mode.

The following examples show the request and response that are defined in the XSD files for the AddTimePeriod tag.

Request

This request follows the AddTimePeriod tag defined in the XSD files.

- The Mask tag represents the day-of-week expressed in the form of a bitmask. The value for each day-of-week corresponds to a power of two: Sunday is 1, Monday is 2, Tuesday is 4, Wednesday is 8, Thursday is 16, Friday is 32, and Saturday is 64. To specify a set of days, add together the values associated with the respective days. For example, Monday and Wednesday corresponds to a value of 10 (that is, 2 + 8).
- The StartTime and EndTime tags represent a time-of-day value expressed in milliseconds. For example, 01:30 time-of-day corresponds to 5,400,000 ((60+30)*60*1000) when expressed in milliseconds.

```
<XmlInterfaceRequest>
    <AddTimePeriod>
       <TimePeriod>
            <Name>timeperiod1</Name>
            <Description></Description>
            <Precedence>1</Precedence>
            <TimeSlot>
                <Mask>1</Mask>
                <YearStr>2015</YearStr>
                <MonthMask>4</MonthMask>
                <DayStr>1,2,3</DayStr>
                <Reverse>false</Reverse>
                <StartTime>43200000</StartTime>
                <EndTime>46800000</EndTime>
                <StartDate></StartDate>
                <EndDate></EndDate>
            </TimeSlot>
            <TimeSlot>
                <Mask>24</Mask>
                <YearStr></YearStr>
                <MonthMask>0</MonthMask>
                <DayStr></DayStr>
                <Reverse>false</Reverse>
                <StartTime>50700000</StartTime>
                <EndTime>52500000</EndTime>
                <StartDate></StartDate>
                <EndDate></EndDate>
            </TimeSlot>
        </TimePeriod>
```

```
    </AddTimePeriod>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
    <Result>0</Result>
    <Command type="XmlInterfaceResponse">
        <Success count="1">Successfully imported 1 Time Period(s).</Success>
        <Failure count="0"></Failure>
    </Command>
</Response>
```

Update Time Period

Note: This query is not available to Policy servers in NW-CMP mode.

The following examples show the requests and responses that are defined in the XSD files for the UpdateTimePeriod tag.

Two operations are associated with updating a time period.

- Add TimeSlot (default setting)
- Delete TimeSlot

Add TimeSlot Request

This add timeslot request follows the UpdateTimePeriod tag defined in the XSD files.

```
<XmlInterfaceRequest>
    <UpdateTimePeriod>
        <TimePeriod>
            <Name>timeperiod1</Name>
            <Description>ss</Description>
            <Precedence>3</Precedence>
            <TimeSlot operation="add">
                <Mask>8</Mask>
                <YearStr>2016,2017</YearStr>
                <MonthMask>2</MonthMask>
                <DayStr>8,22</DayStr>
                <Reverse>false</Reverse>
                <StartTime>50100000</StartTime>
                <EndTime>53100000</EndTime>
                <StartDate></StartDate>
                <EndDate></EndDate>
            </TimeSlot>
        </TimePeriod>
    </UpdateTimePeriod>
</XmlInterfaceRequest>
```

Add TimeSlot Response

The add timeslot response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
    <Result>0</Result>
    <Command type="XmlInterfaceResponse">
        <Success count="1">Successfully imported 1 Time Period(s).</Success>
        <Failure count="0"></Failure>
    </Command>
</Response>
```

Delete TimeSlot Request

This delete timeslot request follows the UpdateTimePeriod tag defined in the XSD files.

```
<XmlInterfaceRequest>
    <UpdateTimePeriod>
        <TimePeriod>
            <Name>timeperiod1</Name>
            <Description>ss</Description>
            <Precedence>3</Precedence>
            <TimeSlot operation="delete">
                <Mask>8</Mask>
                <YearStr>2016,2017</YearStr>
                <MonthMask>2</MonthMask>
                <DayStr>8,22</DayStr>
                <Reverse>false</Reverse>
                <StartTime>50100000</StartTime>
                <EndTime>53100000</EndTime>
                <StartDate></StartDate>
                <EndDate></EndDate>
            </TimeSlot>
        </TimePeriod>
    </UpdateTimePeriod>
</XmlInterfaceRequest>
```

Delete TimeSlot Response

The response to this request follows the delete timeslot Response tag defined in the XSD files.

```
<Response>
    <Result>0</Result>
    <Command type="XmlInterfaceResponse">
        <Success count="1">Successfully imported 1 Time Period(s).</Success>
        <Failure count="0"></Failure>
    </Command>
</Response>
```

Delete Time Period

Note: This query is not available to Policy servers in NW-CMP mode.

The following examples show the request and response that are defined in the XSD files for the DeleteTimePeriod tag.

Request

This request follows the DeleteTimePeriod tag defined in the XSD files.

```
<XmlInterfaceRequest>
    <DeleteTimePeriod>
      <Name>timeperiod1</Name>
    </DeleteTimePeriod>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
    <Result>0</Result>
    <Command type="XmlInterfaceResponse">
        <Success count="1">Deleted 1 time period(s)</Success>
        <Failure count="0"></Failure>
    </Command>
</Response>
```

Query Time Period

The following examples show the request and response that are defined in the XSD files for the QueryTimePeriod tag.

Request

This request follows the QueryTimePeriod tag defined in the XSD files.

```
<XmlInterfaceRequest>
    <QueryTimePeriod>
      <Name>timeperiod1</Name>
    </QueryTimePeriod>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<ConfigurationData version="9.9.0">
    <TimePeriod>
        <Name>timeperiod1</Name>
        <Description></Description>
        <Precedence>1</Precedence>
        <TimeSlot>
            <Mask>0</Mask>
            <YearStr>2015</YearStr>
            <MonthMask>4</MonthMask>
            <DayStr>1,2,3</DayStr>
            <Reverse>false</Reverse>
            <StartTime>43200000</StartTime>
            <EndTime>46800000</EndTime>
```

```
            <StartDate></StartDate>
            <EndDate></EndDate>
        </TimeSlot>
        <TimeSlot>
            <Mask>24</Mask>
            <YearStr></YearStr>
            <MonthMask>0</MonthMask>
            <DayStr></DayStr>
            <Reverse>false</Reverse>
            <StartTime>50700000</StartTime>
            <EndTime>52500000</EndTime>
            <StartDate></StartDate>
            <EndDate></EndDate>
        </TimeSlot>
    </TimePeriod>
</ConfigurationData>
```

Charging Servers

A charging server is a network element that processes accounting information for billing purposes.

Add Charging Server

Note: This query is not available to Policy servers in NW-CMP mode.

The following examples show the request and response that are defined in the XSD files for the AddChargingServer tag.

Request

This request follows the AddChargingServer tag defined in the XSD files.

```
<XmlInterfaceRequest>
    <AddChargingServer>
        <ChargingServer>
        <Name>chargingServer_import1</Name>
        <Description></Description>
        <Security>true</Security>
        <HostName>80.20.20.101</HostName>
        <Port>4040</Port>
        <Transport>udp</Transport>
        <Protocol>radius</Protocol>
    </ChargingServer>
    <ChargingServer>
        <Name>chargingServer_import2</Name>
        <Description></Description>
        <Security>false</Security>
        <HostName>12.6.43.201</HostName>
        <Port>7089</Port>
        <Transport>tcp</Transport>
        <Protocol>tacacs+</Protocol>
    </ChargingServer>
    </AddChargingServer>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
    <Result>0</Result>
    <Command type="XmlInterfaceResponse">
        <Success count="2">Successfully imported 2 Charging Server(s).</Success>

         <Failure count="0"></Failure>
    </Command>
</Response>
```

Update Charging Server

Note: This query is not available to Policy servers in NW-CMP mode.

The following examples show the request and response that are defined in the XSD files for the UpdateChargingServer tag.

Request

This request follows the UpdateChargingServer tag defined in the XSD files.

```
<XmlInterfaceRequest>
    <UpdateChargingServer>
      <ChargingServer>
        <Name>chargingServer_3</Name>
        <Description></Description>
        <Security>true</Security>
        <HostName>80.20.xx.xx</HostName>
        <Port>6040</Port>
        <Transport>tcp</Transport>
        <Protocol>radius</Protocol>
      </ChargingServer>
    </UpdateChargingServer>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
    <Result>0</Result>
    <Command type="XmlInterfaceResponse">
        <Success count="1">Successfully updated 1 Charging Server(s).</Success>

        <Failure count="0"></Failure>
    </Command>
</Response>
```

Delete Charging Server

Note: This query is not available to Policy servers in NW-CMP mode.

The following examples show the request and response that are defined in the XSD files for the DeleteChargingServer tag.

Request

This request follows the DeleteChargingServer tag defined in the XSD files.

```
<XmlInterfaceRequest>
    <DeleteChargingServer>
      <Name>chs1</Name>
    </DeleteChargingServer>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
    <Result>0</Result>
    <Command type="XmlInterfaceResponse">
        <Success count="1">Deleted 1 Charging Server(s).</Success>
        <Failure count="0"></Failure>
    </Command>
</Response>
```

Query Charging Server

The following examples show the request and response that are defined in the XSD files for the QueryChargingServer tag.

Request

This request follows the QueryChargingServer tag defined in the XSD files.

```
<XmlInterfaceRequest>
    <QueryChargingServer>
        <Name>chargingServer_3</Name>
        <Name>chargingServer_4</Name>
        <Name>chargingServer_import1</Name>
        <Name>chargingServer_import2</Name>
    </QueryChargingServer>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<ConfigurationData version="">
    <ChargingServer>
        <Name>chargingServer_3</Name>
        <Description></Description>
        <Security>true</Security>
        <HostName>80.20.xx.xx</HostName>
        <Port>4040</Port>
        <Transport>udp</Transport>
        <Protocol>radius</Protocol>
    </ChargingServer>
    <ChargingServer>
        <Name>chargingServer_4</Name>
        <Description></Description>
        <Security>false</Security>
        <HostName>12.6.xx.xx</HostName>
        <Port>7089</Port>
        <Transport>tcp</Transport>
        <Protocol>tacacs+</Protocol>
    </ChargingServer>
    <ChargingServer>
        <Name>chargingServer_import1</Name>
        <Description></Description>
        <Security>true</Security>
        <HostName>80.20.xx.xx</HostName>
        <Port>4040</Port>
        <Transport>udp</Transport>
        <Protocol>radius</Protocol>
    </ChargingServer>
    <ChargingServer>
        <Name>chargingServer_import2</Name>
        <Description></Description>
        <Security>false</Security>
        <HostName>12.6.xx.xx</HostName>
        <Port>7089</Port>
        <Transport>tcp</Transport>
        <Protocol>tacacs+</Protocol>
    </ChargingServer>
</ConfigurationData>
```

SMS Gateway

An SMS gateway enables a subscriber to send or receive Short Message Service (SMS) messages.

Add SMS Gateway

The following examples show the request and response that are defined in the XSD files for the AddSmsGateway tag.

Request

This request follows the AddSmsGateway tag defined in the XSD files.

```
<XmlInterfaceRequest>
    <AddSmsGateway>
        <SmsGateway>
            <Name>gfgfd2</Name>
            <Description></Description>
            <ProtocolType>SMPP</ProtocolType>
            <CmppEnabled>false</CmppEnabled>
            <CmppHost></CmppHost>
            <CmppPort>7890</CmppPort>
            <CmppSourceAddr></CmppSourceAddr>
            <CmppSharedSecret></CmppSharedSecret>
            <CmppRegisteredDelivery>0</CmppRegisteredDelivery>
            <CmppServiceId></CmppServiceId>
            <CmppMsgFmt>0</CmppMsgFmt>
            <SmppEnabled>true</SmppEnabled>
            <SmppValidateMessageLength>true</SmppValidateMessageLength>
            <SmppLongMessageSupport>true</SmppLongMessageSupport>
            <SmppLongDeliveryMethod>SAR</SmppLongDeliveryMethod>
            <SmppHost>10.2.x.x</SmppHost>
            <SmppPort>2775</SmppPort>
            <SmppSystemId></SmppSystemId>
            <SmppPassword></SmppPassword>
            <SecondarySmppHost></SecondarySmppHost>
            <SecondarySmppPort>0</SecondarySmppPort>
            <SecondarySmppSystemId></SecondarySmppSystemId>
            <SecondarySmppPassword></SecondarySmppPassword>
            <SmppSourceAddress></SmppSourceAddress>
            <SmppSourceAddressTON>UNKNOWN</SmppSourceAddressTON>
            <SmppSourceAddressNPI>UNKNOWN</SmppSourceAddressNPI>
            <SmppCharacterEncoding>SMSC_DEFAULT</SmppCharacterEncoding>
            <SmscDefaultEncoding>UTF-8</SmscDefaultEncoding>
            <RequestDeliveryReceipt>0</RequestDeliveryReceipt>
        </SmsGateway>
    </AddSmsGateway>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
        <Result>0</Result>
        <Command type="XmlInterfaceResponse">
                <Success count="1">Successfully updated 1 SMS
Gateway(s).</Success>
                <Failure count="0"></Failure>
        </Command>
</Response>
```

Update SMS Gateway

The following examples show the request and response that are defined in the XSD files for the UpdateSmsGateway tag.

Request

This request follows the UpdateSmsGateway tag defined in the XSD files.

```
<XmlInterfaceRequest>
    <UpdateSmsGateway>
        <SmsGateway>
            <Name>gfgfd2</Name>
            <Description></Description>
            <ProtocolType>SMPP</ProtocolType>
            <CmppEnabled>false</CmppEnabled>
            <CmppHost></CmppHost>
            <CmppPort>7890</CmppPort>
            <CmppSourceAddr></CmppSourceAddr>
            <CmppSharedSecret></CmppSharedSecret>
            <CmppRegisteredDelivery>0</CmppRegisteredDelivery>
            <CmppServiceId></CmppServiceId>
            <CmppMsgFmt>0</CmppMsgFmt>
            <SmppEnabled>true</SmppEnabled>
            <SmppValidateMessageLength>true</SmppValidateMessageLength>
            <SmppLongMessageSupport>true</SmppLongMessageSupport>
            <SmppLongDeliveryMethod>SAR</SmppLongDeliveryMethod>
            <SmppHost>10.2.x.x</SmppHost>
            <SmppPort>2775</SmppPort>
            <SmppSystemId></SmppSystemId>
            <SmppPassword></SmppPassword>
            <SecondarySmppHost></SecondarySmppHost>
            <SecondarySmppPort>0</SecondarySmppPort>
            <SecondarySmppSystemId></SecondarySmppSystemId>
            <SecondarySmppPassword></SecondarySmppPassword>
            <SmppSourceAddress></SmppSourceAddress>
            <SmppSourceAddressTON>UNKNOWN</SmppSourceAddressTON>
            <SmppSourceAddressNPI>UNKNOWN</SmppSourceAddressNPI>
            <SmppCharacterEncoding>SMSC_DEFAULT</SmppCharacterEncoding>
            <SmscDefaultEncoding>UTF-8</SmscDefaultEncoding>
            <RequestDeliveryReceipt>0</RequestDeliveryReceipt>
        </SmsGateway>
    </UpdateSmsGateway>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
    <Result>0</Result>
    <Command type="XmlInterfaceResponse">
        <Success count="1">Successfully updated 1 SMS Gateway(s).</Success>
        <Failure count="0"></Failure>
    </Command>
</Response>
```

Delete SMS Gateway

The following examples show the request and response that are defined in the XSD files for the DeleteSmsGateway tag.

Request

This request follows the DeleteSmsGateway tag defined in the XSD files.

```
<XmlInterfaceRequest>
    <DeleteSmsGateway>
        <SmsGateway>
            <Name>gfgfd2</Name>
        </SmsGateway>
    </DeleteSmsGateway>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
        <Result>0</Result>
        <Command type="XmlInterfaceResponse">
                <Success count="1">Deleted 1 SMS Gateway(s).</Success>
                <Failure count="0"></Failure>
        </Command>
</Response>
```

Query SMS Gateway

The following examples show the request and response that are defined in the XSD files for the QuerySmsGateway tag.

Request

This request follows the QuerySmsGateway tag defined in the XSD files.

```
<XmlInterfaceRequest>
    <QuerySmsGateway>
        <NotificationServer>
            <Name>aa1</Name>
        </NotificationServer>
    </QuerySmsGateway>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<ConfigurationData version="12.4.0.0.0">
    <SmsGateway>
        <Name>aa1</Name>
        <Description>ss</Description>
        <ProtocolType>CMPP</ProtocolType>
        <CmppEnabled>true</CmppEnabled>
        <CmppHost>1.2.3.4</CmppHost>
        <CmppPort>7890</CmppPort>
```

```
        <CmppSourceAddr></CmppSourceAddr>
        <CmppSharedSecret></CmppSharedSecret>
        <CmppRegisteredDelivery>0</CmppRegisteredDelivery>
        <CmppServiceId></CmppServiceId>
        <CmppMsgFmt>0</CmppMsgFmt>
        <SmppEnabled>false</SmppEnabled>
        <SmppValidateMessageLength>true</SmppValidateMessageLength>
        <SmppLongMessageSupport>true</SmppLongMessageSupport>
        <SmppLongDeliveryMethod>SAR</SmppLongDeliveryMethod>
        <SmppHost></SmppHost>
        <SmppPort>2775</SmppPort>
        <SmppSystemId></SmppSystemId>
        <SmppPassword></SmppPassword>
        <SecondarySmppHost></SecondarySmppHost>
        <SecondarySmppPort>2775</SecondarySmppPort>
        <SecondarySmppSystemId></SecondarySmppSystemId>
        <SecondarySmppPassword></SecondarySmppPassword>
        <SmppSourceAddress></SmppSourceAddress>
        <SmppSourceAddressTON></SmppSourceAddressTON>
        <SmppSourceAddressNPI></SmppSourceAddressNPI>
        <SmppCharacterEncoding></SmppCharacterEncoding>
        <SmscDefaultEncoding></SmscDefaultEncoding>
        <RequestDeliveryReceipt>0</RequestDeliveryReceipt>
    </SmsGateway>
</ConfigurationData>
```

Match List

The match list is a set of values that can be used within one or more policy definitions. When the user writes a policy rule to compare against a value in a list, the list or set of lists to be used for comparison is explicitly specified. For example:

- Where the SGSNIpAddress is contained in MaltaSgsnList, GreekSgsnLis
- The Match List Type determines what kind of values can be specified in that list and how those values are matched within the policy rule. Types can be:
  - IPv4 Address (allows address and subnet)
  - IPv6 Address (allows address and prefix)
  - String
  - Wildcard

Add Match List

Note: This query is not available to Policy servers in NW-CMP mode.

The following examples show the request and response that are defined in the XSD files for the AddMatchList tag.

Request

This request follows the AddMatchList tag defined in the XSD files.

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<XmlInterfaceRequest>
<AddMatchList>
  <TokenList>
      <Name>match_list_01a_sgsn</Name>
      <Description>This is a match list that will match the given
        SGSN</Description>
    <ItemType>3</ItemType>
    <TokenListItem>
      <Value>44.44.44.44</Value>
    </TokenListItem>
    <TokenListItem>
      <Value>55.55.55.55</Value>
    </TokenListItem>
    <TokenListItem>
      <Value>66.66.66.66</Value>
    </TokenListItem>
  </TokenList>
  <TokenList>
    <Name>match_list_01b_sgsn_black</Name>
    <Description />
    <ItemType>1</ItemType>
    <TokenListItem>
      <Value>44.44.44.44</Value>
    </TokenListItem>
    <TokenListItem>
      <Value>55.55.55.55</Value>
    </TokenListItem>
    <TokenListItem>
      <Value>66.66.66.66</Value>
    </TokenListItem>
  </TokenList>
</AddMatchList>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
    <Result>0</Result>
    <Command type="XmlInterfaceResponse">
        <Success count="2">Successfully imported 2 Match List(s).</Success>
        <Failure count="0"></Failure>
    </Command>
</Response>
```

Update Match List

Note: This query is not available to Policy servers in NW-CMP mode.

The following examples show the request and response that are defined in the XSD files for the UpdateMatchList tag.

Request

This request follows the UpdateMatchList tag defined in the XSD files.

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<XmlInterfaceRequest>
<UpdateMatchList>
  <TokenList>
      <Name>match_list_01a_sgsn</Name>
      <Description>This is an updated match list that will match the
        given SGSN</Description>
    <ItemType>3</ItemType>
    <TokenListItem>
      <Value>44.44.44.77</Value>
    </TokenListItem>
    <TokenListItem>
     <Value>66.66.66.77</Value>
    </TokenListItem>
  </TokenList>
</UpdateMatchList>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
    <Result>0</Result>
    <Command type="XmlInterfaceResponse">
        <Success count="1">Successfully updated 1 Match List(s).</Success>
         <Failure count="0"></Failure>
    </Command>
</Response>
```

Delete Match List

Note: This query is not available to Policy servers in NW-CMP mode.

The following examples show the request and response that are defined in the XSD files for the DeleteMatchList tag.

Request

This request follows the DeleteMatchList tag defined in the XSD files.

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<XmlInterfaceRequest>
    <DeleteMatchList>
      <Name>match_list_01a_sgsn</Name>
    </DeleteMatchList>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
    <Result>0</Result>
    <Command type="XmlInterfaceResponse">
        <Success count="2">Deleted 1 Match List(s).</Success>
        <Failure count="0"></Failure>
    </Command>
</Response>
```

Query Match List

The following examples show the request and response that are defined in the XSD files for the QueryMatchList tag.

Request

This request follows the QueryMatchList tag defined in the XSD files.

```
<XmlInterfaceRequest>
    <QueryMatchList>
        <Name>match_list_01a_sgsn</Name>
        <Name>match_list_01b_sgsn_black</Name>
</QueryMatchList>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<ConfigurationData version="">
  <TokenList>
      <Name>match_list_01a_sgsn</Name>
      <Description>This is a match list that will match the given
        SGSN</Description>
    <ItemType>3</ItemType>
    <TokenListItem>
      <Value>44.44.44.77</Value>
    </TokenListItem>
    <TokenListItem>
      <Value>66.66.66.77</Value>
    </TokenListItem>
  </TokenList>
  <TokenList>
    <Name>match_list_01b_sgsn_black</Name>
    <Description />
    <ItemType>1</ItemType>
    <TokenListItem>
      <Value>44.44.44.44</Value>
    </TokenListItem>
    <TokenListItem>
      <Value>55.55.55.55</Value>
    </TokenListItem>
    <TokenListItem>
```

```
      <Value>66.66.66.66</Value>
    </TokenListItem>
  </TokenList>
</ConfigurationData>
```

Monitoring Key

A monitoring key is a unique character string that identifies the quota profile to be used by a policy and charging control (PCC) rule for usage tracking. The monitoring key is associated with the quota profile by selecting a policy action that grants usage to a selected number of quota profiles.

Add Monitoring Key

The following examples show the request and response that are defined in the XSD files for the AddMonitoringKey tag.

Request

This request follows the AddMonitoringKey tag defined in the XSD files.

```
<XmlInterfaceRequest>
    <AddMonitoringKey>
        <MonitoringKey>
            <Name>Monitoring Key 1</Name>
            <Description>Monitoring Key 1</Description>
            <MonitoringType>0</MonitoringType>
            <MonitoringKey>KEY_1</MonitoringKey>
        </MonitoringKey>
        <MonitoringKey>
            <Name>Monitoring Key 2</Name>
            <Description></Description>
            <MonitoringType>2</MonitoringType>
            <MonitoringKey>KEY_2</MonitoringKey>
        </MonitoringKey>
    </AddMonitoringKey>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
     <Result>0</Result>
     <Command type="XmlInterfaceResponse">
             <Success count="2">Successfully imported 2
monitoringKey(s).</Success>
             <Failure count="0"></Failure>
     </Command>
</Response>
```

Update Monitoring Key

The following examples show the request and response that are defined in the XSD files for the UpdateMonitoringKey tag.

Request

This request follows the UpdateMonitoringKey tag defined in the XSD files.

```
<XmlInterfaceRequest>
<UpdateMonitoringKey>
        <MonitoringKey>
            <Name>Monitoring Key 2</Name>
            <Description></Description>
            <MonitoringType>2</MonitoringType>
            <MonitoringKey>KEY_2</MonitoringKey>
        </MonitoringKey>
    </UpdateMonitoringKey>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response> <Result>0</Result>
 <Command type="XmlInterfaceResponse">
  <Success count="1">Successfully updated 1 monitoringKey(s).</Success>
   <Failure count="0"></Failure>
 </Command>
</Response>
```

Delete Monitoring Key

The following examples show the request and response that are defined in the XSD files for the DeleteMonitoringKey tag.

Request

This request follows the DeleteMonitoringKey tag defined in the XSD files.

```
<XmlInterfaceRequest>
 <DeleteMonitoringKey>
  <MonitoringKey>
   <Name>Monitoring Key 2</Name>
  </MonitoringKey>
 </DeleteMonitoringKey>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
        <Result>0</Result>
        <Command type="XmlInterfaceResponse">
                <Success count="1">Deleted 1 Monitoring Keys.</Success>
                <Failure count="0"></Failure>
        </Command>
</Response>
```

Query Monitoring Key

The following examples show the request and response that are defined in the XSD files for the QueryMonitoringKey tag.

Request

This request follows the QueryMonitoringKey tag defined in the XSD files.

```
<?xml version="1.0" encoding="UTF-8" ?>
<XmlInterfaceRequest>
 <QueryMonitoringKey>
   <Name>Monitoring Key 1</Name>
 </QueryMonitoringKey>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<ConfigurationData version="8.0.0">
    <MonitoringKey>
        <Name>Monitoring Key 1</Name>
        <Description>Monitoring Key 1</Description>
        <MonitoringType>0</MonitoringType>
        <MonitoringKey>KEY_1</MonitoringKey>
    </MonitoringKey>
</ConfigurationData>
```

AVP Definition

An AVP is a Diameter protocol used to encapsulate protocol-specific information with usage monitoring supported by the MPE. Diameter messages such as AAR, CCA, CCR, and RAR, are supported by 3rd Party AVP policy conditions. The supported outgoing messages set or remove 3rd Party AVPs in Diameter.

Add AVP Definition

The following examples show the request and response that are defined in the XSD files for the AddAvpDefinition tag.

Request

This request follows the AddAvpDefinition tag defined in the XSD files.

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<XmlInterfaceRequest>
    <AddAvpDefinition>
        <AvpDefinition>
            <Name>AVPSAMPLE:1123</Name>
            <Description></Description>
            <AvpName>AVPSAMPLE</AvpName>
            <AvpCode>0</AvpCode>
            <VendorId>1123</VendorId>
            <MandatoryFlag>false</MandatoryFlag>
            <ProtectFlag>false</ProtectFlag>
            <MayencryptFlag>false</MayencryptFlag>
            <VendorSpecificFlag>true</VendorSpecificFlag>
            <AvpType>float32</AvpType>
            <RootAvp></RootAvp>
        </AvpDefinition>
    </AddAvpDefinition>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
   <Result>0</Result>
   <Command type="XmlInterfaceResponse">
       <Success count="1">Successfully imported 1 AVP Definition(s).</Success>
       <Failure count="0"></Failure>
   </Command>
</Response>
```

Update AVP Definition

The following examples show the request and response that are defined in the XSD files for the UpdateAvpDefinition tag.

Request

This request follows the UpdateAvpDefinition tag defined in the XSD files.

```
<XmlInterfaceRequest>
    <UpdateAvpDefinition>
        <AvpDefinition>
```

```
            <Name>AVPSAMPLE:1123</Name>
            <Description></Description>
            <AvpName>AVPSAMPLE</AvpName>
            <AvpCode>567</AvpCode>
            <VendorId>1123</VendorId>
            <MandatoryFlag>false</MandatoryFlag>
            <ProtectFlag>false</ProtectFlag>
            <MayencryptFlag>false</MayencryptFlag>
            <VendorSpecificFlag>true</VendorSpecificFlag>
            <AvpType>float32</AvpType>
            <RootAvp></RootAvp>
        </AvpDefinition>
    </UpdateAvpDefinition>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
    <Result>0</Result>
    <Command type="XmlInterfaceResponse">
        <Success count="1">Successfully imported 1 AVP Definition(s).</Success>

        <Failure count="0"></Failure>
    </Command>
</Response>
```

Delete AVP Definition

The following examples show the request and response that are defined in the XSD files for the DeleteAvpDefinition tag.

Request

This request follows the DeleteAvpDefinition tag defined in the XSD files.

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<XmlInterfaceRequest>
    <DeleteAvpDefinition>
        <AvpDefinition>
            <Name>AVPSAMPLE:1123</Name>
        </AvpDefinition>
    </DeleteAvpDefinition>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
        <Result>0</Result>
        <Command type="XmlInterfaceResponse">
```

```
                <Success count="1">Deleted 1 AVP Definition(s)</Success>
                <Failure count="0"></Failure>
        </Command>
</Response>
```

Query AVP Definition

The following examples show the request and response that are defined in the XSD files for the QueryAvpDefinition tag.

Request

This request follows the QueryAvpDefinition tag defined in the XSD files.

```
<XmlInterfaceRequest>
    <QueryAvpDefinition>
        <AvpDefinition>
            <Name>AVPSAMPLE:1123</Name>
        </AvpDefinition>
    </QueryAvpDefinition>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<ConfigurationData version="8.0.0">
    <AvpDefinition>
        <Name>AVPSAMPLE:1123</Name>
        <Description></Description>
        <AvpName>AVPSAMPLE</AvpName>
        <AvpCode>123</AvpCode>
        <VendorId>1123</VendorId>
        <MandatoryFlag>false</MandatoryFlag>
        <ProtectFlag>false</ProtectFlag>
        <MayencryptFlag>false</MayencryptFlag>
        <VendorSpecificFlag>true</VendorSpecificFlag>
        <AvpType>float32</AvpType>
        <RootAvp></RootAvp>
    </AvpDefinition>
</ConfigurationData>
```

Serving GPRS Support Node

A serving GPRS support node (SGSN) may not provide a gateway GPRS support node (GGSN) with accurate or complete mobile country code (MCC) or mobile network code (MNC) information. If not, the GGSN cannot pass this information on to the PCRF (including an MPE device), reducing the PCRF's ability to detect specific roaming scenarios. The MCC/MNC mapping table provides a mechanism for the MPE device to convert an SGSN IP address (a value the GGSN can determine without SGSN

input) to the proper MCC/MNC value. You can map multiple serving gateways to each MCC/MNC pair. After the MCC/MNC values are determined, they can be used in policies to differentiate subscriber treatment based on the specific roaming scenario.

Add SGSN

The following examples show the request and response that are defined in the XSD files for the AddSgwMapping tag.

Request

This request follows the AddSgwMapping tag defined in the XSD files.

```
<XmlInterfaceRequest>
    <AddSgwMapping>
        <SgwMapping>
            <Name>SGSN-1</Name>
            <Description>SGSN-1</Description>
            <MccMnc>12345</MccMnc>
            <SgwIpAddress>
                <IpAddress>10.60.25.33</IpAddress>
            </SgwIpAddress>
        </SgwMapping>
    </AddSgwMapping>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
  <Result>0</Result>
   <Command type="XmlInterfaceResponse">
     <Success count="1">Successfully imported 1 Serving Gateway/MCC-MNC
Mapping(s).</Success>
     <Failure count="0"></Failure>
   </Command>
</Response>
```

Update SGSN

The following examples show the request and response that are defined in the XSD files for the UpdateSgwMapping tag.

Request

This request follows the UpdateSgwMapping tag defined in the XSD files.

```
<XmlInterfaceRequest>
    <UpdateSgwMapping>
        <SgwMapping>
```

```
            <Name>SGSN-1</Name>
            <Description>SGSN-1</Description>
            <MccMnc>12345</MccMnc>
            <SgwIpAddress>
                <IpAddress>10.60.25.33</IpAddress>
            </SgwIpAddress>
        </SgwMapping>
    </UpdateSgwMapping>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
   <Result>0</Result>
     <Command type="XmlInterfaceResponse">
        <Success count="1">Successfully updated 1 Serving Gateway/MCC-MNC
Mapping(s).</Success>
        <Failure count="0"></Failure>
     </Command>
</Response>
```

Delete SGSN

The following examples show the request and response that are defined in the XSD files for the DeleteSgwMapping tag.

Request

This request follows the DeleteSgwMapping tag defined in the XSD files.

```
<XmlInterfaceRequest>
    <DeleteSgwMapping>
        <SgwMapping>
            <Name>SGSN-1</Name>
        </SgwMapping>
</DeleteSgwMapping>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
   <Result>0</Result>
     <Command type="XmlInterfaceResponse">
        <Success count="1">Delete 1 Serving Gateway/MCC-MNC mappings.</Success>

        <Failure count="0"></Failure>
     </Command>
</Response>
```

Query SGSN

The following examples show the request and response that are defined in the XSD files for the QuerySgwMapping tag.

Request

This request follows the QuerySgwMapping tag defined in the XSD files.

```
<XmlInterfaceRequest>
    <QuerySgwMapping>
            <Name>SGSN-1</Name>
    </QuerySgwMapping>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<ConfigurationData version="8.0.0">
    <SgwMapping>
        <Name>SGSN-1</Name>
        <Description>SGSN-1</Description>
        <MccMnc>12345</MccMnc>
        <SgwIpAddress>
            <IpAddress>10.60.xx.xx</IpAddress>
        </SgwIpAddress>
    </SgwMapping>
</ConfigurationData>
```

MRA Associations

Using queries, you can export MRA Associations.

Add MRA Association

The following examples show the request and response that are defined in the XSD files for the AddMraAssociation tag.

Request

This request follows the AddMraAssociation tag defined in the XmlInterfaceRequest section in the XSD files.

```
    <XmlInterfaceRequest>
    <AddMraAssociation>
        <MraAssociation>
            <Name>MRAAssocation1</Name>
```

```
            <Description>1</Description>
            <Type>Algov1</Type>
            <PrimaryIndex>IMSI</PrimaryIndex>
            <IndexByUsername>false</IndexByUsername>
            <IndexByNai>false</IndexByNai>
            <IndexByE164>false</IndexByE164>
            <IndexByAddressV4>false</IndexByAddressV4>
            <IndexByIPD>true</IndexByIPD>
            <IndexByImsi>true</IndexByImsi>
            <IndexBySessionId>false</IndexBySessionId>
            <IndexByAddressV6>true</IndexByAddressV6>
            <Member>
                <Mra>MRA141</Mra>
                <BackUp>MRA140</BackUp>
                <PrimaryIP>201.20.xx.xx</PrimaryIP>
                <SecondaryIP></SecondaryIP>
                <Port>3868</Port>
                <WatchDogInterval>6</WatchDogInterval>
                <ReconnectDelay>3</ReconnectDelay>
                <ResponseTimeOut>5</ResponseTimeOut>
                <SctpEnabled>false</SctpEnabled>
                <NumberOfConnections>1</NumberOfConnections>
                <MaxNumberOfIncomingStreams>8</MaxNumberOfIncomingStreams>
                <MaxNumberOfOutgoingStreams>8</MaxNumberOfOutgoingStreams>
                <ConnectionInfo></ConnectionInfo>
              <ProtocolTimerProfile>protocolTimerProfile2</ProtocolTimerProfile>

            </Member>
            <Member>
                <Mra>MRA140</Mra>
                <BackUp>MRA141</BackUp>
                <PrimaryIP>101.10.xx.xx</PrimaryIP>
                <SecondaryIP></SecondaryIP>
                <Port>3868</Port>
                <WatchDogInterval>6</WatchDogInterval>
                <ReconnectDelay>3</ReconnectDelay>
                <ResponseTimeOut>5</ResponseTimeOut>
                <SctpEnabled>false</SctpEnabled>
                <NumberOfConnections>1</NumberOfConnections>
                <MaxNumberOfIncomingStreams>8</MaxNumberOfIncomingStreams>
                <MaxNumberOfOutgoingStreams>8</MaxNumberOfOutgoingStreams>
                <ConnectionInfo></ConnectionInfo>
              <ProtocolTimerProfile>protocolTimerProfile1</ProtocolTimerProfile>

            </Member>
            <Override>
                <SourceMra>MRA140</SourceMra>
                <DestinationMra>MRA141</DestinationMra>
                <PrimaryIP>1.1.xx.xx</PrimaryIP>
                <SecondaryIP>2.2.xx.xx</SecondaryIP>
                <Port>3868</Port>
                <WatchDogInterval>6</WatchDogInterval>
                <ReconnectDelay>3</ReconnectDelay>
                <ResponseTimeOut>5</ResponseTimeOut>
                <SctpEnabled>false</SctpEnabled>
                <NumberOfConnections>1</NumberOfConnections>
                <MaxNumberOfIncomingStreams>8</MaxNumberOfIncomingStreams>
                <MaxNumberOfOutgoingStreams>8</MaxNumberOfOutgoingStreams>
                <ConnectionInfo></ConnectionInfo>
            </Override>
            <IndexByAPN>
                <Name>apn1</Name>
                <Ipv4>false</Ipv4>
                <Ipv6>false</Ipv6>
```

```
                <Ipd>false</Ipd>
                <Username>false</Username>
                <Nai>false</Nai>
                <E164>false</E164>
                <Imsi>true</Imsi>
                <SessionId>false</SessionId>
            </IndexByAPN>
            <IndexByAPN>
                <Name>APN2</Name>
                <Ipv4>false</Ipv4>
                <Ipv6>false</Ipv6>
                <Ipd>false</Ipd>
                <Username>false</Username>
                <Nai>false</Nai>
                <E164>false</E164>
                <Imsi>true</Imsi>
                <SessionId>false</SessionId>
            </IndexByAPN>
            <PCD>
                <NetworkElement>networkelement2</NetworkElement>
                <PrimaryMra>MRA140</PrimaryMra>
                <SecondaryMra>MRA141</SecondaryMra>
            </PCD>
            <PCD>
                <NetworkElement>networkelement1</NetworkElement>
                <PrimaryMra>MRA140</PrimaryMra>
                <SecondaryMra>MRA141</SecondaryMra>
            </PCD>
        </MraAssociation>
        <MraAssociation>
            <Name>MRAAssocation2</Name>
            <Description>2</Description>
            <Type>Legacy</Type>
            <PrimaryIndex>E164</PrimaryIndex>
            <IndexByUsername>false</IndexByUsername>
            <IndexByNai>false</IndexByNai>
            <IndexByE164>true</IndexByE164>
            <IndexByAddressV4>false</IndexByAddressV4>
            <IndexByIPD>false</IndexByIPD>
            <IndexByImsi>false</IndexByImsi>
            <IndexBySessionId>false</IndexBySessionId>
            <IndexByAddressV6>true</IndexByAddressV6>
            <Member>
                <Mra>MRA143</Mra>
                <BackUp>MRA142</BackUp>
                <PrimaryIP>40.40.xx.xx</PrimaryIP>
                <SecondaryIP></SecondaryIP>
                <Port>3868</Port>
                <WatchDogInterval>6</WatchDogInterval>
                <ReconnectDelay>3</ReconnectDelay>
                <ResponseTimeOut>5</ResponseTimeOut>
                <SctpEnabled>false</SctpEnabled>
                <NumberOfConnections>1</NumberOfConnections>
                <MaxNumberOfIncomingStreams>8</MaxNumberOfIncomingStreams>
                <MaxNumberOfOutgoingStreams>8</MaxNumberOfOutgoingStreams>
                <ConnectionInfo></ConnectionInfo>
              <ProtocolTimerProfile>protocolTimerProfile3</ProtocolTimerProfile>

            </Member>
            <Member>
                <Mra>MRA142</Mra>
                <BackUp>MRA143</BackUp>
                <PrimaryIP>30.30.xx.xx</PrimaryIP>
                <SecondaryIP></SecondaryIP>
```

```
                <Port>3868</Port>
                <WatchDogInterval>6</WatchDogInterval>
                <ReconnectDelay>3</ReconnectDelay>
                <ResponseTimeOut>5</ResponseTimeOut>
                <SctpEnabled>false</SctpEnabled>
                <NumberOfConnections>1</NumberOfConnections>
                <MaxNumberOfIncomingStreams>8</MaxNumberOfIncomingStreams>
                <MaxNumberOfOutgoingStreams>8</MaxNumberOfOutgoingStreams>
                <ConnectionInfo></ConnectionInfo>
              <ProtocolTimerProfile>protocolTimerProfile2</ProtocolTimerProfile>

            </Member>
            <Override>
                <SourceMra>MRA143</SourceMra>
                <DestinationMra>MRA142</DestinationMra>
                <PrimaryIP>3.3.xx.xx</PrimaryIP>
                <SecondaryIP></SecondaryIP>
                <Port>3868</Port>
                <WatchDogInterval>6</WatchDogInterval>
                <ReconnectDelay>3</ReconnectDelay>
                <ResponseTimeOut>5</ResponseTimeOut>
                <SctpEnabled>false</SctpEnabled>
                <NumberOfConnections>1</NumberOfConnections>
                <MaxNumberOfIncomingStreams>8</MaxNumberOfIncomingStreams>
                <MaxNumberOfOutgoingStreams>8</MaxNumberOfOutgoingStreams>
                <ConnectionInfo></ConnectionInfo>
            </Override>
            <Override>
                <SourceMra>MRA142</SourceMra>
                <DestinationMra>MRA143</DestinationMra>
                <PrimaryIP>3.3.xx.xx</PrimaryIP>
                <SecondaryIP>2.2.xx.xx</SecondaryIP>
                <Port>3868</Port>
                <WatchDogInterval>6</WatchDogInterval>
                <ReconnectDelay>3</ReconnectDelay>
                <ResponseTimeOut>5</ResponseTimeOut>
                <SctpEnabled>false</SctpEnabled>
                <NumberOfConnections>1</NumberOfConnections>
                <MaxNumberOfIncomingStreams>8</MaxNumberOfIncomingStreams>
                <MaxNumberOfOutgoingStreams>8</MaxNumberOfOutgoingStreams>
                <ConnectionInfo></ConnectionInfo>
            </Override>
            <IndexByAPN>
                <Name>apn2</Name>
                <Ipv4>false</Ipv4>
                <Ipv6>false</Ipv6>
                <Ipd>false</Ipd>
                <Username>false</Username>
                <Nai>false</Nai>
                <E164>true</E164>
                <Imsi>false</Imsi>
                <SessionId>false</SessionId>
            </IndexByAPN>
            <IndexByAPN>
                <Name>APN3</Name>
                <Ipv4>false</Ipv4>
                <Ipv6>false</Ipv6>
                <Ipd>false</Ipd>
                <Username>false</Username>
                <Nai>false</Nai>
                <E164>true</E164>
                <Imsi>false</Imsi>
                <SessionId>false</SessionId>
            </IndexByAPN>
```

```
            <IndexByAPN>
                <Name>APN4</Name>
                <Ipv4>false</Ipv4>
                <Ipv6>false</Ipv6>
                <Ipd>false</Ipd>
                <Username>false</Username>
                <Nai>false</Nai>
                <E164>false</E164>
                <Imsi>true</Imsi>
                <SessionId>false</SessionId>
            </IndexByAPN>
            <PCD>
                <NetworkElement>networkelement4</NetworkElement>
                <PrimaryMra>MRA142</PrimaryMra>
                <SecondaryMra>MRA143</SecondaryMra>
            </PCD>
            <PCD>
                <NetworkElement>networkelement3</NetworkElement>
                <PrimaryMra>MRA142</PrimaryMra>
                <SecondaryMra>MRA143</SecondaryMra>
            </PCD>
        </MraAssociation>
        <MraAssociation>
            <Name>MRAAssocationEmpty</Name>
            <Description>empty</Description>
            <Type>Algov1</Type>
            <PrimaryIndex>IMSI</PrimaryIndex>
            <IndexByUsername>false</IndexByUsername>
            <IndexByNai>false</IndexByNai>
            <IndexByE164>false</IndexByE164>
            <IndexByAddressV4>false</IndexByAddressV4>
            <IndexByIPD>false</IndexByIPD>
            <IndexByImsi>true</IndexByImsi>
            <IndexBySessionId>false</IndexBySessionId>
            <IndexByAddressV6>false</IndexByAddressV6>
        </MraAssociation>
    </AddMraAssociation>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
<Result>0</Result>
<Command type="XmlInterfaceResponse">
<Success count="3">Successfully imported 3 MRA Association(s).</Success>
<Failure count="0"></Failure>
</Command>
</Response>
```

Update MRA Association

The following examples show the request and response that are defined in the XSD files for the UpdateMraAssociation tag.

Request

This request follows the UpdateMraAssociation tag defined in the XSD files.

```
<XmlInterfaceRequest>
  <UpdateMraAssociation>
      <MraAssociation>
            <Name>MRAAssocation1</Name>
            <Description>111111111</Description>
            <Type>Algov1</Type>
            <PrimaryIndex>IMSI</PrimaryIndex>
            <IndexByUsername>false</IndexByUsername>
            <IndexByNai>false</IndexByNai>
            <IndexByE164>false</IndexByE164>
            <IndexByAddressV4>false</IndexByAddressV4>
            <IndexByIPD>true</IndexByIPD>
            <IndexByImsi>true</IndexByImsi>
            <IndexBySessionId>false</IndexBySessionId>
            <IndexByAddressV6>true</IndexByAddressV6>
            <Member>
                <Mra>MRA141</Mra>
                <BackUp>MRA140</BackUp>
                <PrimaryIP>201.20.xx.xx</PrimaryIP>
                <SecondaryIP></SecondaryIP>
                <Port>3868</Port>
                <WatchDogInterval>6</WatchDogInterval>
                <ReconnectDelay>3</ReconnectDelay>
                <ResponseTimeOut>5</ResponseTimeOut>
                <SctpEnabled>false</SctpEnabled>
                <NumberOfConnections>1</NumberOfConnections>
                <MaxNumberOfIncomingStreams>8</MaxNumberOfIncomingStreams>
                <MaxNumberOfOutgoingStreams>8</MaxNumberOfOutgoingStreams>
                <ConnectionInfo></ConnectionInfo>
              <ProtocolTimerProfile>protocolTimerProfile2</ProtocolTimerProfile>

            </Member>
            <Member>
                <Mra>MRA140</Mra>
                <BackUp>MRA141</BackUp>
                <PrimaryIP>101.10.xx.xx</PrimaryIP>
                <SecondaryIP></SecondaryIP>
                <Port>3868</Port>
                <WatchDogInterval>6</WatchDogInterval>
                <ReconnectDelay>3</ReconnectDelay>
                <ResponseTimeOut>5</ResponseTimeOut>
                <SctpEnabled>false</SctpEnabled>
                <NumberOfConnections>1</NumberOfConnections>
                <MaxNumberOfIncomingStreams>8</MaxNumberOfIncomingStreams>
                <MaxNumberOfOutgoingStreams>8</MaxNumberOfOutgoingStreams>
                <ConnectionInfo></ConnectionInfo>
              <ProtocolTimerProfile>protocolTimerProfile1</ProtocolTimerProfile>

            </Member>
            <Override>
                <SourceMra>MRA142</SourceMra>
                <DestinationMra>MRA143</DestinationMra>
                <PrimaryIP>1.1.xx.xx</PrimaryIP>
                <SecondaryIP>2.2.xx.xx</SecondaryIP>
                <Port>3868</Port>
                <WatchDogInterval>6</WatchDogInterval>
                <ReconnectDelay>3</ReconnectDelay>
                <ResponseTimeOut>5</ResponseTimeOut>
                <SctpEnabled>false</SctpEnabled>
```

```
                <NumberOfConnections>1</NumberOfConnections>
                <MaxNumberOfIncomingStreams>8</MaxNumberOfIncomingStreams>
                <MaxNumberOfOutgoingStreams>8</MaxNumberOfOutgoingStreams>
                <ConnectionInfo></ConnectionInfo>
            </Override>
            <IndexByAPN>
                <Name>apn1</Name>
                <Ipv4>false</Ipv4>
                <Ipv6>false</Ipv6>
                <Ipd>false</Ipd>
                <Username>false</Username>
                <Nai>false</Nai>
                <E164>false</E164>
                <Imsi>true</Imsi>
                <SessionId>false</SessionId>
            </IndexByAPN>
            <IndexByAPN>
                <Name>APN2</Name>
                <Ipv4>false</Ipv4>
                <Ipv6>false</Ipv6>
                <Ipd>false</Ipd>
                <Username>false</Username>
                <Nai>false</Nai>
                <E164>false</E164>
                <Imsi>true</Imsi>
                <SessionId>false</SessionId>
            </IndexByAPN>
            <PCD>
                <NetworkElement>networkelement2</NetworkElement>
                <PrimaryMra>MRA142</PrimaryMra>
                <SecondaryMra>MRA143</SecondaryMra>
            </PCD>
            <PCD>
                <NetworkElement>networkelement1</NetworkElement>
                <PrimaryMra>MRA142</PrimaryMra>
                <SecondaryMra>MRA143</SecondaryMra>
            </PCD>
        </MraAssociation>
  </UpdateMraAssociation>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
<Result>0</Result>
<Command type="XmlInterfaceResponse">
<Success count="1">Successfully updated 1 MRA Association(s).</Success>
<Failure count="0"></Failure>
</Command>
</Response>
```

Delete MRA Association

The following examples show the request and response that are defined in the XSD files for the DeleteMraAssociation tag.

Request

This request follows the DeleteMraAssociation tag defined in the XmlInterfaceRequest section in the XSD files.

```
<XmlInterfaceRequest>
<DeleteMraAssociation>
<Name>MRAAssocation1</Name>
<Name>MRAAssocationEmpty</Name>
</DeleteMraAssociation>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
<Result>0</Result>
<Command type="XmlInterfaceResponse">
<Success count="2">Deleted 2 MraAssociation Function(s).</Success>
<Failure count="0"></Failure>
</Command>
</Response>
```

Query MRA Association

The following examples show the request and response that are defined in the XSD files for the QueryMraAssociation tag.

Request

This request follows the QueryMraAssociation tag defined in the XmlInterfaceRequest section in the XSD files.

```
<XmlInterfaceRequest>
    <QueryMraAssociation>
      <Name>MRAAssocation1</Name>
      <Name>MRAAssocation2</Name>
    </QueryMraAssociation>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<ConfigurationData version="12.3.0.0.0">
    <MraAssociation>
        <Name>MRAAssocation1</Name>
        <Description>1</Description>
        <Type>Algov1</Type>
        <PrimaryIndex>IMSI</PrimaryIndex>
        <IndexByUsername>false</IndexByUsername>
```

```
        <IndexByNai>false</IndexByNai>
        <IndexByE164>false</IndexByE164>
        <IndexByAddressV4>false</IndexByAddressV4>
        <IndexByIPD>true</IndexByIPD>
        <IndexByImsi>true</IndexByImsi>
        <IndexBySessionId>false</IndexBySessionId>
        <IndexByAddressV6>true</IndexByAddressV6>
        <Member>
            <Mra>MRA141</Mra>
            <BackUp>MRA140</BackUp>
            <PrimaryIP>201.20.xx.xx</PrimaryIP>
            <SecondaryIP></SecondaryIP>
            <Port>3868</Port>
            <WatchDogInterval>6</WatchDogInterval>
            <ReconnectDelay>3</ReconnectDelay>
            <ResponseTimeOut>5</ResponseTimeOut>
            <SctpEnabled>false</SctpEnabled>
            <NumberOfConnections>1</NumberOfConnections>
            <MaxNumberOfIncomingStreams>8</MaxNumberOfIncomingStreams>
            <MaxNumberOfOutgoingStreams>8</MaxNumberOfOutgoingStreams>
            <ConnectionInfo></ConnectionInfo>
            <ProtocolTimerProfile>protocolTimerProfile2</ProtocolTimerProfile>
        </Member>
        <Member>
            <Mra>MRA140</Mra>
            <BackUp>MRA141</BackUp>
            <PrimaryIP>101.10.xx.xx</PrimaryIP>
            <SecondaryIP></SecondaryIP>
            <Port>3868</Port>
            <WatchDogInterval>6</WatchDogInterval>
            <ReconnectDelay>3</ReconnectDelay>
            <ResponseTimeOut>5</ResponseTimeOut>
            <SctpEnabled>false</SctpEnabled>
            <NumberOfConnections>1</NumberOfConnections>
            <MaxNumberOfIncomingStreams>8</MaxNumberOfIncomingStreams>
            <MaxNumberOfOutgoingStreams>8</MaxNumberOfOutgoingStreams>
            <ConnectionInfo></ConnectionInfo>
            <ProtocolTimerProfile>protocolTimerProfile1</ProtocolTimerProfile>
        </Member>
        <Override>
            <SourceMra>MRA140</SourceMra>
            <DestinationMra>MRA141</DestinationMra>
            <PrimaryIP>1.1.xx.xx</PrimaryIP>
            <SecondaryIP>2.2.xx.xx</SecondaryIP>
            <Port>3868</Port>
            <WatchDogInterval>6</WatchDogInterval>
            <ReconnectDelay>3</ReconnectDelay>
            <ResponseTimeOut>5</ResponseTimeOut>
            <SctpEnabled>false</SctpEnabled>
            <NumberOfConnections>1</NumberOfConnections>
            <MaxNumberOfIncomingStreams>8</MaxNumberOfIncomingStreams>
            <MaxNumberOfOutgoingStreams>8</MaxNumberOfOutgoingStreams>
            <ConnectionInfo></ConnectionInfo>
        </Override>
        <IndexByAPN>
            <Name>apn1</Name>
            <Ipv4>false</Ipv4>
            <Ipv6>false</Ipv6>
            <Ipd>false</Ipd>
            <Username>false</Username>
            <Nai>false</Nai>
            <E164>false</E164>
            <Imsi>true</Imsi>
            <SessionId>false</SessionId>
```

```
        </IndexByAPN>
        <IndexByAPN>
            <Name>APN2</Name>
            <Ipv4>false</Ipv4>
            <Ipv6>false</Ipv6>
            <Ipd>false</Ipd>
            <Username>false</Username>
            <Nai>false</Nai>
            <E164>false</E164>
            <Imsi>true</Imsi>
            <SessionId>false</SessionId>
        </IndexByAPN>
        <PCD>
            <NetworkElement>networkelement2</NetworkElement>
            <PrimaryMra>MRA140</PrimaryMra>
            <SecondaryMra>MRA141</SecondaryMra>
        </PCD>
        <PCD>
            <NetworkElement>networkelement1</NetworkElement>
            <PrimaryMra>MRA140</PrimaryMra>
            <SecondaryMra>MRA141</SecondaryMra>
        </PCD>
    </MraAssociation>
    <MraAssociation>
        <Name>MRAAssocation2</Name>
        <Description>2</Description>
        <Type>Legacy</Type>
        <PrimaryIndex>E164</PrimaryIndex>
        <IndexByUsername>false</IndexByUsername>
        <IndexByNai>false</IndexByNai>
        <IndexByE164>true</IndexByE164>
        <IndexByAddressV4>false</IndexByAddressV4>
        <IndexByIPD>false</IndexByIPD>
        <IndexByImsi>false</IndexByImsi>
        <IndexBySessionId>false</IndexBySessionId>
        <IndexByAddressV6>true</IndexByAddressV6>
        <Member>
            <Mra>MRA143</Mra>
            <BackUp>MRA142</BackUp>
            <PrimaryIP>40.40.xx.xx</PrimaryIP>
            <SecondaryIP></SecondaryIP>
            <Port>3868</Port>
            <WatchDogInterval>6</WatchDogInterval>
            <ReconnectDelay>3</ReconnectDelay>
            <ResponseTimeOut>5</ResponseTimeOut>
            <SctpEnabled>false</SctpEnabled>
            <NumberOfConnections>1</NumberOfConnections>
            <MaxNumberOfIncomingStreams>8</MaxNumberOfIncomingStreams>
            <MaxNumberOfOutgoingStreams>8</MaxNumberOfOutgoingStreams>
            <ConnectionInfo></ConnectionInfo>
            <ProtocolTimerProfile>protocolTimerProfile3</ProtocolTimerProfile>
        </Member>
        <Member>
            <Mra>MRA142</Mra>
            <BackUp>MRA143</BackUp>
            <PrimaryIP>30.30.xx.xx</PrimaryIP>
            <SecondaryIP></SecondaryIP>
            <Port>3868</Port>
            <WatchDogInterval>6</WatchDogInterval>
            <ReconnectDelay>3</ReconnectDelay>
            <ResponseTimeOut>5</ResponseTimeOut>
            <SctpEnabled>false</SctpEnabled>
            <NumberOfConnections>1</NumberOfConnections>
            <MaxNumberOfIncomingStreams>8</MaxNumberOfIncomingStreams>
```

```
            <MaxNumberOfOutgoingStreams>8</MaxNumberOfOutgoingStreams>
            <ConnectionInfo></ConnectionInfo>
            <ProtocolTimerProfile>protocolTimerProfile2</ProtocolTimerProfile>
        </Member>
        <Override>
            <SourceMra>MRA143</SourceMra>
            <DestinationMra>MRA142</DestinationMra>
            <PrimaryIP>3.3.xx.xx</PrimaryIP>
            <SecondaryIP></SecondaryIP>
            <Port>3868</Port>
            <WatchDogInterval>6</WatchDogInterval>
            <ReconnectDelay>3</ReconnectDelay>
            <ResponseTimeOut>5</ResponseTimeOut>
            <SctpEnabled>false</SctpEnabled>
            <NumberOfConnections>1</NumberOfConnections>
            <MaxNumberOfIncomingStreams>8</MaxNumberOfIncomingStreams>
            <MaxNumberOfOutgoingStreams>8</MaxNumberOfOutgoingStreams>
            <ConnectionInfo></ConnectionInfo>
        </Override>
        <Override>
            <SourceMra>MRA142</SourceMra>
            <DestinationMra>MRA143</DestinationMra>
            <PrimaryIP>3.3.xx.xx</PrimaryIP>
            <SecondaryIP>2.2.xx.xx</SecondaryIP>
            <Port>3868</Port>
            <WatchDogInterval>6</WatchDogInterval>
            <ReconnectDelay>3</ReconnectDelay>
            <ResponseTimeOut>5</ResponseTimeOut>
            <SctpEnabled>false</SctpEnabled>
            <NumberOfConnections>1</NumberOfConnections>
            <MaxNumberOfIncomingStreams>8</MaxNumberOfIncomingStreams>
            <MaxNumberOfOutgoingStreams>8</MaxNumberOfOutgoingStreams>
            <ConnectionInfo></ConnectionInfo>
        </Override>
        <IndexByAPN>
            <Name>apn2</Name>
            <Ipv4>false</Ipv4>
            <Ipv6>false</Ipv6>
            <Ipd>false</Ipd>
            <Username>false</Username>
            <Nai>false</Nai>
            <E164>true</E164>
            <Imsi>false</Imsi>
            <SessionId>false</SessionId>
        </IndexByAPN>
        <IndexByAPN>
            <Name>APN3</Name>
            <Ipv4>false</Ipv4>
            <Ipv6>false</Ipv6>
            <Ipd>false</Ipd>
            <Username>false</Username>
            <Nai>false</Nai>
            <E164>true</E164>
            <Imsi>false</Imsi>
            <SessionId>false</SessionId>
        </IndexByAPN>
        <IndexByAPN>
            <Name>APN4</Name>
            <Ipv4>false</Ipv4>
            <Ipv6>false</Ipv6>
            <Ipd>false</Ipd>
            <Username>false</Username>
            <Nai>false</Nai>
            <E164>false</E164>
```

```
            <Imsi>true</Imsi>
            <SessionId>false</SessionId>
        </IndexByAPN>
        <PCD>
            <NetworkElement>networkelement4</NetworkElement>
            <PrimaryMra>MRA142</PrimaryMra>
            <SecondaryMra>MRA143</SecondaryMra>
        </PCD>
        <PCD>
            <NetworkElement>networkelement3</NetworkElement>
            <PrimaryMra>MRA142</PrimaryMra>
            <SecondaryMra>MRA143</SecondaryMra>
        </PCD>
    </MraAssociation>
</ConfigurationData>
```

MRA Associations Export Types

The types defined in the export.xsd for use in MRA association exports are:

- MraAssociationType
- UpdateMraAssociationType
- MraAssociationIndexByAPNType
- MraAssociationMemberType
- MraAssociationOverrideType
- MraAssociationPCDType

MRA Association Type

The following example shows the MraAssociationType defined in the export.xsd file.

```
<xsd:complexType name="MraAssociationType">
    <xsd:sequence>
       <xsd:element name="Name" type="xsd:string" minOccurs="1" maxOccurs="1"/>

        <xsd:element name="Description" type="xsd:string" minOccurs="0"
maxOccurs="1"/>
       <xsd:element name="Type" type="xsd:string" minOccurs="1" maxOccurs="1"/>

        <xsd:element name="PrimaryIndex" type="xsd:string" minOccurs="0"
maxOccurs="1"/>
        <xsd:element name="IndexByUsername" type="xsd:boolean" minOccurs="0"
maxOccurs="1" default="false"/>
        <xsd:element name="IndexByNai" type="xsd:boolean" minOccurs="0"
maxOccurs="1" default="false"/>
        <xsd:element name="IndexByE164" type="xsd:boolean" minOccurs="0"
maxOccurs="1" default="false"/>
        <xsd:element name="IndexByAddressV4" type="xsd:boolean" minOccurs="0"
maxOccurs="1" default="false"/>
        <xsd:element name="IndexByIPD" type="xsd:boolean" minOccurs="0"
maxOccurs="1" default="false"/>
        <xsd:element name="IndexByImsi" type="xsd:boolean" minOccurs="0"
maxOccurs="1" default="false"/>
        <xsd:element name="IndexBySessionId" type="xsd:boolean" minOccurs="0"
maxOccurs="1" default="false"/>
        <xsd:element name="IndexByAddressV6" type="xsd:boolean" minOccurs="0"
```

```
maxOccurs="1" default="false"/>
       <xsd:element name="Member" type="MraAssociationMemberType" minOccurs="0"
 maxOccurs="unbounded"/>
        <xsd:element name="Override" type="MraAssociationOverrideType"
minOccurs="0" maxOccurs="unbounded"/>
        <xsd:element name="IndexByAPN" type="MraAssociationIndexByAPNType"
minOccurs="0" maxOccurs="unbounded"/>
        <xsd:element name="PCD" type="MraAssociationPCDType" minOccurs="0"
maxOccurs="unbounded"/>
    </xsd:sequence>
</xsd:complexType>
```

Update MRA Association Type

The following example shows the UpdateMraAssociationType defined in the export.xsd file.

```
<xsd:complexType name="UpdateMraAssociationType">
    <xsd:sequence>
       <xsd:element name="Name" type="xsd:string" minOccurs="1" maxOccurs="1"/>

        <xsd:element name="Description" type="xsd:string" minOccurs="0"
maxOccurs="1"/>
       <xsd:element name="Type" type="xsd:string" minOccurs="0" maxOccurs="1"/>

        <xsd:element name="PrimaryIndex" type="xsd:string" minOccurs="0"
maxOccurs="1"/>
        <xsd:element name="IndexByUsername" type="xsd:boolean" minOccurs="0"
maxOccurs="1" default="false"/>
        <xsd:element name="IndexByNai" type="xsd:boolean" minOccurs="0"
maxOccurs="1" default="false"/>
        <xsd:element name="IndexByE164" type="xsd:boolean" minOccurs="0"
maxOccurs="1" default="false"/>
        <xsd:element name="IndexByAddressV4" type="xsd:boolean" minOccurs="0"
maxOccurs="1" default="false"/>
        <xsd:element name="IndexByIPD" type="xsd:boolean" minOccurs="0"
maxOccurs="1" default="false"/>
        <xsd:element name="IndexByImsi" type="xsd:boolean" minOccurs="0"
maxOccurs="1" default="false"/>
        <xsd:element name="IndexBySessionId" type="xsd:boolean" minOccurs="0"
maxOccurs="1" default="false"/>
        <xsd:element name="IndexByAddressV6" type="xsd:boolean" minOccurs="0"
maxOccurs="1" default="false"/>
        <xsd:element name="Member" type="UpdateMraAssociationMemberType"
minOccurs="0" maxOccurs="unbounded"/>
        <xsd:element name="Override" type="UpdateMraAssociationOverrideType"
minOccurs="0" maxOccurs="unbounded"/>
       <xsd:element name="IndexByAPN" type="UpdateMraAssociationIndexByAPNType"
 minOccurs="0" maxOccurs="unbounded"/>
       <xsd:element name="PCD" type="UpdateMraAssociationPCDType" minOccurs="0"
 maxOccurs="unbounded"/>
    </xsd:sequence>
</xsd:complexType>
```

MRA Association Index by APN Type

The following example shows the MraAssociationIndexByAPNType defined in the export.xsd file.

```
<xsd:complexType name="MraAssociationIndexByAPNType">
    <xsd:sequence>
       <xsd:element name="Name" type="xsd:string" minOccurs="1" maxOccurs="1"/>

        <xsd:element name="Ipv4" type="xsd:boolean" minOccurs="0" maxOccurs="1"
 default="false"/>
        <xsd:element name="Ipv6" type="xsd:boolean" minOccurs="0" maxOccurs="1"
 default="false"/>
        <xsd:element name="Ipd" type="xsd:boolean" minOccurs="0" maxOccurs="1"
default="false"/>
        <xsd:element name="Username" type="xsd:boolean" minOccurs="0"
maxOccurs="1" default="false"/>
        <xsd:element name="Nai" type="xsd:boolean" minOccurs="0" maxOccurs="1"
default="false"/>
        <xsd:element name="E164" type="xsd:boolean" minOccurs="0" maxOccurs="1"
 default="false"/>
        <xsd:element name="Imsi" type="xsd:boolean" minOccurs="0" maxOccurs="1"
 default="false"/>
        <xsd:element name="SessionId" type="xsd:boolean" minOccurs="0"
maxOccurs="1" default="false"/>
    </xsd:sequence>
```

MRA Association Member Type

The following example shows the MraAssociationMemberType defined in the export.xsd file.

```
<xsd:complexType name="MraAssociationMemberType">
    <xsd:sequence>
        <xsd:element name="Mra" type="xsd:string" minOccurs="1" maxOccurs="1"/>

       <xsd:element name="BackUp" type="xsd:string" minOccurs="1" maxOccurs="1"/>

        <xsd:element name="PrimaryIP" type="xsd:string" minOccurs="0"
maxOccurs="1"/>
        <xsd:element name="SecondaryIP" type="xsd:string" minOccurs="0"
maxOccurs="1"/>
        <xsd:element name="Port" type="xsd:int" minOccurs="0" maxOccurs="1"
default="0"/>
        <xsd:element name="WatchDogInterval" type="xsd:int" minOccurs="0"
maxOccurs="1" default="0"/>
        <xsd:element name="ReconnectDelay" type="xsd:int" minOccurs="0"
maxOccurs="1" default="0"/>
        <xsd:element name="ResponseTimeOut" type="xsd:int" minOccurs="0"
maxOccurs="1" default="0"/>
        <xsd:element name="SctpEnabled" type="xsd:boolean" minOccurs="0"
maxOccurs="1" default="false"/>
        <xsd:element name="NumberOfConnections" type="xsd:int" minOccurs="0"
maxOccurs="1" default="0"/>
        <xsd:element name="MaxNumberOfIncomingStreams" type="xsd:int"
minOccurs="0" maxOccurs="1" default="0"/>
        <xsd:element name="MaxNumberOfOutgoingStreams" type="xsd:int"
minOccurs="0" maxOccurs="1" default="0"/>
        <xsd:element name="ConnectionInfo" type="xsd:string" minOccurs="0"
maxOccurs="1"/>
       <xsd:element name="ProtocolTimerProfile" type="xsd:string" minOccurs="0"
```

```
 maxOccurs="1"/>
    </xsd:sequence>
</xsd:complexType>
```

MRA Association Override Type

The following example shows the MraAssociationOverrideType defined in the export.xsd file.

```
<xsd:complexType name="MraAssociationOverrideType">
    <xsd:sequence>
        <xsd:element name="SourceMra" type="xsd:string" minOccurs="1"
maxOccurs="1"/>
        <xsd:element name="DestinationMra" type="xsd:string" minOccurs="1"
maxOccurs="1"/>
        <xsd:element name="PrimaryIP" type="xsd:string" minOccurs="0"
maxOccurs="1"/>
        <xsd:element name="SecondaryIP" type="xsd:string" minOccurs="0"
maxOccurs="1"/>
        <xsd:element name="Port" type="xsd:int" minOccurs="0" maxOccurs="1"
default="0"/>
        <xsd:element name="WatchDogInterval" type="xsd:int" minOccurs="0"
maxOccurs="1" default="0"/>
        <xsd:element name="ReconnectDelay" type="xsd:int" minOccurs="0"
maxOccurs="1" default="0"/>
        <xsd:element name="ResponseTimeOut" type="xsd:int" minOccurs="0"
maxOccurs="1" default="0"/>
        <xsd:element name="SctpEnabled" type="xsd:boolean" minOccurs="0"
maxOccurs="1" default="false"/>
        <xsd:element name="NumberOfConnections" type="xsd:int" minOccurs="0"
maxOccurs="1" default="0"/>
        <xsd:element name="MaxNumberOfIncomingStreams" type="xsd:int"
minOccurs="0" maxOccurs="1" default="0"/>
        <xsd:element name="MaxNumberOfOutgoingStreams" type="xsd:int"
minOccurs="0" maxOccurs="1" default="0"/>
        <xsd:element name="ConnectionInfo" type="xsd:string" minOccurs="0"
maxOccurs="1"/>
    </xsd:sequence>
</xsd:complexType>
```

MRA Association PCD Type

The following example shows the MraAssociationPCDType defined in the export.xsd file.

```
<xsd:complexType name="MraAssociationPCDType">
    <xsd:sequence>
        <xsd:element name="NetworkElement" type="xsd:string" minOccurs="1"
maxOccurs="1"/>
        <xsd:element name="PrimaryMra" type="xsd:string" minOccurs="1"
maxOccurs="1"/>
        <xsd:element name="SecondaryMra" type="xsd:string" minOccurs="1"
maxOccurs="1"/>
    </xsd:sequence>
</xsd:complexType>
```

MRA Association Error Message Example

If an error occurs during export, the reason is included in the response message. For example, if referenced objects of an MRA association in the add/update OSSI request does not exist in the CMP, the MRA Association add/update fails and the error is included in the response . Here is an example:

```
<Response>
        <Result>0</Result>
        <Command type="XmlInterfaceResponse">
                <Success count="2">Successfully imported 2 MRA
Association(s).</Success>
                <Failure count="1">Failed to import 1 MRA Association(s).
ProtocolTimerProfile(protocolTimerProfileTest) not found in Members</Failure>
        </Command>
</Response>
```

Sample MRA Associations Export File

The following is an example of exported MRA associations.

```
<XmlInterfaceRequest>
    <AddMraAssociation>
        <MraAssociation>
            <Name>MRAAssocation1</Name>
            <Description>abcd</Description>
            <Type>Algov1</Type>
            <PrimaryIndex>IMSI</PrimaryIndex>
            <IndexByUsername>false</IndexByUsername>
            <IndexByNai>false</IndexByNai>
            <IndexByE164>false</IndexByE164>
            <IndexByAddressV4>false</IndexByAddressV4>
            <IndexByIPD>true</IndexByIPD>
            <IndexByImsi>true</IndexByImsi>
            <IndexBySessionId>false</IndexBySessionId>
            <IndexByAddressV6>true</IndexByAddressV6>
            <Member>
                <Mra>MRA141</Mra>
                <BackUp>MRA140</BackUp>
                <PrimaryIP>201.20.xx.xx</PrimaryIP>
                <SecondaryIP></SecondaryIP>
                <Port>3868</Port>
                <WatchDogInterval>6</WatchDogInterval>
                <ReconnectDelay>3</ReconnectDelay>
                <ResponseTimeOut>5</ResponseTimeOut>
                <SctpEnabled>false</SctpEnabled>
                <NumberOfConnections>1</NumberOfConnections>
                <MaxNumberOfIncomingStreams>8</MaxNumberOfIncomingStreams>
                <MaxNumberOfOutgoingStreams>8</MaxNumberOfOutgoingStreams>
                <ConnectionInfo></ConnectionInfo>
              <ProtocolTimerProfile>protocolTimerProfile2</ProtocolTimerProfile>

            </Member>
            <Member>
                <Mra>MRA140</Mra>
                <BackUp>MRA141</BackUp>
                <PrimaryIP>101.10.xx.xx</PrimaryIP>
                <SecondaryIP></SecondaryIP>
                <Port>3868</Port>
```

```
                <WatchDogInterval>6</WatchDogInterval>
                <ReconnectDelay>3</ReconnectDelay>
                <ResponseTimeOut>5</ResponseTimeOut>
                <SctpEnabled>false</SctpEnabled>
                <NumberOfConnections>1</NumberOfConnections>
                <MaxNumberOfIncomingStreams>8</MaxNumberOfIncomingStreams>
                <MaxNumberOfOutgoingStreams>8</MaxNumberOfOutgoingStreams>
                <ConnectionInfo></ConnectionInfo>
              <ProtocolTimerProfile>protocolTimerProfile1</ProtocolTimerProfile>

            </Member>
            <Override>
                <SourceMra>MRA140</SourceMra>
                <DestinationMra>MRA141</DestinationMra>
                <PrimaryIP>1.1.xx.xx</PrimaryIP>
                <SecondaryIP>2.2.xx.xx</SecondaryIP>
                <Port>3868</Port>
                <WatchDogInterval>6</WatchDogInterval>
                <ReconnectDelay>3</ReconnectDelay>
                <ResponseTimeOut>5</ResponseTimeOut>
                <SctpEnabled>false</SctpEnabled>
                <NumberOfConnections>1</NumberOfConnections>
                <MaxNumberOfIncomingStreams>8</MaxNumberOfIncomingStreams>
                <MaxNumberOfOutgoingStreams>8</MaxNumberOfOutgoingStreams>
                <ConnectionInfo></ConnectionInfo>
            </Override>
            <IndexByAPN>
                <Name>apn1</Name>
                <Ipv4>false</Ipv4>
                <Ipv6>false</Ipv6>
                <Ipd>false</Ipd>
                <Username>false</Username>
                <Nai>false</Nai>
                <E164>false</E164>
                <Imsi>true</Imsi>
                <SessionId>false</SessionId>
            </IndexByAPN>
            <IndexByAPN>
                <Name>APN2</Name>
                <Ipv4>false</Ipv4>
                <Ipv6>false</Ipv6>
                <Ipd>false</Ipd>
                <Username>false</Username>
                <Nai>false</Nai>
                <E164>false</E164>
                <Imsi>true</Imsi>
                <SessionId>false</SessionId>
            </IndexByAPN>
            <PCD>
                <NetworkElement>networkelement2</NetworkElement>
                <PrimaryMra>MRA140</PrimaryMra>
                <SecondaryMra>MRA141</SecondaryMra>
            </PCD>
            <PCD>
                <NetworkElement>networkelement1</NetworkElement>
                <PrimaryMra>MRA140</PrimaryMra>
                <SecondaryMra>MRA141</SecondaryMra>
            </PCD>
        </MraAssociation>
        <MraAssociation>
            <Name>MRAAssocation2</Name>
            <Description>2aaaaaa</Description>
            <Type>Legacy</Type>
            <PrimaryIndex>E164</PrimaryIndex>
```

```
            <IndexByUsername>false</IndexByUsername>
            <IndexByNai>false</IndexByNai>
            <IndexByE164>true</IndexByE164>
            <IndexByAddressV4>false</IndexByAddressV4>
            <IndexByIPD>false</IndexByIPD>
            <IndexByImsi>false</IndexByImsi>
            <IndexBySessionId>false</IndexBySessionId>
            <IndexByAddressV6>true</IndexByAddressV6>
            <Member>
                <Mra>MRA143</Mra>
                <BackUp>MRA142</BackUp>
                <PrimaryIP>22.2.xx.xx</PrimaryIP>
                <SecondaryIP></SecondaryIP>
                <Port>3868</Port>
                <WatchDogInterval>6</WatchDogInterval>
                <ReconnectDelay>3</ReconnectDelay>
                <ResponseTimeOut>5</ResponseTimeOut>
                <SctpEnabled>false</SctpEnabled>
                <NumberOfConnections>1</NumberOfConnections>
                <MaxNumberOfIncomingStreams>8</MaxNumberOfIncomingStreams>
                <MaxNumberOfOutgoingStreams>8</MaxNumberOfOutgoingStreams>
                <ConnectionInfo></ConnectionInfo>
                <ProtocolTimerProfile></ProtocolTimerProfile>
            </Member>
            <Member>
                <Mra>MRA142</Mra>
                <BackUp>MRA143</BackUp>
                <PrimaryIP>30.30.xx.xx</PrimaryIP>
                <SecondaryIP></SecondaryIP>
                <Port>3868</Port>
                <WatchDogInterval>6</WatchDogInterval>
                <ReconnectDelay>3</ReconnectDelay>
                <ResponseTimeOut>5</ResponseTimeOut>
                <SctpEnabled>false</SctpEnabled>
                <NumberOfConnections>1</NumberOfConnections>
                <MaxNumberOfIncomingStreams>8</MaxNumberOfIncomingStreams>
                <MaxNumberOfOutgoingStreams>8</MaxNumberOfOutgoingStreams>
                <ConnectionInfo></ConnectionInfo>
              <ProtocolTimerProfile>protocolTimerProfile2</ProtocolTimerProfile>

            </Member>
            <Override>
                <SourceMra>MRA143</SourceMra>
                <DestinationMra>MRA142</DestinationMra>
                <PrimaryIP>3.3.xx.xx</PrimaryIP>
                <SecondaryIP></SecondaryIP>
                <Port>3868</Port>
                <WatchDogInterval>6</WatchDogInterval>
                <ReconnectDelay>3</ReconnectDelay>
                <ResponseTimeOut>5</ResponseTimeOut>
                <SctpEnabled>false</SctpEnabled>
                <NumberOfConnections>1</NumberOfConnections>
                <MaxNumberOfIncomingStreams>8</MaxNumberOfIncomingStreams>
                <MaxNumberOfOutgoingStreams>8</MaxNumberOfOutgoingStreams>
                <ConnectionInfo></ConnectionInfo>
            </Override>
            <Override>
                <SourceMra>MRA142</SourceMra>
                <DestinationMra>MRA143</DestinationMra>
                <PrimaryIP>3.3.xx.xx</PrimaryIP>
                <SecondaryIP>2.2.22.2</SecondaryIP>
                <Port>3868</Port>
                <WatchDogInterval>6</WatchDogInterval>
                <ReconnectDelay>3</ReconnectDelay>
```

```
                <ResponseTimeOut>5</ResponseTimeOut>
                <SctpEnabled>false</SctpEnabled>
                <NumberOfConnections>1</NumberOfConnections>
                <MaxNumberOfIncomingStreams>8</MaxNumberOfIncomingStreams>
                <MaxNumberOfOutgoingStreams>8</MaxNumberOfOutgoingStreams>
                <ConnectionInfo></ConnectionInfo>
            </Override>
            <IndexByAPN>
                <Name>apn1</Name>
                <Ipv4>false</Ipv4>
                <Ipv6>false</Ipv6>
                <Ipd>false</Ipd>
                <Username>false</Username>
                <Nai>false</Nai>
                <E164>false</E164>
                <Imsi>true</Imsi>
                <SessionId>false</SessionId>
            </IndexByAPN>
            <IndexByAPN>
                <Name>apn2</Name>
                <Ipv4>false</Ipv4>
                <Ipv6>false</Ipv6>
                <Ipd>false</Ipd>
                <Username>false</Username>
                <Nai>false</Nai>
                <E164>true</E164>
                <Imsi>false</Imsi>
                <SessionId>false</SessionId>
            </IndexByAPN>
            <IndexByAPN>
                <Name>APN3</Name>
                <Ipv4>false</Ipv4>
                <Ipv6>false</Ipv6>
                <Ipd>false</Ipd>
                <Username>false</Username>
                <Nai>false</Nai>
                <E164>true</E164>
                <Imsi>false</Imsi>
                <SessionId>false</SessionId>
            </IndexByAPN>
            <IndexByAPN>
                <Name>APN4</Name>
                <Ipv4>false</Ipv4>
                <Ipv6>false</Ipv6>
                <Ipd>false</Ipd>
                <Username>false</Username>
                <Nai>false</Nai>
                <E164>false</E164>
                <Imsi>true</Imsi>
                <SessionId>false</SessionId>
            </IndexByAPN>
            <PCD>
                <NetworkElement>networkelement4</NetworkElement>
                <PrimaryMra>MRA142</PrimaryMra>
                <SecondaryMra>MRA143</SecondaryMra>
            </PCD>
            <PCD>
                <NetworkElement>networkelement3</NetworkElement>
                <PrimaryMra>MRA142</PrimaryMra>
                <SecondaryMra>MRA143</SecondaryMra>
            </PCD>
        </MraAssociation>
        <MraAssociation>
            <Name>MRAAssocationEmpty</Name>
```

```
            <Description>empty</Description>
            <Type>Algov1</Type>
            <PrimaryIndex>IMSI</PrimaryIndex>
            <IndexByUsername>false</IndexByUsername>
            <IndexByNai>false</IndexByNai>
            <IndexByE164>false</IndexByE164>
            <IndexByAddressV4>false</IndexByAddressV4>
            <IndexByIPD>false</IndexByIPD>
            <IndexByImsi>true</IndexByImsi>
            <IndexBySessionId>false</IndexBySessionId>
            <IndexByAddressV6>false</IndexByAddressV6>
        </MraAssociation>
    </AddMraAssociation>
</XmlInterfaceRequest>
```

Policies and Policy Groups

Using queries, you can perform the following operations on policies and policy groups using theOSSI interface:

- Add
- Delete
- Update (modify)
- Import and export

You can import and export policy rules and groups from third-party systems into the CMP database. Polices and policy groups can then be deployed to MPE devices (import) or sent to third-party systems (export).

The default CMP Administrator and Operator roles have the appropriate privileges to perform these operations. If you create a custom role to import and export policies and policy groups, it must include the following privileges:

- For Policy Management, the Policy Library must be set to Read, Deploy, and Write (but to export policies and policy groups, only Read privilege is required).
- For Policy Server, Configuration must be set to Read-Write.
- For Policy Server, Configuration Template must be set to Read-Write.

For more information on roles and privileges, see the *CMP User's Guide* appropriate for your mode of operation.

Add Policies and Policy Groups

Individual parameters defined for a policy are:

- Name: The name of the policy rule.
- Description: The policy rule that needs to be updated.
- Id: The identification number of the policy.
- Version: The version number of the policy.
- ActionValues: The action name that is referenced in ConditionVariables.
- ConditionValues: The condition name that is referenced in ConditionVariables.

- ConditionVariables: The definition and parameters of actions and conditions.
- Analytics (optional): true indicates that this policy supports PER. The default value is false.

Individual parameters defined for policy group are:

- Name: The name of policy group.
- Description: The policy group that needs to be updated.
- RootGroup: The value true indicates that this group is not a sub-group of any other group.
- ElementRef (optional): The policy or policy subgroup to be added.

Request

The following example show the request that is defined in the XSD files for the AddPolicy tag.

This request follows the AddPolicy tag defined in the XmlInterfaceRequest section of the XSD files.

```
<XmlInterfaceRequest>
  <AddPolicy>
    <Policy>
        <Name>sms</Name>
        <Description></Description>
        <Id>281474910241954</Id>
        <Version>1</Version>
        <ActionValues>OACT_27,MACT_2</ActionValues>
        <ConditionValues>REQ_31</ConditionValues>
        <ConditionVariables>REQ_31_0=creating a new
session=REQUESTTYPE_CREATE|OACT_27_0=how are you?</ConditionVariables>
        <Analytics>false</Analytics>
    </Policy>
    <Policy>
        <Name>WM_illimite_Usage_Threshold_Reached_Gy</Name>
        <Description></Description>
        <Id>281474976912407</Id>
        <Version>1</Version>
        <ActionValues>OACT_0,OACT_27,MACT_1</ActionValues>
        <ConditionValues>REQ_31,REQ_40</ConditionValues>
        <ConditionVariables>REQ_31_0=modifying an existing
session=REQUESTTYPE_MODIFY|REQ_40_0=a credit control
session=SESSIONTYPE_CREDITCONTROL|OACT_0_0=You have reached 80% of your WM
illimite quota###backslash###r###backslash###tabcd|OACT_27_0=You have reached
80% of your WM ILLIMITE QUOTA</ConditionVariables>
        <Analytics>false</Analytics>
    </Policy>
    <PolicyGroup>
        <Name>PolicyCode1_SS_HW</Name>
        <Description></Description>
        <RootGroup>false</RootGroup>
        <ElementRef>
            <Name>sms</Name>
            <SubGroup>false</SubGroup>
        </ElementRef>
        <ElementRef>
            <Name>WM_illimite_Usage_Threshold_Reached_Gy</Name>
            <SubGroup>false</SubGroup>
        </ElementRef>
    </PolicyGroup>
    <PolicyGroup>
        <Name>PolicyCode_SS_HW</Name>
        <Description></Description>
        <RootGroup>true</RootGroup>
        <ElementRef>
```

```
            <Name>PolicyCode1_SS_HW</Name>
            <SubGroup>true</SubGroup>
        </ElementRef>
    </PolicyGroup>
</AddPolicy>
</ XmlInterfaceRequest >
```

Update Policies and Policy Groups

The following example show the request that is defined in the XSD files for the UpdatePolicy tag.

Request

This request follows the UpdatePolicy tag defined in the XmlInterfaceRequest section of the XSD files.

Individual parameters defined for a policy are:

- Name: The name of the policy rule.
- Description: The policy rule that needs to be updated.
- Id: The identification number of the policy.
- Version: The version number of the policy.
- ActionValues: The action name that is referenced in ConditionVariables.
- ConditionValues: The condition name that is referenced in ConditionVariables.
- ConditionVariables: The definition and parameters of actions and conditions.
- Analytics (optional): true indicates that this policy supports PER. The default value is false.

Individual parameters defined for policy group are:

- Name: The name of policy group.
- Description: The policy group that needs to be updated.
- RootGroup: true indicates that this group is not a sub-group of any other group.
- ElementRef (optional): The policy that needs to be updated

```
<XmlInterfaceRequest>
  <UpdatePolicy>
    <Policy>
        <Name>sms</Name>
        <Description></Description>
        <Id>281474910241954</Id>
        <Version>1</Version>
        <ActionValues>OACT_27,MACT_2</ActionValues>
        <ConditionValues>REQ_31</ConditionValues>
        <ConditionVariables>REQ_31_0=creating a new
session=REQUESTTYPE_CREATE|OACT_27_0=how are you?</ConditionVariables>
        <Analytics>false</Analytics>
    </Policy>
    <Policy>
        <Name>Usage_Threshold_Reached</Name>
        <Description></Description>
        <Id>28147497690810</Id>
        <ActionValues>OACT_0,OACT_27,MACT_1</ActionValues>
        <ConditionValues>REQ_31,REQ_40</ConditionValues>
        <ConditionVariables>REQ_31_0=modifying an existing
session=REQUESTTYPE_MODIFY|REQ_40_0=a credit control
session=SESSIONTYPE_CREDITCONTROL|OACT_0_0=You have reached 80% of your WM
```

```
illimite quota###backslash###r###backslash###tabcd|OACT_27_0=You have reached
80% of your WM ILLIMITE QUOTA</ConditionVariables>
        <Analytics>false</Analytics>
    </Policy>
    <PolicyGroup>
        <Name>PolicyCode1_SS_HW</Name>
        <Description></Description>
        <RootGroup>false</RootGroup>
        <ElementRef>
            <Name>sms</Name>
            <SubGroup>false</SubGroup>
        </ElementRef>
        <ElementRef>
            <Name> Usage_Threshold_Reached</Name>
            <SubGroup>false</SubGroup>
        </ElementRef>
    </PolicyGroup>
    <PolicyGroup>
        <Name>PolicyCode_SS_COMPANY_Group</Name>
        <Description></Description>
        <RootGroup>true</RootGroup>
        <ElementRef>
            <Name>PolicyCode1_SS_COMPANY</Name>
            <SubGroup>false</SubGroup>
        </ElementRef>
    </PolicyGroup>
  </UpdatePolicy>
</ XmlInterfaceRequest >
```

Delete Policies and Policy Groups

The following examples show the request that are defined in the XSD files for the DeletePolicy tag.

Request

This request follows the DeletePolicy tag defined in the XmlInterfaceRequest section of the XSD files used for deleting multiple policies.

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<XmlInterfaceRequest>
  <DeletePolicy>
        <Name>sms</Name>
        <Name>Usage_Threshold_Reached_Gy </Name>
  </DeletePolicy>
</XmlInterfaceRequest>
```

This request follows the DeletePolicyGroup tag defined in the XmlInterfaceRequest section of the XSD files used for deleting a policy group. In this example, the policy group name is: PolicyCode1_SS_COMPANY_GROUP.

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<XmlInterfaceRequest>
  <DeletePolicyGroup>
          <Name>PolicyCode1_SS_COMPANY_GROUP</Name>
  </DeletePolicyGroup>
</ XmlInterfaceRequest >
```

The parameter defined for a policy or policy group is:

- Name: the name of an existing policy or policy group. When a policy group is removed, the member policies under the group are not removed until a corresponding DeletePolicy request is received.

Response

The response to this request follows the generic Response tag defined in the XSD files.

If the specified policy group does not exist, the system responds with the failure code phrase `Parameter error(5)`.

Add Policies to Policy Groups

The following example show the request that is defined in the XSD files for the AddPolicyToPolicyGroup tag.

Request

This request follows the XmlInterfaceRequest tag defined in the AddPolicyToGroup section of the XSD files.

```
<XmlInterfaceRequest>
  <AddPolicyToGroup>
      <PolicyGroup>
        <Name>PolicyCode1_SS_COMPANY</Name>
        <ElementRef>
            <Name>sms</Name>
            <RootGroup>true</RootGroup>
        </ElementRef>
        <ElementRef>
            <Name>PolicyCode1_SS_COMPANY_Group</Name>
            <SubGroup>true</SubGroup>
        </ElementRef>
      </PolicyGroup>
  </AddPolicyToGroup>
</XmlInterfaceRequest>
```

Remove Policies from Policy Groups

The following examples show the request that are defined in the XSD files for the RemovePolicyFromGroup tag.

Request

This request follows the RemovePolicyFromGroup tag defined in the XmlInterfaceRequest section of the XSD files used for deleting multiple policies.

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<XmlInterfaceRequest>
  <RemovePolicyFromGroup>
      <PolicyGroup>
        <Name>PolicyCode1_SS_COMPANY</Name>
```

```
        <RootGroup>true</RootGroup>
        <ElementRef>
            <Name>PolicyCode1_SS_COMPANY_Group</Name>
            <SubGroup>false</SubGroup>
        </ElementRef>
      </PolicyGroup>
  </RemovePolicyFromGroup>
</XmlInterfaceRequest>
```

Add Policies and Policy Groups to an MPE Server

The following example show the request that is defined in the XSD files for the AddPolicyToServer tag.

Request

This request follows the AddPolicyToServer tag defined in the XmlInterfaceRequest section of the XSD files.

Individual parameters defined for a policy or policy group are:

- Name

  The name of the MPE device (policy server). The value `ALL` indicates that the action is performed on all MPE devices.

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<XmlInterfaceRequest>
  <AddPolicyToServer>
     <PolicyServer>
       <Name>MPE-1</Name>
       <ElementRef>
          <Name>PolicyCode1_SS_ORACLE_Group</Name>
          <SubGroup>true</SubGroup>
       </ElementRef>
    </PolicyServer>
  </AddPolicyToServer>
</XmlInterfaceRequest>
```

Remove Policies and Policy Groups from an MPE Server

The following examples show the request that are defined in the XSD files for the RemovePolicyFromServer tag.

Request

This request follows the RemovePolicyFromServer tag defined in the XmlInterfaceRequest section of the XSD files used for deleting multiple policies.

Individual parameters defined for a policy are:

- Name: The name of the MPE device (policy server). The value ALL indicates that the action is to be performed on all MPE devices.

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<XmlInterfaceRequest>
  <RemovePolicyFromServer>
    <PolicyServer>
       <Name>MPE-1</Name>
       <ElementRef>
          <Name>PolicyCode1_SS_COMPANY_Group</Name>
          <SubGroup>true</SubGroup>
       </ElementRef>
    </PolicyServer>
  </RemovePolicyFromServer>
</XmlInterfaceRequest>
```

Add Policies and Policy Groups to an MPE Configuration Template

The following example show the request that is defined in the XSD files for the AddPolicyToTemplate tag.

Request

This request follows the AddPolicyToTemplate tag defined in the XmlInterfaceRequest section of the XSD files.

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<XmlInterfaceRequest>
  <AddPolicyToTemplate>
    <PolicyServerTemplate>
       <Name>MPE Template 1</Name>
       <ElementRef>
          <Name>PolicyCode1_SS_COMPANY_GROUP</Name>
          <SubGroup>true</SubGroup>
       </ElementRef>
    </PolicyServerTemplate>
  </AddPolicyToTemplate>
</XmlInterfaceRequest>
```

Remove Policies and Policy Groups from an MPE Configuration Template

The following examples show the request that are defined in the XSD files for the RemovePolicyFromTemplate tag.

Request

This request follows the RemovePolicyFromTemplate tag defined in the XmlInterfaceRequest section of the XSD files used for deleting multiple policies.

```
<XmlInterfaceRequest>
  <RemovePolicyFromTemplate>
     <PolicyServerTemplate>
```

```
       <Name>MPE Template 1</Name>
       <ElementRef>
          <Name>PolicyCode1_SS_COMPANY_GROUP</Name>
          <SubGroup>true</SubGroup>
       </ElementRef>
</PolicyServerTemplate>
  </RemovePolicyFromTemplate>
</XmlInterfaceRequest>
```

Import Policies and Policy Groups

The following example shows the request that is defined in the XSD files for the Policy tag.

Request

This request follows the Policy tag in the ConfigurationData section of the XSD files.

```
<ConfigurationData version="12.3.0" collision=”overwrite”>
    <Policy>
        <Name> PolicyCode_SS_COMPANY_SMS </Name>
        <Description></Description>
        <Id>281474908101954</Id>
        <Version>0</Version>
        <TableValues></TableValues>
        <ActionValues>OACT_27,MACT_2</ActionValues>
        <ConditionValues>REQ_31</ConditionValues>
        <ConditionVariables>REQ_31_0=creating a new
session=REQUESTTYPE_CREATE|OACT_27_0=how are you?</ConditionVariables>
        <Analytics>false</Analytics>
    </Policy>
    <Policy>
        <Name>PolicyCode_SS_COMPANY_Usage_Threshold_Reached_Gy</Name>
        <Description></Description>
        <Id>281474908101955</Id>
        <Version>0</Version>
        <TableValues></TableValues>
        <ActionValues>OACT_0,OACT_27,MACT_1</ActionValues>
        <ConditionValues>REQ_31,REQ_40</ConditionValues>
        <ConditionVariables>REQ_31_0=modifying an existing
session=REQUESTTYPE_MODIFY|REQ_40_0=a credit control
session=SESSIONTYPE_CREDITCONTROL|OACT_0_0=You have reached 80% of your WM
illimite quota###backslash###r###backslash###tabcd|OACT_27_0=You have reached
80% of your WM ILLIMITE QUOTA</ConditionVariables>
        <Analytics>false</Analytics>
    </Policy>
    <PolicyGroup>
        <Name>PolicyCode1_SS_COMPANY_COMPANY</Name>
        <Description></Description>
        <RootGroup>false</RootGroup>
        <ElementRef>
            <Name> PolicyCode_SS_COMPANY_SMS </Name>
            <SubGroup>false</SubGroup>
        </ElementRef>
        <ElementRef>
            <Name>PolicyCode_SS_COMPANY_Usage_Threshold_Reached_Gy</Name>
            <SubGroup>false</SubGroup>
        </ElementRef>
    </PolicyGroup>
```

```
    <PolicyGroup>
        <Name>PolicyCode_SS_ROOT_GROUP</Name>
        <Description></Description>
        <RootGroup>true</RootGroup>
        <ElementRef>
            <Name>PolicyCode1_SS_COMPANY_GROUP</Name>
            <SubGroup>true</SubGroup>
        </ElementRef>
    </PolicyGroup>
</ConfigurationData>
```

Note: The collision attribute is added for handling the collisions between import items and existing items. The available values are:

- deleteall

  Delete all policies and group before importing. It has the same behavior with Import option Delete all before importing in GUI.

- overwrite

  Overwrite Policy items if they exist.

Note: If dependent configuration objects are available, the system will import or export dependent configuration in the order of first to last. The sequence of different kinds of configuration is described in *Table 3: Dependent Configuration Object Import/Export Order*. If a dependent configuration already exists in the system, the update operation will be done on a corresponding configuration. The corresponding privileges are required for deploying an imported dependent configuration.

Table 3: Dependent Configuration Object Import/Export Order

Configuration Name	Description	Import/Export Order
Notification server	Notification Servers	1
Vendor	Customer Vendors	2
Monitoring key	Monitoring Keys	3
PRA list	Presence Reporting Area Lists	4
Token list	Match Lists	5
Quota convention	Quota Conventions	6
Time period	Time Periods	7
Charging Server	Charging Servers	8
Retry profile	Retry Profiles	9
Policy counter id	Policy Counter ID	10
Policy counter id group	Policy Counter ID group	11
Radiuscoa template	RADIUS CoA Template	12
AVP definition	Customer AVP Definitions	13
Quota	Plan and Pass	14

Configuration Name	Description	Import/Export Order
Service profile	Service Profiles	15
Service profile group	Service Profiles group	16
Qos profile	Traffic Profiles	17
Qos profile group	Traffic Profiles group	18
Roaming profile	Roaming profiles	19
Policy table data	Policy Table Library	20
Policy	Policy Library	21
Policy Group	Policy Library Group	22

Export Policies and Policy Groups

The following example show the request that is defined in the XSD files for the QueryPolicy tag.

QueryPolicy Request

This request follows the QueryPolicy tag in the XmlInterfaceRequest section of the XSD files.

Individual parameters defined for a policy are:

- includeDependencies (optional)

  Specifies whether or not the response includes dependent profiles as described in *Table 3: Dependent Configuration Object Import/Export Order*.

- Name (optional)

  The name of the policy to export. If not specified, all policies and policy groups are returned.

```
<XmlInterfaceRequest>
  <QueryPolicy includeDependencies="yes">
    <Name>PolicyCode_SS_COMPANY</Name>
  </QueryPolicy>
</XmlInterfaceRequest>
```

QueryPolicyGroup Request

This request follows the QueryPolicyGroup tag in the XmlInterfaceRequest section of the XSD files.

Individual parameters defined for a policy group are:

- includeDependencies (optional)

  Specifies whether or not the response includes dependent profiles as described in *Table 3: Dependent Configuration Object Import/Export Order*.

- Name (optional)

The name of the policy group to export. If not specified, all policy groups are returned.

```
<XmlInterfaceRequest>
  <QueryPolicyGroup includeDependencies="yes">
    <Name>PolicyCode_SS_COMPANY_Group</Name>
  </QueryPolicyGroup>
</XmlInterfaceRequest>
```

Response

The response to this request follows the ConfigurationData tag in the PolicyTag section of the XSD files.

```
<ConfigurationData version="12.3.0">
    <Policy>
        <Name>PolicyCode_SS_COMPANY_SMS</Name>
        <Description></Description>
        <ActionValues>OACT_27,MACT_2</ActionValues>
        <ConditionValues>REQ_31</ConditionValues>
        <ConditionVariables>REQ_31_0=creating a new
session=REQUESTTYPE_CREATE|OACT_27_0=how are you?</ConditionVariables>
        <Analytics>false</Analytics>
    </Policy>
    <Policy>
        <Name>PolicyCode_SS_COMPANY_Usage_Threshold_Reached_Gy</Name>
        <Description></Description>
        <ActionValues>OACT_0,OACT_27,MACT_1</ActionValues>
        <ConditionValues>REQ_31,REQ_40</ConditionValues>
        <ConditionVariables>REQ_31_0=modifying an existing
session=REQUESTTYPE_MODIFY|REQ_40_0=a credit control
session=SESSIONTYPE_CREDITCONTROL|OACT_0_0=You have reached 80% of your WM
illimite quota###backslash###r###backslash###tabcd|OACT_27_0=You have reached
80% of your WM ILLIMITE QUOTA</ConditionVariables>
        <Analytics>false</Analytics>
    </Policy>
    <PolicyGroup>
        <Name>PolicyCode1_SS_COMPANY_Group</Name>
        <Description></Description>
        <RootGroup>true</RootGroup>
        <ElementRef>
            <Name> PolicyCode_SS_COMPANY_SMS </Name>
            <SubGroup>false</SubGroup>
        </ElementRef>
        <ElementRef>
            <Name>PolicyCode_SS_COMPANY_ Usage_Threshold_Reached _Gy</Name>
            <SubGroup>false</SubGroup>
        </ElementRef>
    </PolicyGroup>
    </PolicyGroup>
</ConfigurationData>
```

If any policy in the response depends on other configuration objects (as described in *Table 3: Dependent Configuration Object Import/Export Order*), either directly or indirectly, the dependencies are included in the response. Recursive dependency search is supported. For example, if the policy exported has references to the policy table PolicyTableWithFramedIPv6MatchLists, and this policy table also depends

on the quota profile MonthlyQuota1, both the policy table and the quota profile will be included in the response and returned together.

```
  <ConfigurationData version="12.3.0">
   <Policy>
      <Name>testno2</Name>
      <Description/>
      <Id>281474981311206</Id>
      <Version>1</Version>
      <TableValues>TASS_0</TableValues>
      <ActionValues>OACT_ANCHORAGE_01,MACT_2</ActionValues>
      <ConditionValues>REQ_41</ConditionValues>

<ConditionVariables>TASS_0_0=PolicyTableWithFramedIPv6MatchLists|TASS_0_1=no|REQ_41_0=an
 IP-CAN
session=ENFSESSIONTYPE_IP_CAN|OACT_ANCHORAGE_01_1=POST=POST|OACT_ANCHORAGE_01_0=
http###colon###//10.113.12.61/mi|OACT_ANCHORAGE_01_2=application-type###colon###
xml|OACT_ANCHORAGE_01_3=[no.n1]=###TABLEDRIVEN###no.n1</ConditionVariables>
      <Analytics>false</Analytics>
   </Policy>    <PolicyTableData>
      <Name>PolicyTableWithFramedIPv6MatchLists</Name>
      <Description/>
      <DefaultPolicyId/>
      <PtType>Pt</PtType>
      <Table>
         <Header>
            <Field Field="FramedIPMatchList" Key="true" Type="tokenListName"
MatchingDelimiterKey="false" MatchingDelimiterValue=""
MatchingOperationAlgorithm="Matchlist">User.IP</Field>
            <Field Field="Quota" Key="false" Type="quotaName"/>
            <Field Field="MonitoringKey" Key="false" Type="monitoringKey"/>
            <Field Field="n1" Key="false" Type="notificationContent"
MatchingDelimiterKey="false" MatchingDelimiterValue=""
MatchingOperationAlgorithm=""/>
         </Header>
         <Record Name="1443713798309">
            <Field Field="FramedIPMatchList">IPv6_Prefixes_1</Field>
            <Field Field="Quota">MonthlyQuota1</Field>
            <Field Field="MonitoringKey">key1</Field>
            <Field
Field="n1">###doublequotes###ddddd###doublequotes######NEWLINE######NEWLINE######
NEWLINE###dddd</Field>
         </Record>
         <Record Name="1443713872489">
            <Field Field="FramedIPMatchList">IPv6_Prefixes_2</Field>
            <Field Field="Quota">MonthlyQuota2</Field>
            <Field Field="MonitoringKey">key2</Field>
            <Field Field="n1">###doublequotes###ddddd###doublequotes###</Field>

         </Record>
         <Record Name="1443714087938">
            <Field Field="FramedIPMatchList">IPv6_Prefixes_3</Field>
            <Field Field="Quota">MonthlyQuota3</Field>
            <Field Field="MonitoringKey">key3</Field>
            <Field Field="n1">###doublequotes###ddddd###doublequotes###</Field>

         </Record>
         <Record Name="1443714103281">
            <Field Field="FramedIPMatchList">IPv6_Prefixes_4</Field>
            <Field Field="Quota">MonthlyQuota4</Field>
            <Field Field="MonitoringKey">key4</Field>
            <Field Field="n1">###doublequotes###ddddd###doublequotes###</Field>
```

```
         </Record>
         <Record Name="1443714122185">
            <Field Field="FramedIPMatchList">IPv6_Prefixes_5</Field>
            <Field Field="Quota">MonthlyQuota5</Field>
            <Field Field="MonitoringKey">key5</Field>
            <Field Field="n1">###doublequotes###ddddd###doublequotes###</Field>

         </Record>
         <Record Name="1443714138970">
            <Field Field="FramedIPMatchList">IPv6_Prefixes_6</Field>
            <Field Field="Quota">MonthlyQuota6</Field>
            <Field Field="MonitoringKey">key6</Field>
            <Field Field="n1">###doublequotes###ddddd###doublequotes###</Field>

         </Record>
         <Record Name="1443714155937">
            <Field Field="FramedIPMatchList">IPv6_Prefixes_7</Field>
            <Field Field="Quota">MonthlyQuota7</Field>
            <Field Field="MonitoringKey">key7</Field>
            <Field Field="n1">###doublequotes###ddddd###doublequotes###</Field>

         </Record>
         <Record Name="1443714176817">
            <Field Field="FramedIPMatchList">IPv6_Prefixes_8</Field>
            <Field Field="Quota">MonthlyQuota8</Field>
            <Field Field="MonitoringKey">key8</Field>
            <Field Field="n1">###doublequotes###ddddd###doublequotes###</Field>

         </Record>
         <Record Name="1443714197041">
            <Field Field="FramedIPMatchList">IPv6_Prefixes_9</Field>
            <Field Field="Quota">MonthlyQuota9</Field>
            <Field Field="MonitoringKey">key9</Field>
            <Field Field="n1">###doublequotes###ddddd###doublequotes###</Field>

         </Record>
         <Record Name="1443714216787">
            <Field Field="FramedIPMatchList">IPv6_Prefixes_10</Field>
            <Field Field="Quota">MonthlyQuota10</Field>
            <Field Field="MonitoringKey">key10</Field>
            <Field Field="n1">###doublequotes###ddddd###doublequotes###</Field>

         </Record>
      </Table>
   </PolicyTableData>
</ConfigurationData>
```

Chapter 2

Subscriber Interface for Wireless Mode

Topics:

The subscriber interface enables wireless users to manage and query subscriber elements within their system. In wireless mode subscriber data includes quota profiles, quota conventions, and field mapping profile queries.

Quota Profiles

A quota sets limits on a subscriber's usage; the quota profile defines a specific quota.

- Quota rollovers (rollovers) allow subscribers to carry forward unused units from one billing cycle to another.
- Quota top-ups (top-ups) allow a subscriber to obtain additional units for an existing plan.
- Quota passes (passes) allow subscribers to access resources beyond the scope of their normal plan.

Add Quota Profile

Add Quota Plan

The following examples show the request and response that are defined in the XSD files for the AddQuota tag.

Quota Plan Request

This request follows the AddQuota tag defined in the XSD files.

The following example creates two quotas:

- Quota1:
  - QuotaType is 0
  - EnableDynamicGrant is true
  - MaxSessionsUsedForDynamicGrant is 20
  - MinGrantSize is 3
- Quota2:
  - QuotaType is 1
  - EnableDynamicGrant is false
  - MaxSessionsUsedForDynamicGrant is 10
  - MinGrantSize is 0

```
<XmlInterfaceRequest>
    <AddQuota>
        <Quota>
            <Name>quota1</Name>
            <Description></Description>
            <LimitTotalVolume>false</LimitTotalVolume>
            <LimitUpVolume>false</LimitUpVolume>
            <LimitDownVolume>false</LimitDownVolume>
            <TotalVolumeLimit>0</TotalVolumeLimit>
            <UpVolumeLimit>0</UpVolumeLimit>
            <DownVolumeLimit>0</DownVolumeLimit>
            <LimitTime>false</LimitTime>
            <TimeLimit>0</TimeLimit>
            <LimitEvent>false</LimitEvent>
            <EventLimit>0</EventLimit>
```

```
            <ReplenishingFrequency>0</ReplenishingFrequency>
            <VolumeThresholdPercentage>0.0</VolumeThresholdPercentage>
            <TimeThresholdPercentage>0.0</TimeThresholdPercentage>
            <EventThresholdPercentage>0.0</EventThresholdPercentage>
            <EnableInterimReporting>false</EnableInterimReporting>
            <InterimReportingInterval>0</InterimReportingInterval>
            <QuotaExhaustionAction>0</QuotaExhaustionAction>
            <RedirectServerType>1</RedirectServerType>
            <QuotaResetIntervalType>1</QuotaResetIntervalType>
            <QuotaResetDayOfWeek>0</QuotaResetDayOfWeek>
            <QuotaResetTimeOfDay></QuotaResetTimeOfDay>
            <QuotaResetTimeVariable>0</QuotaResetTimeVariable>
            <QuotaReportOffsetLimit>0</QuotaReportOffsetLimit>
            <QuotaType>0</QuotaType>
            <MaxLeakageThreshold>1</MaxLeakageThreshold>
            <EnableDynamicGrant>true</EnableDynamicGrant>
            <MaxSessionsUsedForDynamicGrant>20</MaxSessionsUsedForDynamicGrant>

            <MinGrantSize>3</MinGrantSize>
        </Quota>
        <Quota>
            <Name>quota2</Name>
            <Description></Description>
            <LimitTotalVolume>false</LimitTotalVolume>
            <LimitUpVolume>false</LimitUpVolume>
            <LimitDownVolume>false</LimitDownVolume>
            <TotalVolumeLimit>0</TotalVolumeLimit>
            <UpVolumeLimit>0</UpVolumeLimit>
            <DownVolumeLimit>0</DownVolumeLimit>
            <LimitTime>false</LimitTime>
            <TimeLimit>0</TimeLimit>
            <LimitEvent>false</LimitEvent>
            <EventLimit>0</EventLimit>
            <ReplenishingFrequency>0</ReplenishingFrequency>
            <VolumeThresholdPercentage>0.0</VolumeThresholdPercentage>
            <TimeThresholdPercentage>0.0</TimeThresholdPercentage>
            <EventThresholdPercentage>0.0</EventThresholdPercentage>
            <EnableInterimReporting>false</EnableInterimReporting>
            <InterimReportingInterval>0</InterimReportingInterval>
            <QuotaExhaustionAction>0</QuotaExhaustionAction>
            <RedirectServerType>1</RedirectServerType>
            <QuotaResetIntervalType>1</QuotaResetIntervalType>
            <QuotaResetDayOfWeek>0</QuotaResetDayOfWeek>
            <QuotaResetTimeOfDay></QuotaResetTimeOfDay>
            <QuotaResetTimeVariable></QuotaResetTimeVariable>
            <QuotaReportOffsetLimit>0</QuotaReportOffsetLimit>
            <QuotaType>1</QuotaType>
            <MaxLeakageThreshold>1</MaxLeakageThreshold>
            <EnableDynamicGrant>false</EnableDynamicGrant>
            <MaxSessionsUsedForDynamicGrant>10</MaxSessionsUsedForDynamicGrant>

            <MinGrantSize>0</MinGrantSize>
        </Quota>
    </AddQuota>
</XmlInterfaceRequest>
```

Quota Plan Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
```

```
   <Result>0</Result>
      <Command type="XmlInterfaceResponse">
         <Success count="2">Successfully imported 2 quota(s).</Success>
         <Failure count="0"></Failure>
      </Command>
</Response>
```

Add Quota Pass

The following example creates two dynamic quota passes:

- dayPass
  - DynamicQuotaType is 1
  - Priority is 10
  - LimitTotalVolume is true
  - TotalVolumeLimit is 1,000,000
- pass1
  - DynamicQuotaType is 1
  - Priority is 0
  - LimitTotalVolume is false
  - TotalVolumeLimit is 0

Quota Pass Request

This request follows the AddQuota tag defined in the XSD files.

```
<XmlInterfaceRequest>
    <AddQuota>
        <Quota>
            <Name>dayPass</Name>
            <Description></Description>
            <DynamicQuotaType>1</DynamicQuotaType>
            <Priority>10</Priority>
            <LimitTotalVolume>true</LimitTotalVolume>
            <LimitUpVolume>false</LimitUpVolume>
            <LimitDownVolume>false</LimitDownVolume>
            <TotalVolumeLimit>1000000</TotalVolumeLimit>
            <UpVolumeLimit>0</UpVolumeLimit>
            <DownVolumeLimit>0</DownVolumeLimit>
            <LimitTime>false</LimitTime>
            <TimeLimit>0</TimeLimit>
            <LimitEvent>false</LimitEvent>
            <EventLimit>0</EventLimit>
            <ReplenishingFrequency>0</ReplenishingFrequency>
            <VolumeThresholdPercentage>0.0</VolumeThresholdPercentage>
            <TimeThresholdPercentage>0.0</TimeThresholdPercentage>
            <EventThresholdPercentage>0.0</EventThresholdPercentage>
            <EnableInterimReporting>false</EnableInterimReporting>
            <InterimReportingInterval>0</InterimReportingInterval>
            <QuotaExhaustionAction>0</QuotaExhaustionAction>
            <RedirectServerType>1</RedirectServerType>
            <QuotaResetIntervalType>1</QuotaResetIntervalType>
            <QuotaResetDayOfMonth>0</QuotaResetDayOfMonth>
            <QuotaResetDayOfWeek>0</QuotaResetDayOfWeek>
```

```
            <QuotaResetTimeOfDay></QuotaResetTimeOfDay>
            <QuotaReportOffsetLimit>0</QuotaReportOffsetLimit>
            <QuotaType>1</QuotaType>
            <MaxLeakageThreshold>0</MaxLeakageThreshold>
            <EnableDynamicGrant>false</EnableDynamicGrant>
            <MaxSessionsUsedForDynamicGrant>0</MaxSessionsUsedForDynamicGrant>
            <MinGrantSize>0</MinGrantSize>
            <DurationUnitType>2</DurationUnitType>
            <DurationUnit>0</DurationUnit>
            <ActiveTimePeriod></ActiveTimePeriod>
            <QuotaConvention></QuotaConvention>
        </Quota>
        <Quota>
            <Name>pass1</Name>
            <Description></Description>
            <DynamicQuotaType>1</DynamicQuotaType>
            <Priority>0</Priority>
            <LimitTotalVolume>false</LimitTotalVolume>
            <LimitUpVolume>false</LimitUpVolume>
            <LimitDownVolume>false</LimitDownVolume>
            <TotalVolumeLimit>0</TotalVolumeLimit>
            <UpVolumeLimit>0</UpVolumeLimit>
            <DownVolumeLimit>0</DownVolumeLimit>
            <LimitTime>false</LimitTime>
            <TimeLimit>0</TimeLimit>
            <LimitEvent>false</LimitEvent>
            <EventLimit>0</EventLimit>
            <ReplenishingFrequency>0</ReplenishingFrequency>
            <VolumeThresholdPercentage>0.0</VolumeThresholdPercentage>
            <TimeThresholdPercentage>0.0</TimeThresholdPercentage>
            <EventThresholdPercentage>0.0</EventThresholdPercentage>
            <EnableInterimReporting>false</EnableInterimReporting>
            <InterimReportingInterval>0</InterimReportingInterval>
            <QuotaExhaustionAction>0</QuotaExhaustionAction>
            <RestrictionFilters></RestrictionFilters>
            <FilterIdList></FilterIdList>
            <RedirectServerType>1</RedirectServerType>
            <RedirectServerAddress></RedirectServerAddress>
            <QuotaResetIntervalType>1</QuotaResetIntervalType>
            <QuotaResetDayOfMonth>0</QuotaResetDayOfMonth>
            <QuotaResetDayOfWeek>0</QuotaResetDayOfWeek>
            <QuotaResetTimeOfDay></QuotaResetTimeOfDay>
            <QuotaReportOffsetLimit>0</QuotaReportOffsetLimit>
            <QuotaType>1</QuotaType>
            <MaxLeakageThreshold>0</MaxLeakageThreshold>
            <EnableDynamicGrant>false</EnableDynamicGrant>
            <MaxSessionsUsedForDynamicGrant>0</MaxSessionsUsedForDynamicGrant>
            <MinGrantSize>0</MinGrantSize>
            <DurationUnitType>2</DurationUnitType>
            <DurationUnit>0</DurationUnit>
            <ActiveTimePeriod></ActiveTimePeriod>
            <QuotaConvention></QuotaConvention>
        </Quota>
    </AddQuota>
</XmlInterfaceRequest>
```

Quota Pass Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
```

```
        <Result>0</Result>
        <Command type="XmlInterfaceResponse">
                <Success count="2">Successfully imported 2 quota
convention(s).</Success>
                <Failure count="0"></Failure>
        </Command>
</Response>
```

Update Quota Profile

Update Quota Plan

The following examples show the request and response that are defined in the XSD files for the UpdateQuota tag.

Quota Plan Request

This request follows the UpdateQuota tag defined in the XSD files.

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<XmlInterfaceRequest>
    <UpdateQuota>
        <Quota>
            <Name>quota1</Name>
            <Description></Description>
            <LimitTotalVolume>false</LimitTotalVolume>
            <LimitUpVolume>false</LimitUpVolume>
            <LimitDownVolume>false</LimitDownVolume>
            <TotalVolumeLimit>0</TotalVolumeLimit>
            <UpVolumeLimit>0</UpVolumeLimit>
            <DownVolumeLimit>0</DownVolumeLimit>
            <LimitTime>false</LimitTime>
            <TimeLimit>0</TimeLimit>
            <LimitEvent>false</LimitEvent>
            <EventLimit>0</EventLimit>
            <ReplenishingFrequency>0</ReplenishingFrequency>
            <VolumeThresholdPercentage>0.0</VolumeThresholdPercentage>
            <TimeThresholdPercentage>0.0</TimeThresholdPercentage>
            <EventThresholdPercentage>0.0</EventThresholdPercentage>
            <EnableInterimReporting>false</EnableInterimReporting>
            <InterimReportingInterval>0</InterimReportingInterval>
            <QuotaExhaustionAction>0</QuotaExhaustionAction>
            <RedirectServerType>1</RedirectServerType>
            <QuotaResetIntervalType>1</QuotaResetIntervalType>
            <QuotaResetDayOfWeek>0</QuotaResetDayOfWeek>
            <QuotaResetTimeOfDay></QuotaResetTimeOfDay>
            <QuotaResetTimeVariable>d</QuotaResetTimeVariable>
            <QuotaReportOffsetLimit>30</QuotaReportOffsetLimit>
            <QuotaType>0</QuotaType>
            <MaxLeakageThreshold>1</MaxLeakageThreshold>
            <EnableDynamicGrant>true</EnableDynamicGrant>
            <MaxSessionsUsedForDynamicGrant>20</MaxSessionsUsedForDynamicGrant>

            <MinGrantSize>3</MinGrantSize>
        </Quota>
        <Quota>
            <Name>p1</Name>
            <Description></Description>
```

```
            <LimitTotalVolume>false</LimitTotalVolume>
            <LimitUpVolume>false</LimitUpVolume>
            <LimitDownVolume>false</LimitDownVolume>
            <TotalVolumeLimit>0</TotalVolumeLimit>
            <UpVolumeLimit>0</UpVolumeLimit>
            <DownVolumeLimit>0</DownVolumeLimit>
            <LimitTime>false</LimitTime>
            <TimeLimit>0</TimeLimit>
            <LimitEvent>false</LimitEvent>
            <EventLimit>0</EventLimit>
            <ReplenishingFrequency>0</ReplenishingFrequency>
            <VolumeThresholdPercentage>0.0</VolumeThresholdPercentage>
            <TimeThresholdPercentage>0.0</TimeThresholdPercentage>
            <EventThresholdPercentage>0.0</EventThresholdPercentage>
            <EnableInterimReporting>false</EnableInterimReporting>
            <InterimReportingInterval>0</InterimReportingInterval>
            <QuotaExhaustionAction>0</QuotaExhaustionAction>
            <RedirectServerType>1</RedirectServerType>
            <QuotaResetIntervalType>2</QuotaResetIntervalType>
            <QuotaResetDayOfWeek>0</QuotaResetDayOfWeek>
            <QuotaResetTimeOfDay></QuotaResetTimeOfDay>
            <QuotaResetTimeVariable></QuotaResetTimeVariable>
            <QuotaReportOffsetLimit>0</QuotaReportOffsetLimit>
            <QuotaType>1</QuotaType>
            <MaxLeakageThreshold>1</MaxLeakageThreshold>
            <EnableDynamicGrant>false</EnableDynamicGrant>
            <MaxSessionsUsedForDynamicGrant>10</MaxSessionsUsedForDynamicGrant>

            <MinGrantSize>0</MinGrantSize>
        </Quota>
    </UpdateQuota>
</XmlInterfaceRequest>
```

Quota Plan Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
  <Result>0</Result>
    <Command type="XmlInterfaceResponse">
      <Success count="1">Successfully updated 2 quota.</Success>
      <Failure count="0"></Failure>
    </Command>
</Response>
```

Update Quota Pass

The following example updates a dynamic quota with two passes:

- dayPass
  - DynamicQuotaType = 1
  - Priority = 10
  - LimitTotalVolume = true
  - TotalVolumeLimit = 1,000,000
- pass1
  - DynamicQuotaType = 1

- Priority = 0
- LimitTotalVolume = false
- TotalVolumeLimit = 0

Quota Pass Request

This request follows the UpdateQuota tag defined in the XSD files.

```
<XmlInterfaceRequest>
    <UpdateQuota>
        <Quota>
            <Name>dayPass</Name>
            <Description></Description>
            <DynamicQuotaType>1</DynamicQuotaType>
            <Priority>10</Priority>
            <LimitTotalVolume>true</LimitTotalVolume>
            <LimitUpVolume>false</LimitUpVolume>
            <LimitDownVolume>false</LimitDownVolume>
            <TotalVolumeLimit>1000000</TotalVolumeLimit>
            <UpVolumeLimit>0</UpVolumeLimit>
            <DownVolumeLimit>0</DownVolumeLimit>
            <LimitTime>false</LimitTime>
            <TimeLimit>0</TimeLimit>
            <LimitEvent>false</LimitEvent>
            <EventLimit>0</EventLimit>
            <ReplenishingFrequency>0</ReplenishingFrequency>
            <VolumeThresholdPercentage>0.0</VolumeThresholdPercentage>
            <TimeThresholdPercentage>0.0</TimeThresholdPercentage>
            <EventThresholdPercentage>0.0</EventThresholdPercentage>
            <EnableInterimReporting>false</EnableInterimReporting>
            <InterimReportingInterval>0</InterimReportingInterval>
            <QuotaExhaustionAction>0</QuotaExhaustionAction>
            <RedirectServerType>1</RedirectServerType>
            <QuotaResetIntervalType>1</QuotaResetIntervalType>
            <QuotaResetDayOfMonth>0</QuotaResetDayOfMonth>
            <QuotaResetDayOfWeek>0</QuotaResetDayOfWeek>
            <QuotaResetTimeOfDay></QuotaResetTimeOfDay>
            <QuotaReportOffsetLimit>0</QuotaReportOffsetLimit>
            <QuotaType>1</QuotaType>
            <MaxLeakageThreshold>0</MaxLeakageThreshold>
            <EnableDynamicGrant>false</EnableDynamicGrant>
            <MaxSessionsUsedForDynamicGrant>0</MaxSessionsUsedForDynamicGrant>
            <MinGrantSize>0</MinGrantSize>
            <DurationUnitType>2</DurationUnitType>
            <DurationUnit>0</DurationUnit>
            <ActiveTimePeriod></ActiveTimePeriod>
            <QuotaConvention></QuotaConvention>
        </Quota>
        <Quota>
            <Name>pass1</Name>
            <Description></Description>
            <DynamicQuotaType>1</DynamicQuotaType>
            <Priority>0</Priority>
            <LimitTotalVolume>false</LimitTotalVolume>
            <LimitUpVolume>false</LimitUpVolume>
            <LimitDownVolume>false</LimitDownVolume>
            <TotalVolumeLimit>0</TotalVolumeLimit>
            <UpVolumeLimit>0</UpVolumeLimit>
            <DownVolumeLimit>0</DownVolumeLimit>
            <LimitTime>false</LimitTime>
```

```
            <TimeLimit>0</TimeLimit>
            <LimitEvent>false</LimitEvent>
            <EventLimit>0</EventLimit>
            <ReplenishingFrequency>0</ReplenishingFrequency>
            <VolumeThresholdPercentage>0.0</VolumeThresholdPercentage>
            <TimeThresholdPercentage>0.0</TimeThresholdPercentage>
            <EventThresholdPercentage>0.0</EventThresholdPercentage>
            <EnableInterimReporting>false</EnableInterimReporting>
            <InterimReportingInterval>0</InterimReportingInterval>
            <QuotaExhaustionAction>0</QuotaExhaustionAction>
            <RestrictionFilters></RestrictionFilters>
            <FilterIdList></FilterIdList>
            <RedirectServerType>1</RedirectServerType>
            <RedirectServerAddress></RedirectServerAddress>
            <QuotaResetIntervalType>1</QuotaResetIntervalType>
            <QuotaResetDayOfMonth>0</QuotaResetDayOfMonth>
            <QuotaResetDayOfWeek>0</QuotaResetDayOfWeek>
            <QuotaResetTimeOfDay></QuotaResetTimeOfDay>
            <QuotaReportOffsetLimit>0</QuotaReportOffsetLimit>
            <QuotaType>1</QuotaType>
            <MaxLeakageThreshold>0</MaxLeakageThreshold>
            <EnableDynamicGrant>false</EnableDynamicGrant>
            <MaxSessionsUsedForDynamicGrant>0</MaxSessionsUsedForDynamicGrant>
            <MinGrantSize>0</MinGrantSize>
            <DurationUnitType>2</DurationUnitType>
            <DurationUnit>0</DurationUnit>
            <ActiveTimePeriod></ActiveTimePeriod>
            <QuotaConvention></QuotaConvention>
        </Quota>
    </UpdateQuota>
</XmlInterfaceRequest>
```

Quota Pass Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
        <Result>0</Result>
        <Command type="XmlInterfaceResponse">
                <Success count="1">Successfully updated 1 quota
convention(s).</Success>
                <Failure count="0"></Failure>
        </Command>
</Response>
```

Delete Quota Profile

The following examples show the request and response that are defined in the XSD files for the DeleteQuota tag.

Request

This request follows the DeleteQuota tag defined in the XSD files.

```
<?xml version="1.0" encoding="UTF-8" ?>
  <XmlInterfaceRequest>
```

```
    <DeleteQuota>
      <Name>quota1</Name>
    </DeleteQuota>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
<Result>0</Result>
   <Command type="XmlInterfaceResponse">
      <Success count="1>Deleted 1 quota</Success>
      <Failure count="0"></Failure>
   </Command>
</Response>
```

Query Quota Profile

The following examples show the request and response that are defined in the XSD files for the QueryQuota tag.

Request

This request follows the QueryQuota tag defined in the XSD files.

```
<XmlInterfaceRequest>
    <QueryQuota>
       <Name>quota1</Name>
    </QueryQuota>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<ConfigurationData version="8.0.0">
    <Quota>
        <Name>quota1</Name>
        <Description></Description>
        <LimitTotalVolume>false</LimitTotalVolume>
        <LimitUpVolume>false</LimitUpVolume>
        <LimitDownVolume>false</LimitDownVolume>
        <TotalVolumeLimit>0</TotalVolumeLimit>
        <UpVolumeLimit>0</UpVolumeLimit>
        <DownVolumeLimit>0</DownVolumeLimit>
        <LimitTime>false</LimitTime>
        <TimeLimit>0</TimeLimit>
        <LimitEvent>false</LimitEvent>
        <EventLimit>0</EventLimit>
        <ReplenishingFrequency>0</ReplenishingFrequency>
        <VolumeThresholdPercentage>0.0</VolumeThresholdPercentage>
        <TimeThresholdPercentage>0.0</TimeThresholdPercentage>
```

```
        <EventThresholdPercentage>0.0</EventThresholdPercentage>
        <EnableInterimReporting>false</EnableInterimReporting>
        <InterimReportingInterval>0</InterimReportingInterval>
        <QuotaExhaustionAction>0</QuotaExhaustionAction>
        <RedirectServerType>2</RedirectServerType>
        <QuotaResetIntervalType>1</QuotaResetIntervalType>
        <QuotaResetDayOfMonth>0</QuotaResetDayOfMonth>
        <QuotaResetDayOfWeek>0</QuotaResetDayOfWeek>
        <QuotaResetTimeOfDay></QuotaResetTimeOfDay>
        <QuotaResetTimeVariable>d</QuotaResetTimeVariable>
        <QuotaReportOffsetLimit>0</QuotaReportOffsetLimit>
        <QuotaType>0</QuotaType>
        <MaxLeakageThreshold>0</MaxLeakageThreshold>
        <EnableDynamicGrant>false</EnableDynamicGrant>
        <MaxSessionsUsedForDynamicGrant>20</MaxSessionsUsedForDynamicGrant>
        <MinGrantSize>0</MinGrantSize>
    </Quota>
</ConfigurationData>
```

Quota Conventions

A quota convention controls how units are consumed and how thresholds are calculated in quotas, top-ups, rollovers, and passes. A quota convention stores a service provider's configuration preferences for how quotas, top-ups, rollovers, and passes are processed.

Add Quota Convention

The following examples show the request and response that are defined in the XSD files for the AddQuotaConvention tag.

Request

This request follows the AddQuotaConvention tag defined in the XSD files.

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<XmlInterfaceRequest>
    <AddQuotaConvention>
        <QuotaConvention>
            <Name>quotaConvention_default</Name>
            <Description></Description>
            <RolloverUsage>0</RolloverUsage>
            <PercentageRolloverInterval>20.0</PercentageRolloverInterval>
            <PercentageRolloverMax>0.0</PercentageRolloverMax>
            <BehaviorMask>128</BehaviorMask>
        </QuotaConvention>
        <QuotaConvention>
            <Name>rollover_20150_all</Name>
            <Description></Description>
            <RolloverUsage>0</RolloverUsage>
            <PercentageRolloverInterval>20.0</PercentageRolloverInterval>
            <PercentageRolloverMax>100.0</PercentageRolloverMax>
            <BehaviorMask>223</BehaviorMask>
        </QuotaConvention>
```

```
    </AddQuotaConvention>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
        <Result>0</Result>
        <Command type="XmlInterfaceResponse">
                <Success count="2">Successfully imported 2 quota
convention(s).</Success>
                <Failure count="0"></Failure>
        </Command>
</Response>
```

Update Quota Convention

The following examples show the request and response that are defined in the XSD files for the UpdateQuotaConvention tag.

Request

This request follows the UpdateQuotaConvention tag defined in the XSD files.

```
<XmlInterfaceRequest>
    <UpdateQuotaConvention>
        <QuotaConvention>
            <Name>quotaConvention_default</Name>
            <Description></Description>
            <RolloverUsage>0</RolloverUsage>
            <PercentageRolloverInterval>20.0</PercentageRolloverInterval>
            <PercentageRolloverMax>0.0</PercentageRolloverMax>
            <BehaviorMask>128</BehaviorMask>
        </QuotaConvention>
        <QuotaConvention>
            <Name>rollover_20150_all</Name>
            <Description></Description>
            <RolloverUsage>0</RolloverUsage>
            <PercentageRolloverInterval>20.0</PercentageRolloverInterval>
            <PercentageRolloverMax>100.0</PercentageRolloverMax>
            <BehaviorMask>223</BehaviorMask>
        </QuotaConvention>
    </UpdateQuotaConvention>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
        <Result>0</Result>
        <Command type="XmlInterfaceResponse">
```

```
                <Success count="1">Successfully updated 2 quota
convention(s).</Success>
                <Failure count="0"></Failure>
        </Command>
</Response>
```

Delete Quota Convention

The following example shows the request and response that are defined in the XSD files for the DeleteQuotaConvention tag.

Request

This request follows the DeleteQuotaConvention tag defined in the XSD files.

```
<XmlInterfaceRequest>
    <DeleteQuotaConvention>
        <Name>abc</Name>
    </DeleteQuotaConvention>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
        <Result>0</Result>
        <Command type="XmlInterfaceResponse">
                <Success count="1">Deleted 1 Quota Convention(s).</Success>
                <Failure count="0"></Failure>
        </Command>
</Response>
```

Query Quota Convention

The following example shows the request and response that are defined in the XSD files for the QueryQuotaConvention tag.

Request

This request follows the QueryQuotaConvention tag defined in the XSD files.

```
<XmlInterfaceRequest>
   <QueryQuotaConvention>
     <Name>quotaConvention1</Name>
   </QueryQuotaConvention>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<ConfigurationData version="9.1.0">
    <QuotaConvention>
        <Name>quotaConvention_default</Name>
        <Description></Description>
        <RolloverUsage>0</RolloverUsage>
        <PercentageRolloverInterval>20.0</PercentageRolloverInterval>
        <PercentageRolloverMax>0.0</PercentageRolloverMax>
        <BehaviorMask>128</BehaviorMask>
    </QuotaConvention>
</ConfigurationData>
```

Field Mapping Profile Queries

Field mapping profile queries enable the system to differentiate between SPR and BOSS systems.

Mediation Field Mapping Profile Statistics

The following examples show the request and response that are defined in the XSD files for the QueryFieldMappingProfile tag.

Request

This request follows the FieldMappingProfile tag defined in the QueryOmStats section in the XSD files.

The following is an example of a request for statistics for the FieldMappingProfile tag.

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<XmlInterfaceRequest>
<FieldMappingProfile>
<Name>XX</Name>
</QueryFieldMappingProfile>
</XmlInterfaceRequest>
```

Response

The response to this request follows the FieldMappingProfile tag defined in the Statistics section in the XSD files. The following is an example XML response to this tag request.

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<ConfigurationData version="9.9.0">
    <FieldMappingProfile>
        <Name>XX</Name>
        <Description></Description>
        <MappingType>2</MappingType>
        <SoapFieldName>XX</SoapFieldName>
        <SprFieldName>XX</SprFieldName>
```

```
        <Sequence>0</Sequence>
        <DataType>0</DataType>
        <Mandatory>false</Mandatory>
        <DefaultValue></DefaultValue>
        <ValidationRules></ValidationRules>
    </FieldMappingProfile>
</ConfigurationData>
```

Mediation: Add Field Mapping Profile

The following examples show the request and response that are defined in the XSD files for the AddFieldMappingProfile tag.

Request

This request follows the AddFieldMappingProfile tag defined in the QueryOmStats section in the XSD files.

The following is an example of a request for statistics for the AddFieldMappingProfile tag.

```
<XmlInterfaceRequest>
    <AddFieldMappingProfile>
        <FieldMappingProfile>
            <Name>XX</Name>
            <Description></Description>
            <MappingType>2</MappingType>
            <SoapFieldName>XX</SoapFieldName>
            <SprFieldName>XX</SprFieldName>
            <Sequence>0</Sequence>
            <DataType>0</DataType>
            <Mandatory>false</Mandatory>
           <DefaultValue></DefaultValue>
            <ValidationRules></ValidationRules>
        </FieldMappingProfile>
    </AddFieldMappingProfile>
</XmlInterfaceRequest>
```

Response

The response to this request follows the AddFieldMappingProfile tag defined in the Statistics section in the XSD files. The following is an example XML response to this tag request.

```
<Response>
    <Result>0</Result>
    <Command type="XmlInterfaceResponse">
        <Success count="1">Successfully updated 1 match list(s).</Success>
        <Failure count="0"></Failure>
    </Command>
</Response>
```

Mediation: Update Field Mapping Profile

The following examples show the request and response that are defined in the XSD files for the UpdateFieldMappingProfile tag.

Request

This request follows the UpdateFieldMappingProfile tag defined in the QueryOmStats section in the XSD files.

The following is an example of a request for statistics for the UpdateFieldMappingProfile tag.

```
<XmlInterfaceRequest>
    <UpdateFieldMappingProfile>
        <FieldMappingProfile>
            <Name>XX</Name>
            <Description></Description>
            <MappingType>2</MappingType>
            <SoapFieldName>XX</SoapFieldName>
            <SprFieldName>XX</SprFieldName>
            <Sequence>1</Sequence>
            <DataType>0</DataType>
            <Mandatory>false</Mandatory>
            <DefaultValue></DefaultValue>
            <ValidationRules></ValidationRules>
        </FieldMappingProfile>
    </UpdateFieldMappingProfile>
</XmlInterfaceRequest>
```

Response

The response to this request follows the UpdateFieldMappingProfile tag defined in the Statistics section in the XSD files.

```
<Response>
    <Result>0</Result>
    <Command type="UpdateFieldMappingProfile">
        <Success count="1">Successfully updated 1 match list(s).</Success>
        <Failure count="0"></Failure>
    </Command>
</Response>
```

Mediation: Delete Field Mapping Profile

The following examples show the request and response that are defined in the XSD files for the DeleteFieldMappingProfile tag.

Request

This request follows the DeleteFieldMappingProfile tag defined in the QueryOmStats section in the XSD files.

The following is an example of a request for statistics for the DeleteFieldMappingProfile tag.

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<XmlInterfaceRequest>
<DeleteFieldMappingProfile>
<Name>XX</Name>
</DeleteFieldMappingProfile>
</XmlInterfaceRequest>
```

Response

The response to this request follows the DeleteFieldMappingProfile tag defined in the Statistics section in the XSD files.

```
<Response>
    <Result>0</Result>
    <Command type="XmlInterfaceResponse">
        <Success count="1">Deleted 1 Mediation Field Mapping Profiles.</Success>

         <Failure count="0"></Failure>
    </Command>
</Response>
```

Subscriber Information

Subscriber information can be queried without knowing which MPE and MRA supports the target sessions.

Subscriber Session Information

The following examples show the request and response that are defined in the XSD files for the QuerySubscriberSessionInfo tag.

Request

This request follows the QuerySubscriberSessionInfo tag defined in the QueryOmStats section in the XSD files.

The following is an example of a request for statistics for the QuerySubscriberSessionInfo tag.

```
<XmlInterfaceRequest>
    <QuerySubscriberSessionInfo>
        <IdentifierType></IdentifierType>
        <IdentifierName></IdentifierName>
    </QuerySubscriberSessionInfo>
</XmlInterfaceRequest>
```

The request type is specified by the tag <QuerySubscriberSessionInfo>, the IdentifierType can be NAI, E164, IMSI, IPv4, IPv6, IPD or SESSID (only for Gx session id), for examples:

Query by NAI:

```
<XmlInterfaceRequest>
    <QuerySubscriberSessionInfo>
        <IdentifierType>NAI</IdentifierType>

<IdentifierName>311480000032192@ims.mnc480.mcc311.3gppnetwork.org</IdentifierName>

    </QuerySubscriberSessionInfo>
</XmlInterfaceRequest>
```

Query by E164:

```
<XmlInterfaceRequest>
    <QuerySubscriberSessionInfo>
        <IdentifierType>E164</IdentifierType>
        <IdentifierName>821073002244</IdentifierName>
    </QuerySubscriberSessionInfo>
</XmlInterfaceRequest>
```

Query by IMSI:

```
<XmlInterfaceRequest>
    <QuerySubscriberSessionInfo>
        <IdentifierType>IMSI</IdentifierType>
        <IdentifierName>262013564857956</IdentifierName>
    </QuerySubscriberSessionInfo>
</XmlInterfaceRequest>
```

Query by IPv4:

```
<XmlInterfaceRequest>
   <QuerySubscriberSessionInfo>
        <IdentifierType>IPv4</IdentifierType>
        <IdentifierName>10.0.11.6</IdentifierName>
   </QuerySubscriberSessionInfo>
</XmlInterfaceRequest>
```

Query by IPv6:

```
<XmlInterfaceRequest>
    <QuerySubscriberSessionInfo>
        <IdentifierType>IPv6</IdentifierType>
        <IdentifierName>2001:0:0:1109:0:0:0:0</IdentifierName>
    </QuerySubscriberSessionInfo>
</XmlInterfaceRequest>
```

Query by IPD:

```
<XmlInterfaceRequest>
    <QuerySubscriberSessionInfo>
        <IdentifierType>IPD</IdentifierType>
        <IdentifierName>ipd.pgw1.test.com/10.0.11.6</IdentifierName>
    </QuerySubscriberSessionInfo>
</XmlInterfaceRequest>
```

Query by SESSID:

```
<XmlInterfaceRequest>
    <QuerySubscriberSessionInfo>
        <IdentifierType>SESSID</IdentifierType>
        <IdentifierName>pgw1.test.com;1508294200;0</IdentifierName>
    </QuerySubscriberSessionInfo>
</XmlInterfaceRequest>
```

Response

The response to this request follows the QuerySubscriberSessionInfo tag defined in the Statistics section in the XSD files. The following is an example XML response to this tag request.

```
<QuerySubscriberSessionInfoResponse>
<MraBindingInfo>
    <MraId></MraId>
        <UserIds>
            <UserId>
                <Key></Key>
                <Value></Value>
            </UserId>
            ...
        </UserIds>
        <AssociatedMpe></AssociatedMpe>
</MraBindingInfo>
<MpeSessionInfo>
        <GxSessions>
            <Session>
                <SessionId></SessionId>
                <CreatedTime></CreatedTime>
                <CalledStationId></CalledStationId>
                <ServingMccMnc></ServingMccMnc>
                <DefaultEPSBearerQoS>
                    <Qci></Qci>
                    <Arp></Arp>
                </DefaultEPSBearerQoS>
                <Resources>
                    <Rule>
                        <RuleName></RuleName>
                        <RuleType></RuleType>
                        <IsDefaultResourceRule></IsDefaultResourceRule>
                        <IsDefaultSessionRule></IsDefaultSessionRule>
                        <Precedence></Precedence>
                        <FlowInformations>
                            <FlowInformation>
                                <Direction></Direction>
                                <Classifier></Classifier>
                            </FlowInformation>
                            ...
                        </FlowInformations>
                        <Qci></Qci>
                        <Arp></Arp>
                        <MaxUp></MaxUp>
                        <MaxDown></MaxDown>
                        <GuaranteedUp></GuaranteedUp>
                        <GuaranteedDown></GuaranteedDown>
                    </Rule>
                    ...
                </Resources>
            </Session>
            ...
        </GxSessions>
    <RxSessions>
            <Session>
                <SessionId></SessionId>
                <CreatedTime></CreatedTime>
                <RatType></RatType>
                <Resources>
                    <Flow>
                        <MediaType></MediaType>
                        <FlowNumber></FlowNumber>
```

```
                        <FlowStatus></FlowStatus>
                        <FlowUsage></FlowUsage>
                        <Classifier></Classifier>
                        <MaxRate></MaxRate>
                        <MinRate></MinRate>
                        <Qci></Qci>
                        <ResPriority></ResPriority>
                        <AfAppId></AfAppId>
                    </Flow>
                    ...
                </Resources>
            </Session>
            ...
    </RxSessions>
    <AssociatedUserIds>
            <UserId>
                <Key></Key>
                <Value></Value>
            </UserId>
            ...
    </AssociatedUserIds>
</MpeSessionInfo>
</QuerySubscriberSessionInfoResponse>
```

This response contains MRA binding, two Gx sessions, and two Rx sessions. The OSS server can use information such as, MSISDN, APN, IMSI, MCC-MNC, RAT Type, Start time for data session, and Qos information.

```
<QuerySubscriberSessionInfoResponse>
  <MraBindingInfo>
    <MraId>mra1.oracle.com</MraId>
    <UserIds>
      <Entry>
        <Key>NAI</Key>
        <Value>311480000032192@ims.mnc480.mcc311.3gppnetwork.org</Value>
      </Entry>
      <Entry>
        <Key>E164</Key>
        <Value>15084869996</Value>
      </Entry>
      <Entry>
        <Key>IMSI</Key>
        <Value>311480000032192</Value>
      </Entry>
      <Entry>
        <Key>IP</Key>
        <Value>2001:0:0:1106:0:0:0:0</Value>
      </Entry>
      <Entry>
        <Key>IP</Key>
        <Value>10.0.11.6</Value>
      </Entry>
      <Entry>
        <Key>IPD</Key>
        <Value>ipd.pgw1.test.com/10.0.11.6</Value>
      </Entry>
      <Entry>
        <Key>SESSID</Key>
        <Value>pgw1.test.com;1509003437;0</Value>
      </Entry>
      <Entry>
```

```
        <Key>SESSID</Key>
        <Value>pgw1.test.com;1509003437;1</Value>
      </Entry>
    </UserIds>
    <AssociatedMpe>mpe1.oracle.com</AssociatedMpe>
  </MraBindingInfo>
  <MpeSessionInfo>
    <GxSessions>
      <Session>
        <SessionId>pgw1.test.com;1509003437;0</SessionId>
        <CreatedTime>Thu Oct 26 15:45:13 CST 2017</CreatedTime>
        <CalledStationId>pdn1.tekelec.com</CalledStationId>
        <DefaultEPSBearerQoS>
          <Qci>9</Qci>

<Arp>[3,PREEMPTION_CAPABILITY_DISABLED(1),PREEMPTION_VULNERABILITY_DISABLED(1)]</Arp>

        </DefaultEPSBearerQoS>
        <Resources>
          <Rule>
            <RuleName>0_0</RuleName>
            <RuleType>Provisioned</RuleType>
            <IsDefaultResourceRule>false</IsDefaultResourceRule>
            <IsDefaultSessionRule>true</IsDefaultSessionRule>
            <Precedence>3000</Precedence>
            <FlowInformations>
              <FlowInformation>
                <Direction>2</Direction>
                <Classifier>permit in ip from any to any</Classifier>
              </FlowInformation>
              <FlowInformation>
                <Direction>1</Direction>
                <Classifier>permit out ip from any to any</Classifier>
              </FlowInformation>
            </FlowInformations>
            <Qci>9</Qci>

<Arp>[3,PREEMPTION_CAPABILITY_DISABLED(1),PREEMPTION_VULNERABILITY_DISABLED(1)]</Arp>

            <MaxUp>-1</MaxUp>
            <MaxDown>-1</MaxDown>
            <GuaranteedUp>-1</GuaranteedUp>
            <GuaranteedDown>-1</GuaranteedDown>
          </Rule>
        </Resources>
      </Session>
      <Session>
        <SessionId>pgw1.test.com;1509003437;1</SessionId>
        <CreatedTime>Thu Oct 26 15:45:18 CST 2017</CreatedTime>
        <CalledStationId>pdn1.tekelec.com</CalledStationId>
        <DefaultEPSBearerQoS>
          <Qci>9</Qci>

<Arp>[3,PREEMPTION_CAPABILITY_DISABLED(1),PREEMPTION_VULNERABILITY_DISABLED(1)]</Arp>

        </DefaultEPSBearerQoS>
        <Resources>
          <Rule>
            <RuleName>0_0</RuleName>
            <RuleType>Provisioned</RuleType>
            <IsDefaultResourceRule>false</IsDefaultResourceRule>
            <IsDefaultSessionRule>true</IsDefaultSessionRule>
            <Precedence>3000</Precedence>
            <FlowInformations>
```

```
              <FlowInformation>
                <Direction>2</Direction>
                <Classifier>permit in ip from any to any</Classifier>
              </FlowInformation>
              <FlowInformation>
                <Direction>1</Direction>
                <Classifier>permit out ip from any to any</Classifier>
              </FlowInformation>
            </FlowInformations>
            <Qci>9</Qci>

<Arp>[3,PREEMPTION_CAPABILITY_DISABLED(1),PREEMPTION_VULNERABILITY_DISABLED(1)]</Arp>

            <MaxUp>-1</MaxUp>
            <MaxDown>-1</MaxDown>
            <GuaranteedUp>-1</GuaranteedUp>
            <GuaranteedDown>-1</GuaranteedDown>
          </Rule>
          <Rule>
            <RuleName>0_1</RuleName>
            <RuleType>Provisioned</RuleType>
            <IsDefaultResourceRule>false</IsDefaultResourceRule>
            <IsDefaultSessionRule>false</IsDefaultSessionRule>
            <Precedence>400</Precedence>
            <FlowInformations>
              <FlowInformation>
                <Direction>1</Direction>
                <Classifier>permit out 17 from
2600:100c:1005:f6d0:1c45:466f:40f4:8a94 to
                  2600:100c:100d:c6ef:844:bb5b:d9f2:1468 49120</Classifier>
              </FlowInformation>
              <FlowInformation>
                <Direction>2</Direction>
                <Classifier>permit in 17 from
2600:100c:100d:c6ef:844:bb5b:d9f2:1468 to
                  2600:100c:1005:f6d0:1c45:466f:40f4:8a94 49120</Classifier>
              </FlowInformation>
            </FlowInformations>
            <Qci>1</Qci>

<Arp>[15,PREEMPTION_CAPABILITY_DISABLED(1),PREEMPTION_VULNERABILITY_ENABLED(0)]</Arp>

            <MaxUp>8888</MaxUp>
            <MaxDown>9999</MaxDown>
            <GuaranteedUp>8888</GuaranteedUp>
            <GuaranteedDown>9999</GuaranteedDown>
          </Rule>
          <Rule>
            <RuleName>0_2</RuleName>
            <RuleType>Provisioned</RuleType>
            <IsDefaultResourceRule>false</IsDefaultResourceRule>
            <IsDefaultSessionRule>false</IsDefaultSessionRule>
            <Precedence>401</Precedence>
            <FlowInformations>
              <FlowInformation>
                <Direction>1</Direction>
                <Classifier>permit out 17 from
2600:100c:1005:f6d0:1c45:466f:40f4:8a94 to
                  2600:100c:100d:c6ef:844:bb5b:d9f2:1468 49121</Classifier>
              </FlowInformation>
              <FlowInformation>
                <Direction>2</Direction>
                <Classifier>permit in 17 from
2600:100c:100d:c6ef:844:bb5b:d9f2:1468 to
```

```
                2600:100c:1005:f6d0:1c45:466f:40f4:8a94 49121</Classifier>
            </FlowInformation>
          </FlowInformations>
          <Qci>1</Qci>

<Arp>[15,PREEMPTION_CAPABILITY_DISABLED(1),PREEMPTION_VULNERABILITY_ENABLED(0)]</Arp>

          <MaxUp>0</MaxUp>
          <MaxDown>0</MaxDown>
          <GuaranteedUp>0</GuaranteedUp>
          <GuaranteedDown>0</GuaranteedDown>
        </Rule>
        <Rule>
          <RuleName>0_3</RuleName>
          <RuleType>Provisioned</RuleType>
          <IsDefaultResourceRule>false</IsDefaultResourceRule>
          <IsDefaultSessionRule>false</IsDefaultSessionRule>
          <Precedence>402</Precedence>
          <FlowInformations>
            <FlowInformation>
              <Direction>1</Direction>
              <Classifier>permit out 17 from
2600:100c:1005:f6d0:1c45:466f:40f4:8a94 to
                2600:100c:100d:c6ef:844:bb5b:d9f2:1468 49120</Classifier>
            </FlowInformation>
            <FlowInformation>
              <Direction>2</Direction>
              <Classifier>permit in 17 from
2600:100c:100d:c6ef:844:bb5b:d9f2:1468 to
                2600:100c:1005:f6d0:1c45:466f:40f4:8a94 49120</Classifier>
            </FlowInformation>
          </FlowInformations>
          <Qci>1</Qci>

<Arp>[15,PREEMPTION_CAPABILITY_DISABLED(1),PREEMPTION_VULNERABILITY_ENABLED(0)]</Arp>

          <MaxUp>8888</MaxUp>
          <MaxDown>9999</MaxDown>
          <GuaranteedUp>8888</GuaranteedUp>
          <GuaranteedDown>9999</GuaranteedDown>
        </Rule>
        <Rule>
          <RuleName>0_4</RuleName>
          <RuleType>Provisioned</RuleType>
          <IsDefaultResourceRule>false</IsDefaultResourceRule>
          <IsDefaultSessionRule>false</IsDefaultSessionRule>
          <Precedence>403</Precedence>
          <FlowInformations>
            <FlowInformation>
              <Direction>1</Direction>
              <Classifier>permit out 17 from
2600:100c:1005:f6d0:1c45:466f:40f4:8a94 to
                2600:100c:100d:c6ef:844:bb5b:d9f2:1468 49121</Classifier>
            </FlowInformation>
            <FlowInformation>
              <Direction>2</Direction>
              <Classifier>permit in 17 from
2600:100c:100d:c6ef:844:bb5b:d9f2:1468 to
                2600:100c:1005:f6d0:1c45:466f:40f4:8a94 49121</Classifier>
            </FlowInformation>
          </FlowInformations>
          <Qci>1</Qci>

<Arp>[15,PREEMPTION_CAPABILITY_DISABLED(1),PREEMPTION_VULNERABILITY_ENABLED(0)]</Arp>
```

```
          <MaxUp>0</MaxUp>
          <MaxDown>0</MaxDown>
          <GuaranteedUp>0</GuaranteedUp>
          <GuaranteedDown>0</GuaranteedDown>
        </Rule>
      </Resources>
    </Session>
  </GxSessions>
  <RxSessions>
    <Session>
      <SessionId>af1.test.com;1509003963;0</SessionId>
      <CreatedTime>Thu Oct 26 15:46:10 CST 2017</CreatedTime>
      <RateType>10</RateType>
      <Resources>
        <Flow>
          <MediaType>0</MediaType>
          <FlowNumber>2</FlowNumber>
          <FlowStatus>2</FlowStatus>
          <FlowUsage>1</FlowUsage>
         <Classifier>permit out 17 from 2600:100c:1005:f6d0:1c45:466f:40f4:8a94
to 2600:100c:100d:c6ef:844:bb5b:d9f2:1468 49121</Classifier>
          <MaxRate>0</MaxRate>
          <MinRate>0</MinRate>
          <Qci>1</Qci>
          <ResPriority>0</ResPriority>
          <AfAppId>voip</AfAppId>
        </Flow>
        <Flow>
          <MediaType>0</MediaType>
          <FlowNumber>1</FlowNumber>
          <FlowStatus>2</FlowStatus>
          <FlowUsage>0</FlowUsage>
         <Classifier>permit in 17 from 2600:100c:100d:c6ef:844:bb5b:d9f2:1468
to 2600:100c:1005:f6d0:1c45:466f:40f4:8a94 49120</Classifier>
          <MaxRate>8888</MaxRate>
          <MinRate>88</MinRate>
          <Qci>1</Qci>
          <ResPriority>0</ResPriority>
          <AfAppId>voip</AfAppId>
        </Flow>
        <Flow>
          <MediaType>0</MediaType>
          <FlowNumber>2</FlowNumber>
          <FlowStatus>2</FlowStatus>
          <FlowUsage>1</FlowUsage>
         <Classifier>permit in 17 from 2600:100c:100d:c6ef:844:bb5b:d9f2:1468
to 2600:100c:1005:f6d0:1c45:466f:40f4:8a94 49121</Classifier>
          <MaxRate>0</MaxRate>
          <MinRate>0</MinRate>
          <Qci>1</Qci>
          <ResPriority>0</ResPriority>
          <AfAppId>voip</AfAppId>
        </Flow>
        <Flow>
          <MediaType>0</MediaType>
          <FlowNumber>1</FlowNumber>
          <FlowStatus>2</FlowStatus>
          <FlowUsage>0</FlowUsage>
         <Classifier>permit out 17 from 2600:100c:1005:f6d0:1c45:466f:40f4:8a94
to 2600:100c:100d:c6ef:844:bb5b:d9f2:1468 49120</Classifier>
          <MaxRate>9999</MaxRate>
          <MinRate>99</MinRate>
          <Qci>1</Qci>
```

```
            <ResPriority>0</ResPriority>
            <AfAppId>voip</AfAppId>
          </Flow>
        </Resources>
      </Session>
      <Session>
        <SessionId>af1.test.com;1509003963;1</SessionId>
        <CreatedTime>Thu Oct 26 15:46:38 CST 2017</CreatedTime>
        <RateType>10</RateType>
        <Resources>
          <Flow>
            <MediaType>0</MediaType>
            <FlowNumber>2</FlowNumber>
            <FlowStatus>2</FlowStatus>
            <FlowUsage>1</FlowUsage>
           <Classifier>permit out 17 from 2600:100c:1005:f6d0:1c45:466f:40f4:8a94
to 2600:100c:100d:c6ef:844:bb5b:d9f2:1468 49121</Classifier>
            <MaxRate>0</MaxRate>
            <MinRate>0</MinRate>
            <Qci>1</Qci>
            <ResPriority>0</ResPriority>
            <AfAppId>voip</AfAppId>
          </Flow>
          <Flow>
            <MediaType>0</MediaType>
            <FlowNumber>1</FlowNumber>
            <FlowStatus>2</FlowStatus>
            <FlowUsage>0</FlowUsage>
           <Classifier>permit in 17 from 2600:100c:100d:c6ef:844:bb5b:d9f2:1468
to 2600:100c:1005:f6d0:1c45:466f:40f4:8a94 49120</Classifier>
            <MaxRate>8888</MaxRate>
            <MinRate>88</MinRate>
            <Qci>1</Qci>
            <ResPriority>0</ResPriority>
            <AfAppId>voip</AfAppId>
          </Flow>
          <Flow>
            <MediaType>0</MediaType>
            <FlowNumber>2</FlowNumber>
            <FlowStatus>2</FlowStatus>
            <FlowUsage>1</FlowUsage>
           <Classifier>permit in 17 from 2600:100c:100d:c6ef:844:bb5b:d9f2:1468
to 2600:100c:1005:f6d0:1c45:466f:40f4:8a94 49121</Classifier>
            <MaxRate>0</MaxRate>
            <MinRate>0</MinRate>
            <Qci>1</Qci>
            <ResPriority>0</ResPriority>
            <AfAppId>voip</AfAppId>
          </Flow>
          <Flow>
            <MediaType>0</MediaType>
            <FlowNumber>1</FlowNumber>
            <FlowStatus>2</FlowStatus>
            <FlowUsage>0</FlowUsage>
           <Classifier>permit out 17 from 2600:100c:1005:f6d0:1c45:466f:40f4:8a94
to 2600:100c:100d:c6ef:844:bb5b:d9f2:1468 49120</Classifier>
            <MaxRate>9999</MaxRate>
            <MinRate>99</MinRate>
            <Qci>1</Qci>
            <ResPriority>0</ResPriority>
            <AfAppId>voip</AfAppId>
          </Flow>
        </Resources>
      </Session>
```

```
    </RxSessions>
    <AssociatedUserIds>
      <UserId>
        <Key>NAI</Key>
        <Value>311480000032192@ims.mnc480.mcc311.3gppnetwork.org</Value>
      </UserId>
      <UserId>
        <Key>E164</Key>
        <Value>15084869996</Value>
      </UserId>
      <UserId>
        <Key>IMSI</Key>
        <Value>311480000032192</Value>
      </UserId>
    </AssociatedUserIds>
  </MpeSessionInfo>
</QuerySubscriberSessionInfoResponse>
```

If nothing is found, the response consists of empty tags.

```
<QuerySubscriberSessionInfoResponse>
    <MraBindingInfo/>
    <MpeSessionInfo/>
</QuerySubscriberSessionInfoResponse>
```

Chapter 3

Operational Measurement Interface for Wireless Mode

Topics:

This chapter defines the various operational measurements (OM) groups and the individual OM statistics. For several of the more generic statistics, the instrumentation on the Multimedia Policy Engine (MPE) and theMulti-Protocol Routing Agent (MRA) may differ by protocol, and therefore specific statistics may increment differently across those protocols.

About Operational Measurements Requests for Wireless Mode

The OM interface consists of the following requests and their responses:

- Protocol-specific statistics
  - Diameter Statistics: retrieves statistics on Diameter Application Functions, Charging Functions, Policy Charging Enforcement Functions.
  - MRA Statistics: retrieves statistics on statistics specifically for the MRA server.
  - RADIUS Statistics: retrieves statistics on accounting and change-of-authorization messages specific to the RADIUS-S protocol.
- Latency Statistics: retrieves latency statistics information for incoming and outgoing messages tracked per network element, MPE, and MRA.
- Error Statistics: retrieves statistics on errors within the system.
- KPI Interval Statistics: retrieves statistics on how quickly protocol messages are processed.
- Data Source Statistics: retrieves Diameter Statistics listed in the wireless KPI Dashboard.
- Miscellaneous Statistics: Other statistics that are accessed by XML requests.

About Protocol Statistics

This section lists the protocol-specific statistics that can be accessed using an XML query. The three protocol-specific statistics groups are:

- *Requests and Responses for Diameter Statistics*
- *Requests and Responses for Diameter MRA Statistics*
- *RADIUS-CoA based B-RAS Operational Measurement Requests*

Requests and Responses for Diameter Statistics

This section shows the requests and responses for the following:

- *Diameter Sh Statistics*
- *Diameter Sh Peer Statistics*
- *Diameter S9 Statistics*
- *Diameter S9 Peer Statistics*
- *Diameter Sy Statistics*
- *Diameter Sy Peer Statistics*
- *Diameter Sy Reconciliation Statistics*
- *Diameter Event Trigger Statistics*
- *Diameter Connection Event Trigger Statistics*
- *Diameter Application Function Statistics*
- *Diameter Application Function Peer Statistics*
- *Diameter Charging Function Statistics*
- *Diameter Charging Function Peer Statistics*

Diameter Sh Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterShStats tag.

Request

This request follows the DiameterShStats tag defined in the QueryOmStats section in the XSD files.

The following is an example of a request for all policy servers within the system:

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterShStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
</DiameterShStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterShStats tag defined in the Statistics section in the XSD files. .

```
<Statistics>
<DiameterShStats>
<Sample>
<StartTime>2016-05-16T23:45:01Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<IsComplete>true</IsComplete>
<CurrentConnectionsCount>1</CurrentConnectionsCount>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<MSGTimeoutRetriesCount>0</MSGTimeoutRetriesCount>
<UDRMessagesReceivedCount>0</UDRMessagesReceivedCount>
<UDRMessagesSentCount>0</UDRMessagesSentCount>
<UDRMessagesTimeoutCount>0</UDRMessagesTimeoutCount>
<UDRTimeoutRetriesCount>0</UDRTimeoutRetriesCount>
```

```
<UDASuccessMessagesReceivedCount>0</UDASuccessMessagesReceivedCount>
<UDASuccessMessagesSentCount>0</UDASuccessMessagesSentCount>
<UDAFailureMessagesReceivedCount>0</UDAFailureMessagesReceivedCount>
<UDAFailureMessagesSentCount>0</UDAFailureMessagesSentCount>
<PNRMessagesReceivedCount>0</PNRMessagesReceivedCount>
<PNRMessagesSentCount>0</PNRMessagesSentCount>
<PNASuccessMessagesReceivedCount>0</PNASuccessMessagesReceivedCount>
<PNASuccessMessagesSentCount>0</PNASuccessMessagesSentCount>
<PNAFailureMessagesReceivedCount>0</PNAFailureMessagesReceivedCount>
<PNAFailureMessagesSentCount>0</PNAFailureMessagesSentCount>
<PURMessagesReceivedCount>0</PURMessagesReceivedCount>
<PURMessagesSentCount>0</PURMessagesSentCount>
<PURMessagesTimeoutCount>0</PURMessagesTimeoutCount>
<PURTimeoutRetriesCount>0</PURTimeoutRetriesCount>
<PUASuccessMessagesReceivedCount>0</PUASuccessMessagesReceivedCount>
<PUASuccessMessagesSentCount>0</PUASuccessMessagesSentCount>
<PUAFailureMessagesReceivedCount>0</PUAFailureMessagesReceivedCount>
<PUAFailureMessagesSentCount>0</PUAFailureMessagesSentCount>
<SNRMessagesReceivedCount>0</SNRMessagesReceivedCount>
<SNRMessagesSentCount>0</SNRMessagesSentCount>
<SNRMessagesTimeoutCount>0</SNRMessagesTimeoutCount>
<SNRTimeoutRetriesCount>0</SNRTimeoutRetriesCount>
<SNASuccessMessagesReceivedCount>0</SNASuccessMessagesReceivedCount>
<SNASuccessMessagesSentCount>0</SNASuccessMessagesSentCount>
<SNAFailureMessagesReceivedCount>0</SNAFailureMessagesReceivedCount>
<SNAFailureMessagesSentCount>0</SNAFailureMessagesSentCount>
<ActiveSessionsCount>0</ActiveSessionsCount>
<MaximumActiveSessionsCount>0</MaximumActiveSessionsCount>
<PeerOkayCount>1</PeerOkayCount>
<PeerDownCount>0</PeerDownCount>
<PeerSuspectCount>0</PeerSuspectCount>
<PeerReopenCount>0</PeerReopenCount>
</Sample>
</DiameterShStats>
</Statistics>
```

Diameter Sh Peer Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterShPeerStats tag.

Request

This request follows the DiameterShPeerStats tag defined in the QueryOmStats section in the XSD files.

The following is an example of a request for all policy servers within the system:

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterShPeerStats>
<!-- Name is optional. -->
<Name>mra-82.example.com</Name>
<Name>mra-35.example.com</Name>
<!-- NeId is optional. -->
<NeId />
</DiameterShPeerStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterShPeerStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterShPeerStats>
<Sample>
<StartTime>2016-05-16T23:45:01Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<IsComplete>true</IsComplete>
<Name>hss-profilev1.hss.com</Name>
<NeId/>
<NetworkElementType/>
<NetworkElementSubType/>
<ConnectTime>Mon May 16 13:48:08 EDT 2016</ConnectTime>
<DisconnectTime>Mon May 16 13:53:45 EDT 2016</DisconnectTime>
<ConnectAddress>10.148.240.54</ConnectAddress>
<ConnectPort>3868</ConnectPort>
<ConnectType>TCP</ConnectType>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<MessagesErrorInCount>0</MessagesErrorInCount>
<MessagesErrorOutCount>0</MessagesErrorOutCount>
<MSGTimeoutRetriesCount>0</MSGTimeoutRetriesCount>
<UDRMessagesReceivedCount>0</UDRMessagesReceivedCount>
<UDRMessagesSentCount>0</UDRMessagesSentCount>
<UDRMessagesTimeoutCount>0</UDRMessagesTimeoutCount>
<UDRTimeoutRetriesCount>0</UDRTimeoutRetriesCount>
<UDASuccessMessagesReceivedCount>0</UDASuccessMessagesReceivedCount>
<UDASuccessMessagesSentCount>0</UDASuccessMessagesSentCount>
<UDAFailureMessagesReceivedCount>0</UDAFailureMessagesReceivedCount>
<UDAFailureMessagesSentCount>0</UDAFailureMessagesSentCount>
<PNRMessagesReceivedCount>0</PNRMessagesReceivedCount>
<PNRMessagesSentCount>0</PNRMessagesSentCount>
<PNASuccessMessagesReceivedCount>0</PNASuccessMessagesReceivedCount>
<PNASuccessMessagesSentCount>0</PNASuccessMessagesSentCount>
<PNAFailureMessagesReceivedCount>0</PNAFailureMessagesReceivedCount>
<PNAFailureMessagesSentCount>0</PNAFailureMessagesSentCount>
<PURMessagesReceivedCount>0</PURMessagesReceivedCount>
<PURMessagesSentCount>0</PURMessagesSentCount>
<PURMessagesTimeoutCount>0</PURMessagesTimeoutCount>
<PURTimeoutRetriesCount>0</PURTimeoutRetriesCount>
<PUASuccessMessagesReceivedCount>0</PUASuccessMessagesReceivedCount>
<PUASuccessMessagesSentCount>0</PUASuccessMessagesSentCount>
<PUAFailureMessagesReceivedCount>0</PUAFailureMessagesReceivedCount>
<PUAFailureMessagesSentCount>0</PUAFailureMessagesSentCount>
<SNRMessagesReceivedCount>0</SNRMessagesReceivedCount>
<SNRMessagesSentCount>0</SNRMessagesSentCount>
<SNRMessagesTimeoutCount>0</SNRMessagesTimeoutCount>
<SNRTimeoutRetriesCount>0</SNRTimeoutRetriesCount>
<SNASuccessMessagesReceivedCount>0</SNASuccessMessagesReceivedCount>
<SNASuccessMessagesSentCount>0</SNASuccessMessagesSentCount>
<SNAFailureMessagesReceivedCount>0</SNAFailureMessagesReceivedCount>
<SNAFailureMessagesSentCount>0</SNAFailureMessagesSentCount>
<ActiveSessionsCount>0</ActiveSessionsCount>
<MaximumActiveSessionsCount>0</MaximumActiveSessionsCount>
</Sample>
</DiameterShPeerStats>
</Statistics>
```

Diameter S9 Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterS9Stats tag.

Request

This request follows the DiameterS9Stats tag defined in the QueryOmStats section in the XSD files.

The following is an example of a request for all policy servers within the system:

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterS9Stats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
</DiameterS9Stats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterS9Stats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterS9Stats>
<Sample>
<StartTime>2016-05-16T23:45:01Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<IsComplete>true</IsComplete>
<CurrentConnectionsCount>1</CurrentConnectionsCount>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<RARMessagesReceivedCount>0</RARMessagesReceivedCount>
<RARMessagesSentCount>0</RARMessagesSentCount>
<RARMessagesTimeoutCount>0</RARMessagesTimeoutCount>
<RAASuccessMessagesReceivedCount>0</RAASuccessMessagesReceivedCount>
<RAASuccessMessagesSentCount>0</RAASuccessMessagesSentCount>
<RAAFailureMessagesReceivedCount>0</RAAFailureMessagesReceivedCount>
<RAAFailureMessagesSentCount>0</RAAFailureMessagesSentCount>
<CCRMessagesReceivedCount>0</CCRMessagesReceivedCount>
<CCRMessagesSentCount>0</CCRMessagesSentCount>
<CCRMessagesTimeoutCount>0</CCRMessagesTimeoutCount>
<CCASuccessMessagesReceivedCount>0</CCASuccessMessagesReceivedCount>
<CCASuccessMessagesSentCount>0</CCASuccessMessagesSentCount>
<CCAFailureMessagesReceivedCount>0</CCAFailureMessagesReceivedCount>
<CCAFailureMessagesSentCount>0</CCAFailureMessagesSentCount>
<CCRIMessagesReceivedCount>0</CCRIMessagesReceivedCount>
<CCRIMessagesSentCount>0</CCRIMessagesSentCount>
<CCRIMessagesTimeoutCount>0</CCRIMessagesTimeoutCount>
<CCRUMessagesReceivedCount>0</CCRUMessagesReceivedCount>
<CCRUMessagesSentCount>0</CCRUMessagesSentCount>
<CCRUMessagesTimeoutCount>0</CCRUMessagesTimeoutCount>
<CCRTMessagesReceivedCount>0</CCRTMessagesReceivedCount>
<CCRTMessagesSentCount>0</CCRTMessagesSentCount>
```

```
<CCRTMessagesTimeoutCount>0</CCRTMessagesTimeoutCount>
<CCAISuccessMessagesReceivedCount>0</CCAISuccessMessagesReceivedCount>
<CCAISuccessMessagesSentCount>0</CCAISuccessMessagesSentCount>
<CCAIFailureMessagesReceivedCount>0</CCAIFailureMessagesReceivedCount>
<CCAIFailureMessagesSentCount>0</CCAIFailureMessagesSentCount>
<CCAUSuccessMessagesReceivedCount>0</CCAUSuccessMessagesReceivedCount>
<CCAUSuccessMessagesSentCount>0</CCAUSuccessMessagesSentCount>
<CCAUFailureMessagesReceivedCount>0</CCAUFailureMessagesReceivedCount>
<CCAUFailureMessagesSentCount>0</CCAUFailureMessagesSentCount>
<CCATSuccessMessagesReceivedCount>0</CCATSuccessMessagesReceivedCount>
<CCATSuccessMessagesSentCount>0</CCATSuccessMessagesSentCount>
<CCATFailureMessagesReceivedCount>0</CCATFailureMessagesReceivedCount>
<CCATFailureMessagesSentCount>0</CCATFailureMessagesSentCount>
<PeerOkayCount>1</PeerOkayCount>
<PeerDownCount>0</PeerDownCount>
<PeerSuspectCount>0</PeerSuspectCount>
<PeerReopenCount>0</PeerReopenCount>
</Sample>
</DiameterS9Stats>
</Statistics>
```

Diameter S9 Peer Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterS9PeerStats tag.

Request

This request follows the DiameterS9PeerStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterS9PeerStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
</DiameterS9PeerStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterS9PeerStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterS9PeerStats>
<Sample>
<StartTime>2016-05-16T23:45:01Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<IsComplete>true</IsComplete>
<Name>mra-35.example.com</Name>
<NeId/>
<NetworkElementType/>
```

```
<NetworkElementSubType/>
<ConnectTime>Mon May 16 13:40:28 EDT 2016</ConnectTime>
<DisconnectTime>Mon May 16 14:04:47 EDT 2016</DisconnectTime>
<ConnectAddress>10.196.143.176</ConnectAddress>
<ConnectPort>34283</ConnectPort>
<ConnectType>TCP</ConnectType>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<MessagesErrorInCount>0</MessagesErrorInCount>
<MessagesErrorOutCount>0</MessagesErrorOutCount>
<RARMessagesReceivedCount>0</RARMessagesReceivedCount>
<RARMessagesSentCount>0</RARMessagesSentCount>
<RARMessagesTimeoutCount>0</RARMessagesTimeoutCount>
<RAASuccessMessagesReceivedCount>0</RAASuccessMessagesReceivedCount>
<RAASuccessMessagesSentCount>0</RAASuccessMessagesSentCount>
<RAAFailureMessagesReceivedCount>0</RAAFailureMessagesReceivedCount>
<RAAFailureMessagesSentCount>0</RAAFailureMessagesSentCount>
<CCRMessagesReceivedCount>0</CCRMessagesReceivedCount>
<CCRMessagesSentCount>0</CCRMessagesSentCount>
<CCRMessagesTimeoutCount>0</CCRMessagesTimeoutCount>
<CCASuccessMessagesReceivedCount>0</CCASuccessMessagesReceivedCount>
<CCASuccessMessagesSentCount>0</CCASuccessMessagesSentCount>
<CCAFailureMessagesReceivedCount>0</CCAFailureMessagesReceivedCount>
<CCAFailureMessagesSentCount>0</CCAFailureMessagesSentCount>
<CCRIMessagesReceivedCount>0</CCRIMessagesReceivedCount>
<CCRIMessagesSentCount>0</CCRIMessagesSentCount>
<CCRIMessagesTimeoutCount>0</CCRIMessagesTimeoutCount>
<CCRUMessagesReceivedCount>0</CCRUMessagesReceivedCount>
<CCRUMessagesSentCount>0</CCRUMessagesSentCount>
<CCRUMessagesTimeoutCount>0</CCRUMessagesTimeoutCount>
<CCRTMessagesReceivedCount>0</CCRTMessagesReceivedCount>
<CCRTMessagesSentCount>0</CCRTMessagesSentCount>
<CCRTMessagesTimeoutCount>0</CCRTMessagesTimeoutCount>
<CCAISuccessMessagesReceivedCount>0</CCAISuccessMessagesReceivedCount>
<CCAISuccessMessagesSentCount>0</CCAISuccessMessagesSentCount>
<CCAIFailureMessagesReceivedCount>0</CCAIFailureMessagesReceivedCount>
<CCAIFailureMessagesSentCount>0</CCAIFailureMessagesSentCount>
<CCAUSuccessMessagesReceivedCount>0</CCAUSuccessMessagesReceivedCount>
<CCAUSuccessMessagesSentCount>0</CCAUSuccessMessagesSentCount>
<CCAUFailureMessagesReceivedCount>0</CCAUFailureMessagesReceivedCount>
<CCAUFailureMessagesSentCount>0</CCAUFailureMessagesSentCount>
<CCATSuccessMessagesReceivedCount>0</CCATSuccessMessagesReceivedCount>
<CCATSuccessMessagesSentCount>0</CCATSuccessMessagesSentCount>
<CCATFailureMessagesReceivedCount>0</CCATFailureMessagesReceivedCount>
<CCATFailureMessagesSentCount>0</CCATFailureMessagesSentCount>
</Sample>
</DiameterS9PeerStats>
</Statistics>
```

Diameter Sy Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterSyStats tag.

Request

This request follows the DiameterSyStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
```

```
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterSyStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
</DiameterSyStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterSyStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterSyStats>
<Sample>
<StartTime>2016-05-16T23:45:01Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<IsComplete>true</IsComplete>
<CurrentConnectionsCount>0</CurrentConnectionsCount>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<SLRMessagesReceivedCount>0</SLRMessagesReceivedCount>
<SLRMessagesSentCount>0</SLRMessagesSentCount>
<SLRMessagesTimeoutCount>0</SLRMessagesTimeoutCount>
<SLASuccessMessagesReceivedCount>0</SLASuccessMessagesReceivedCount>
<SLASuccessMessagesSentCount>0</SLASuccessMessagesSentCount>
<SLAFailureMessagesReceivedCount>0</SLAFailureMessagesReceivedCount>
<SLAFailureMessagesSentCount>0</SLAFailureMessagesSentCount>
<SLRIMessagesReceivedCount>0</SLRIMessagesReceivedCount>
<SLRIMessagesSentCount>0</SLRIMessagesSentCount>
<SLRIMessagesTimeoutCount>0</SLRIMessagesTimeoutCount>
<SLRUMessagesReceivedCount>0</SLRUMessagesReceivedCount>
<SLRUMessagesSentCount>0</SLRUMessagesSentCount>
<SLRUMessagesTimeoutCount>0</SLRUMessagesTimeoutCount>
<SNRMessagesReceivedCount>0</SNRMessagesReceivedCount>
<SNRMessagesSentCount>0</SNRMessagesSentCount>
<SNRMessagesTimeoutCount>0</SNRMessagesTimeoutCount>
<SNASuccessMessagesReceivedCount>0</SNASuccessMessagesReceivedCount>
<SNASuccessMessagesSentCount>0</SNASuccessMessagesSentCount>
<SNAFailureMessagesReceivedCount>0</SNAFailureMessagesReceivedCount>
<SNAFailureMessagesSentCount>0</SNAFailureMessagesSentCount>
<STRMessagesReceivedCount>0</STRMessagesReceivedCount>
<STRMessagesSentCount>0</STRMessagesSentCount>
<STRMessagesTimeoutCount>0</STRMessagesTimeoutCount>
<STASuccessMessagesReceivedCount>0</STASuccessMessagesReceivedCount>
<STASuccessMessagesSentCount>0</STASuccessMessagesSentCount>
<STAFailureMessagesReceivedCount>0</STAFailureMessagesReceivedCount>
<STAFailureMessagesSentCount>0</STAFailureMessagesSentCount>
<ActiveSessionsCount>0</ActiveSessionsCount>
<MaximumActiveSessionsCount>0</MaximumActiveSessionsCount>
<PeerOkayCount>0</PeerOkayCount>
<PeerDownCount>0</PeerDownCount>
<PeerSuspectCount>0</PeerSuspectCount>
<PeerReopenCount>0</PeerReopenCount>
</Sample>
</DiameterSyStats>
</Statistics>
```

Individual Statistics

Individual statistics defined for the Sy protocol are:

- PolicyServer

  The name of the MPE.

- IsComplete

  Shows if the statistics are complete.

- CurrentConnectionCount

  Number of servers currently connected.

- MessagesInCount

  The number of total messages received.

- MessagesOutcount

  The number of total messages sent.

- SLRMessagesReceivedCount

  The number of Spending-Limit-Request (SLR) messages received.

- SLRMessagesSentCount

  The number of Spending-Limit-Request (SLR) messages sent.

- SLRMessagesTimeoutCount

  The number of Spending-Limit-Request (SLR) messages sent where a message was not received in a predefined amount of time.

- SLASuccessMessagesReceivedCount

  The number of Spending-Limit-Answer (SLA) messages received with success status.

- SLASuccessMessagesSentCount

  The number of Spending-Limit-Answer (SLA) messages sent with success status.

- SLAFailureMessagesReceivedCount

  The number of Spending-Limit-Answer (SLA) messages received with failure status.

- SLAFailureMessagesSentCount

  The number of Spending-Limit-Answer (SLA) messages sent with failure status.

- SNRMessagesReceivedCount

  The number of Spending-Status-Notification-Request (SNR) messages received.

- SNRMessagesReceivedCount

  The number of Spending-Status-Notification-Request (SNR) messages sent.

- SNRMessagesTimeoutCount

  The number of Spending-Status-Notification-Request (SNR) messages sent where a message was not received in a predefined amount of time.

- SNASuccessMessagesReceivedCount

  The number of Spending-Status-Notification-Answer (SNA) messages received.

- SNASuccessMessagesSentCount

  The number of Spending-Status-Notification-Answer (SNA) messages sent with success status.

- SNAFailureMessagesReceivedCount

  The number of Spending-Status-Notification-Answer (SNA) messages recived with failure status.

- SNAFailureMessagesSentCount

  The number of Spending-Status-Notification-Answer (SNA) messages sent with failure status.

- STRMessagesReceivedCount

  The number of Session-Termination-Request (STR) messages received.

- STRMessagesSentCount

  The number of Session-Termination-Request (STR) messages sent.

- STRMessagesTimeoutCount

  The number of Session-Termination-Request (STR) messages sent where a message was not received in a predefined amount of time.

- STASuccessMessagesReceivedCount

  The number of Session-Termination-Answer (STA) messages received with success status.

- STASuccessMessagesSentCount

  The number of Session-Termination-Answer (STA) messages sent with success status.

- STAFailureMessagesReceivedCount

  The number of Session-Termination-Answer (STA) messages received with failure status.

- STAFailureMessagesSentCount

  The number of Session-Termination-Answer (STA) messages sent with failure status.

- ActiveSessionsCount

  The number of AF active sessions.

- MaximumActiveSessionsCount

  The number of historical maximum active sessions.

- PeerOkayCount

  The count of peers whose state is okay.

- PeerDownCount

  The count of peers whose state is down.

- PeerSuspectCount

  The count of peers whose state is suspect.

- PeerReopenCount

  The count of peers whose state is reopened.

Diameter Sy Peer Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterSyPeerStats tag.

Request

This request follows the DiameterSyPeerStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterSyPeerStats>
<!-- Name is optional. -->
<Name>mra-82.example.com</Name>
<Name>mra-35.example.com</Name>
<!-- NeId is optional. -->
<NeId />
</DiameterSyPeerStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterSyPeerStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterSyPeerStats>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<Name>sy1-sanity-primary.example.com</Name>
<NeId/>
<NetworkElementType/>
<NetworkElementSubType/>
<ConnectTime>Mon May 16 13:51:41 EDT 2016</ConnectTime>
<DisconnectTime>Mon May 16 13:53:44 EDT 2016</DisconnectTime>
<ConnectAddress>10.148.240.54</ConnectAddress>
<ConnectPort>13890</ConnectPort>
<ConnectType>TCP</ConnectType>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<MessagesErrorInCount>0</MessagesErrorInCount>
<MessagesErrorOutCount>0</MessagesErrorOutCount>
<SLRMessagesReceivedCount>0</SLRMessagesReceivedCount>
<SLRMessagesSentCount>0</SLRMessagesSentCount>
<SLRMessagesTimeoutCount>0</SLRMessagesTimeoutCount>
<SLASuccessMessagesReceivedCount>0</SLASuccessMessagesReceivedCount>
<SLASuccessMessagesSentCount>0</SLASuccessMessagesSentCount>
<SLAFailureMessagesReceivedCount>0</SLAFailureMessagesReceivedCount>
```

```
<SLAFailureMessagesSentCount>0</SLAFailureMessagesSentCount>
<SLRIMessagesReceivedCount>0</SLRIMessagesReceivedCount>
<SLRIMessagesSentCount>0</SLRIMessagesSentCount>
<SLRIMessagesTimeoutCount>0</SLRIMessagesTimeoutCount>
<SLRUMessagesReceivedCount>0</SLRUMessagesReceivedCount>
<SLRUMessagesSentCount>0</SLRUMessagesSentCount>
<SLRUMessagesTimeoutCount>0</SLRUMessagesTimeoutCount>
<SNRMessagesReceivedCount>0</SNRMessagesReceivedCount>
<SNRMessagesSentCount>0</SNRMessagesSentCount>
<SNRMessagesTimeoutCount>0</SNRMessagesTimeoutCount>
<SNASuccessMessagesReceivedCount>0</SNASuccessMessagesReceivedCount>
<SNASuccessMessagesSentCount>0</SNASuccessMessagesSentCount>
<SNAFailureMessagesReceivedCount>0</SNAFailureMessagesReceivedCount>
<SNAFailureMessagesSentCount>0</SNAFailureMessagesSentCount>
<STRMessagesReceivedCount>0</STRMessagesReceivedCount>
<STRMessagesSentCount>0</STRMessagesSentCount>
<STRMessagesTimeoutCount>0</STRMessagesTimeoutCount>
<STASuccessMessagesReceivedCount>0</STASuccessMessagesReceivedCount>
<STASuccessMessagesSentCount>0</STASuccessMessagesSentCount>
<STAFailureMessagesReceivedCount>0</STAFailureMessagesReceivedCount>
<STAFailureMessagesSentCount>0</STAFailureMessagesSentCount>
<ActiveSessionsCount>0</ActiveSessionsCount>
<MaximumActiveSessionsCount>0</MaximumActiveSessionsCount>
</Sample>
</DiameterSyPeerStats>
</Statistics>
```

Individual Statistics

Individual statistics defined for this tag are:

- PolicyServer: The name of the MPE.
- IsComplete: Shows if the statistics are complete.
- CurrentConnectionCount: Number of servers currently connected.
- MessagesInCount: The number of total messages received..
- MessagesOutcount: The number of total messages sent.
- SLRMessagesReceivedCount: The number of Spending-Limit-Request (SLR) messages received.
- SLRMessagesSentCount: The number of Spending-Limit-Request (SLR) messages sent.
- SLRMessagesTimeoutCount: The number of Spending-Limit-Request (SLR) messages sent where a message was not received in a predefined amount of time.
- SLASuccessMessagesReceivedCount: The number of Spending-Limit-Answer (SLA) messages received with success status.
- SLASuccessMessagesSentCount: The number of Spending-Limit-Answer (SLA) messages sent with success status.
- SLAFailureMessagesReceivedCount: The number of Spending-Limit-Answer (SLA) messages received with failure status.
- SLAFailureMessagesSentCount: The number of Spending-Limit-Answer (SLA) messages sent with failure status.
- SNRMessagesReceivedCount: The number of Spending-Status-Notification-Request (SNR) messages received.
- SNRMessagesReceivedCount: The number of Spending-Status-Notification-Request (SNR) messages sent.
- SNRMessagesTimeoutCount: The number of Spending-Status-Notification-Request (SNR) messages sent where a message was not received in a predefined amount of time.

- SNASuccessMessagesReceivedCount: The number of Spending-Status-Notification-Answer (SNA) messages received.
- SNASuccessMessagesSentCount: The number of Spending-Status-Notification-Answer (SNA) messages sent with success status.
- SNAFailureMessagesReceivedCount: The number of Spending-Status-Notification-Answer (SNA) messages recived with failure status.
- SNAFailureMessagesSentCount: The number of Spending-Status-Notification-Answer (SNA) messages sent with failure status.
- STRMessagesReceivedCount: The number of Session-Termination-Request (STR) messages received.
- STRMessagesSentCount: The number of Session-Termination-Request (STR) messages sent.
- STRMessagesTimeoutCount: The number of Session-Termination-Request (STR) messages sent where a message was not received in a predefined amount of time.
- STASuccessMessagesReceivedCount:The number of Session-Termination-Answer (STA) messages received with success status.
- STASuccessMessagesSentCount: The number of Session-Termination-Answer (STA) messages sent with success status.
- STAFailureMessagesReceivedCount: The number of Session-Termination-Answer (STA) messages received with failure status.
- STAFailureMessagesSentCount: The number of Session-Termination-Answer (STA) messages sent with failure status.
- ActiveSessionsCount: The number of AF active sessions.
- MaximumActiveSessionsCount: The number of historical maximum active sessions.
- PeerOkayCount: The count of peers whose state is okay.
- PeerDownCount: The count of peers whose state is down.
- PeerSuspectCount: The count of peers whose state is suspect.
- PeerReopenCount: The count of peers whose state is reopened.

Diameter Sy Reconciliation Statistics

The following examples show the request and response that are defined in the XSD files for the SyReconciliationStats tag.

Request

This request follows the SyReconciliationStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
   <ValidateResponseXML-'true'/>
   <StartTime>2015-04-01T05:00:00</StartTime>
   <EndTime>2015-04-01T05:00:15</EndTime>
   <SyReconciliationStats>
     <PolicyServer>mpe</PolicyServer>
   </SyReconciliationStats>
</QueryOmStats>
```

Response

The response to this request follows the SyReconciliationStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
 <SyReconciliationStats>
   <Sample>
       <StartTime>2015-04-15T07:15:01Z</StartTime>
       <EndTime>2015-04-15T07:30:00Z</EndTime>
       <PolicyServer>mpe</PolicyServer>
       <IsComplete>true</IsComplete>
       <TotalRuns>0</TotalAudited>
       <TotalReconciled>0</TotalReconciled>
       <PercentageReconciled>0</PercentageReconciled>>
   </Sample>
 </SyReconciliationStats>
</Statistics>
```

Diameter Event Trigger Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterEventTriggerStats tag.

Request

This request follows the DiameterEventTriggerStats tag defined in the QueryOmStats section of the XSD files.

```
<?xml version="1.0" encoding="UTF-8"?>
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterEventTriggerStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
</DiameterEventTriggerStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterEventTriggerStats tag defined in the Statistics section of the XSD files.

```
<?xml version='1.0' ?>
<Statistics>
<DiameterEventTriggerStats>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<SGSN_CHANGE>0</SGSN_CHANGE>
<USAGE_REPORT>0</USAGE_REPORT>
</Sample>
<Sample>
```

```
<StartTime>2016-05-17T00:00:00Z</StartTime>
<EndTime>2016-05-17T00:15:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<SGSN_CHANGE>0</SGSN_CHANGE>
<USAGE_REPORT>0</USAGE_REPORT>
</Sample>
<Sample>
<StartTime>2016-05-17T00:15:00Z</StartTime>
<EndTime>2016-05-17T00:30:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<SGSN_CHANGE>0</SGSN_CHANGE>
<USAGE_REPORT>0</USAGE_REPORT>
</Sample>
</DiameterEventTriggerStats>
</Statistics>
```

Diameter Connection Event Trigger Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterEventConnectionTriggerStats tag.

Request

This request follows the DiameterConnectionEventTriggerStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterConnectionEventTriggerStats>
<!-- Name is optional. -->
<Name>mra-82.example.com</Name>
<Name>mra-35.example.com</Name>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
</DiameterConnectionEventTriggerStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterConnectionEventTriggerStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterConnectionEventTriggerStats>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<Name>pgw</Name>
<NeId/>
<SGSN_CHANGE>0</SGSN_CHANGE>
```

```
<USAGE_REPORT>0</USAGE_REPORT>
</Sample>
<Sample>
<StartTime>2016-05-17T00:00:00Z</StartTime>
<EndTime>2016-05-17T00:15:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<Name>pgw</Name>
<NeId/>
<SGSN_CHANGE>0</SGSN_CHANGE>
<USAGE_REPORT>0</USAGE_REPORT>
</Sample>
<Sample>
<StartTime>2016-05-17T00:15:00Z</StartTime>
<EndTime>2016-05-17T00:30:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<Name>pgw</Name>
<NeId/>
<SGSN_CHANGE>0</SGSN_CHANGE>
<USAGE_REPORT>0</USAGE_REPORT>
</Sample>
</DiameterConnectionEventTriggerStats>
</Statistics>
```

Note: Only non-zero event trigger counts are included in the response.

Individual Statistics

Individual statistics are defined as follows for the PCEF and BBERF protocols:

- SGSN_CHANGE (0)
- QOS_CHANGE (1)
- RAT_CHANGE (2)
- TFT_CHANGE (3)
- PLMN_CHANGE (4)
- LOSS_OF_BEARER (5)
- RECOVERY_OF_BEARER (6)
- IP_CAN_CHANGE (7)
- GW_PCEF_MALFUNCTION (8)
- RESOURCES_LIMITATION (9)
- MAX_NR_BEARERS_REACHED (10)
- QOS_CHANGE_EXCEEDING_AUTHORIZATION (11)
- RAI_CHANGE (12)
- USER_LOCATION_CHANGE (13)
- OUT_OF_CREDIT (14)
- REALLOCATION_OF_CREDIT (15)
- REVALIDATION_TIMEOUT (16)
- UE_IP_ADDRESS_ALLOCATE (17)
- UE_IP_ADDRESS_RELEASE (18)
- DEFAULT_EPS_BEARER_QOS_CHANGE (20)
- AN_GW_CHANGE (21)

Diameter Application Function Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterAfStats tag.

Request

This request follows the DiameterAfStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00Z</StartTime>
<EndTime>2016-04-21T14:30:00Z</EndTime>
<DiameterAfStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
</DiameterAfStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterAfStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterAfStats>
<Sample>
<StartTime>2016-05-16T23:45:01Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<IsComplete>true</IsComplete>
<PendingConnectionsCount>0</PendingConnectionsCount>
<CurrentConnectionsCount>1</CurrentConnectionsCount>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<ASRMessagesReceivedCount>0</ASRMessagesReceivedCount>
<ASRMessagesSentCount>0</ASRMessagesSentCount>
<ASRMessagesTimeoutCount>0</ASRMessagesTimeoutCount>
<ASASuccessMessagesReceivedCount>0</ASASuccessMessagesReceivedCount>
<ASASuccessMessagesSentCount>0</ASASuccessMessagesSentCount>
<ASAFailureMessagesReceivedCount>0</ASAFailureMessagesReceivedCount>
<ASAFailureMessagesSentCount>0</ASAFailureMessagesSentCount>
<RARMessagesReceivedCount>0</RARMessagesReceivedCount>
<RARMessagesSentCount>0</RARMessagesSentCount>
<RARMessagesTimeoutCount>0</RARMessagesTimeoutCount>
<RAASuccessMessagesReceivedCount>0</RAASuccessMessagesReceivedCount>
<RAASuccessMessagesSentCount>0</RAASuccessMessagesSentCount>
<RAAFailureMessagesReceivedCount>0</RAAFailureMessagesReceivedCount>
<RAAFailureMessagesSentCount>0</RAAFailureMessagesSentCount>
<STRMessagesReceivedCount>0</STRMessagesReceivedCount>
<STRMessagesSentCount>0</STRMessagesSentCount>
<STRMessagesTimeoutCount>0</STRMessagesTimeoutCount>
<STASuccessMessagesReceivedCount>0</STASuccessMessagesReceivedCount>
<STASuccessMessagesSentCount>0</STASuccessMessagesSentCount>
<STAFailureMessagesReceivedCount>0</STAFailureMessagesReceivedCount>
<STAFailureMessagesSentCount>0</STAFailureMessagesSentCount>
<AARMessagesReceivedCount>0</AARMessagesReceivedCount>
<AARMessagesSentCount>0</AARMessagesSentCount>
```

```
<AARMessagesTimeoutCount>0</AARMessagesTimeoutCount>
<AARInitialMessagesReceivedCount>0</AARInitialMessagesReceivedCount>
<AARInitialMessagesSentCount>0</AARInitialMessagesSentCount>
<AARModificationMessagesReceivedCount>0</AARModificationMessagesReceivedCount>
<AARModificationMessagesSentCount>0</AARModificationMessagesSentCount>
<AAASuccessMessagesReceivedCount>0</AAASuccessMessagesReceivedCount>
<AAASuccessMessagesSentCount>0</AAASuccessMessagesSentCount>
<AAAFailureMessagesReceivedCount>0</AAAFailureMessagesReceivedCount>
<AAAFailureMessagesSentCount>0</AAAFailureMessagesSentCount>
<S9RxAARInitialRecvCount>0</S9RxAARInitialRecvCount>
<S9RxAARInitialSendCount>0</S9RxAARInitialSendCount>
<S9RxAARRecvCount>0</S9RxAARRecvCount>
<S9RxAARSendCount>0</S9RxAARSendCount>
<S9RxAARModificationRecvCount>0</S9RxAARModificationRecvCount>
<S9RxAARModificationSendCount>0</S9RxAARModificationSendCount>
<S9RxAARTimeoutCount>0</S9RxAARTimeoutCount>
<S9RxAAARecvSuccessCount>0</S9RxAAARecvSuccessCount>
<S9RxAAASendSuccessCount>0</S9RxAAASendSuccessCount>
<S9RxAAARecvFailureCount>0</S9RxAAARecvFailureCount>
<S9RxAAASendFailureCount>0</S9RxAAASendFailureCount>
<S9RxASROtherRecvCount>0</S9RxASROtherRecvCount>
<S9RxASROtherSendCount>0</S9RxASROtherSendCount>
<S9RxASRRecvCount>0</S9RxASRRecvCount>
<S9RxASRSendCount>0</S9RxASRSendCount>
<S9RxCleanupASRSendCount>0</S9RxCleanupASRSendCount>
<S9RxASROtherTimeoutCount>0</S9RxASROtherTimeoutCount>
<S9RxASRTimeoutCount>0</S9RxASRTimeoutCount>
<S9RxASARecvSuccessCount>0</S9RxASARecvSuccessCount>
<S9RxASASendSuccessCount>0</S9RxASASendSuccessCount>
<S9RxASARecvFailureCount>0</S9RxASARecvFailureCount>
<S9RxASASendFailureCount>0</S9RxASASendFailureCount>
<S9RxCleanupASARecvCount>0</S9RxCleanupASARecvCount>
<S9RxRARHORecvCount>0</S9RxRARHORecvCount>
<S9RxRARHOSendCount>0</S9RxRARHOSendCount>
<S9RxRAROtherRecvCount>0</S9RxRAROtherRecvCount>
<S9RxRAROtherSendCount>0</S9RxRAROtherSendCount>
<S9RxRARRecvCount>0</S9RxRARRecvCount>
<S9RxRARSendCount>0</S9RxRARSendCount>
<S9RxRARHOTimeoutCount>0</S9RxRARHOTimeoutCount>
<S9RxRAROtherTimeoutCount>0</S9RxRAROtherTimeoutCount>
<S9RxRARTimeoutCount>0</S9RxRARTimeoutCount>
<S9RxRAARecvSuccessCount>0</S9RxRAARecvSuccessCount>
<S9RxRAASendSuccessCount>0</S9RxRAASendSuccessCount>
<S9RxRAARecvFailureCount>0</S9RxRAARecvFailureCount>
<S9RxRAASendFailureCount>0</S9RxRAASendFailureCount>
<S9RxRAARecvCount>0</S9RxRAARecvCount>
<S9RxRAASendCount>0</S9RxRAASendCount>
<S9RxSTRRecvCount>0</S9RxSTRRecvCount>
<S9RxSTRSendCount>0</S9RxSTRSendCount>
<S9RxSTRTimeoutCount>0</S9RxSTRTimeoutCount>
<S9RxSTARecvSuccessCount>0</S9RxSTARecvSuccessCount>
<S9RxSTASendSuccessCount>0</S9RxSTASendSuccessCount>
<S9RxSTARecvFailureCount>0</S9RxSTARecvFailureCount>
<S9RxSTASendFailureCount>0</S9RxSTASendFailureCount>
<RxPcmmMessagesTimeoutCount>0</RxPcmmMessagesTimeoutCount>
<ActiveSessionsCount>0</ActiveSessionsCount>
<MaximumActiveSessionsCount>0</MaximumActiveSessionsCount>
<PeerOkayCount>1</PeerOkayCount>
<PeerDownCount>0</PeerDownCount>
<PeerSuspectCount>0</PeerSuspectCount>
<PeerReopenCount>0</PeerReopenCount>
<AAAInitialSendSuccessCount>0</AAAInitialSendSuccessCount>
<AAAInitialRecvSuccessCount>0</AAAInitialRecvSuccessCount>
<AAAInitialSendFailureCount>0</AAAInitialSendFailureCount>
```

```
<AAAInitialRecvFailureCount>0</AAAInitialRecvFailureCount>
<AAAModificationSendSuccessCount>0</AAAModificationSendSuccessCount>
<AAAModificationRecvSuccessCount>0</AAAModificationRecvSuccessCount>
<AAAModificationSendFailureCount>0</AAAModificationSendFailureCount>
<AAAModificationRecvFailureCount>0</AAAModificationRecvFailureCount>
<CurrSponsoredSessionCount>0</CurrSponsoredSessionCount>
<MaxSponsoredSessionCount>0</MaxSponsoredSessionCount>
<CurrSponsorCount>0</CurrSponsorCount>
<MaxSponsorCount>0</MaxSponsorCount>
<CurrServiceProviderCount>0</CurrServiceProviderCount>
<MaxServiceProviderCount>0</MaxServiceProviderCount>
<CurrEmergencySessionCount>0</CurrEmergencySessionCount>
<MaxActiveEmergencySessionCount>0</MaxActiveEmergencySessionCount>
<ASRHoSendCount>0</ASRHoSendCount>
<ASRHoReceivedCount>0</ASRHoReceivedCount>
<ASRHoTimeoutCount>0</ASRHoTimeoutCount>
<RARHoSendCount>0</RARHoSendCount>
<RARHoReceivedCount>0</RARHoReceivedCount>
<RARHoTimeoutCount>0</RARHoTimeoutCount>
<RARRerouteSendCount>0</RARRerouteSendCount>
<RARRerouteTimeoutCount>0</RARRerouteTimeoutCount>
<RAARerouteRecvSuccessCount>0</RAARerouteRecvSuccessCount>
<RAARerouteRecvFailureCount>0</RAARerouteRecvFailureCount>
<ASRRerouteSendCount>0</ASRRerouteSendCount>
<ASRRerouteTimeoutCount>0</ASRRerouteTimeoutCount>
<ASARerouteRecvSuccessCount>0</ASARerouteRecvSuccessCount>
<ASARerouteRecvFailureCount>0</ASARerouteRecvFailureCount>
</Sample>
</DiameterAfStats>
</Statistics>
```

EmergencyAPN-MPE Support

The following examples show the request and response that are defined in the XSD files for the DiameterAfStats tag utilizing support for Emergency APNs.

EmergencyAPN-MPE Support Request

This request follows the DiameterAfStats tag defined in the QueryOmStats section in the XSD files.

The following is an example of a request for all policy servers within the system utilizing support for emergency APNs:

```
<?xml version="1.0" encoding="UTF-8" ?>
<QueryOmStats>
     <StartTime>2015-05-04T01:30:00Z</StartTime>
     <EndTime>2015-05-04T01:45:00Z</EndTime>
     <DiameterAfStats>
     <PolicyServer>EmergencyAPN-MPE</PolicyServer>
     </DiameterAfStats>
</QueryOmStats>
```

EmergencyAPN-MPE Support Response

The response to this request follows the DiameterAfStats tag defined in the Statistics section in the XSD files utilizing support for emergency APNs.

The following is an example XML response to a DiameterAfStats tag request for EmergencyAPN-MPE:

```
<Statistics>
  <DiameterAfStats>
   <Sample>
        <StartTime>2015-05-04T01:30:00Z</StartTime>
     <EndTime>2015-05-04T01:45:00Z</EndTime>
     <PolicyServer>EmergencyAPN-MPE</PolicyServer>
     <IsComplete>true</IsComplete>
     <PendingConnectionsCount>0</PendingConnectionsCount>
     <CurrentConnectionsCount>1</CurrentConnectionsCount>
     <MessagesInCount>0</MessagesInCount>
     <MessagesOutCount>0</MessagesOutCount>
     <ASRMessagesReceivedCount>0</ASRMessagesReceivedCount>
     <ASRMessagesSentCount>0</ASRMessagesSentCount>
     <ASRMessagesTimeoutCount>0</ASRMessagesTimeoutCount>
     <ASASuccessMessagesReceivedCount>0</ASASuccessMessagesReceivedCount>
     <ASASuccessMessagesSentCount>0</ASASuccessMessagesSentCount>
     <ASAFailureMessagesReceivedCount>0</ASAFailureMessagesReceivedCount>
     <ASAFailureMessagesSentCount>0</ASAFailureMessagesSentCount>
     <RARMessagesReceivedCount>0</RARMessagesReceivedCount>
     <RARMessagesSentCount>0</RARMessagesSentCount>
     <RARMessagesTimeoutCount>0</RARMessagesTimeoutCount>
     <RAASuccessMessagesReceivedCount>0</RAASuccessMessagesReceivedCount>
     <RAASuccessMessagesSentCount>0</RAASuccessMessagesSentCount>
     <RAAFailureMessagesReceivedCount>0</RAAFailureMessagesReceivedCount>
     <RAAFailureMessagesSentCount>0</RAAFailureMessagesSentCount>
     <STRMessagesReceivedCount>0</STRMessagesReceivedCount>
     <STRMessagesSentCount>0</STRMessagesSentCount>
     <STRMessagesTimeoutCount>0</STRMessagesTimeoutCount>
     <STASuccessMessagesReceivedCount>0</STASuccessMessagesReceivedCount>
     <STASuccessMessagesSentCount>0</STASuccessMessagesSentCount>
     <STAFailureMessagesReceivedCount>0</STAFailureMessagesReceivedCount>
     <STAFailureMessagesSentCount>0</STAFailureMessagesSentCount>
     <AARMessagesReceivedCount>0</AARMessagesReceivedCount>
     <AARMessagesSentCount>0</AARMessagesSentCount>
     <AARMessagesTimeoutCount>0</AARMessagesTimeoutCount>
     <AARInitialMessagesReceivedCount>0</AARInitialMessagesReceivedCount>
     <AARInitialMessagesSentCount>0</AARInitialMessagesSentCount>

<AARModificationMessagesReceivedCount>0</AARModificationMessagesReceivedCount>
     <AARModificationMessagesSentCount>0</AARModificationMessagesSentCount>
     <AAASuccessMessagesReceivedCount>0</AAASuccessMessagesReceivedCount>
     <AAASuccessMessagesSentCount>0</AAASuccessMessagesSentCount>
     <AAAFailureMessagesReceivedCount>0</AAAFailureMessagesReceivedCount>
     <AAAFailureMessagesSentCount>0</AAAFailureMessagesSentCount>
     <RxPcmmMessagesTimeoutCount>0</RxPcmmMessagesTimeoutCount>
     <ActiveSessionsCount>0</ActiveSessionsCount>
     <MaximumActiveSessionsCount>0</MaximumActiveSessionsCount>
     <PeerOkayCount>1</PeerOkayCount>
     <PeerDownCount>0</PeerDownCount>
     <PeerSuspectCount>0</PeerSuspectCount>
     <PeerReopenCount>0</PeerReopenCount>
     <CurrSponsoredSessionCount>0</CurrSponsoredSessionCount>
     <MaxSponsoredSessionCount>0</MaxSponsoredSessionCount>
     <CurrSponsorCount>0</CurrSponsorCount>
     <MaxSponsorCount>0</MaxSponsorCount>
     <CurrServiceProviderCount>0</CurrServiceProviderCount>
     <MaxServiceProviderCount>0</MaxServiceProviderCount>
     <CurrEmergencySessionCount>0</CurrEmergencySessionCount>
     <MaxActiveEmergencySessionCount>0</MaxActiveEmergencySessionCount>
     <ASRHoSendCount>0</ASRHoSendCount>
     <ASRHoReceivedCount>0</ASRHoReceivedCount>
```

```
     <ASRHoTimeoutCount>0</ASRHoTimeoutCount>
     <RARHoSendCount>0</RARHoSendCount>
     <RARHoReceivedCount>0</RARHoReceivedCount>
     <RARHoTimeoutCount>0</RARHoTimeoutCount>
    </Sample>
  </DiameterAfStats>
</Statistics>
```

Diameter Application Function Peer Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterAfPeerStats tag.

Request

This request follows the DiameterAfPeerStats tag defined in the QueryOmStats section in the XSD files.

```
<?xml version="1.0" encoding="UTF-8"?>
<QueryOmStats>
    <StartTime>2016-04-21T14:15:00</StartTime>
    <EndTime>2016-04-21T14:30:00</EndTime>
    <DiameterAfPeerStats>
       <!-- Name is optional. -->
      <Name>mra-82.example.com</Name>
      <Name>mra-35.example.com</Name>
      <!-- NeId is optional. -->
      <NeId />
    </DiameterAfPeerStats>
</QueryOmStats>
```

Response

Both the Name and NeId are returned, along with the statistics and actual recorded times for those statistics. Samples are ordered by policy server, network element, and then by time.

The response to this request follows the DiameterAfPeertStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterAfPeerStats>
<Sample>
<StartTime>2016-05-16T23:45:01Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<IsComplete>true</IsComplete>
<Name>mra-35.example.com</Name>
<NeId/>
<NetworkElementType/>
<NetworkElementSubType/>
<ConnectTime>Mon May 16 13:40:28 EDT 2016</ConnectTime>
<DisconnectTime>Mon May 16 14:04:47 EDT 2016</DisconnectTime>
<ConnectAddress>10.196.143.176</ConnectAddress>
<ConnectPort>34283</ConnectPort>
<ConnectType>TCP</ConnectType>
<MessagesInCount>0</MessagesInCount>
```

```
<MessagesOutCount>0</MessagesOutCount>
<MessagesErrorInCount>0</MessagesErrorInCount>
<MessagesErrorOutCount>0</MessagesErrorOutCount>
<ASRMessagesReceivedCount>0</ASRMessagesReceivedCount>
<ASRMessagesSentCount>0</ASRMessagesSentCount>
<ASRMessagesTimeoutCount>0</ASRMessagesTimeoutCount>
<ASASuccessMessagesReceivedCount>0</ASASuccessMessagesReceivedCount>
<ASASuccessMessagesSentCount>0</ASASuccessMessagesSentCount>
<ASAFailureMessagesReceivedCount>0</ASAFailureMessagesReceivedCount>
<ASAFailureMessagesSentCount>0</ASAFailureMessagesSentCount>
<RARMessagesReceivedCount>0</RARMessagesReceivedCount>
<RARMessagesSentCount>0</RARMessagesSentCount>
<RARMessagesTimeoutCount>0</RARMessagesTimeoutCount>
<RAASuccessMessagesReceivedCount>0</RAASuccessMessagesReceivedCount>
<RAASuccessMessagesSentCount>0</RAASuccessMessagesSentCount>
<RAAFailureMessagesReceivedCount>0</RAAFailureMessagesReceivedCount>
<RAAFailureMessagesSentCount>0</RAAFailureMessagesSentCount>
<STRMessagesReceivedCount>0</STRMessagesReceivedCount>
<STRMessagesSentCount>0</STRMessagesSentCount>
<STRMessagesTimeoutCount>0</STRMessagesTimeoutCount>
<STASuccessMessagesReceivedCount>0</STASuccessMessagesReceivedCount>
<STASuccessMessagesSentCount>0</STASuccessMessagesSentCount>
<STAFailureMessagesReceivedCount>0</STAFailureMessagesReceivedCount>
<STAFailureMessagesSentCount>0</STAFailureMessagesSentCount>
<AARMessagesReceivedCount>0</AARMessagesReceivedCount>
<AARMessagesSentCount>0</AARMessagesSentCount>
<AARMessagesTimeoutCount>0</AARMessagesTimeoutCount>
<AARInitialMessagesReceivedCount>0</AARInitialMessagesReceivedCount>
<AARInitialMessagesSentCount>0</AARInitialMessagesSentCount>
<AARModificationMessagesReceivedCount>0</AARModificationMessagesReceivedCount>
<AARModificationMessagesSentCount>0</AARModificationMessagesSentCount>
<AAASuccessMessagesReceivedCount>0</AAASuccessMessagesReceivedCount>
<AAASuccessMessagesSentCount>0</AAASuccessMessagesSentCount>
<AAAFailureMessagesReceivedCount>0</AAAFailureMessagesReceivedCount>
<AAAFailureMessagesSentCount>0</AAAFailureMessagesSentCount>
<RxPcmmMessagesTimeoutCount>0</RxPcmmMessagesTimeoutCount>
<S9RxAARInitialRecvCount>0</S9RxAARInitialRecvCount>
<S9RxAARInitialSendCount>0</S9RxAARInitialSendCount>
<S9RxAARRecvCount>0</S9RxAARRecvCount>
<S9RxAARSendCount>0</S9RxAARSendCount>
<S9RxAARModificationRecvCount>0</S9RxAARModificationRecvCount>
<S9RxAARModificationSendCount>0</S9RxAARModificationSendCount>
<S9RxAARTimeoutCount>0</S9RxAARTimeoutCount>
<S9RxAAARecvSuccessCount>0</S9RxAAARecvSuccessCount>
<S9RxAAASendSuccessCount>0</S9RxAAASendSuccessCount>
<S9RxAAARecvFailureCount>0</S9RxAAARecvFailureCount>
<S9RxAAASendFailureCount>0</S9RxAAASendFailureCount>
<S9RxASROtherRecvCount>0</S9RxASROtherRecvCount>
<S9RxASROtherSendCount>0</S9RxASROtherSendCount>
<S9RxASRRecvCount>0</S9RxASRRecvCount>
<S9RxASRSendCount>0</S9RxASRSendCount>
<S9RxCleanupASRSendCount>0</S9RxCleanupASRSendCount>
<S9RxASROtherTimeoutCount>0</S9RxASROtherTimeoutCount>
<S9RxASRTimeoutCount>0</S9RxASRTimeoutCount>
<S9RxASARecvSuccessCount>0</S9RxASARecvSuccessCount>
<S9RxASASendSuccessCount>0</S9RxASASendSuccessCount>
<S9RxASARecvFailureCount>0</S9RxASARecvFailureCount>
<S9RxASASendFailureCount>0</S9RxASASendFailureCount>
<S9RxCleanupASARecvCount>0</S9RxCleanupASARecvCount>
<S9RxRARHORecvCount>0</S9RxRARHORecvCount>
<S9RxRARHOSendCount>0</S9RxRARHOSendCount>
<S9RxRAROtherRecvCount>0</S9RxRAROtherRecvCount>
<S9RxRAROtherSendCount>0</S9RxRAROtherSendCount>
<S9RxRARRecvCount>0</S9RxRARRecvCount>
```

```
<S9RxRARSendCount>0</S9RxRARSendCount>
<S9RxRARHOTimeoutCount>0</S9RxRARHOTimeoutCount>
<S9RxRAROtherTimeoutCount>0</S9RxRAROtherTimeoutCount>
<S9RxRARTimeoutCount>0</S9RxRARTimeoutCount>
<S9RxRAARecvSuccessCount>0</S9RxRAARecvSuccessCount>
<S9RxRAASendSuccessCount>0</S9RxRAASendSuccessCount>
<S9RxRAARecvFailureCount>0</S9RxRAARecvFailureCount>
<S9RxRAASendFailureCount>0</S9RxRAASendFailureCount>
<S9RxRAARecvCount>0</S9RxRAARecvCount>
<S9RxRAASendCount>0</S9RxRAASendCount>
<S9RxSTRRecvCount>0</S9RxSTRRecvCount>
<S9RxSTRSendCount>0</S9RxSTRSendCount>
<S9RxSTRTimeoutCount>0</S9RxSTRTimeoutCount>
<S9RxSTARecvSuccessCount>0</S9RxSTARecvSuccessCount>
<S9RxSTASendSuccessCount>0</S9RxSTASendSuccessCount>
<S9RxSTARecvFailureCount>0</S9RxSTARecvFailureCount>
<S9RxSTASendFailureCount>0</S9RxSTASendFailureCount>
<ASRHoSendCount>0</ASRHoSendCount>
<ASRHoReceivedCount>0</ASRHoReceivedCount>
<ASRHoTimeoutCount>0</ASRHoTimeoutCount>
<RARHoSendCount>0</RARHoSendCount>
<RARHoReceivedCount>0</RARHoReceivedCount>
<RARHoTimeoutCount>0</RARHoTimeoutCount>
<AAAInitialSendSuccessCount>0</AAAInitialSendSuccessCount>
<AAAInitialRecvSuccessCount>0</AAAInitialRecvSuccessCount>
<AAAInitialSendFailureCount>0</AAAInitialSendFailureCount>
<AAAInitialRecvFailureCount>0</AAAInitialRecvFailureCount>
<AAAModificationSendSuccessCount>0</AAAModificationSendSuccessCount>
<AAAModificationRecvSuccessCount>0</AAAModificationRecvSuccessCount>
<AAAModificationSendFailureCount>0</AAAModificationSendFailureCount>
<AAAModificationRecvFailureCount>0</AAAModificationRecvFailureCount>
<RARRerouteSendCount>0</RARRerouteSendCount>
<RARRerouteTimeoutCount>0</RARRerouteTimeoutCount>
<RAARerouteRecvSuccessCount>0</RAARerouteRecvSuccessCount>
<RAARerouteRecvFailureCount>0</RAARerouteRecvFailureCount>
<ASRRerouteSendCount>0</ASRRerouteSendCount>
<ASRRerouteTimeoutCount>0</ASRRerouteTimeoutCount>
<ASARerouteRecvSuccessCount>0</ASARerouteRecvSuccessCount>
<ASARerouteRecvFailureCount>0</ASARerouteRecvFailureCount>
</Sample>
</DiameterAfPeerStats>
</Statistics>
```

Diameter Charging Function Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterCTFStats tag.

Request

This request follows the DiameterCTFStats tag defined in the QueryOmStats section in the XSD files.

The following is an example of a request for all policy servers in the system:

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterCTFStats>
<!-- PolicyServer is optional. -->
```

```
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
</DiameterCTFStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterCTFStats tag defined in the Statistics section in the XSD files. The following is an example XML response to a multiple network element tag request.

```
<Statistics>
<DiameterCTFStats>
<Sample>
<StartTime>2016-05-16T23:45:01Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<IsComplete>true</IsComplete>
<CurrentConnectionsCount>0</CurrentConnectionsCount>
<PeerOkayCount>1</PeerOkayCount>
<PeerDownCount>0</PeerDownCount>
<PeerSuspectCount>0</PeerSuspectCount>
<PeerReopenCount>0</PeerReopenCount>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<CCRMessagesReceivedCount>0</CCRMessagesReceivedCount>
<CCRMessagesSentCount>0</CCRMessagesSentCount>
<CCASuccessMessagesReceivedCount>0</CCASuccessMessagesReceivedCount>
<CCASuccessMessagesSentCount>0</CCASuccessMessagesSentCount>
<CCAFailureMessagesReceivedCount>0</CCAFailureMessagesReceivedCount>
<CCAFailureMessagesSentCount>0</CCAFailureMessagesSentCount>
<CCRIMessagesReceivedCount>0</CCRIMessagesReceivedCount>
<CCRIMessagesSentCount>0</CCRIMessagesSentCount>
<CCRUMessagesReceivedCount>0</CCRUMessagesReceivedCount>
<CCRUMessagesSentCount>0</CCRUMessagesSentCount>
<CCRTMessagesReceivedCount>0</CCRTMessagesReceivedCount>
<CCRTMessagesSentCount>0</CCRTMessagesSentCount>
<CCAISuccessMessagesReceivedCount>0</CCAISuccessMessagesReceivedCount>
<CCAISuccessMessagesSentCount>0</CCAISuccessMessagesSentCount>
<CCAIFailureMessagesReceivedCount>0</CCAIFailureMessagesReceivedCount>
<CCAIFailureMessagesSentCount>0</CCAIFailureMessagesSentCount>
<CCAUSuccessMessagesReceivedCount>0</CCAUSuccessMessagesReceivedCount>
<CCAUSuccessMessagesSentCount>0</CCAUSuccessMessagesSentCount>
<CCAUFailureMessagesReceivedCount>0</CCAUFailureMessagesReceivedCount>
<CCAUFailureMessagesSentCount>0</CCAUFailureMessagesSentCount>
<CCATSuccessMessagesReceivedCount>0</CCATSuccessMessagesReceivedCount>
<CCATSuccessMessagesSentCount>0</CCATSuccessMessagesSentCount>
<CCATFailureMessagesReceivedCount>0</CCATFailureMessagesReceivedCount>
<CCATFailureMessagesSentCount>0</CCATFailureMessagesSentCount>
<RARMessagesReceivedCount>0</RARMessagesReceivedCount>
<RARMessagesSentCount>0</RARMessagesSentCount>
<RAASuccessMessagesReceivedCount>0</RAASuccessMessagesReceivedCount>
<RAASuccessMessagesSentCount>0</RAASuccessMessagesSentCount>
<RAAFailureMessagesReceivedCount>0</RAAFailureMessagesReceivedCount>
<RAAFailureMessagesSentCount>0</RAAFailureMessagesSentCount>
<ASRMessagesReceivedCount>0</ASRMessagesReceivedCount>
<ASRMessagesSentCount>0</ASRMessagesSentCount>
<ASASuccessMessagesReceivedCount>0</ASASuccessMessagesReceivedCount>
<ASASuccessMessagesSentCount>0</ASASuccessMessagesSentCount>
<ASAFailureMessagesReceivedCount>0</ASAFailureMessagesReceivedCount>
<ASAFailureMessagesSentCount>0</ASAFailureMessagesSentCount>
<ActiveSessionsCount>0</ActiveSessionsCount>
```

```
<MaximumActiveSessionsCount>0</MaximumActiveSessionsCount>
</Sample>
</DiameterCTFStats>
</Statistics>
```

Diameter Charging Function Peer Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterCTFPeerStats tag.

Request

This request follows the DiameterCTFPeerStats tag defined in the QueryOmStats section in the XSD files.

The following is an example of a request for a single network element using the Name parameter:

```
<?xml version="1.0" encoding="UTF-8"?>
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterCTFPeerStats>
<!-- Name is optional. -->
<Name>mra-82.example.com</Name>
<Name>mra-35.example.com</Name>
<!-- NeId is optional. -->
<NeId />
</DiameterCTFPeerStats>
</QueryOmStats>
```

Response

Both Name and NeId are returned along with the statistics and actual recorded times for those statistics. Samples are ordered by policy server, network element, and then by time.

The response to this request follows the DiameterCTFPeerStats tag defined in the Statistics section in the XSD files.

```
<?xml version='1.0' ?>
<Statistics>
<DiameterCTFPeerStats>
<Sample>
<StartTime>2016-05-16T23:45:01Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<IsComplete>true</IsComplete>
<Name>mra-35.example.com</Name>
<NeId/>
<NetworkElementType/>
<NetworkElementSubType/>
<ActiveConnectionCount>0</ActiveConnectionCount>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<MessagesErrorInCount>0</MessagesErrorInCount>
<MessagesErrorOutCount>0</MessagesErrorOutCount>
<CCRMessagesReceivedCount>0</CCRMessagesReceivedCount>
<CCRMessagesSentCount>0</CCRMessagesSentCount>
<CCASuccessMessagesReceivedCount>0</CCASuccessMessagesReceivedCount>
```

```
<CCASuccessMessagesSentCount>0</CCASuccessMessagesSentCount>
<CCAFailureMessagesReceivedCount>0</CCAFailureMessagesReceivedCount>
<CCAFailureMessagesSentCount>0</CCAFailureMessagesSentCount>
<CCRIMessagesReceivedCount>0</CCRIMessagesReceivedCount>
<CCRIMessagesSentCount>0</CCRIMessagesSentCount>
<CCRUMessagesReceivedCount>0</CCRUMessagesReceivedCount>
<CCRUMessagesSentCount>0</CCRUMessagesSentCount>
<CCRTMessagesReceivedCount>0</CCRTMessagesReceivedCount>
<CCRTMessagesSentCount>0</CCRTMessagesSentCount>
<CCAISuccessMessagesReceivedCount>0</CCAISuccessMessagesReceivedCount>
<CCAISuccessMessagesSentCount>0</CCAISuccessMessagesSentCount>
<CCAIFailureMessagesReceivedCount>0</CCAIFailureMessagesReceivedCount>
<CCAIFailureMessagesSentCount>0</CCAIFailureMessagesSentCount>
<CCAUSuccessMessagesReceivedCount>0</CCAUSuccessMessagesReceivedCount>
<CCAUSuccessMessagesSentCount>0</CCAUSuccessMessagesSentCount>
<CCAUFailureMessagesReceivedCount>0</CCAUFailureMessagesReceivedCount>
<CCAUFailureMessagesSentCount>0</CCAUFailureMessagesSentCount>
<CCATSuccessMessagesReceivedCount>0</CCATSuccessMessagesReceivedCount>
<CCATSuccessMessagesSentCount>0</CCATSuccessMessagesSentCount>
<CCATFailureMessagesReceivedCount>0</CCATFailureMessagesReceivedCount>
<CCATFailureMessagesSentCount>0</CCATFailureMessagesSentCount>
<RARMessagesReceivedCount>0</RARMessagesReceivedCount>
<RARMessagesSentCount>0</RARMessagesSentCount>
<RAASuccessMessagesReceivedCount>0</RAASuccessMessagesReceivedCount>
<RAASuccessMessagesSentCount>0</RAASuccessMessagesSentCount>
<RAAFailureMessagesReceivedCount>0</RAAFailureMessagesReceivedCount>
<RAAFailureMessagesSentCount>0</RAAFailureMessagesSentCount>
<ASRMessagesReceivedCount>0</ASRMessagesReceivedCount>
<ASRMessagesSentCount>0</ASRMessagesSentCount>
<ASASuccessMessagesReceivedCount>0</ASASuccessMessagesReceivedCount>
<ASASuccessMessagesSentCount>0</ASASuccessMessagesSentCount>
<ASAFailureMessagesReceivedCount>0</ASAFailureMessagesReceivedCount>
<ASAFailureMessagesSentCount>0</ASAFailureMessagesSentCount>
<ActiveSessionsCount>0</ActiveSessionsCount>
<MaximumActiveSessionsCount>0</MaximumActiveSessionsCount>
</Sample>
</DiameterCTFPeerStats>
</Statistics>
```

Diameter PCEF Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterPcefStats tag.

Request

This request follows the DiameterPcefStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterPcefStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
</DiameterPcefStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterPcefStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterPcefStats>
<Sample>
<StartTime>2016-05-16T23:45:01Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<IsComplete>true</IsComplete>
<CurrentConnectionsCount>1</CurrentConnectionsCount>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<RARMessagesReceivedCount>0</RARMessagesReceivedCount>
<RARMessagesSentCount>0</RARMessagesSentCount>
<RARMessagesTimeoutCount>0</RARMessagesTimeoutCount>
<RAASuccessMessagesReceivedCount>0</RAASuccessMessagesReceivedCount>
<RAASuccessMessagesSentCount>0</RAASuccessMessagesSentCount>
<RAAFailureMessagesReceivedCount>0</RAAFailureMessagesReceivedCount>
<RAAFailureMessagesSentCount>0</RAAFailureMessagesSentCount>
<CCRMessagesReceivedCount>0</CCRMessagesReceivedCount>
<CCRMessagesSentCount>0</CCRMessagesSentCount>
<CCRMessagesTimeoutCount>0</CCRMessagesTimeoutCount>
<CCASuccessMessagesReceivedCount>0</CCASuccessMessagesReceivedCount>
<CCASuccessMessagesSentCount>0</CCASuccessMessagesSentCount>
<CCAFailureMessagesReceivedCount>0</CCAFailureMessagesReceivedCount>
<CCAFailureMessagesSentCount>0</CCAFailureMessagesSentCount>
<CCRIMessagesReceivedCount>0</CCRIMessagesReceivedCount>
<CCRIMessagesSentCount>0</CCRIMessagesSentCount>
<CCRIMessagesTimeoutCount>0</CCRIMessagesTimeoutCount>
<CCRUMessagesReceivedCount>0</CCRUMessagesReceivedCount>
<CCRUMessagesSentCount>0</CCRUMessagesSentCount>
<CCRUMessagesTimeoutCount>0</CCRUMessagesTimeoutCount>
<CCRTMessagesReceivedCount>0</CCRTMessagesReceivedCount>
<CCRTMessagesSentCount>0</CCRTMessagesSentCount>
<CCRTMessagesTimeoutCount>0</CCRTMessagesTimeoutCount>
<CCAISuccessMessagesReceivedCount>0</CCAISuccessMessagesReceivedCount>
<CCAISuccessMessagesSentCount>0</CCAISuccessMessagesSentCount>
<CCAIFailureMessagesReceivedCount>0</CCAIFailureMessagesReceivedCount>
<CCAIFailureMessagesSentCount>0</CCAIFailureMessagesSentCount>
<CCAUSuccessMessagesReceivedCount>0</CCAUSuccessMessagesReceivedCount>
<CCAUSuccessMessagesSentCount>0</CCAUSuccessMessagesSentCount>
<CCAUFailureMessagesReceivedCount>0</CCAUFailureMessagesReceivedCount>
<CCAUFailureMessagesSentCount>0</CCAUFailureMessagesSentCount>
<CCATSuccessMessagesReceivedCount>0</CCATSuccessMessagesReceivedCount>
<CCATSuccessMessagesSentCount>0</CCATSuccessMessagesSentCount>
<CCATFailureMessagesReceivedCount>0</CCATFailureMessagesReceivedCount>
<CCATFailureMessagesSentCount>0</CCATFailureMessagesSentCount>
<ActiveSessionsCount>0</ActiveSessionsCount>
<MaximumActiveSessionsCount>0</MaximumActiveSessionsCount>
<CurrEmergencySessionCount>0</CurrEmergencySessionCount>
<MaxActiveEmergencySessionCount>0</MaxActiveEmergencySessionCount>
<PeerOkayCount>1</PeerOkayCount>
<PeerDownCount>0</PeerDownCount>
<PeerSuspectCount>0</PeerSuspectCount>
<PeerReopenCount>0</PeerReopenCount>
</Sample>
```

EmergencyAPN-MPE Support Request

This request follows the DiameterPcefStats tag defined in the QueryOmStats section in the XSD files utilizing support for Emergency APNs.

The following is an example of a request for all policy servers in the system.

```
<QueryOmStats>
     <StartTime>2015-05-04T01:30:00Z</StartTime>
     <EndTime>2015-05-04T02:30:00Z</EndTime>
     <DiameterPcefStats>
     <PolicyServer>EmergencyAPN-MPE</PolicyServer>
     </DiameterPcefStats>
</QueryOmStats>
```

EmergencyAPN-MPE Support Response

The response to this request follows the DiameterPcefStats tag defined in the Statistics section in the XSD files utilizing support for Emergency APNs. The following is an example XML response to this tag request.

```
<Statistics>
 <DiameterPcefStats>
  <Sample>
<StartTime>2015-05-04T01:30:00Z</StartTime>
<EndTime>2015-05-04T01:45:00Z</EndTime>
<PolicyServer>EmergencyAPN-MPE</PolicyServer>
<IsComplete>true</IsComplete>
<CurrentConnectionsCount>1</CurrentConnectionsCount>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<RARMessagesReceivedCount>0</RARMessagesReceivedCount>
<RARMessagesSentCount>0</RARMessagesSentCount>
<RARMessagesTimeoutCount>0</RARMessagesTimeoutCount>
<RAASuccessMessagesReceivedCount>0</RAASuccessMessagesReceivedCount>
<RAASuccessMessagesSentCount>0</RAASuccessMessagesSentCount>
<RAAFailureMessagesReceivedCount>0</RAAFailureMessagesReceivedCount>
<RAAFailureMessagesSentCount>0</RAAFailureMessagesSentCount>
<CCRMessagesReceivedCount>0</CCRMessagesReceivedCount>
<CCRMessagesSentCount>0</CCRMessagesSentCount>
<CCRMessagesTimeoutCount>0</CCRMessagesTimeoutCount>
<CCASuccessMessagesReceivedCount>0</CCASuccessMessagesReceivedCount>
<CCASuccessMessagesSentCount>0</CCASuccessMessagesSentCount>
<CCAFailureMessagesReceivedCount>0</CCAFailureMessagesReceivedCount>
<CCAFailureMessagesSentCount>0</CCAFailureMessagesSentCount>
<CCRIMessagesReceivedCount>0</CCRIMessagesReceivedCount>
<CCRIMessagesSentCount>0</CCRIMessagesSentCount>
<CCRIMessagesTimeoutCount>0</CCRIMessagesTimeoutCount>
<CCRUMessagesReceivedCount>0</CCRUMessagesReceivedCount>
<CCRUMessagesSentCount>0</CCRUMessagesSentCount>
<CCRUMessagesTimeoutCount>0</CCRUMessagesTimeoutCount>
<CCRTMessagesReceivedCount>0</CCRTMessagesReceivedCount>
<CCRTMessagesSentCount>0</CCRTMessagesSentCount>
<CCRTMessagesTimeoutCount>0</CCRTMessagesTimeoutCount>
<CCAISuccessMessagesReceivedCount>0</CCAISuccessMessagesReceivedCount>
<CCAISuccessMessagesSentCount>0</CCAISuccessMessagesSentCount>
<CCAIFailureMessagesReceivedCount>0</CCAIFailureMessagesReceivedCount>
<CCAIFailureMessagesSentCount>0</CCAIFailureMessagesSentCount>
<CCAUSuccessMessagesReceivedCount>0</CCAUSuccessMessagesReceivedCount>
```

```
<CCAUSuccessMessagesSentCount>0</CCAUSuccessMessagesSentCount>
<CCAUFailureMessagesReceivedCount>0</CCAUFailureMessagesReceivedCount>
<CCAUFailureMessagesSentCount>0</CCAUFailureMessagesSentCount>
<CCATSuccessMessagesReceivedCount>0</CCATSuccessMessagesReceivedCount>
<CCATSuccessMessagesSentCount>0</CCATSuccessMessagesSentCount>
<CCATFailureMessagesReceivedCount>0</CCATFailureMessagesReceivedCount>
<CCATFailureMessagesSentCount>0</CCATFailureMessagesSentCount>
<ActiveSessionsCount>0</ActiveSessionsCount>
<MaximumActiveSessionsCount>0</MaximumActiveSessionsCount>
<CurrEmergencySessionCount>0</CurrEmergencySessionCount>
<MaxActiveEmergencySessionCount>0</MaxActiveEmergencySessionCount>
<PeerOkayCount>1</PeerOkayCount>
<PeerDownCount>0</PeerDownCount>
<PeerSuspectCount>0</PeerSuspectCount>
<PeerReopenCount>0</PeerReopenCount>
</Sample>
 </DiameterPcefStats>
</Statistics>
```

Diameter PCEF Peer Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterPcefPeerStats tag.

Request

This request follows the DiameterPcefPeerStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterPcefPeerStats>
<!-- Name is optional. -->
<Name>mra-82.example.com</Name>
<Name>mra-35.example.com</Name>
<!-- NeId is optional. -->
<NeId />
</DiameterPcefPeerStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterPcefPeerStats tag defined in the Statistics section in the XSD files.

Both Name and NeId are returned along with the statistics and actual recorded times for those statistics. Samples are ordered by policy server, network element, and then by time.

```
<Statistics>
<DiameterPcefPeerStats>
<Sample>
<StartTime>2016-05-16T23:45:01Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<IsComplete>true</IsComplete>
```

```
<Name>mra-35.example.com</Name>
<NeId/>
<NetworkElementType/>
<NetworkElementSubType/>
<ConnectTime>Mon May 16 13:40:28 EDT 2016</ConnectTime>
<DisconnectTime>Mon May 16 14:04:47 EDT 2016</DisconnectTime>
<ConnectAddress>10.196.143.176</ConnectAddress>
<ConnectPort>34283</ConnectPort>
<ConnectType>TCP</ConnectType>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<MessagesErrorInCount>0</MessagesErrorInCount>
<MessagesErrorOutCount>0</MessagesErrorOutCount>
<RARMessagesReceivedCount>0</RARMessagesReceivedCount>
<RARMessagesSentCount>0</RARMessagesSentCount>
<RARMessagesTimeoutCount>0</RARMessagesTimeoutCount>
<RAASuccessMessagesReceivedCount>0</RAASuccessMessagesReceivedCount>
<RAASuccessMessagesSentCount>0</RAASuccessMessagesSentCount>
<RAAFailureMessagesReceivedCount>0</RAAFailureMessagesReceivedCount>
<RAAFailureMessagesSentCount>0</RAAFailureMessagesSentCount>
<CCRMessagesReceivedCount>0</CCRMessagesReceivedCount>
<CCRMessagesSentCount>0</CCRMessagesSentCount>
<CCRMessagesTimeoutCount>0</CCRMessagesTimeoutCount>
<CCASuccessMessagesReceivedCount>0</CCASuccessMessagesReceivedCount>
<CCASuccessMessagesSentCount>0</CCASuccessMessagesSentCount>
<CCAFailureMessagesReceivedCount>0</CCAFailureMessagesReceivedCount>
<CCAFailureMessagesSentCount>0</CCAFailureMessagesSentCount>
<CCRIMessagesReceivedCount>0</CCRIMessagesReceivedCount>
<CCRIMessagesSentCount>0</CCRIMessagesSentCount>
<CCRIMessagesTimeoutCount>0</CCRIMessagesTimeoutCount>
<CCRUMessagesReceivedCount>0</CCRUMessagesReceivedCount>
<CCRUMessagesSentCount>0</CCRUMessagesSentCount>
<CCRUMessagesTimeoutCount>0</CCRUMessagesTimeoutCount>
<CCRTMessagesReceivedCount>0</CCRTMessagesReceivedCount>
<CCRTMessagesSentCount>0</CCRTMessagesSentCount>
<CCRTMessagesTimeoutCount>0</CCRTMessagesTimeoutCount>
<CCAISuccessMessagesReceivedCount>0</CCAISuccessMessagesReceivedCount>
<CCAISuccessMessagesSentCount>0</CCAISuccessMessagesSentCount>
<CCAIFailureMessagesReceivedCount>0</CCAIFailureMessagesReceivedCount>
<CCAIFailureMessagesSentCount>0</CCAIFailureMessagesSentCount>
<CCAUSuccessMessagesReceivedCount>0</CCAUSuccessMessagesReceivedCount>
<CCAUSuccessMessagesSentCount>0</CCAUSuccessMessagesSentCount>
<CCAUFailureMessagesReceivedCount>0</CCAUFailureMessagesReceivedCount>
<CCAUFailureMessagesSentCount>0</CCAUFailureMessagesSentCount>
<CCATSuccessMessagesReceivedCount>0</CCATSuccessMessagesReceivedCount>
<CCATSuccessMessagesSentCount>0</CCATSuccessMessagesSentCount>
<CCATFailureMessagesReceivedCount>0</CCATFailureMessagesReceivedCount>
<CCATFailureMessagesSentCount>0</CCATFailureMessagesSentCount>
<ActiveSessionsCount>0</ActiveSessionsCount>
<MaximumActiveSessionsCount>0</MaximumActiveSessionsCount>
</Sample>
</DiameterPcefPeerStats>
</Statistics>
```

Diameter PCEF APN Statistics

The following examples show the request and response that are defined in the XSD files for the PCEF APN statistics.

Request

This request follows the DiameterPcefApnStats tag defined in the QueryOmStats section in the XSD files.

```
  <QueryOmStats>
    <StartTime>2017-06-02T07:10:00Z</StartTime>
    <EndTime>2017-06-02T07:20:00Z</EndTime>
    <DiameterPcefApnStats>
      <PolicyServer>mpe133</PolicyServer>
      <Name>cmwap</Name>  <!--APN prefix-->
    </DiameterPcefApnStats>
  </QueryOmStats>
```

Response

The response to this request follows the DiameterPcefApnStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
   <DiameterPcefApnStats>
      <Sample>
         <StartTime>2017-06-02T07:00:00Z</StartTime>
         <EndTime>2017-06-02T07:15:00Z</EndTime>
         <PolicyServer>mpe133</PolicyServer>
         <Name>cmwap</Name>
         <IsComplete>true</IsComplete>
         <MessagesInCount>0</MessagesInCount>
         <MessagesOutCount>0</MessagesOutCount>
         <RARMessagesReceivedCount>0</RARMessagesReceivedCount>
         <RARMessagesSentCount>0</RARMessagesSentCount>
         <RARMessagesTimeoutCount>0</RARMessagesTimeoutCount>
         <RAASuccessMessagesReceivedCount>0</RAASuccessMessagesReceivedCount>
         <RAASuccessMessagesSentCount>0</RAASuccessMessagesSentCount>
         <RAAFailureMessagesReceivedCount>0</RAAFailureMessagesReceivedCount>
         <RAAFailureMessagesSentCount>0</RAAFailureMessagesSentCount>
         <CCRMessagesReceivedCount>0</CCRMessagesReceivedCount>
         <CCRMessagesSentCount>0</CCRMessagesSentCount>
         <CCRMessagesTimeoutCount>0</CCRMessagesTimeoutCount>
         <CCASuccessMessagesReceivedCount>0</CCASuccessMessagesReceivedCount>
         <CCASuccessMessagesSentCount>0</CCASuccessMessagesSentCount>
         <CCAFailureMessagesReceivedCount>0</CCAFailureMessagesReceivedCount>
         <CCAFailureMessagesSentCount>0</CCAFailureMessagesSentCount>
         <CCRIMessagesReceivedCount>0</CCRIMessagesReceivedCount>
         <CCRIMessagesSentCount>0</CCRIMessagesSentCount>
         <CCRIMessagesTimeoutCount>0</CCRIMessagesTimeoutCount>
         <CCRUMessagesReceivedCount>0</CCRUMessagesReceivedCount>
         <CCRUMessagesSentCount>0</CCRUMessagesSentCount>
         <CCRUMessagesTimeoutCount>0</CCRUMessagesTimeoutCount>
         <CCRTMessagesReceivedCount>0</CCRTMessagesReceivedCount>
         <CCRTMessagesSentCount>0</CCRTMessagesSentCount>
         <CCRTMessagesTimeoutCount>0</CCRTMessagesTimeoutCount>
         <CCAISuccessMessagesReceivedCount>0</CCAISuccessMessagesReceivedCount>

         <CCAISuccessMessagesSentCount>0</CCAISuccessMessagesSentCount>
         <CCAIFailureMessagesReceivedCount>0</CCAIFailureMessagesReceivedCount>

         <CCAIFailureMessagesSentCount>0</CCAIFailureMessagesSentCount>
         <CCAUSuccessMessagesReceivedCount>0</CCAUSuccessMessagesReceivedCount>
```

```
         <CCAUSuccessMessagesSentCount>0</CCAUSuccessMessagesSentCount>
         <CCAUFailureMessagesReceivedCount>0</CCAUFailureMessagesReceivedCount>

         <CCAUFailureMessagesSentCount>0</CCAUFailureMessagesSentCount>
         <CCATSuccessMessagesReceivedCount>0</CCATSuccessMessagesReceivedCount>

         <CCATSuccessMessagesSentCount>0</CCATSuccessMessagesSentCount>
         <CCATFailureMessagesReceivedCount>0</CCATFailureMessagesReceivedCount>

         <CCATFailureMessagesSentCount>0</CCATFailureMessagesSentCount>
      </Sample>
   </DiameterPcefApnStats>
</Statistics>
```

DRMA Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterDrmaStats tag.

Request

This request follows the DiameterDrmaStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterDrmaStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
</DiameterDrmaStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterDrmaStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterDrmaStats>
<Sample>
<StartTime>2016-05-16T23:45:01Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<IsComplete>true</IsComplete>
<CurrentConnectionsCount>1</CurrentConnectionsCount>
<MessagesInCount>15</MessagesInCount>
<MessagesOutCount>15</MessagesOutCount>
<DBRMessagesReceivedCount>0</DBRMessagesReceivedCount>
<DBRMessagesSentCount>0</DBRMessagesSentCount>
<DBRMessagesTimeoutCount>0</DBRMessagesTimeoutCount>
<DBASuccessMessagesReceivedCount>0</DBASuccessMessagesReceivedCount>
<DBASuccessMessagesSentCount>0</DBASuccessMessagesSentCount>
<DBAFailureMessagesReceivedCount>0</DBAFailureMessagesReceivedCount>
<DBAFailureMessagesSentCount>0</DBAFailureMessagesSentCount>
<RURMessagesReceivedCount>0</RURMessagesReceivedCount>
```

```
<RURMessagesSentCount>0</RURMessagesSentCount>
<RURMessagesTimeoutCount>0</RURMessagesTimeoutCount>
<RUASuccessMessagesReceivedCount>0</RUASuccessMessagesReceivedCount>
<RUASuccessMessagesSentCount>0</RUASuccessMessagesSentCount>
<RUAFailureMessagesReceivedCount>0</RUAFailureMessagesReceivedCount>
<RUAFailureMessagesSentCount>0</RUAFailureMessagesSentCount>
<LNRMessagesReceivedCount>0</LNRMessagesReceivedCount>
<LNRMessagesSentCount>15</LNRMessagesSentCount>
<LNRMessagesTimeoutCount>0</LNRMessagesTimeoutCount>
<LNASuccessMessagesReceivedCount>15</LNASuccessMessagesReceivedCount>
<LNASuccessMessagesSentCount>0</LNASuccessMessagesSentCount>
<LNAFailureMessagesReceivedCount>0</LNAFailureMessagesReceivedCount>
<LNAFailureMessagesSentCount>0</LNAFailureMessagesSentCount>
<LSRMessagesReceivedCount>0</LSRMessagesReceivedCount>
<LSRMessagesSentCount>0</LSRMessagesSentCount>
<LSRMessagesTimeoutCount>0</LSRMessagesTimeoutCount>
<LSASuccessMessagesReceivedCount>0</LSASuccessMessagesReceivedCount>
<LSASuccessMessagesSentCount>0</LSASuccessMessagesSentCount>
<LSAFailureMessagesReceivedCount>0</LSAFailureMessagesReceivedCount>
<LSAFailureMessagesSentCount>0</LSAFailureMessagesSentCount>
<SQRMessagesReceivedCount>0</SQRMessagesReceivedCount>
<SQRMessagesSentCount>0</SQRMessagesSentCount>
<SQRMessagesTimeoutCount>0</SQRMessagesTimeoutCount>
<SQASuccessMessagesReceivedCount>0</SQASuccessMessagesReceivedCount>
<SQASuccessMessagesSentCount>0</SQASuccessMessagesSentCount>
<SQAFailureMessagesReceivedCount>0</SQAFailureMessagesReceivedCount>
<SQAFailureMessagesSentCount>0</SQAFailureMessagesSentCount>
<BindingFoundSentCount>0</BindingFoundSentCount>
<BindingFoundRecvCount>0</BindingFoundRecvCount>
<BindingNotFoundSentCount>0</BindingNotFoundSentCount>
<BindingNotFoundRecvCount>0</BindingNotFoundRecvCount>
<PcrfDownSentCount>0</PcrfDownSentCount>
<PcrfDownReceivedCount>0</PcrfDownReceivedCount>
<AllPcrfsDownSentCount>0</AllPcrfsDownSentCount>
<AllPcrfsDownRecvCount>0</AllPcrfsDownRecvCount>
<PeerOkayCount>1</PeerOkayCount>
<PeerDownCount>0</PeerDownCount>
<PeerSuspectCount>0</PeerSuspectCount>
<PeerReopenCount>0</PeerReopenCount>
</Sample>
</DiameterDrmaStats>
</Statistics>
```

DRMA Peer Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterDrmaPeerStats tag.

Request

This request follows the DiameterDrmaPeerStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterDrmaPeerStats>
<!-- Name is optional. -->
<Name>mra-82.example.com</Name>
```

```
<Name>mra-35.example.com</Name>
<!-- NeId is optional. -->
<NeId />
</DiameterDrmaPeerStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterDrmaPeerStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterDrmaPeerStats>
<Sample>
<StartTime>2016-05-16T23:45:01Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<IsComplete>true</IsComplete>
<Name>mra-35.example.com</Name>
<NeId/>
<NetworkElementType/>
<NetworkElementSubType/>
<ConnectTime>Mon May 16 13:40:28 EDT 2016</ConnectTime>
<DisconnectTime>Mon May 16 14:04:47 EDT 2016</DisconnectTime>
<ConnectAddress>10.196.143.176</ConnectAddress>
<ConnectPort>34283</ConnectPort>
<ConnectType>TCP</ConnectType>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<MessagesErrorInCount>0</MessagesErrorInCount>
<MessagesErrorOutCount>0</MessagesErrorOutCount>
<DBRMessagesReceivedCount>0</DBRMessagesReceivedCount>
<DBRMessagesSentCount>0</DBRMessagesSentCount>
<DBRMessagesTimeoutCount>0</DBRMessagesTimeoutCount>
<DBASuccessMessagesReceivedCount>0</DBASuccessMessagesReceivedCount>
<DBASuccessMessagesSentCount>0</DBASuccessMessagesSentCount>
<DBAFailureMessagesReceivedCount>0</DBAFailureMessagesReceivedCount>
<DBAFailureMessagesSentCount>0</DBAFailureMessagesSentCount>
<RURMessagesReceivedCount>0</RURMessagesReceivedCount>
<RURMessagesSentCount>0</RURMessagesSentCount>
<RURMessagesTimeoutCount>0</RURMessagesTimeoutCount>
<RUASuccessMessagesReceivedCount>0</RUASuccessMessagesReceivedCount>
<RUASuccessMessagesSentCount>0</RUASuccessMessagesSentCount>
<RUAFailureMessagesReceivedCount>0</RUAFailureMessagesReceivedCount>
<RUAFailureMessagesSentCount>0</RUAFailureMessagesSentCount>
<LNRMessagesReceivedCount>0</LNRMessagesReceivedCount>
<LNRMessagesSentCount>0</LNRMessagesSentCount>
<LNRMessagesTimeoutCount>0</LNRMessagesTimeoutCount>
<LNASuccessMessagesReceivedCount>0</LNASuccessMessagesReceivedCount>
<LNASuccessMessagesSentCount>0</LNASuccessMessagesSentCount>
<LNAFailureMessagesReceivedCount>0</LNAFailureMessagesReceivedCount>
<LNAFailureMessagesSentCount>0</LNAFailureMessagesSentCount>
<LSRMessagesReceivedCount>0</LSRMessagesReceivedCount>
<LSRMessagesSentCount>0</LSRMessagesSentCount>
<LSRMessagesTimeoutCount>0</LSRMessagesTimeoutCount>
<LSASuccessMessagesReceivedCount>0</LSASuccessMessagesReceivedCount>
<LSASuccessMessagesSentCount>0</LSASuccessMessagesSentCount>
<LSAFailureMessagesReceivedCount>0</LSAFailureMessagesReceivedCount>
<LSAFailureMessagesSentCount>0</LSAFailureMessagesSentCount>
<SQRMessagesReceivedCount>0</SQRMessagesReceivedCount>
<SQRMessagesSentCount>0</SQRMessagesSentCount>
```

```
<SQRMessagesTimeoutCount>0</SQRMessagesTimeoutCount>
<SQASuccessMessagesReceivedCount>0</SQASuccessMessagesReceivedCount>
<SQASuccessMessagesSentCount>0</SQASuccessMessagesSentCount>
<SQAFailureMessagesReceivedCount>0</SQAFailureMessagesReceivedCount>
<SQAFailureMessagesSentCount>0</SQAFailureMessagesSentCount>
<BindingFoundSentCount>0</BindingFoundSentCount>
<BindingFoundRecvCount>0</BindingFoundRecvCount>
<BindingNotFoundSentCount>0</BindingNotFoundSentCount>
<BindingNotFoundRecvCount>0</BindingNotFoundRecvCount>
<PcrfDownSentCount>0</PcrfDownSentCount>
<PcrfDownReceivedCount>0</PcrfDownReceivedCount>
<AllPcrfsDownSentCount>0</AllPcrfsDownSentCount>
<AllPcrfsDownRecvCount>0</AllPcrfsDownRecvCount>
</Sample>
</DiameterDrmaPeerStats>
</Statistics>
```

Diameter Bberf Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterBberfStats tag.

Request

This request follows the DiameterBberfStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2017-04-21T14:15:00</StartTime>
<EndTime>2017-04-21T14:30:00</EndTime>
<DiameterBberfStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
</DiameterBberfStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterBberfStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterBberfStats>
<Sample>
<StartTime>2017-05-16T23:45:01Z</StartTime>
<EndTime>2017-05-17T00:00:01Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<IsComplete>true</IsComplete>
<CurrentConnectionsCount>1</CurrentConnectionsCount>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<RARMessagesReceivedCount>0</RARMessagesReceivedCount>
<RARMessagesSentCount>0</RARMessagesSentCount>
<RARMessagesTimeoutCount>0</RARMessagesTimeoutCount>
<RAASuccessMessagesReceivedCount>0</RAASuccessMessagesReceivedCount>
<RAASuccessMessagesSentCount>0</RAASuccessMessagesSentCount>
<RAAFailureMessagesReceivedCount>0</RAAFailureMessagesReceivedCount>
```

```
<RAAFailureMessagesSentCount>0</RAAFailureMessagesSentCount>
<CCRMessagesReceivedCount>0</CCRMessagesReceivedCount>
<CCRMessagesSentCount>0</CCRMessagesSentCount>
<CCRMessagesTimeoutCount>0</CCRMessagesTimeoutCount>
<CCASuccessMessagesReceivedCount>0</CCASuccessMessagesReceivedCount>
<CCASuccessMessagesSentCount>0</CCASuccessMessagesSentCount>
<CCAFailureMessagesReceivedCount>0</CCAFailureMessagesReceivedCount>
<CCAFailureMessagesSentCount>0</CCAFailureMessagesSentCount>
<CCRIMessagesReceivedCount>0</CCRIMessagesReceivedCount>
<CCRIMessagesSentCount>0</CCRIMessagesSentCount>
<CCRIMessagesTimeoutCount>0</CCRIMessagesTimeoutCount>
<CCRUMessagesReceivedCount>0</CCRUMessagesReceivedCount>
<CCRUMessagesSentCount>0</CCRUMessagesSentCount>
<CCRUMessagesTimeoutCount>0</CCRUMessagesTimeoutCount>
<CCRTMessagesReceivedCount>0</CCRTMessagesReceivedCount>
<CCRTMessagesSentCount>0</CCRTMessagesSentCount>
<CCRTMessagesTimeoutCount>0</CCRTMessagesTimeoutCount>
<CCAISuccessMessagesReceivedCount>0</CCAISuccessMessagesReceivedCount>
<CCAISuccessMessagesSentCount>0</CCAISuccessMessagesSentCount>
<CCAIFailureMessagesReceivedCount>0</CCAIFailureMessagesReceivedCount>
<CCAIFailureMessagesSentCount>0</CCAIFailureMessagesSentCount>
<CCAUSuccessMessagesReceivedCount>0</CCAUSuccessMessagesReceivedCount>
<CCAUSuccessMessagesSentCount>0</CCAUSuccessMessagesSentCount>
<CCAUFailureMessagesReceivedCount>0</CCAUFailureMessagesReceivedCount>
<CCAUFailureMessagesSentCount>0</CCAUFailureMessagesSentCount>
<CCATSuccessMessagesReceivedCount>0</CCATSuccessMessagesReceivedCount>
<CCATSuccessMessagesSentCount>0</CCATSuccessMessagesSentCount>
<CCATFailureMessagesReceivedCount>0</CCATFailureMessagesReceivedCount>
<CCATFailureMessagesSentCount>0</CCATFailureMessagesSentCount>
<ActiveSessionsCount>0</ActiveSessionsCount>
<MaximumActiveSessionsCount>0</MaximumActiveSessionsCount>
<PeerOkayCount>1</PeerOkayCount>
<PeerDownCount>0</PeerDownCount>
<PeerSuspectCount>0</PeerSuspectCount>
<PeerReopenCount>0</PeerReopenCount>
</Sample>
</DiameterBberfStats>
</Statistics>
```

Diameter Bberf Peer Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterBberfPeerStats tag.

Request

This request follows the DiameterBberfPeerStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterBberfPeerStats>
<!-- Name is optional. -->
<Name>mra-82.example.com</Name>
<Name>mra-35.example.com</Name>
<!-- NeId is optional. -->
<NeId />
```

```
</DiameterBberfPeerStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterBberfPeerStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterBberfPeerStats>
<Sample>
<StartTime>2016-05-16T23:45:01Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<IsComplete>true</IsComplete>
<Name>mra-35.example.com</Name>
<NeId/>
<NetworkElementType/>
<NetworkElementSubType/>
<ConnectTime>Mon May 16 13:40:28 EDT 2016</ConnectTime>
<DisconnectTime>Mon May 16 14:04:47 EDT 2016</DisconnectTime>
<ConnectAddress>10.196.143.176</ConnectAddress>
<ConnectPort>34283</ConnectPort>
<ConnectType>TCP</ConnectType>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<MessagesErrorInCount>0</MessagesErrorInCount>
<MessagesErrorOutCount>0</MessagesErrorOutCount>
<RARMessagesReceivedCount>0</RARMessagesReceivedCount>
<RARMessagesSentCount>0</RARMessagesSentCount>
<RARMessagesTimeoutCount>0</RARMessagesTimeoutCount>
<RAASuccessMessagesReceivedCount>0</RAASuccessMessagesReceivedCount>
<RAASuccessMessagesSentCount>0</RAASuccessMessagesSentCount>
<RAAFailureMessagesReceivedCount>0</RAAFailureMessagesReceivedCount>
<RAAFailureMessagesSentCount>0</RAAFailureMessagesSentCount>
<CCRMessagesReceivedCount>0</CCRMessagesReceivedCount>
<CCRMessagesSentCount>0</CCRMessagesSentCount>
<CCRMessagesTimeoutCount>0</CCRMessagesTimeoutCount>
<CCASuccessMessagesReceivedCount>0</CCASuccessMessagesReceivedCount>
<CCASuccessMessagesSentCount>0</CCASuccessMessagesSentCount>
<CCAFailureMessagesReceivedCount>0</CCAFailureMessagesReceivedCount>
<CCAFailureMessagesSentCount>0</CCAFailureMessagesSentCount>
<CCRIMessagesReceivedCount>0</CCRIMessagesReceivedCount>
<CCRIMessagesSentCount>0</CCRIMessagesSentCount>
<CCRIMessagesTimeoutCount>0</CCRIMessagesTimeoutCount>
<CCRUMessagesReceivedCount>0</CCRUMessagesReceivedCount>
<CCRUMessagesSentCount>0</CCRUMessagesSentCount>
<CCRUMessagesTimeoutCount>0</CCRUMessagesTimeoutCount>
<CCRTMessagesReceivedCount>0</CCRTMessagesReceivedCount>
<CCRTMessagesSentCount>0</CCRTMessagesSentCount>
<CCRTMessagesTimeoutCount>0</CCRTMessagesTimeoutCount>
<CCAISuccessMessagesReceivedCount>0</CCAISuccessMessagesReceivedCount>
<CCAISuccessMessagesSentCount>0</CCAISuccessMessagesSentCount>
<CCAIFailureMessagesReceivedCount>0</CCAIFailureMessagesReceivedCount>
<CCAIFailureMessagesSentCount>0</CCAIFailureMessagesSentCount>
<CCAUSuccessMessagesReceivedCount>0</CCAUSuccessMessagesReceivedCount>
<CCAUSuccessMessagesSentCount>0</CCAUSuccessMessagesSentCount>
<CCAUFailureMessagesReceivedCount>0</CCAUFailureMessagesReceivedCount>
<CCAUFailureMessagesSentCount>0</CCAUFailureMessagesSentCount>
<CCATSuccessMessagesReceivedCount>0</CCATSuccessMessagesReceivedCount>
<CCATSuccessMessagesSentCount>0</CCATSuccessMessagesSentCount>
```

```
<CCATFailureMessagesReceivedCount>0</CCATFailureMessagesReceivedCount>
<CCATFailureMessagesSentCount>0</CCATFailureMessagesSentCount>
<ActiveSessionsCount>0</ActiveSessionsCount>
<MaximumActiveSessionsCount>0</MaximumActiveSessionsCount>
</Sample>
</DiameterBberfPeerStats>
</Statistics>
```

Diameter TDF Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterTdfStats tag.

Request

This request follows the DiameterTdfStats tag defined in the QueryOmStats section in the XSD files.

The following is an example of this request.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterTdfStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
</DiameterTdfStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterTdfStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterTdfStats>
<Sample>
<StartTime>2016-05-16T23:45:01Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<IsComplete>true</IsComplete>
<CurrentConnectionsCount>1</CurrentConnectionsCount>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<TSRMessagesReceivedCount>0</TSRMessagesReceivedCount>
<TSRMessagesSentCount>0</TSRMessagesSentCount>
<TSRMessagesTimeoutCount>0</TSRMessagesTimeoutCount>
<TSASuccessMessagesReceivedCount>0</TSASuccessMessagesReceivedCount>
<TSASuccessMessagesSentCount>0</TSASuccessMessagesSentCount>
<TSAFailureMessagesReceivedCount>0</TSAFailureMessagesReceivedCount>
<TSAFailureMessagesSentCount>0</TSAFailureMessagesSentCount>
<RARMessagesReceivedCount>0</RARMessagesReceivedCount>
<RARMessagesSentCount>0</RARMessagesSentCount>
<RARMessagesTimeoutCount>0</RARMessagesTimeoutCount>
<RAASuccessMessagesReceivedCount>0</RAASuccessMessagesReceivedCount>
<RAASuccessMessagesSentCount>0</RAASuccessMessagesSentCount>
<RAAFailureMessagesReceivedCount>0</RAAFailureMessagesReceivedCount>
```

```
<RAAFailureMessagesSentCount>0</RAAFailureMessagesSentCount>
<CCRMessagesReceivedCount>0</CCRMessagesReceivedCount>
<CCRMessagesSentCount>0</CCRMessagesSentCount>
<CCRMessagesTimeoutCount>0</CCRMessagesTimeoutCount>
<CCASuccessMessagesReceivedCount>0</CCASuccessMessagesReceivedCount>
<CCASuccessMessagesSentCount>0</CCASuccessMessagesSentCount>
<CCAFailureMessagesReceivedCount>0</CCAFailureMessagesReceivedCount>
<CCAFailureMessagesSentCount>0</CCAFailureMessagesSentCount>
<CCRIMessagesReceivedCount>0</CCRIMessagesReceivedCount>
<CCRIMessagesSentCount>0</CCRIMessagesSentCount>
<CCRIMessagesTimeoutCount>0</CCRIMessagesTimeoutCount>
<CCRUMessagesReceivedCount>0</CCRUMessagesReceivedCount>
<CCRUMessagesSentCount>0</CCRUMessagesSentCount>
<CCRUMessagesTimeoutCount>0</CCRUMessagesTimeoutCount>
<CCRTMessagesReceivedCount>0</CCRTMessagesReceivedCount>
<CCRTMessagesSentCount>0</CCRTMessagesSentCount>
<CCRTMessagesTimeoutCount>0</CCRTMessagesTimeoutCount>
<CCAISuccessMessagesReceivedCount>0</CCAISuccessMessagesReceivedCount>
<CCAISuccessMessagesSentCount>0</CCAISuccessMessagesSentCount>
<CCAIFailureMessagesReceivedCount>0</CCAIFailureMessagesReceivedCount>
<CCAIFailureMessagesSentCount>0</CCAIFailureMessagesSentCount>
<CCAUSuccessMessagesReceivedCount>0</CCAUSuccessMessagesReceivedCount>
<CCAUSuccessMessagesSentCount>0</CCAUSuccessMessagesSentCount>
<CCAUFailureMessagesReceivedCount>0</CCAUFailureMessagesReceivedCount>
<CCAUFailureMessagesSentCount>0</CCAUFailureMessagesSentCount>
<CCATSuccessMessagesReceivedCount>0</CCATSuccessMessagesReceivedCount>
<CCATSuccessMessagesSentCount>0</CCATSuccessMessagesSentCount>
<CCATFailureMessagesReceivedCount>0</CCATFailureMessagesReceivedCount>
<CCATFailureMessagesSentCount>0</CCATFailureMessagesSentCount>
<ActiveSessionsCount>0</ActiveSessionsCount>
<MaximumActiveSessionsCount>0</MaximumActiveSessionsCount>
<PeerOkayCount>1</PeerOkayCount>
<PeerDownCount>0</PeerDownCount>
<PeerSuspectCount>0</PeerSuspectCount>
<PeerReopenCount>0</PeerReopenCount>
<TSRRerouteSendCount>0</TSRRerouteSendCount>
<TSRRerouteTimeoutCount>0</TSRRerouteTimeoutCount>
<TSARerouteRecvSuccessCount>0</TSARerouteRecvSuccessCount>
<TSARerouteRecvFailureCount>0</TSARerouteRecvFailureCount>
</Sample>
</DiameterTdfStats>
</Statistics>
```

Diameter TDF Peer Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterTdfPeerStats tag.

Request

This request follows the DiameterTdfPeerStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterTdfPeerStats>
<!-- Name is optional. -->
<Name>mra-82.example.com</Name>
```

```
<Name>mra-35.example.com</Name>
<!-- NeId is optional. -->
<NeId />
</DiameterTdfPeerStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterTdfPeerStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterTdfPeerStats>
<Sample>
<StartTime>2016-05-16T23:45:01Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<IsComplete>true</IsComplete>
<Name>mra-35.example.com</Name>
<NeId/>
<NetworkElementType/>
<NetworkElementSubType/>
<ConnectTime>Mon May 16 13:40:28 EDT 2016</ConnectTime>
<DisconnectTime>Mon May 16 14:04:47 EDT 2016</DisconnectTime>
<ConnectAddress>10.196.143.176</ConnectAddress>
<ConnectPort>34283</ConnectPort>
<ConnectType>TCP</ConnectType>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<MessagesErrorInCount>0</MessagesErrorInCount>
<MessagesErrorOutCount>0</MessagesErrorOutCount>
<TSRMessagesReceivedCount>0</TSRMessagesReceivedCount>
<TSRMessagesSentCount>0</TSRMessagesSentCount>
<TSRMessagesTimeoutCount>0</TSRMessagesTimeoutCount>
<TSASuccessMessagesReceivedCount>0</TSASuccessMessagesReceivedCount>
<TSASuccessMessagesSentCount>0</TSASuccessMessagesSentCount>
<TSAFailureMessagesReceivedCount>0</TSAFailureMessagesReceivedCount>
<TSAFailureMessagesSentCount>0</TSAFailureMessagesSentCount>
<RARMessagesReceivedCount>0</RARMessagesReceivedCount>
<RARMessagesSentCount>0</RARMessagesSentCount>
<RARMessagesTimeoutCount>0</RARMessagesTimeoutCount>
<RAASuccessMessagesReceivedCount>0</RAASuccessMessagesReceivedCount>
<RAASuccessMessagesSentCount>0</RAASuccessMessagesSentCount>
<RAAFailureMessagesReceivedCount>0</RAAFailureMessagesReceivedCount>
<RAAFailureMessagesSentCount>0</RAAFailureMessagesSentCount>
<CCRMessagesReceivedCount>0</CCRMessagesReceivedCount>
<CCRMessagesSentCount>0</CCRMessagesSentCount>
<CCRMessagesTimeoutCount>0</CCRMessagesTimeoutCount>
<CCASuccessMessagesReceivedCount>0</CCASuccessMessagesReceivedCount>
<CCASuccessMessagesSentCount>0</CCASuccessMessagesSentCount>
<CCAFailureMessagesReceivedCount>0</CCAFailureMessagesReceivedCount>
<CCAFailureMessagesSentCount>0</CCAFailureMessagesSentCount>
<CCRIMessagesReceivedCount>0</CCRIMessagesReceivedCount>
<CCRIMessagesSentCount>0</CCRIMessagesSentCount>
<CCRIMessagesTimeoutCount>0</CCRIMessagesTimeoutCount>
<CCRUMessagesReceivedCount>0</CCRUMessagesReceivedCount>
<CCRUMessagesSentCount>0</CCRUMessagesSentCount>
<CCRUMessagesTimeoutCount>0</CCRUMessagesTimeoutCount>
<CCRTMessagesReceivedCount>0</CCRTMessagesReceivedCount>
<CCRTMessagesSentCount>0</CCRTMessagesSentCount>
<CCRTMessagesTimeoutCount>0</CCRTMessagesTimeoutCount>
```

```
<CCAISuccessMessagesReceivedCount>0</CCAISuccessMessagesReceivedCount>
<CCAISuccessMessagesSentCount>0</CCAISuccessMessagesSentCount>
<CCAIFailureMessagesReceivedCount>0</CCAIFailureMessagesReceivedCount>
<CCAIFailureMessagesSentCount>0</CCAIFailureMessagesSentCount>
<CCAUSuccessMessagesReceivedCount>0</CCAUSuccessMessagesReceivedCount>
<CCAUSuccessMessagesSentCount>0</CCAUSuccessMessagesSentCount>
<CCAUFailureMessagesReceivedCount>0</CCAUFailureMessagesReceivedCount>
<CCAUFailureMessagesSentCount>0</CCAUFailureMessagesSentCount>
<CCATSuccessMessagesReceivedCount>0</CCATSuccessMessagesReceivedCount>
<CCATSuccessMessagesSentCount>0</CCATSuccessMessagesSentCount>
<CCATFailureMessagesReceivedCount>0</CCATFailureMessagesReceivedCount>
<CCATFailureMessagesSentCount>0</CCATFailureMessagesSentCount>
<ActiveSessionsCount>0</ActiveSessionsCount>
<MaximumActiveSessionsCount>0</MaximumActiveSessionsCount>
<TSRRerouteSendCount>0</TSRRerouteSendCount>
<TSRRerouteTimeoutCount>0</TSRRerouteTimeoutCount>
<TSARerouteRecvSuccessCount>0</TSARerouteRecvSuccessCount>
<TSARerouteRecvFailureCount>0</TSARerouteRecvFailureCount>
</Sample>
</DiameterTdfPeerStats>
</Statistics>
```

Diameter State Synch Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterStateSynchyStats tag.

Request

This request follows the DiameterStateSynchyStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterStateSyncStatistics>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
<!-- Name is optional. -->
<Name>mra-82.example.com</Name>
<Name>mra-35.example.com</Name>
<!-- NeId is optional. -->
<NeId />
</DiameterStateSyncStatistics>
</QueryOmStats>
```

Response

The response to this request follows the DiameterStateSynchyStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterStateSyncStatistics>
<Sample>
```

```
<StartTime>2016-05-16T23:45:01Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<MessagesInCount/>
<MessagesOutCount/>
<JSERMessagesReceivedCount/>
<JSERMessagesSentCount/>
<JSEASuccessMessagesReceivedCount/>
<JSEASuccessMessagesSentCount/>
<JSEAFailureMessagesReceivedCount/>
<JSEAFailureMessagesSentCount/>
<JSDRMessagesReceivedCount/>
<JSDRMessagesSentCount/>
<JSDASuccessMessagesReceivedCount/>
<JSDASuccessMessagesSentCount/>
<JSDAFailureMessagesReceivedCount/>
<JSDAFailureMessagesSentCount/>
<ActiveSyncSessionCount/>
</Sample>
</DiameterStateSyncStatistics>
</Statistics>
```

Diameter VZR Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterVzrStatstag.

Request

This request follows the DiameterVzrStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterVzrStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
</DiameterVzrStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterVzrStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterVzrStats>
<Sample>
<StartTime>2016-05-16T23:45:01Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<IsComplete>true</IsComplete>
<CurrentConnectionsCount>1</CurrentConnectionsCount>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<SDRMessagesReceivedCount>0</SDRMessagesReceivedCount>
```

```
<SDRMessagesSentCount>0</SDRMessagesSentCount>
<SDRMessagesTimeoutCount>0</SDRMessagesTimeoutCount>
<SDASuccessMessagesReceivedCount>0</SDASuccessMessagesReceivedCount>
<SDASuccessMessagesSentCount>0</SDASuccessMessagesSentCount>
<SDAFailureMessagesReceivedCount>0</SDAFailureMessagesReceivedCount>
<SDAFailureMessagesSentCount>0</SDAFailureMessagesSentCount>
</Sample>
</DiameterVzrStats>
</Statistics>
```

Diameter VZR Peer Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterVzrPeerStats tag.

Request

This request follows the DiameterVzrPeerStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterVzrPeerStats>
<!-- Name is optional. -->
<Name>mra-82.example.com</Name>
<Name>mra-35.example.com</Name>
<!-- NeId is optional. -->
<NeId />
</DiameterVzrPeerStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterVzrPeerStats tag defined in the Statistics section in the XSD files. The following is an example XML response to this tag request.

```
<Statistics>
<DiameterVzrPeerStats>
<Sample>
<StartTime>2016-05-16T23:45:01Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<IsComplete>true</IsComplete>
<Name>mra-35.example.com</Name>
<NeId/>
<NetworkElementType/>
<NetworkElementSubType/>
<ConnectTime>Mon May 16 13:40:28 EDT 2016</ConnectTime>
<DisconnectTime>Mon May 16 14:04:47 EDT 2016</DisconnectTime>
<ConnectAddress>10.196.143.176</ConnectAddress>
<ConnectPort>34283</ConnectPort>
<ConnectType>TCP</ConnectType>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<MessagesErrorInCount>0</MessagesErrorInCount>
```

```
<MessagesErrorOutCount>0</MessagesErrorOutCount>
<SDRMessagesReceivedCount>0</SDRMessagesReceivedCount>
<SDRMessagesSentCount>0</SDRMessagesSentCount>
<SDRMessagesTimeoutCount>0</SDRMessagesTimeoutCount>
<SDASuccessMessagesReceivedCount>0</SDASuccessMessagesReceivedCount>
<SDASuccessMessagesSentCount>0</SDASuccessMessagesSentCount>
<SDAFailureMessagesReceivedCount>0</SDAFailureMessagesReceivedCount>
<SDAFailureMessagesSentCount>0</SDAFailureMessagesSentCount>
</Sample>
</DiameterVzrPeerStats>
</Statistics>
```

Requests and Responses for Diameter MRA Statistics

This section shows the requests and responses for all Diameter MRA statistics:

- Diameter MRA Statistics
  - *Diameter MRA AF Statistics*
  - *Diameter MRA Bberf Statistics*
  - *Diameter MRA TDF Statistics*
  - *Diameter MRA TDF over SCTP Statistics*
  - *Diameter MRA Charging Function Statistics*
  - *Diameter MRA DRA Statistics*
  - *Diameter MRA Distributed Routing and Management Application (DRMA) Statistics*
  - *Diameter MRA Policy Charging Enforcement Function Statistics*
  - *Diameter MRA S9 Statistics*
  - *Diameter MRA TDF Statistics*
  - *Diameter MRA TDF over SCTP Statistics*
  - *Diameter MRA VZR Statistics*
  -
- Diameter MRA Peer Statistics
  - *Diameter MRA AF Peer Statistics*
  - *Diameter MRA Bberf Peer Statistics*
  - *Diameter MRA TDF Peer Statistics*
  - *Diameter MRA Charging Function Peer Statistics*
  - *DRMA Peer Statistics*
  - *Diameter MRA Policy Charging Enforcement Function Statistics*
  - *Diameter MRA S9 Peer Statistics*
  - *Diameter MRA TDF Peer Statistics*
  - *Diameter MRA VZR Peer Statistics*
- Diameter MRA Latency Statistics
  - *Diameter MRA AF Latency Statistics*
  - *Diameter MRA Bberf Latency Statistics*
  - *Diameter MRA DRMA Latency Statistics*
  - *Diameter MRA Policy Charging Enforcement Function Latency Statistics*
  - *Diameter MRA S9 Latency Statistics*

- *Diameter MRA TDF Latency Statistics*

- Diameter MRA Peer Latency Statistics
  - *Diameter Application Function Peer Latency Statistics*
  - *Diameter MRA Bberf Peer Latency Statistics*
  - *Diameter MRA DRMA Peer Latency Statistics*
  - *Diameter MRA Policy Charging Enforcement Function Peer Latency Statistics*
  - *Diameter MRA S9 Peer Latency Statistics*
  - *Diameter MRA TDF Peer Latency Statistics*

Diameter MRA AF Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterMraAfStats tag.

Request

This request follows the DiameterMraAfStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterMraAfStats>
<!-- MRA is optional. -->
<MRA>MRA-Cluster</MRA>
<MRA>MRA-35</MRA>
</DiameterMraAfStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterMraAfStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterMraAfStats>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<MRA>MRA-Cluster</MRA>
<IsComplete>true</IsComplete>
<PendingConnectionsCount>0</PendingConnectionsCount>
<CurrentConnectionsCount>1</CurrentConnectionsCount>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<ASRMessagesReceivedCount>0</ASRMessagesReceivedCount>
<ASRMessagesSentCount>0</ASRMessagesSentCount>
<ASRMessagesTimeoutCount>0</ASRMessagesTimeoutCount>
<ASASuccessMessagesReceivedCount>0</ASASuccessMessagesReceivedCount>
<ASASuccessMessagesSentCount>0</ASASuccessMessagesSentCount>
<ASAFailureMessagesReceivedCount>0</ASAFailureMessagesReceivedCount>
<ASAFailureMessagesSentCount>0</ASAFailureMessagesSentCount>
```

```
<RARMessagesReceivedCount>0</RARMessagesReceivedCount>
<RARMessagesSentCount>0</RARMessagesSentCount>
<RARMessagesTimeoutCount>0</RARMessagesTimeoutCount>
<RAASuccessMessagesReceivedCount>0</RAASuccessMessagesReceivedCount>
<RAASuccessMessagesSentCount>0</RAASuccessMessagesSentCount>
<RAAFailureMessagesReceivedCount>0</RAAFailureMessagesReceivedCount>
<RAAFailureMessagesSentCount>0</RAAFailureMessagesSentCount>
<STRMessagesReceivedCount>0</STRMessagesReceivedCount>
<STRMessagesSentCount>0</STRMessagesSentCount>
<STRMessagesTimeoutCount>0</STRMessagesTimeoutCount>
<STASuccessMessagesReceivedCount>0</STASuccessMessagesReceivedCount>
<STASuccessMessagesSentCount>0</STASuccessMessagesSentCount>
<STAFailureMessagesReceivedCount>0</STAFailureMessagesReceivedCount>
<STAFailureMessagesSentCount>0</STAFailureMessagesSentCount>
<AARMessagesReceivedCount>0</AARMessagesReceivedCount>
<AARMessagesSentCount>0</AARMessagesSentCount>
<AARMessagesTimeoutCount>0</AARMessagesTimeoutCount>
<AARInitialMessagesReceivedCount>0</AARInitialMessagesReceivedCount>
<AARInitialMessagesSentCount>0</AARInitialMessagesSentCount>
<AARModificationMessagesReceivedCount>0</AARModificationMessagesReceivedCount>
<AARModificationMessagesSentCount>0</AARModificationMessagesSentCount>
<AAASuccessMessagesReceivedCount>0</AAASuccessMessagesReceivedCount>
<AAASuccessMessagesSentCount>0</AAASuccessMessagesSentCount>
<AAAFailureMessagesReceivedCount>0</AAAFailureMessagesReceivedCount>
<AAAFailureMessagesSentCount>0</AAAFailureMessagesSentCount>
<S9RxAARInitialRecvCount>0</S9RxAARInitialRecvCount>
<S9RxAARInitialSendCount>0</S9RxAARInitialSendCount>
<S9RxAARRecvCount>0</S9RxAARRecvCount>
<S9RxAARSendCount>0</S9RxAARSendCount>
<S9RxAARModificationRecvCount>0</S9RxAARModificationRecvCount>
<S9RxAARModificationSendCount>0</S9RxAARModificationSendCount>
<S9RxAARTimeoutCount>0</S9RxAARTimeoutCount>
<S9RxAAARecvSuccessCount>0</S9RxAAARecvSuccessCount>
<S9RxAAASendSuccessCount>0</S9RxAAASendSuccessCount>
<S9RxAAARecvFailureCount>0</S9RxAAARecvFailureCount>
<S9RxAAASendFailureCount>0</S9RxAAASendFailureCount>
<S9RxASROtherRecvCount>0</S9RxASROtherRecvCount>
<S9RxASROtherSendCount>0</S9RxASROtherSendCount>
<S9RxASRRecvCount>0</S9RxASRRecvCount>
<S9RxASRSendCount>0</S9RxASRSendCount>
<S9RxCleanupASRSendCount>0</S9RxCleanupASRSendCount>
<S9RxASROtherTimeoutCount>0</S9RxASROtherTimeoutCount>
<S9RxASRTimeoutCount>0</S9RxASRTimeoutCount>
<S9RxASARecvSuccessCount>0</S9RxASARecvSuccessCount>
<S9RxASASendSuccessCount>0</S9RxASASendSuccessCount>
<S9RxASARecvFailureCount>0</S9RxASARecvFailureCount>
<S9RxASASendFailureCount>0</S9RxASASendFailureCount>
<S9RxCleanupASARecvCount>0</S9RxCleanupASARecvCount>
<S9RxRARHORecvCount>0</S9RxRARHORecvCount>
<S9RxRARHOSendCount>0</S9RxRARHOSendCount>
<S9RxRAROtherRecvCount>0</S9RxRAROtherRecvCount>
<S9RxRAROtherSendCount>0</S9RxRAROtherSendCount>
<S9RxRARRecvCount>0</S9RxRARRecvCount>
<S9RxRARSendCount>0</S9RxRARSendCount>
<S9RxRARHOTimeoutCount>0</S9RxRARHOTimeoutCount>
<S9RxRAROtherTimeoutCount>0</S9RxRAROtherTimeoutCount>
<S9RxRARTimeoutCount>0</S9RxRARTimeoutCount>
<S9RxRAARecvSuccessCount>0</S9RxRAARecvSuccessCount>
<S9RxRAASendSuccessCount>0</S9RxRAASendSuccessCount>
<S9RxRAARecvFailureCount>0</S9RxRAARecvFailureCount>
<S9RxRAASendFailureCount>0</S9RxRAASendFailureCount>
<S9RxRAARecvCount>0</S9RxRAARecvCount>
<S9RxRAASendCount>0</S9RxRAASendCount>
<S9RxSTRRecvCount>0</S9RxSTRRecvCount>
```

```
<S9RxSTRSendCount>0</S9RxSTRSendCount>
<S9RxSTRTimeoutCount>0</S9RxSTRTimeoutCount>
<S9RxSTARecvSuccessCount>0</S9RxSTARecvSuccessCount>
<S9RxSTASendSuccessCount>0</S9RxSTASendSuccessCount>
<S9RxSTARecvFailureCount>0</S9RxSTARecvFailureCount>
<S9RxSTASendFailureCount>0</S9RxSTASendFailureCount>
<PeerOkayCount>1</PeerOkayCount>
<PeerDownCount>0</PeerDownCount>
<PeerSuspectCount>0</PeerSuspectCount>
<PeerReopenCount>0</PeerReopenCount>
<ASRHoSendCount>0</ASRHoSendCount>
<ASRHoReceivedCount>0</ASRHoReceivedCount>
<ASRHoTimeoutCount>0</ASRHoTimeoutCount>
<RARHoSendCount>0</RARHoSendCount>
<RARHoReceivedCount>0</RARHoReceivedCount>
<RARHoTimeoutCount>0</RARHoTimeoutCount>
<RARRerouteSendCount>0</RARRerouteSendCount>
<RARRerouteTimeoutCount>0</RARRerouteTimeoutCount>
<RAARerouteRecvSuccessCount>0</RAARerouteRecvSuccessCount>
<RAARerouteRecvFailureCount>0</RAARerouteRecvFailureCount>
<ASRRerouteSendCount>0</ASRRerouteSendCount>
<ASRRerouteTimeoutCount>0</ASRRerouteTimeoutCount>
<ASARerouteRecvSuccessCount>0</ASARerouteRecvSuccessCount>
<ASARerouteRecvFailureCount>0</ASARerouteRecvFailureCount>
</Sample>
<Sample>
<StartTime>2016-05-17T00:00:01Z</StartTime>
<EndTime>2016-05-17T00:15:01Z</EndTime>
<MRA>MRA-Cluster</MRA>
<IsComplete>true</IsComplete>
<PendingConnectionsCount>0</PendingConnectionsCount>
<CurrentConnectionsCount>1</CurrentConnectionsCount>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<ASRMessagesReceivedCount>0</ASRMessagesReceivedCount>
<ASRMessagesSentCount>0</ASRMessagesSentCount>
<ASRMessagesTimeoutCount>0</ASRMessagesTimeoutCount>
<ASASuccessMessagesReceivedCount>0</ASASuccessMessagesReceivedCount>
<ASASuccessMessagesSentCount>0</ASASuccessMessagesSentCount>
<ASAFailureMessagesReceivedCount>0</ASAFailureMessagesReceivedCount>
<ASAFailureMessagesSentCount>0</ASAFailureMessagesSentCount>
<RARMessagesReceivedCount>0</RARMessagesReceivedCount>
<RARMessagesSentCount>0</RARMessagesSentCount>
<RARMessagesTimeoutCount>0</RARMessagesTimeoutCount>
<RAASuccessMessagesReceivedCount>0</RAASuccessMessagesReceivedCount>
<RAASuccessMessagesSentCount>0</RAASuccessMessagesSentCount>
<RAAFailureMessagesReceivedCount>0</RAAFailureMessagesReceivedCount>
<RAAFailureMessagesSentCount>0</RAAFailureMessagesSentCount>
<STRMessagesReceivedCount>0</STRMessagesReceivedCount>
<STRMessagesSentCount>0</STRMessagesSentCount>
<STRMessagesTimeoutCount>0</STRMessagesTimeoutCount>
<STASuccessMessagesReceivedCount>0</STASuccessMessagesReceivedCount>
<STASuccessMessagesSentCount>0</STASuccessMessagesSentCount>
<STAFailureMessagesReceivedCount>0</STAFailureMessagesReceivedCount>
<STAFailureMessagesSentCount>0</STAFailureMessagesSentCount>
<AARMessagesReceivedCount>0</AARMessagesReceivedCount>
<AARMessagesSentCount>0</AARMessagesSentCount>
<AARMessagesTimeoutCount>0</AARMessagesTimeoutCount>
<AARInitialMessagesReceivedCount>0</AARInitialMessagesReceivedCount>
<AARInitialMessagesSentCount>0</AARInitialMessagesSentCount>
<AARModificationMessagesReceivedCount>0</AARModificationMessagesReceivedCount>
<AARModificationMessagesSentCount>0</AARModificationMessagesSentCount>
<AAASuccessMessagesReceivedCount>0</AAASuccessMessagesReceivedCount>
<AAASuccessMessagesSentCount>0</AAASuccessMessagesSentCount>
```

```
<AAAFailureMessagesReceivedCount>0</AAAFailureMessagesReceivedCount>
<AAAFailureMessagesSentCount>0</AAAFailureMessagesSentCount>
<S9RxAARInitialRecvCount>0</S9RxAARInitialRecvCount>
<S9RxAARInitialSendCount>0</S9RxAARInitialSendCount>
<S9RxAARRecvCount>0</S9RxAARRecvCount>
<S9RxAARSendCount>0</S9RxAARSendCount>
<S9RxAARModificationRecvCount>0</S9RxAARModificationRecvCount>
<S9RxAARModificationSendCount>0</S9RxAARModificationSendCount>
<S9RxAARTimeoutCount>0</S9RxAARTimeoutCount>
<S9RxAAARecvSuccessCount>0</S9RxAAARecvSuccessCount>
<S9RxAAASendSuccessCount>0</S9RxAAASendSuccessCount>
<S9RxAAARecvFailureCount>0</S9RxAAARecvFailureCount>
<S9RxAAASendFailureCount>0</S9RxAAASendFailureCount>
<S9RxASROtherRecvCount>0</S9RxASROtherRecvCount>
<S9RxASROtherSendCount>0</S9RxASROtherSendCount>
<S9RxASRRecvCount>0</S9RxASRRecvCount>
<S9RxASRSendCount>0</S9RxASRSendCount>
<S9RxCleanupASRSendCount>0</S9RxCleanupASRSendCount>
<S9RxASROtherTimeoutCount>0</S9RxASROtherTimeoutCount>
<S9RxASRTimeoutCount>0</S9RxASRTimeoutCount>
<S9RxASARecvSuccessCount>0</S9RxASARecvSuccessCount>
<S9RxASASendSuccessCount>0</S9RxASASendSuccessCount>
<S9RxASARecvFailureCount>0</S9RxASARecvFailureCount>
<S9RxASASendFailureCount>0</S9RxASASendFailureCount>
<S9RxCleanupASARecvCount>0</S9RxCleanupASARecvCount>
<S9RxRARHORecvCount>0</S9RxRARHORecvCount>
<S9RxRARHOSendCount>0</S9RxRARHOSendCount>
<S9RxRAROtherRecvCount>0</S9RxRAROtherRecvCount>
<S9RxRAROtherSendCount>0</S9RxRAROtherSendCount>
<S9RxRARRecvCount>0</S9RxRARRecvCount>
<S9RxRARSendCount>0</S9RxRARSendCount>
<S9RxRARHOTimeoutCount>0</S9RxRARHOTimeoutCount>
<S9RxRAROtherTimeoutCount>0</S9RxRAROtherTimeoutCount>
<S9RxRARTimeoutCount>0</S9RxRARTimeoutCount>
<S9RxRAARecvSuccessCount>0</S9RxRAARecvSuccessCount>
<S9RxRAASendSuccessCount>0</S9RxRAASendSuccessCount>
<S9RxRAARecvFailureCount>0</S9RxRAARecvFailureCount>
<S9RxRAASendFailureCount>0</S9RxRAASendFailureCount>
<S9RxRAARecvCount>0</S9RxRAARecvCount>
<S9RxRAASendCount>0</S9RxRAASendCount>
<S9RxSTRRecvCount>0</S9RxSTRRecvCount>
<S9RxSTRSendCount>0</S9RxSTRSendCount>
<S9RxSTRTimeoutCount>0</S9RxSTRTimeoutCount>
<S9RxSTARecvSuccessCount>0</S9RxSTARecvSuccessCount>
<S9RxSTASendSuccessCount>0</S9RxSTASendSuccessCount>
<S9RxSTARecvFailureCount>0</S9RxSTARecvFailureCount>
<S9RxSTASendFailureCount>0</S9RxSTASendFailureCount>
<PeerOkayCount>1</PeerOkayCount>
<PeerDownCount>0</PeerDownCount>
<PeerSuspectCount>0</PeerSuspectCount>
<PeerReopenCount>0</PeerReopenCount>
<ASRHoSendCount>0</ASRHoSendCount>
<ASRHoReceivedCount>0</ASRHoReceivedCount>
<ASRHoTimeoutCount>0</ASRHoTimeoutCount>
<RARHoSendCount>0</RARHoSendCount>
<RARHoReceivedCount>0</RARHoReceivedCount>
<RARHoTimeoutCount>0</RARHoTimeoutCount>
<RARRerouteSendCount>0</RARRerouteSendCount>
<RARRerouteTimeoutCount>0</RARRerouteTimeoutCount>
<RAARerouteRecvSuccessCount>0</RAARerouteRecvSuccessCount>
<RAARerouteRecvFailureCount>0</RAARerouteRecvFailureCount>
<ASRRerouteSendCount>0</ASRRerouteSendCount>
<ASRRerouteTimeoutCount>0</ASRRerouteTimeoutCount>
<ASARerouteRecvSuccessCount>0</ASARerouteRecvSuccessCount>
```

```
<ASARerouteRecvFailureCount>0</ASARerouteRecvFailureCount>
</Sample>
</DiameterMraAfStats>
</Statistics>
```

Diameter MRA AF Peer Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterMraAfPeerStats tag.

Request

This request follows the DiameterMraAfPeerStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterMraAfPeerStats>
<!-- Name is optional. -->
<Name>mra-82.oracle.com</Name>
<Name>mra-35.oracle.com</Name>
<!-- NeId is optional. -->
<NeId />
</DiameterMraAfPeerStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterMraAfPeerStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterMraAfPeerStats>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<MRA>MRA-Cluster</MRA>
<IsComplete>true</IsComplete>
<Name>af-sanity.test.com</Name>
<NeId/>
<NetworkElementType/>
<NetworkElementSubType/>
<ConnectTime>Mon May 16 14:10:15 EDT 2016</ConnectTime>
<DisconnectTime>Mon May 16 14:17:24 EDT 2016</DisconnectTime>
<ConnectAddress>10.148.240.54</ConnectAddress>
<ConnectPort>59720</ConnectPort>
<ConnectType>TCP</ConnectType>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<MessagesErrorInCount>0</MessagesErrorInCount>
<MessagesErrorOutCount>0</MessagesErrorOutCount>
<ASRMessagesReceivedCount>0</ASRMessagesReceivedCount>
<ASRMessagesSentCount>0</ASRMessagesSentCount>
<ASRMessagesTimeoutCount>0</ASRMessagesTimeoutCount>
<ASASuccessMessagesReceivedCount>0</ASASuccessMessagesReceivedCount>
<ASASuccessMessagesSentCount>0</ASASuccessMessagesSentCount>
```

```
<ASAFailureMessagesReceivedCount>0</ASAFailureMessagesReceivedCount>
<ASAFailureMessagesSentCount>0</ASAFailureMessagesSentCount>
<RARMessagesReceivedCount>0</RARMessagesReceivedCount>
<RARMessagesSentCount>0</RARMessagesSentCount>
<RARMessagesTimeoutCount>0</RARMessagesTimeoutCount>
<RAASuccessMessagesReceivedCount>0</RAASuccessMessagesReceivedCount>
<RAASuccessMessagesSentCount>0</RAASuccessMessagesSentCount>
<RAAFailureMessagesReceivedCount>0</RAAFailureMessagesReceivedCount>
<RAAFailureMessagesSentCount>0</RAAFailureMessagesSentCount>
<STRMessagesReceivedCount>0</STRMessagesReceivedCount>
<STRMessagesSentCount>0</STRMessagesSentCount>
<STRMessagesTimeoutCount>0</STRMessagesTimeoutCount>
<STASuccessMessagesReceivedCount>0</STASuccessMessagesReceivedCount>
<STASuccessMessagesSentCount>0</STASuccessMessagesSentCount>
<STAFailureMessagesReceivedCount>0</STAFailureMessagesReceivedCount>
<STAFailureMessagesSentCount>0</STAFailureMessagesSentCount>
<AARMessagesReceivedCount>0</AARMessagesReceivedCount>
<AARMessagesSentCount>0</AARMessagesSentCount>
<AARMessagesTimeoutCount>0</AARMessagesTimeoutCount>
<AARInitialMessagesReceivedCount>0</AARInitialMessagesReceivedCount>
<AARInitialMessagesSentCount>0</AARInitialMessagesSentCount>
<AARModificationMessagesReceivedCount>0</AARModificationMessagesReceivedCount>
<AARModificationMessagesSentCount>0</AARModificationMessagesSentCount>
<AAASuccessMessagesReceivedCount>0</AAASuccessMessagesReceivedCount>
<AAASuccessMessagesSentCount>0</AAASuccessMessagesSentCount>
<AAAFailureMessagesReceivedCount>0</AAAFailureMessagesReceivedCount>
<AAAFailureMessagesSentCount>0</AAAFailureMessagesSentCount>
<S9RxAARInitialRecvCount>0</S9RxAARInitialRecvCount>
<S9RxAARInitialSendCount>0</S9RxAARInitialSendCount>
<S9RxAARRecvCount>0</S9RxAARRecvCount>
<S9RxAARSendCount>0</S9RxAARSendCount>
<S9RxAARModificationRecvCount>0</S9RxAARModificationRecvCount>
<S9RxAARModificationSendCount>0</S9RxAARModificationSendCount>
<S9RxAARTimeoutCount>0</S9RxAARTimeoutCount>
<S9RxAAARecvSuccessCount>0</S9RxAAARecvSuccessCount>
<S9RxAAASendSuccessCount>0</S9RxAAASendSuccessCount>
<S9RxAAARecvFailureCount>0</S9RxAAARecvFailureCount>
<S9RxAAASendFailureCount>0</S9RxAAASendFailureCount>
<S9RxASROtherRecvCount>0</S9RxASROtherRecvCount>
<S9RxASROtherSendCount>0</S9RxASROtherSendCount>
<S9RxASRRecvCount>0</S9RxASRRecvCount>
<S9RxASRSendCount>0</S9RxASRSendCount>
<S9RxCleanupASRSendCount>0</S9RxCleanupASRSendCount>
<S9RxASROtherTimeoutCount>0</S9RxASROtherTimeoutCount>
<S9RxASRTimeoutCount>0</S9RxASRTimeoutCount>
<S9RxASARecvSuccessCount>0</S9RxASARecvSuccessCount>
<S9RxASASendSuccessCount>0</S9RxASASendSuccessCount>
<S9RxASARecvFailureCount>0</S9RxASARecvFailureCount>
<S9RxASASendFailureCount>0</S9RxASASendFailureCount>
<S9RxCleanupASARecvCount>0</S9RxCleanupASARecvCount>
<S9RxRARHORecvCount>0</S9RxRARHORecvCount>
<S9RxRARHOSendCount>0</S9RxRARHOSendCount>
<S9RxRAROtherRecvCount>0</S9RxRAROtherRecvCount>
<S9RxRAROtherSendCount>0</S9RxRAROtherSendCount>
<S9RxRARRecvCount>0</S9RxRARRecvCount>
<S9RxRARSendCount>0</S9RxRARSendCount>
<S9RxRARHOTimeoutCount>0</S9RxRARHOTimeoutCount>
<S9RxRAROtherTimeoutCount>0</S9RxRAROtherTimeoutCount>
<S9RxRARTimeoutCount>0</S9RxRARTimeoutCount>
<S9RxRAARecvSuccessCount>0</S9RxRAARecvSuccessCount>
<S9RxRAASendSuccessCount>0</S9RxRAASendSuccessCount>
<S9RxRAARecvFailureCount>0</S9RxRAARecvFailureCount>
<S9RxRAASendFailureCount>0</S9RxRAASendFailureCount>
<S9RxRAARecvCount>0</S9RxRAARecvCount>
```

```
<S9RxRAASendCount>0</S9RxRAASendCount>
<S9RxSTRRecvCount>0</S9RxSTRRecvCount>
<S9RxSTRSendCount>0</S9RxSTRSendCount>
<S9RxSTRTimeoutCount>0</S9RxSTRTimeoutCount>
<S9RxSTARecvSuccessCount>0</S9RxSTARecvSuccessCount>
<S9RxSTASendSuccessCount>0</S9RxSTASendSuccessCount>
<S9RxSTARecvFailureCount>0</S9RxSTARecvFailureCount>
<S9RxSTASendFailureCount>0</S9RxSTASendFailureCount>
<ASRHoSendCount>0</ASRHoSendCount>
<ASRHoReceivedCount>0</ASRHoReceivedCount>
<ASRHoTimeoutCount>0</ASRHoTimeoutCount>
<RARHoSendCount>0</RARHoSendCount>
<RARHoReceivedCount>0</RARHoReceivedCount>
<RARHoTimeoutCount>0</RARHoTimeoutCount>
<RARRerouteSendCount>0</RARRerouteSendCount>
<RARRerouteTimeoutCount>0</RARRerouteTimeoutCount>
<RAARerouteRecvSuccessCount>0</RAARerouteRecvSuccessCount>
<RAARerouteRecvFailureCount>0</RAARerouteRecvFailureCount>
<ASRRerouteSendCount>0</ASRRerouteSendCount>
<ASRRerouteTimeoutCount>0</ASRRerouteTimeoutCount>
<ASARerouteRecvSuccessCount>0</ASARerouteRecvSuccessCount>
<ASARerouteRecvFailureCount>0</ASARerouteRecvFailureCount>
</Sample>
<Sample>
<StartTime>2016-05-17T00:00:01Z</StartTime>
<EndTime>2016-05-17T00:15:01Z</EndTime>
<MRA>MRA-Cluster</MRA>
<IsComplete>true</IsComplete>
<Name>af-sanity.test.com</Name>
<NeId/>
<NetworkElementType/>
<NetworkElementSubType/>
<ConnectTime>Mon May 16 14:10:15 EDT 2016</ConnectTime>
<DisconnectTime>Mon May 16 14:17:24 EDT 2016</DisconnectTime>
<ConnectAddress>10.148.240.54</ConnectAddress>
<ConnectPort>59720</ConnectPort>
<ConnectType>TCP</ConnectType>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<MessagesErrorInCount>0</MessagesErrorInCount>
<MessagesErrorOutCount>0</MessagesErrorOutCount>
<ASRMessagesReceivedCount>0</ASRMessagesReceivedCount>
<ASRMessagesSentCount>0</ASRMessagesSentCount>
<ASRMessagesTimeoutCount>0</ASRMessagesTimeoutCount>
<ASASuccessMessagesReceivedCount>0</ASASuccessMessagesReceivedCount>
<ASASuccessMessagesSentCount>0</ASASuccessMessagesSentCount>
<ASAFailureMessagesReceivedCount>0</ASAFailureMessagesReceivedCount>
<ASAFailureMessagesSentCount>0</ASAFailureMessagesSentCount>
<RARMessagesReceivedCount>0</RARMessagesReceivedCount>
<RARMessagesSentCount>0</RARMessagesSentCount>
<RARMessagesTimeoutCount>0</RARMessagesTimeoutCount>
<RAASuccessMessagesReceivedCount>0</RAASuccessMessagesReceivedCount>
<RAASuccessMessagesSentCount>0</RAASuccessMessagesSentCount>
<RAAFailureMessagesReceivedCount>0</RAAFailureMessagesReceivedCount>
<RAAFailureMessagesSentCount>0</RAAFailureMessagesSentCount>
<STRMessagesReceivedCount>0</STRMessagesReceivedCount>
<STRMessagesSentCount>0</STRMessagesSentCount>
<STRMessagesTimeoutCount>0</STRMessagesTimeoutCount>
<STASuccessMessagesReceivedCount>0</STASuccessMessagesReceivedCount>
<STASuccessMessagesSentCount>0</STASuccessMessagesSentCount>
<STAFailureMessagesReceivedCount>0</STAFailureMessagesReceivedCount>
<STAFailureMessagesSentCount>0</STAFailureMessagesSentCount>
<AARMessagesReceivedCount>0</AARMessagesReceivedCount>
<AARMessagesSentCount>0</AARMessagesSentCount>
```

```
<AARMessagesTimeoutCount>0</AARMessagesTimeoutCount>
<AARInitialMessagesReceivedCount>0</AARInitialMessagesReceivedCount>
<AARInitialMessagesSentCount>0</AARInitialMessagesSentCount>
<AARModificationMessagesReceivedCount>0</AARModificationMessagesReceivedCount>
<AARModificationMessagesSentCount>0</AARModificationMessagesSentCount>
<AAASuccessMessagesReceivedCount>0</AAASuccessMessagesReceivedCount>
<AAASuccessMessagesSentCount>0</AAASuccessMessagesSentCount>
<AAAFailureMessagesReceivedCount>0</AAAFailureMessagesReceivedCount>
<AAAFailureMessagesSentCount>0</AAAFailureMessagesSentCount>
<S9RxAARInitialRecvCount>0</S9RxAARInitialRecvCount>
<S9RxAARInitialSendCount>0</S9RxAARInitialSendCount>
<S9RxAARRecvCount>0</S9RxAARRecvCount>
<S9RxAARSendCount>0</S9RxAARSendCount>
<S9RxAARModificationRecvCount>0</S9RxAARModificationRecvCount>
<S9RxAARModificationSendCount>0</S9RxAARModificationSendCount>
<S9RxAARTimeoutCount>0</S9RxAARTimeoutCount>
<S9RxAAARecvSuccessCount>0</S9RxAAARecvSuccessCount>
<S9RxAAASendSuccessCount>0</S9RxAAASendSuccessCount>
<S9RxAAARecvFailureCount>0</S9RxAAARecvFailureCount>
<S9RxAAASendFailureCount>0</S9RxAAASendFailureCount>
<S9RxASROtherRecvCount>0</S9RxASROtherRecvCount>
<S9RxASROtherSendCount>0</S9RxASROtherSendCount>
<S9RxASRRecvCount>0</S9RxASRRecvCount>
<S9RxASRSendCount>0</S9RxASRSendCount>
<S9RxCleanupASRSendCount>0</S9RxCleanupASRSendCount>
<S9RxASROtherTimeoutCount>0</S9RxASROtherTimeoutCount>
<S9RxASRTimeoutCount>0</S9RxASRTimeoutCount>
<S9RxASARecvSuccessCount>0</S9RxASARecvSuccessCount>
<S9RxASASendSuccessCount>0</S9RxASASendSuccessCount>
<S9RxASARecvFailureCount>0</S9RxASARecvFailureCount>
<S9RxASASendFailureCount>0</S9RxASASendFailureCount>
<S9RxCleanupASARecvCount>0</S9RxCleanupASARecvCount>
<S9RxRARHORecvCount>0</S9RxRARHORecvCount>
<S9RxRARHOSendCount>0</S9RxRARHOSendCount>
<S9RxRAROtherRecvCount>0</S9RxRAROtherRecvCount>
<S9RxRAROtherSendCount>0</S9RxRAROtherSendCount>
<S9RxRARRecvCount>0</S9RxRARRecvCount>
<S9RxRARSendCount>0</S9RxRARSendCount>
<S9RxRARHOTimeoutCount>0</S9RxRARHOTimeoutCount>
<S9RxRAROtherTimeoutCount>0</S9RxRAROtherTimeoutCount>
<S9RxRARTimeoutCount>0</S9RxRARTimeoutCount>
<S9RxRAARecvSuccessCount>0</S9RxRAARecvSuccessCount>
<S9RxRAASendSuccessCount>0</S9RxRAASendSuccessCount>
<S9RxRAARecvFailureCount>0</S9RxRAARecvFailureCount>
<S9RxRAASendFailureCount>0</S9RxRAASendFailureCount>
<S9RxRAARecvCount>0</S9RxRAARecvCount>
<S9RxRAASendCount>0</S9RxRAASendCount>
<S9RxSTRRecvCount>0</S9RxSTRRecvCount>
<S9RxSTRSendCount>0</S9RxSTRSendCount>
<S9RxSTRTimeoutCount>0</S9RxSTRTimeoutCount>
<S9RxSTARecvSuccessCount>0</S9RxSTARecvSuccessCount>
<S9RxSTASendSuccessCount>0</S9RxSTASendSuccessCount>
<S9RxSTARecvFailureCount>0</S9RxSTARecvFailureCount>
<S9RxSTASendFailureCount>0</S9RxSTASendFailureCount>
<ASRHoSendCount>0</ASRHoSendCount>
<ASRHoReceivedCount>0</ASRHoReceivedCount>
<ASRHoTimeoutCount>0</ASRHoTimeoutCount>
<RARHoSendCount>0</RARHoSendCount>
<RARHoReceivedCount>0</RARHoReceivedCount>
<RARHoTimeoutCount>0</RARHoTimeoutCount>
<RARRerouteSendCount>0</RARRerouteSendCount>
<RARRerouteTimeoutCount>0</RARRerouteTimeoutCount>
<RAARerouteRecvSuccessCount>0</RAARerouteRecvSuccessCount>
<RAARerouteRecvFailureCount>0</RAARerouteRecvFailureCount>
```

```
<ASRRerouteSendCount>0</ASRRerouteSendCount>
<ASRRerouteTimeoutCount>0</ASRRerouteTimeoutCount>
<ASARerouteRecvSuccessCount>0</ASARerouteRecvSuccessCount>
<ASARerouteRecvFailureCount>0</ASARerouteRecvFailureCount>
</Sample>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<MRA>MRA-Cluster</MRA>
<IsComplete>true</IsComplete>
<Name>mpe-84.oracle.com</Name>
<NeId/>
<NetworkElementType/>
<NetworkElementSubType/>
<ConnectTime>Mon May 16 13:33:32 EDT 2016</ConnectTime>
<DisconnectTime>N/A</DisconnectTime>
<ConnectAddress>10.196.143.179</ConnectAddress>
<ConnectPort>3868</ConnectPort>
<ConnectType>TCP</ConnectType>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<MessagesErrorInCount>0</MessagesErrorInCount>
<MessagesErrorOutCount>0</MessagesErrorOutCount>
<ASRMessagesReceivedCount>0</ASRMessagesReceivedCount>
<ASRMessagesSentCount>0</ASRMessagesSentCount>
<ASRMessagesTimeoutCount>0</ASRMessagesTimeoutCount>
<ASASuccessMessagesReceivedCount>0</ASASuccessMessagesReceivedCount>
<ASASuccessMessagesSentCount>0</ASASuccessMessagesSentCount>
<ASAFailureMessagesReceivedCount>0</ASAFailureMessagesReceivedCount>
<ASAFailureMessagesSentCount>0</ASAFailureMessagesSentCount>
<RARMessagesReceivedCount>0</RARMessagesReceivedCount>
<RARMessagesSentCount>0</RARMessagesSentCount>
<RARMessagesTimeoutCount>0</RARMessagesTimeoutCount>
<RAASuccessMessagesReceivedCount>0</RAASuccessMessagesReceivedCount>
<RAASuccessMessagesSentCount>0</RAASuccessMessagesSentCount>
<RAAFailureMessagesReceivedCount>0</RAAFailureMessagesReceivedCount>
<RAAFailureMessagesSentCount>0</RAAFailureMessagesSentCount>
<STRMessagesReceivedCount>0</STRMessagesReceivedCount>
<STRMessagesSentCount>0</STRMessagesSentCount>
<STRMessagesTimeoutCount>0</STRMessagesTimeoutCount>
<STASuccessMessagesReceivedCount>0</STASuccessMessagesReceivedCount>
<STASuccessMessagesSentCount>0</STASuccessMessagesSentCount>
<STAFailureMessagesReceivedCount>0</STAFailureMessagesReceivedCount>
<STAFailureMessagesSentCount>0</STAFailureMessagesSentCount>
<AARMessagesReceivedCount>0</AARMessagesReceivedCount>
<AARMessagesSentCount>0</AARMessagesSentCount>
<AARMessagesTimeoutCount>0</AARMessagesTimeoutCount>
<AARInitialMessagesReceivedCount>0</AARInitialMessagesReceivedCount>
<AARInitialMessagesSentCount>0</AARInitialMessagesSentCount>
<AARModificationMessagesReceivedCount>0</AARModificationMessagesReceivedCount>
<AARModificationMessagesSentCount>0</AARModificationMessagesSentCount>
<AAASuccessMessagesReceivedCount>0</AAASuccessMessagesReceivedCount>
<AAASuccessMessagesSentCount>0</AAASuccessMessagesSentCount>
<AAAFailureMessagesReceivedCount>0</AAAFailureMessagesReceivedCount>
<AAAFailureMessagesSentCount>0</AAAFailureMessagesSentCount>
<S9RxAARInitialRecvCount>0</S9RxAARInitialRecvCount>
<S9RxAARInitialSendCount>0</S9RxAARInitialSendCount>
<S9RxAARRecvCount>0</S9RxAARRecvCount>
<S9RxAARSendCount>0</S9RxAARSendCount>
<S9RxAARModificationRecvCount>0</S9RxAARModificationRecvCount>
<S9RxAARModificationSendCount>0</S9RxAARModificationSendCount>
<S9RxAARTimeoutCount>0</S9RxAARTimeoutCount>
<S9RxAAARecvSuccessCount>0</S9RxAAARecvSuccessCount>
<S9RxAAASendSuccessCount>0</S9RxAAASendSuccessCount>
```

```
<S9RxAAARecvFailureCount>0</S9RxAAARecvFailureCount>
<S9RxAAASendFailureCount>0</S9RxAAASendFailureCount>
<S9RxASROtherRecvCount>0</S9RxASROtherRecvCount>
<S9RxASROtherSendCount>0</S9RxASROtherSendCount>
<S9RxASRRecvCount>0</S9RxASRRecvCount>
<S9RxASRSendCount>0</S9RxASRSendCount>
<S9RxCleanupASRSendCount>0</S9RxCleanupASRSendCount>
<S9RxASROtherTimeoutCount>0</S9RxASROtherTimeoutCount>
<S9RxASRTimeoutCount>0</S9RxASRTimeoutCount>
<S9RxASARecvSuccessCount>0</S9RxASARecvSuccessCount>
<S9RxASASendSuccessCount>0</S9RxASASendSuccessCount>
<S9RxASARecvFailureCount>0</S9RxASARecvFailureCount>
<S9RxASASendFailureCount>0</S9RxASASendFailureCount>
<S9RxCleanupASARecvCount>0</S9RxCleanupASARecvCount>
<S9RxRARHORecvCount>0</S9RxRARHORecvCount>
<S9RxRARHOSendCount>0</S9RxRARHOSendCount>
<S9RxRAROtherRecvCount>0</S9RxRAROtherRecvCount>
<S9RxRAROtherSendCount>0</S9RxRAROtherSendCount>
<S9RxRARRecvCount>0</S9RxRARRecvCount>
<S9RxRARSendCount>0</S9RxRARSendCount>
<S9RxRARHOTimeoutCount>0</S9RxRARHOTimeoutCount>
<S9RxRAROtherTimeoutCount>0</S9RxRAROtherTimeoutCount>
<S9RxRARTimeoutCount>0</S9RxRARTimeoutCount>
<S9RxRAARecvSuccessCount>0</S9RxRAARecvSuccessCount>
<S9RxRAASendSuccessCount>0</S9RxRAASendSuccessCount>
<S9RxRAARecvFailureCount>0</S9RxRAARecvFailureCount>
<S9RxRAASendFailureCount>0</S9RxRAASendFailureCount>
<S9RxRAARecvCount>0</S9RxRAARecvCount>
<S9RxRAASendCount>0</S9RxRAASendCount>
<S9RxSTRRecvCount>0</S9RxSTRRecvCount>
<S9RxSTRSendCount>0</S9RxSTRSendCount>
<S9RxSTRTimeoutCount>0</S9RxSTRTimeoutCount>
<S9RxSTARecvSuccessCount>0</S9RxSTARecvSuccessCount>
<S9RxSTASendSuccessCount>0</S9RxSTASendSuccessCount>
<S9RxSTARecvFailureCount>0</S9RxSTARecvFailureCount>
<S9RxSTASendFailureCount>0</S9RxSTASendFailureCount>
<ASRHoSendCount>0</ASRHoSendCount>
<ASRHoReceivedCount>0</ASRHoReceivedCount>
<ASRHoTimeoutCount>0</ASRHoTimeoutCount>
<RARHoSendCount>0</RARHoSendCount>
<RARHoReceivedCount>0</RARHoReceivedCount>
<RARHoTimeoutCount>0</RARHoTimeoutCount>
<RARRerouteSendCount>0</RARRerouteSendCount>
<RARRerouteTimeoutCount>0</RARRerouteTimeoutCount>
<RAARerouteRecvSuccessCount>0</RAARerouteRecvSuccessCount>
<RAARerouteRecvFailureCount>0</RAARerouteRecvFailureCount>
<ASRRerouteSendCount>0</ASRRerouteSendCount>
<ASRRerouteTimeoutCount>0</ASRRerouteTimeoutCount>
<ASARerouteRecvSuccessCount>0</ASARerouteRecvSuccessCount>
<ASARerouteRecvFailureCount>0</ASARerouteRecvFailureCount>
</Sample>
<Sample>
<StartTime>2016-05-17T00:00:01Z</StartTime>
<EndTime>2016-05-17T00:15:01Z</EndTime>
<MRA>MRA-Cluster</MRA>
<IsComplete>true</IsComplete>
<Name>mpe-84.oracle.com</Name>
<NeId/>
<NetworkElementType/>
<NetworkElementSubType/>
<ConnectTime>Mon May 16 13:33:32 EDT 2016</ConnectTime>
<DisconnectTime>N/A</DisconnectTime>
<ConnectAddress>10.196.143.179</ConnectAddress>
<ConnectPort>3868</ConnectPort>
```

```
<ConnectType>TCP</ConnectType>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<MessagesErrorInCount>0</MessagesErrorInCount>
<MessagesErrorOutCount>0</MessagesErrorOutCount>
<ASRMessagesReceivedCount>0</ASRMessagesReceivedCount>
<ASRMessagesSentCount>0</ASRMessagesSentCount>
<ASRMessagesTimeoutCount>0</ASRMessagesTimeoutCount>
<ASASuccessMessagesReceivedCount>0</ASASuccessMessagesReceivedCount>
<ASASuccessMessagesSentCount>0</ASASuccessMessagesSentCount>
<ASAFailureMessagesReceivedCount>0</ASAFailureMessagesReceivedCount>
<ASAFailureMessagesSentCount>0</ASAFailureMessagesSentCount>
<RARMessagesReceivedCount>0</RARMessagesReceivedCount>
<RARMessagesSentCount>0</RARMessagesSentCount>
<RARMessagesTimeoutCount>0</RARMessagesTimeoutCount>
<RAASuccessMessagesReceivedCount>0</RAASuccessMessagesReceivedCount>
<RAASuccessMessagesSentCount>0</RAASuccessMessagesSentCount>
<RAAFailureMessagesReceivedCount>0</RAAFailureMessagesReceivedCount>
<RAAFailureMessagesSentCount>0</RAAFailureMessagesSentCount>
<STRMessagesReceivedCount>0</STRMessagesReceivedCount>
<STRMessagesSentCount>0</STRMessagesSentCount>
<STRMessagesTimeoutCount>0</STRMessagesTimeoutCount>
<STASuccessMessagesReceivedCount>0</STASuccessMessagesReceivedCount>
<STASuccessMessagesSentCount>0</STASuccessMessagesSentCount>
<STAFailureMessagesReceivedCount>0</STAFailureMessagesReceivedCount>
<STAFailureMessagesSentCount>0</STAFailureMessagesSentCount>
<AARMessagesReceivedCount>0</AARMessagesReceivedCount>
<AARMessagesSentCount>0</AARMessagesSentCount>
<AARMessagesTimeoutCount>0</AARMessagesTimeoutCount>
<AARInitialMessagesReceivedCount>0</AARInitialMessagesReceivedCount>
<AARInitialMessagesSentCount>0</AARInitialMessagesSentCount>
<AARModificationMessagesReceivedCount>0</AARModificationMessagesReceivedCount>
<AARModificationMessagesSentCount>0</AARModificationMessagesSentCount>
<AAASuccessMessagesReceivedCount>0</AAASuccessMessagesReceivedCount>
<AAASuccessMessagesSentCount>0</AAASuccessMessagesSentCount>
<AAAFailureMessagesReceivedCount>0</AAAFailureMessagesReceivedCount>
<AAAFailureMessagesSentCount>0</AAAFailureMessagesSentCount>
<S9RxAARInitialRecvCount>0</S9RxAARInitialRecvCount>
<S9RxAARInitialSendCount>0</S9RxAARInitialSendCount>
<S9RxAARRecvCount>0</S9RxAARRecvCount>
<S9RxAARSendCount>0</S9RxAARSendCount>
<S9RxAARModificationRecvCount>0</S9RxAARModificationRecvCount>
<S9RxAARModificationSendCount>0</S9RxAARModificationSendCount>
<S9RxAARTimeoutCount>0</S9RxAARTimeoutCount>
<S9RxAAARecvSuccessCount>0</S9RxAAARecvSuccessCount>
<S9RxAAASendSuccessCount>0</S9RxAAASendSuccessCount>
<S9RxAAARecvFailureCount>0</S9RxAAARecvFailureCount>
<S9RxAAASendFailureCount>0</S9RxAAASendFailureCount>
<S9RxASROtherRecvCount>0</S9RxASROtherRecvCount>
<S9RxASROtherSendCount>0</S9RxASROtherSendCount>
<S9RxASRRecvCount>0</S9RxASRRecvCount>
<S9RxASRSendCount>0</S9RxASRSendCount>
<S9RxCleanupASRSendCount>0</S9RxCleanupASRSendCount>
<S9RxASROtherTimeoutCount>0</S9RxASROtherTimeoutCount>
<S9RxASRTimeoutCount>0</S9RxASRTimeoutCount>
<S9RxASARecvSuccessCount>0</S9RxASARecvSuccessCount>
<S9RxASASendSuccessCount>0</S9RxASASendSuccessCount>
<S9RxASARecvFailureCount>0</S9RxASARecvFailureCount>
<S9RxASASendFailureCount>0</S9RxASASendFailureCount>
<S9RxCleanupASARecvCount>0</S9RxCleanupASARecvCount>
<S9RxRARHORecvCount>0</S9RxRARHORecvCount>
<S9RxRARHOSendCount>0</S9RxRARHOSendCount>
<S9RxRAROtherRecvCount>0</S9RxRAROtherRecvCount>
<S9RxRAROtherSendCount>0</S9RxRAROtherSendCount>
```

```
<S9RxRARRecvCount>0</S9RxRARRecvCount>
<S9RxRARSendCount>0</S9RxRARSendCount>
<S9RxRARHOTimeoutCount>0</S9RxRARHOTimeoutCount>
<S9RxRAROtherTimeoutCount>0</S9RxRAROtherTimeoutCount>
<S9RxRARTimeoutCount>0</S9RxRARTimeoutCount>
<S9RxRAARecvSuccessCount>0</S9RxRAARecvSuccessCount>
<S9RxRAASendSuccessCount>0</S9RxRAASendSuccessCount>
<S9RxRAARecvFailureCount>0</S9RxRAARecvFailureCount>
<S9RxRAASendFailureCount>0</S9RxRAASendFailureCount>
<S9RxRAARecvCount>0</S9RxRAARecvCount>
<S9RxRAASendCount>0</S9RxRAASendCount>
<S9RxSTRRecvCount>0</S9RxSTRRecvCount>
<S9RxSTRSendCount>0</S9RxSTRSendCount>
<S9RxSTRTimeoutCount>0</S9RxSTRTimeoutCount>
<S9RxSTARecvSuccessCount>0</S9RxSTARecvSuccessCount>
<S9RxSTASendSuccessCount>0</S9RxSTASendSuccessCount>
<S9RxSTARecvFailureCount>0</S9RxSTARecvFailureCount>
<S9RxSTASendFailureCount>0</S9RxSTASendFailureCount>
<ASRHoSendCount>0</ASRHoSendCount>
<ASRHoReceivedCount>0</ASRHoReceivedCount>
<ASRHoTimeoutCount>0</ASRHoTimeoutCount>
<RARHoSendCount>0</RARHoSendCount>
<RARHoReceivedCount>0</RARHoReceivedCount>
<RARHoTimeoutCount>0</RARHoTimeoutCount>
<RARRerouteSendCount>0</RARRerouteSendCount>
<RARRerouteTimeoutCount>0</RARRerouteTimeoutCount>
<RAARerouteRecvSuccessCount>0</RAARerouteRecvSuccessCount>
<RAARerouteRecvFailureCount>0</RAARerouteRecvFailureCount>
<ASRRerouteSendCount>0</ASRRerouteSendCount>
<ASRRerouteTimeoutCount>0</ASRRerouteTimeoutCount>
<ASARerouteRecvSuccessCount>0</ASARerouteRecvSuccessCount>
<ASARerouteRecvFailureCount>0</ASARerouteRecvFailureCount>
</Sample>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:00Z</EndTime>
<MRA>MRA-35</MRA>
<IsComplete>true</IsComplete>
<Name>mpe-173.oracle.com</Name>
<NeId/>
<NetworkElementType/>
<NetworkElementSubType/>
<ConnectTime>Mon May 16 14:04:47 EDT 2016</ConnectTime>
<DisconnectTime>Mon May 16 14:04:47 EDT 2016</DisconnectTime>
<ConnectAddress>10.196.143.177</ConnectAddress>
<ConnectPort>3868</ConnectPort>
<ConnectType>TCP</ConnectType>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<MessagesErrorInCount>0</MessagesErrorInCount>
<MessagesErrorOutCount>0</MessagesErrorOutCount>
<ASRMessagesReceivedCount>0</ASRMessagesReceivedCount>
<ASRMessagesSentCount>0</ASRMessagesSentCount>
<ASRMessagesTimeoutCount>0</ASRMessagesTimeoutCount>
<ASASuccessMessagesReceivedCount>0</ASASuccessMessagesReceivedCount>
<ASASuccessMessagesSentCount>0</ASASuccessMessagesSentCount>
<ASAFailureMessagesReceivedCount>0</ASAFailureMessagesReceivedCount>
<ASAFailureMessagesSentCount>0</ASAFailureMessagesSentCount>
<RARMessagesReceivedCount>0</RARMessagesReceivedCount>
<RARMessagesSentCount>0</RARMessagesSentCount>
<RARMessagesTimeoutCount>0</RARMessagesTimeoutCount>
<RAASuccessMessagesReceivedCount>0</RAASuccessMessagesReceivedCount>
<RAASuccessMessagesSentCount>0</RAASuccessMessagesSentCount>
<RAAFailureMessagesReceivedCount>0</RAAFailureMessagesReceivedCount>
```

```
<RAAFailureMessagesSentCount>0</RAAFailureMessagesSentCount>
<STRMessagesReceivedCount>0</STRMessagesReceivedCount>
<STRMessagesSentCount>0</STRMessagesSentCount>
<STRMessagesTimeoutCount>0</STRMessagesTimeoutCount>
<STASuccessMessagesReceivedCount>0</STASuccessMessagesReceivedCount>
<STASuccessMessagesSentCount>0</STASuccessMessagesSentCount>
<STAFailureMessagesReceivedCount>0</STAFailureMessagesReceivedCount>
<STAFailureMessagesSentCount>0</STAFailureMessagesSentCount>
<AARMessagesReceivedCount>0</AARMessagesReceivedCount>
<AARMessagesSentCount>0</AARMessagesSentCount>
<AARMessagesTimeoutCount>0</AARMessagesTimeoutCount>
<AARInitialMessagesReceivedCount>0</AARInitialMessagesReceivedCount>
<AARInitialMessagesSentCount>0</AARInitialMessagesSentCount>
<AARModificationMessagesReceivedCount>0</AARModificationMessagesReceivedCount>
<AARModificationMessagesSentCount>0</AARModificationMessagesSentCount>
<AAASuccessMessagesReceivedCount>0</AAASuccessMessagesReceivedCount>
<AAASuccessMessagesSentCount>0</AAASuccessMessagesSentCount>
<AAAFailureMessagesReceivedCount>0</AAAFailureMessagesReceivedCount>
<AAAFailureMessagesSentCount>0</AAAFailureMessagesSentCount>
<S9RxAARInitialRecvCount>0</S9RxAARInitialRecvCount>
<S9RxAARInitialSendCount>0</S9RxAARInitialSendCount>
<S9RxAARRecvCount>0</S9RxAARRecvCount>
<S9RxAARSendCount>0</S9RxAARSendCount>
<S9RxAARModificationRecvCount>0</S9RxAARModificationRecvCount>
<S9RxAARModificationSendCount>0</S9RxAARModificationSendCount>
<S9RxAARTimeoutCount>0</S9RxAARTimeoutCount>
<S9RxAAARecvSuccessCount>0</S9RxAAARecvSuccessCount>
<S9RxAAASendSuccessCount>0</S9RxAAASendSuccessCount>
<S9RxAAARecvFailureCount>0</S9RxAAARecvFailureCount>
<S9RxAAASendFailureCount>0</S9RxAAASendFailureCount>
<S9RxASROtherRecvCount>0</S9RxASROtherRecvCount>
<S9RxASROtherSendCount>0</S9RxASROtherSendCount>
<S9RxASRRecvCount>0</S9RxASRRecvCount>
<S9RxASRSendCount>0</S9RxASRSendCount>
<S9RxCleanupASRSendCount>0</S9RxCleanupASRSendCount>
<S9RxASROtherTimeoutCount>0</S9RxASROtherTimeoutCount>
<S9RxASRTimeoutCount>0</S9RxASRTimeoutCount>
<S9RxASARecvSuccessCount>0</S9RxASARecvSuccessCount>
<S9RxASASendSuccessCount>0</S9RxASASendSuccessCount>
<S9RxASARecvFailureCount>0</S9RxASARecvFailureCount>
<S9RxASASendFailureCount>0</S9RxASASendFailureCount>
<S9RxCleanupASARecvCount>0</S9RxCleanupASARecvCount>
<S9RxRARHORecvCount>0</S9RxRARHORecvCount>
<S9RxRARHOSendCount>0</S9RxRARHOSendCount>
<S9RxRAROtherRecvCount>0</S9RxRAROtherRecvCount>
<S9RxRAROtherSendCount>0</S9RxRAROtherSendCount>
<S9RxRARRecvCount>0</S9RxRARRecvCount>
<S9RxRARSendCount>0</S9RxRARSendCount>
<S9RxRARHOTimeoutCount>0</S9RxRARHOTimeoutCount>
<S9RxRAROtherTimeoutCount>0</S9RxRAROtherTimeoutCount>
<S9RxRARTimeoutCount>0</S9RxRARTimeoutCount>
<S9RxRAARecvSuccessCount>0</S9RxRAARecvSuccessCount>
<S9RxRAASendSuccessCount>0</S9RxRAASendSuccessCount>
<S9RxRAARecvFailureCount>0</S9RxRAARecvFailureCount>
<S9RxRAASendFailureCount>0</S9RxRAASendFailureCount>
<S9RxRAARecvCount>0</S9RxRAARecvCount>
<S9RxRAASendCount>0</S9RxRAASendCount>
<S9RxSTRRecvCount>0</S9RxSTRRecvCount>
<S9RxSTRSendCount>0</S9RxSTRSendCount>
<S9RxSTRTimeoutCount>0</S9RxSTRTimeoutCount>
<S9RxSTARecvSuccessCount>0</S9RxSTARecvSuccessCount>
<S9RxSTASendSuccessCount>0</S9RxSTASendSuccessCount>
<S9RxSTARecvFailureCount>0</S9RxSTARecvFailureCount>
<S9RxSTASendFailureCount>0</S9RxSTASendFailureCount>
```

```
<ASRHoSendCount>0</ASRHoSendCount>
<ASRHoReceivedCount>0</ASRHoReceivedCount>
<ASRHoTimeoutCount>0</ASRHoTimeoutCount>
<RARHoSendCount>0</RARHoSendCount>
<RARHoReceivedCount>0</RARHoReceivedCount>
<RARHoTimeoutCount>0</RARHoTimeoutCount>
<RARRerouteSendCount>0</RARRerouteSendCount>
<RARRerouteTimeoutCount>0</RARRerouteTimeoutCount>
<RAARerouteRecvSuccessCount>0</RAARerouteRecvSuccessCount>
<RAARerouteRecvFailureCount>0</RAARerouteRecvFailureCount>
<ASRRerouteSendCount>0</ASRRerouteSendCount>
<ASRRerouteTimeoutCount>0</ASRRerouteTimeoutCount>
<ASARerouteRecvSuccessCount>0</ASARerouteRecvSuccessCount>
<ASARerouteRecvFailureCount>0</ASARerouteRecvFailureCount>
</Sample>

</DiameterMraAfPeerStats>
</Statistics>
```

Diameter MRA Bberf Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterMraBberfStats tag.

Request

This request follows the DiameterMraBberfStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterMraBberfStats>
<!-- MRA is optional. -->
<MRA>MRA-Cluster</MRA>
<MRA>MRA-35</MRA>
</DiameterMraBberfStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterMraBberfStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterMraBberfStats>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<MRA>MRA-Cluster</MRA>
<IsComplete>true</IsComplete>
<CurrentConnectionsCount>1</CurrentConnectionsCount>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<RARMessagesReceivedCount>0</RARMessagesReceivedCount>
<RARMessagesSentCount>0</RARMessagesSentCount>
<RARMessagesTimeoutCount>0</RARMessagesTimeoutCount>
```

```
<RAASuccessMessagesReceivedCount>0</RAASuccessMessagesReceivedCount>
<RAASuccessMessagesSentCount>0</RAASuccessMessagesSentCount>
<RAAFailureMessagesReceivedCount>0</RAAFailureMessagesReceivedCount>
<RAAFailureMessagesSentCount>0</RAAFailureMessagesSentCount>
<CCRMessagesReceivedCount>0</CCRMessagesReceivedCount>
<CCRMessagesSentCount>0</CCRMessagesSentCount>
<CCRMessagesTimeoutCount>0</CCRMessagesTimeoutCount>
<CCASuccessMessagesReceivedCount>0</CCASuccessMessagesReceivedCount>
<CCASuccessMessagesSentCount>0</CCASuccessMessagesSentCount>
<CCAFailureMessagesReceivedCount>0</CCAFailureMessagesReceivedCount>
<CCAFailureMessagesSentCount>0</CCAFailureMessagesSentCount>
<CCRIMessagesReceivedCount>0</CCRIMessagesReceivedCount>
<CCRIMessagesSentCount>0</CCRIMessagesSentCount>
<CCRIMessagesTimeoutCount>0</CCRIMessagesTimeoutCount>
<CCRUMessagesReceivedCount>0</CCRUMessagesReceivedCount>
<CCRUMessagesSentCount>0</CCRUMessagesSentCount>
<CCRUMessagesTimeoutCount>0</CCRUMessagesTimeoutCount>
<CCRTMessagesReceivedCount>0</CCRTMessagesReceivedCount>
<CCRTMessagesSentCount>0</CCRTMessagesSentCount>
<CCRTMessagesTimeoutCount>0</CCRTMessagesTimeoutCount>
<CCAISuccessMessagesReceivedCount>0</CCAISuccessMessagesReceivedCount>
<CCAISuccessMessagesSentCount>0</CCAISuccessMessagesSentCount>
<CCAIFailureMessagesReceivedCount>0</CCAIFailureMessagesReceivedCount>
<CCAIFailureMessagesSentCount>0</CCAIFailureMessagesSentCount>
<CCAUSuccessMessagesReceivedCount>0</CCAUSuccessMessagesReceivedCount>
<CCAUSuccessMessagesSentCount>0</CCAUSuccessMessagesSentCount>
<CCAUFailureMessagesReceivedCount>0</CCAUFailureMessagesReceivedCount>
<CCAUFailureMessagesSentCount>0</CCAUFailureMessagesSentCount>
<CCATSuccessMessagesReceivedCount>0</CCATSuccessMessagesReceivedCount>
<CCATSuccessMessagesSentCount>0</CCATSuccessMessagesSentCount>
<CCATFailureMessagesReceivedCount>0</CCATFailureMessagesReceivedCount>
<CCATFailureMessagesSentCount>0</CCATFailureMessagesSentCount>
<PeerOkayCount>1</PeerOkayCount>
<PeerDownCount>0</PeerDownCount>
<PeerSuspectCount>0</PeerSuspectCount>
<PeerReopenCount>0</PeerReopenCount>
</Sample>
</DiameterMraBberfStats>
</Statistics>
```

Diameter MRA Bberf Peer Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterMraBberfPeerStats tag.

Request

This request follows the DiameterMraBberfPeerStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterMraBberfPeerStats>
<!-- Name is optional. -->
<Name>mra-82.example.com</Name>
<Name>mra-35.example.com</Name>
<!-- NeId is optional. -->
<NeId />
```

```
</DiameterMraBberfPeerStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterMraBberfPeerStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterMraBberfPeerStats>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<MRA>MRA-Cluster</MRA>
<IsComplete>true</IsComplete>
<Name>mpe-84.example.com</Name>
<NeId/>
<NetworkElementType/>
<NetworkElementSubType/>
<ConnectTime>Mon May 16 13:33:32 EDT 2016</ConnectTime>
<DisconnectTime>N/A</DisconnectTime>
<ConnectAddress>10.196.143.179</ConnectAddress>
<ConnectPort>3868</ConnectPort>
<ConnectType>TCP</ConnectType>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<MessagesErrorInCount>0</MessagesErrorInCount>
<MessagesErrorOutCount>0</MessagesErrorOutCount>
<RARMessagesReceivedCount>0</RARMessagesReceivedCount>
<RARMessagesSentCount>0</RARMessagesSentCount>
<RARMessagesTimeoutCount>0</RARMessagesTimeoutCount>
<RAASuccessMessagesReceivedCount>0</RAASuccessMessagesReceivedCount>
<RAASuccessMessagesSentCount>0</RAASuccessMessagesSentCount>
<RAAFailureMessagesReceivedCount>0</RAAFailureMessagesReceivedCount>
<RAAFailureMessagesSentCount>0</RAAFailureMessagesSentCount>
<CCRMessagesReceivedCount>0</CCRMessagesReceivedCount>
<CCRMessagesSentCount>0</CCRMessagesSentCount>
<CCRMessagesTimeoutCount>0</CCRMessagesTimeoutCount>
<CCASuccessMessagesReceivedCount>0</CCASuccessMessagesReceivedCount>
<CCASuccessMessagesSentCount>0</CCASuccessMessagesSentCount>
<CCAFailureMessagesReceivedCount>0</CCAFailureMessagesReceivedCount>
<CCAFailureMessagesSentCount>0</CCAFailureMessagesSentCount>
<CCRIMessagesReceivedCount>0</CCRIMessagesReceivedCount>
<CCRIMessagesSentCount>0</CCRIMessagesSentCount>
<CCRIMessagesTimeoutCount>0</CCRIMessagesTimeoutCount>
<CCRUMessagesReceivedCount>0</CCRUMessagesReceivedCount>
<CCRUMessagesSentCount>0</CCRUMessagesSentCount>
<CCRUMessagesTimeoutCount>0</CCRUMessagesTimeoutCount>
<CCRTMessagesReceivedCount>0</CCRTMessagesReceivedCount>
<CCRTMessagesSentCount>0</CCRTMessagesSentCount>
<CCRTMessagesTimeoutCount>0</CCRTMessagesTimeoutCount>
<CCAISuccessMessagesReceivedCount>0</CCAISuccessMessagesReceivedCount>
<CCAISuccessMessagesSentCount>0</CCAISuccessMessagesSentCount>
<CCAIFailureMessagesReceivedCount>0</CCAIFailureMessagesReceivedCount>
<CCAIFailureMessagesSentCount>0</CCAIFailureMessagesSentCount>
<CCAUSuccessMessagesReceivedCount>0</CCAUSuccessMessagesReceivedCount>
<CCAUSuccessMessagesSentCount>0</CCAUSuccessMessagesSentCount>
<CCAUFailureMessagesReceivedCount>0</CCAUFailureMessagesReceivedCount>
<CCAUFailureMessagesSentCount>0</CCAUFailureMessagesSentCount>
<CCATSuccessMessagesReceivedCount>0</CCATSuccessMessagesReceivedCount>
<CCATSuccessMessagesSentCount>0</CCATSuccessMessagesSentCount>
```

```
<CCATFailureMessagesReceivedCount>0</CCATFailureMessagesReceivedCount>
<CCATFailureMessagesSentCount>0</CCATFailureMessagesSentCount>
</Sample>
</DiameterMraBberfPeerStats>
</Statistics>
```

Diameter MRA Charging Function Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterMraCtfStats tag.

Request

This request follows the DiameterMraCtfStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterMraCtfStats>
<!-- MRA is optional. -->
<MRA>MRA-Cluster</MRA>
<MRA>MRA-35</MRA>
</DiameterMraCtfStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterMraCtfStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterMraCtfStats>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<MRA>MRA-Cluster</MRA>
<IsComplete>true</IsComplete>
<CurrentConnectionsCount>0</CurrentConnectionsCount>
<PeerOkayCount>1</PeerOkayCount>
<PeerDownCount>0</PeerDownCount>
<PeerSuspectCount>0</PeerSuspectCount>
<PeerReopenCount>0</PeerReopenCount>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<CCRMessagesReceivedCount>0</CCRMessagesReceivedCount>
<CCRMessagesSentCount>0</CCRMessagesSentCount>
<CCASuccessMessagesReceivedCount>0</CCASuccessMessagesReceivedCount>
<CCASuccessMessagesSentCount>0</CCASuccessMessagesSentCount>
<CCAFailureMessagesReceivedCount>0</CCAFailureMessagesReceivedCount>
<CCAFailureMessagesSentCount>0</CCAFailureMessagesSentCount>
<CCRIMessagesReceivedCount>0</CCRIMessagesReceivedCount>
<CCRIMessagesSentCount>0</CCRIMessagesSentCount>
<CCRUMessagesReceivedCount>0</CCRUMessagesReceivedCount>
<CCRUMessagesSentCount>0</CCRUMessagesSentCount>
<CCRTMessagesReceivedCount>0</CCRTMessagesReceivedCount>
```

```
<CCRTMessagesSentCount>0</CCRTMessagesSentCount>
<CCAISuccessMessagesReceivedCount>0</CCAISuccessMessagesReceivedCount>
<CCAISuccessMessagesSentCount>0</CCAISuccessMessagesSentCount>
<CCAIFailureMessagesReceivedCount>0</CCAIFailureMessagesReceivedCount>
<CCAIFailureMessagesSentCount>0</CCAIFailureMessagesSentCount>
<CCAUSuccessMessagesReceivedCount>0</CCAUSuccessMessagesReceivedCount>
<CCAUSuccessMessagesSentCount>0</CCAUSuccessMessagesSentCount>
<CCAUFailureMessagesReceivedCount>0</CCAUFailureMessagesReceivedCount>
<CCAUFailureMessagesSentCount>0</CCAUFailureMessagesSentCount>
<CCATSuccessMessagesReceivedCount>0</CCATSuccessMessagesReceivedCount>
<CCATSuccessMessagesSentCount>0</CCATSuccessMessagesSentCount>
<CCATFailureMessagesReceivedCount>0</CCATFailureMessagesReceivedCount>
<CCATFailureMessagesSentCount>0</CCATFailureMessagesSentCount>
<RARMessagesReceivedCount>0</RARMessagesReceivedCount>
<RARMessagesSentCount>0</RARMessagesSentCount>
<RAASuccessMessagesReceivedCount>0</RAASuccessMessagesReceivedCount>
<RAASuccessMessagesSentCount>0</RAASuccessMessagesSentCount>
<RAAFailureMessagesReceivedCount>0</RAAFailureMessagesReceivedCount>
<RAAFailureMessagesSentCount>0</RAAFailureMessagesSentCount>
<ASRMessagesReceivedCount>0</ASRMessagesReceivedCount>
<ASRMessagesSentCount>0</ASRMessagesSentCount>
<ASASuccessMessagesReceivedCount>0</ASASuccessMessagesReceivedCount>
<ASASuccessMessagesSentCount>0</ASASuccessMessagesSentCount>
<ASAFailureMessagesReceivedCount>0</ASAFailureMessagesReceivedCount>
<ASAFailureMessagesSentCount>0</ASAFailureMessagesSentCount>
<ActiveSessionsCount>0</ActiveSessionsCount>
<MaximumActiveSessionsCount>0</MaximumActiveSessionsCount>
</Sample>
</DiameterMraCtfStats>
</Statistics>
```

Diameter MRA Charging Function Peer Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterMraCtfPeerStats tag.

Request

This request follows the DiameterMraCtfPeerStats tag defined in the QueryOmStats section in the XSD files.

```
<?xml version="1.0" encoding="UTF-8"?>
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterMraCtfPeerStats>
<!-- MRA is optional. -->
<MRA>MRA-Cluster</MRA>
<MRA>MRA-35</MRA>
</DiameterMraCtfStats>
</QueryOmStats><?xml version="1.0" encoding="UTF-8"?>
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterMraCtfPeerStats>
<!-- Name is optional. -->
<Name>mra-82.example.com</Name>
<Name>mra-35.example.com</Name>
<!-- NeId is optional. -->
```

```
<NeId />
</DiameterMraCtfPeerStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterMraCtfPeerStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterMraCtfPeerStats>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<MRA>MRA-Cluster</MRA>
<IsComplete>true</IsComplete>
<Name>dpi-sanity.test.com</Name>
<NeId/>
<NetworkElementType/>
<NetworkElementSubType/>
<ActiveConnectionCount>0</ActiveConnectionCount>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<MessagesErrorInCount>0</MessagesErrorInCount>
<MessagesErrorOutCount>0</MessagesErrorOutCount>
<CCRMessagesReceivedCount>0</CCRMessagesReceivedCount>
<CCRMessagesSentCount>0</CCRMessagesSentCount>
<CCASuccessMessagesReceivedCount>0</CCASuccessMessagesReceivedCount>
<CCASuccessMessagesSentCount>0</CCASuccessMessagesSentCount>
<CCAFailureMessagesReceivedCount>0</CCAFailureMessagesReceivedCount>
<CCAFailureMessagesSentCount>0</CCAFailureMessagesSentCount>
<CCRIMessagesReceivedCount>0</CCRIMessagesReceivedCount>
<CCRIMessagesSentCount>0</CCRIMessagesSentCount>
<CCRUMessagesReceivedCount>0</CCRUMessagesReceivedCount>
<CCRUMessagesSentCount>0</CCRUMessagesSentCount>
<CCRTMessagesReceivedCount>0</CCRTMessagesReceivedCount>
<CCRTMessagesSentCount>0</CCRTMessagesSentCount>
<CCAISuccessMessagesReceivedCount>0</CCAISuccessMessagesReceivedCount>
<CCAISuccessMessagesSentCount>0</CCAISuccessMessagesSentCount>
<CCAIFailureMessagesReceivedCount>0</CCAIFailureMessagesReceivedCount>
<CCAIFailureMessagesSentCount>0</CCAIFailureMessagesSentCount>
<CCAUSuccessMessagesReceivedCount>0</CCAUSuccessMessagesReceivedCount>
<CCAUSuccessMessagesSentCount>0</CCAUSuccessMessagesSentCount>
<CCAUFailureMessagesReceivedCount>0</CCAUFailureMessagesReceivedCount>
<CCAUFailureMessagesSentCount>0</CCAUFailureMessagesSentCount>
<CCATSuccessMessagesReceivedCount>0</CCATSuccessMessagesReceivedCount>
<CCATSuccessMessagesSentCount>0</CCATSuccessMessagesSentCount>
<CCATFailureMessagesReceivedCount>0</CCATFailureMessagesReceivedCount>
<CCATFailureMessagesSentCount>0</CCATFailureMessagesSentCount>
<RARMessagesReceivedCount>0</RARMessagesReceivedCount>
<RARMessagesSentCount>0</RARMessagesSentCount>
<RAASuccessMessagesReceivedCount>0</RAASuccessMessagesReceivedCount>
<RAASuccessMessagesSentCount>0</RAASuccessMessagesSentCount>
<RAAFailureMessagesReceivedCount>0</RAAFailureMessagesReceivedCount>
<RAAFailureMessagesSentCount>0</RAAFailureMessagesSentCount>
<ASRMessagesReceivedCount>0</ASRMessagesReceivedCount>
<ASRMessagesSentCount>0</ASRMessagesSentCount>
<ASASuccessMessagesReceivedCount>0</ASASuccessMessagesReceivedCount>
<ASASuccessMessagesSentCount>0</ASASuccessMessagesSentCount>
<ASAFailureMessagesReceivedCount>0</ASAFailureMessagesReceivedCount>
<ASAFailureMessagesSentCount>0</ASAFailureMessagesSentCount>
```

```
<ActiveSessionsCount>0</ActiveSessionsCount>
<MaximumActiveSessionsCount>0</MaximumActiveSessionsCount>
</Sample>
</DiameterMraCtfPeerStats>
</Statistics>
```

Diameter MRA DRA Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterMraDraStats tag.

Request

This request follows the DiameterMraDraStats tag defined in the QueryOmStats section in the XSD files.

The following is an example of this request.

```
<QueryOmStats>
<StartTime>2016-04-2T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterMraDraStats>
<!-- MRA is optional. -->
<MRA>MRA-Cluster</MRA>
<MRA>MRA-35</MRA>
</DiameterMraDraStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterMraDraStats tag defined in the Statistics section in the XSD files. The following is an example XML response to this tag request.

```
<Statistics>
<DiameterMraDraStats>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<MRA>MRA-Cluster</MRA>
<IsComplete>true</IsComplete>
<ActiveBindingsCount>0</ActiveBindingsCount>
<MaximumActiveBindingsCount>0</MaximumActiveBindingsCount>
<TotalBindingsCount>0</TotalBindingsCount>
<SuspectBindingsCount>0</SuspectBindingsCount>
<DetectedDuplicateBindingsCount>0</DetectedDuplicateBindingsCount>
<ReleasedDuplicateBindingsCount>0</ReleasedDuplicateBindingsCount>
<CurrentlyActiveMappingsCount>0</CurrentlyActiveMappingsCount>
<MaxActiveMappingsCount>0</MaxActiveMappingsCount>
<RecoveredBindings>0</RecoveredBindings>
<RecoveredPdnConnections>0</RecoveredPdnConnections>
<ReleaseBindingsProcessed>0</ReleaseBindingsProcessed>
<ReleaseBindingsRemoved>0</ReleaseBindingsRemoved>
<ReleaseRarsSent>0</ReleaseRarsSent>
<ReleaseRarsTimeout>0</ReleaseRarsTimeout>
<ReleaseRaasReceivedSuccess>0</ReleaseRaasReceivedSuccess>
<ReleaseRaasReceivedFailure>0</ReleaseRaasReceivedFailure>
<ReleaseCCRTerminatesProcessed>0</ReleaseCCRTerminatesProcessed>
```

```
</Sample>
<Sample>
<StartTime>2016-05-17T00:00:01Z</StartTime>
<EndTime>2016-05-17T00:15:01Z</EndTime>
<MRA>MRA-Cluster</MRA>
<IsComplete>true</IsComplete>
<ActiveBindingsCount>0</ActiveBindingsCount>
<MaximumActiveBindingsCount>0</MaximumActiveBindingsCount>
<TotalBindingsCount>0</TotalBindingsCount>
<SuspectBindingsCount>0</SuspectBindingsCount>
<DetectedDuplicateBindingsCount>0</DetectedDuplicateBindingsCount>
<ReleasedDuplicateBindingsCount>0</ReleasedDuplicateBindingsCount>
<CurrentlyActiveMappingsCount>0</CurrentlyActiveMappingsCount>
<MaxActiveMappingsCount>0</MaxActiveMappingsCount>
<RecoveredBindings>0</RecoveredBindings>
<RecoveredPdnConnections>0</RecoveredPdnConnections>
<ReleaseBindingsProcessed>0</ReleaseBindingsProcessed>
<ReleaseBindingsRemoved>0</ReleaseBindingsRemoved>
<ReleaseRarsSent>0</ReleaseRarsSent>
<ReleaseRarsTimeout>0</ReleaseRarsTimeout>
<ReleaseRaasReceivedSuccess>0</ReleaseRaasReceivedSuccess>
<ReleaseRaasReceivedFailure>0</ReleaseRaasReceivedFailure>
<ReleaseCCRTerminatesProcessed>0</ReleaseCCRTerminatesProcessed>
</Sample>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:00Z</EndTime>
<MRA>MRA-35</MRA>
<IsComplete>true</IsComplete>
<ActiveBindingsCount>0</ActiveBindingsCount>
<MaximumActiveBindingsCount>0</MaximumActiveBindingsCount>
<TotalBindingsCount>0</TotalBindingsCount>
<SuspectBindingsCount>0</SuspectBindingsCount>
<DetectedDuplicateBindingsCount>0</DetectedDuplicateBindingsCount>
<ReleasedDuplicateBindingsCount>0</ReleasedDuplicateBindingsCount>
<CurrentlyActiveMappingsCount>0</CurrentlyActiveMappingsCount>
<MaxActiveMappingsCount>0</MaxActiveMappingsCount>
<RecoveredBindings>0</RecoveredBindings>
<RecoveredPdnConnections>0</RecoveredPdnConnections>
<ReleaseBindingsProcessed>0</ReleaseBindingsProcessed>
<ReleaseBindingsRemoved>0</ReleaseBindingsRemoved>
<ReleaseRarsSent>0</ReleaseRarsSent>
<ReleaseRarsTimeout>0</ReleaseRarsTimeout>
<ReleaseRaasReceivedSuccess>0</ReleaseRaasReceivedSuccess>
<ReleaseRaasReceivedFailure>0</ReleaseRaasReceivedFailure>
<ReleaseCCRTerminatesProcessed>0</ReleaseCCRTerminatesProcessed>
</Sample>
<Sample>
<StartTime>2016-05-17T00:00:00Z</StartTime>
<EndTime>2016-05-17T00:15:00Z</EndTime>
<MRA>MRA-35</MRA>
<IsComplete>true</IsComplete>
<ActiveBindingsCount>0</ActiveBindingsCount>
<MaximumActiveBindingsCount>0</MaximumActiveBindingsCount>
<TotalBindingsCount>0</TotalBindingsCount>
<SuspectBindingsCount>0</SuspectBindingsCount>
<DetectedDuplicateBindingsCount>0</DetectedDuplicateBindingsCount>
<ReleasedDuplicateBindingsCount>0</ReleasedDuplicateBindingsCount>
<CurrentlyActiveMappingsCount>0</CurrentlyActiveMappingsCount>
<MaxActiveMappingsCount>0</MaxActiveMappingsCount>
<RecoveredBindings>0</RecoveredBindings>
<RecoveredPdnConnections>0</RecoveredPdnConnections>
<ReleaseBindingsProcessed>0</ReleaseBindingsProcessed>
<ReleaseBindingsRemoved>0</ReleaseBindingsRemoved>
```

```
<ReleaseRarsSent>0</ReleaseRarsSent>
<ReleaseRarsTimeout>0</ReleaseRarsTimeout>
<ReleaseRaasReceivedSuccess>0</ReleaseRaasReceivedSuccess>
<ReleaseRaasReceivedFailure>0</ReleaseRaasReceivedFailure>
<ReleaseCCRTerminatesProcessed>0</ReleaseCCRTerminatesProcessed>
</Sample>
<Sample>
<StartTime>2016-05-17T00:15:00Z</StartTime>
<EndTime>2016-05-17T00:30:00Z</EndTime>
<MRA>MRA-35</MRA>
<IsComplete>true</IsComplete>
<ActiveBindingsCount>0</ActiveBindingsCount>
<MaximumActiveBindingsCount>0</MaximumActiveBindingsCount>
<TotalBindingsCount>0</TotalBindingsCount>
<SuspectBindingsCount>0</SuspectBindingsCount>
<DetectedDuplicateBindingsCount>0</DetectedDuplicateBindingsCount>
<ReleasedDuplicateBindingsCount>0</ReleasedDuplicateBindingsCount>
<CurrentlyActiveMappingsCount>0</CurrentlyActiveMappingsCount>
<MaxActiveMappingsCount>0</MaxActiveMappingsCount>
<RecoveredBindings>0</RecoveredBindings>
<RecoveredPdnConnections>0</RecoveredPdnConnections>
<ReleaseBindingsProcessed>0</ReleaseBindingsProcessed>
<ReleaseBindingsRemoved>0</ReleaseBindingsRemoved>
<ReleaseRarsSent>0</ReleaseRarsSent>
<ReleaseRarsTimeout>0</ReleaseRarsTimeout>
<ReleaseRaasReceivedSuccess>0</ReleaseRaasReceivedSuccess>
<ReleaseRaasReceivedFailure>0</ReleaseRaasReceivedFailure>
<ReleaseCCRTerminatesProcessed>0</ReleaseCCRTerminatesProcessed>
</Sample>
</DiameterMraDraStats>
</Statistics>
```

Diameter MRA Distributed Routing and Management Application (DRMA) Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterDrmaStats tag.

Request

This request follows the DiameterDrmaStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterMraDrmaStats>
<!-- MRA is optional. -->
<MRA>MRA-Cluster</MRA>
<MRA>MRA-35</MRA>
</DiameterMraDrmaStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterDrmaStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterMraDrmaStats>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<MRA>MRA-Cluster</MRA>
<IsComplete>true</IsComplete>
<CurrentConnectionsCount>1</CurrentConnectionsCount>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<DBRMessagesReceivedCount>0</DBRMessagesReceivedCount>
<DBRMessagesSentCount>0</DBRMessagesSentCount>
<DBRMessagesTimeoutCount>0</DBRMessagesTimeoutCount>
<DBASuccessMessagesReceivedCount>0</DBASuccessMessagesReceivedCount>
<DBASuccessMessagesSentCount>0</DBASuccessMessagesSentCount>
<DBAFailureMessagesReceivedCount>0</DBAFailureMessagesReceivedCount>
<DBAFailureMessagesSentCount>0</DBAFailureMessagesSentCount>
<RURMessagesReceivedCount>0</RURMessagesReceivedCount>
<RURMessagesSentCount>0</RURMessagesSentCount>
<RURMessagesTimeoutCount>0</RURMessagesTimeoutCount>
<RUASuccessMessagesReceivedCount>0</RUASuccessMessagesReceivedCount>
<RUASuccessMessagesSentCount>0</RUASuccessMessagesSentCount>
<RUAFailureMessagesReceivedCount>0</RUAFailureMessagesReceivedCount>
<RUAFailureMessagesSentCount>0</RUAFailureMessagesSentCount>
<LNRMessagesReceivedCount>0</LNRMessagesReceivedCount>
<LNRMessagesSentCount>0</LNRMessagesSentCount>
<LNRMessagesTimeoutCount>0</LNRMessagesTimeoutCount>
<LNASuccessMessagesReceivedCount>0</LNASuccessMessagesReceivedCount>
<LNASuccessMessagesSentCount>0</LNASuccessMessagesSentCount>
<LNAFailureMessagesReceivedCount>0</LNAFailureMessagesReceivedCount>
<LNAFailureMessagesSentCount>0</LNAFailureMessagesSentCount>
<LSRMessagesReceivedCount>0</LSRMessagesReceivedCount>
<LSRMessagesSentCount>0</LSRMessagesSentCount>
<LSRMessagesTimeoutCount>0</LSRMessagesTimeoutCount>
<LSASuccessMessagesReceivedCount>0</LSASuccessMessagesReceivedCount>
<LSASuccessMessagesSentCount>0</LSASuccessMessagesSentCount>
<LSAFailureMessagesReceivedCount>0</LSAFailureMessagesReceivedCount>
<LSAFailureMessagesSentCount>0</LSAFailureMessagesSentCount>
<SQRMessagesReceivedCount>0</SQRMessagesReceivedCount>
<SQRMessagesSentCount>0</SQRMessagesSentCount>
<SQRMessagesTimeoutCount>0</SQRMessagesTimeoutCount>
<SQASuccessMessagesReceivedCount>0</SQASuccessMessagesReceivedCount>
<SQASuccessMessagesSentCount>0</SQASuccessMessagesSentCount>
<SQAFailureMessagesReceivedCount>0</SQAFailureMessagesReceivedCount>
<SQAFailureMessagesSentCount>0</SQAFailureMessagesSentCount>
<BindingFoundSentCount>0</BindingFoundSentCount>
<BindingFoundRecvCount>0</BindingFoundRecvCount>
<BindingNotFoundSentCount>0</BindingNotFoundSentCount>
<BindingNotFoundRecvCount>0</BindingNotFoundRecvCount>
<PcrfDownSentCount>0</PcrfDownSentCount>
<PcrfDownReceivedCount>0</PcrfDownReceivedCount>
<AllPcrfsDownSentCount>0</AllPcrfsDownSentCount>
<AllPcrfsDownRecvCount>0</AllPcrfsDownRecvCount>
<PeerOkayCount>1</PeerOkayCount>
<PeerDownCount>0</PeerDownCount>
<PeerSuspectCount>0</PeerSuspectCount>
<PeerReopenCount>0</PeerReopenCount>
```

```
</Sample>
<Sample>
<StartTime>2016-05-17T00:00:01Z</StartTime>
<EndTime>2016-05-17T00:15:01Z</EndTime>
<MRA>MRA-Cluster</MRA>
<IsComplete>true</IsComplete>
<CurrentConnectionsCount>1</CurrentConnectionsCount>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<DBRMessagesReceivedCount>0</DBRMessagesReceivedCount>
<DBRMessagesSentCount>0</DBRMessagesSentCount>
<DBRMessagesTimeoutCount>0</DBRMessagesTimeoutCount>
<DBASuccessMessagesReceivedCount>0</DBASuccessMessagesReceivedCount>
<DBASuccessMessagesSentCount>0</DBASuccessMessagesSentCount>
<DBAFailureMessagesReceivedCount>0</DBAFailureMessagesReceivedCount>
<DBAFailureMessagesSentCount>0</DBAFailureMessagesSentCount>
<RURMessagesReceivedCount>0</RURMessagesReceivedCount>
<RURMessagesSentCount>0</RURMessagesSentCount>
<RURMessagesTimeoutCount>0</RURMessagesTimeoutCount>
<RUASuccessMessagesReceivedCount>0</RUASuccessMessagesReceivedCount>
<RUASuccessMessagesSentCount>0</RUASuccessMessagesSentCount>
<RUAFailureMessagesReceivedCount>0</RUAFailureMessagesReceivedCount>
<RUAFailureMessagesSentCount>0</RUAFailureMessagesSentCount>
<LNRMessagesReceivedCount>0</LNRMessagesReceivedCount>
<LNRMessagesSentCount>0</LNRMessagesSentCount>
<LNRMessagesTimeoutCount>0</LNRMessagesTimeoutCount>
<LNASuccessMessagesReceivedCount>0</LNASuccessMessagesReceivedCount>
<LNASuccessMessagesSentCount>0</LNASuccessMessagesSentCount>
<LNAFailureMessagesReceivedCount>0</LNAFailureMessagesReceivedCount>
<LNAFailureMessagesSentCount>0</LNAFailureMessagesSentCount>
<LSRMessagesReceivedCount>0</LSRMessagesReceivedCount>
<LSRMessagesSentCount>0</LSRMessagesSentCount>
<LSRMessagesTimeoutCount>0</LSRMessagesTimeoutCount>
<LSASuccessMessagesReceivedCount>0</LSASuccessMessagesReceivedCount>
<LSASuccessMessagesSentCount>0</LSASuccessMessagesSentCount>
<LSAFailureMessagesReceivedCount>0</LSAFailureMessagesReceivedCount>
<LSAFailureMessagesSentCount>0</LSAFailureMessagesSentCount>
<SQRMessagesReceivedCount>0</SQRMessagesReceivedCount>
<SQRMessagesSentCount>0</SQRMessagesSentCount>
<SQRMessagesTimeoutCount>0</SQRMessagesTimeoutCount>
<SQASuccessMessagesReceivedCount>0</SQASuccessMessagesReceivedCount>
<SQASuccessMessagesSentCount>0</SQASuccessMessagesSentCount>
<SQAFailureMessagesReceivedCount>0</SQAFailureMessagesReceivedCount>
<SQAFailureMessagesSentCount>0</SQAFailureMessagesSentCount>
<BindingFoundSentCount>0</BindingFoundSentCount>
<BindingFoundRecvCount>0</BindingFoundRecvCount>
<BindingNotFoundSentCount>0</BindingNotFoundSentCount>
<BindingNotFoundRecvCount>0</BindingNotFoundRecvCount>
<PcrfDownSentCount>0</PcrfDownSentCount>
<PcrfDownReceivedCount>0</PcrfDownReceivedCount>
<AllPcrfsDownSentCount>0</AllPcrfsDownSentCount>
<AllPcrfsDownRecvCount>0</AllPcrfsDownRecvCount>
<PeerOkayCount>1</PeerOkayCount>
<PeerDownCount>0</PeerDownCount>
<PeerSuspectCount>0</PeerSuspectCount>
<PeerReopenCount>0</PeerReopenCount>
</Sample>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:00Z</EndTime>
<MRA>MRA-35</MRA>
<IsComplete>true</IsComplete>
<CurrentConnectionsCount>1</CurrentConnectionsCount>
<MessagesInCount>15</MessagesInCount>
```

```
<MessagesOutCount>15</MessagesOutCount>
<DBRMessagesReceivedCount>0</DBRMessagesReceivedCount>
<DBRMessagesSentCount>0</DBRMessagesSentCount>
<DBRMessagesTimeoutCount>0</DBRMessagesTimeoutCount>
<DBASuccessMessagesReceivedCount>0</DBASuccessMessagesReceivedCount>
<DBASuccessMessagesSentCount>0</DBASuccessMessagesSentCount>
<DBAFailureMessagesReceivedCount>0</DBAFailureMessagesReceivedCount>
<DBAFailureMessagesSentCount>0</DBAFailureMessagesSentCount>
<RURMessagesReceivedCount>0</RURMessagesReceivedCount>
<RURMessagesSentCount>0</RURMessagesSentCount>
<RURMessagesTimeoutCount>0</RURMessagesTimeoutCount>
<RUASuccessMessagesReceivedCount>0</RUASuccessMessagesReceivedCount>
<RUASuccessMessagesSentCount>0</RUASuccessMessagesSentCount>
<RUAFailureMessagesReceivedCount>0</RUAFailureMessagesReceivedCount>
<RUAFailureMessagesSentCount>0</RUAFailureMessagesSentCount>
<LNRMessagesReceivedCount>15</LNRMessagesReceivedCount>
<LNRMessagesSentCount>0</LNRMessagesSentCount>
<LNRMessagesTimeoutCount>0</LNRMessagesTimeoutCount>
<LNASuccessMessagesReceivedCount>0</LNASuccessMessagesReceivedCount>
<LNASuccessMessagesSentCount>15</LNASuccessMessagesSentCount>
<LNAFailureMessagesReceivedCount>0</LNAFailureMessagesReceivedCount>
<LNAFailureMessagesSentCount>0</LNAFailureMessagesSentCount>
<LSRMessagesReceivedCount>0</LSRMessagesReceivedCount>
<LSRMessagesSentCount>0</LSRMessagesSentCount>
<LSRMessagesTimeoutCount>0</LSRMessagesTimeoutCount>
<LSASuccessMessagesReceivedCount>0</LSASuccessMessagesReceivedCount>
<LSASuccessMessagesSentCount>0</LSASuccessMessagesSentCount>
<LSAFailureMessagesReceivedCount>0</LSAFailureMessagesReceivedCount>
<LSAFailureMessagesSentCount>0</LSAFailureMessagesSentCount>
<SQRMessagesReceivedCount>0</SQRMessagesReceivedCount>
<SQRMessagesSentCount>0</SQRMessagesSentCount>
<SQRMessagesTimeoutCount>0</SQRMessagesTimeoutCount>
<SQASuccessMessagesReceivedCount>0</SQASuccessMessagesReceivedCount>
<SQASuccessMessagesSentCount>0</SQASuccessMessagesSentCount>
<SQAFailureMessagesReceivedCount>0</SQAFailureMessagesReceivedCount>
<SQAFailureMessagesSentCount>0</SQAFailureMessagesSentCount>
<BindingFoundSentCount>0</BindingFoundSentCount>
<BindingFoundRecvCount>0</BindingFoundRecvCount>
<BindingNotFoundSentCount>0</BindingNotFoundSentCount>
<BindingNotFoundRecvCount>0</BindingNotFoundRecvCount>
<PcrfDownSentCount>0</PcrfDownSentCount>
<PcrfDownReceivedCount>0</PcrfDownReceivedCount>
<AllPcrfsDownSentCount>0</AllPcrfsDownSentCount>
<AllPcrfsDownRecvCount>0</AllPcrfsDownRecvCount>
<PeerOkayCount>1</PeerOkayCount>
<PeerDownCount>0</PeerDownCount>
<PeerSuspectCount>0</PeerSuspectCount>
<PeerReopenCount>0</PeerReopenCount>
</Sample>
<Sample>
<StartTime>2016-05-17T00:00:00Z</StartTime>
<EndTime>2016-05-17T00:15:00Z</EndTime>
<MRA>MRA-35</MRA>
<IsComplete>true</IsComplete>
<CurrentConnectionsCount>1</CurrentConnectionsCount>
<MessagesInCount>15</MessagesInCount>
<MessagesOutCount>15</MessagesOutCount>
<DBRMessagesReceivedCount>0</DBRMessagesReceivedCount>
<DBRMessagesSentCount>0</DBRMessagesSentCount>
<DBRMessagesTimeoutCount>0</DBRMessagesTimeoutCount>
<DBASuccessMessagesReceivedCount>0</DBASuccessMessagesReceivedCount>
<DBASuccessMessagesSentCount>0</DBASuccessMessagesSentCount>
<DBAFailureMessagesReceivedCount>0</DBAFailureMessagesReceivedCount>
<DBAFailureMessagesSentCount>0</DBAFailureMessagesSentCount>
```

```
<RURMessagesReceivedCount>0</RURMessagesReceivedCount>
<RURMessagesSentCount>0</RURMessagesSentCount>
<RURMessagesTimeoutCount>0</RURMessagesTimeoutCount>
<RUASuccessMessagesReceivedCount>0</RUASuccessMessagesReceivedCount>
<RUASuccessMessagesSentCount>0</RUASuccessMessagesSentCount>
<RUAFailureMessagesReceivedCount>0</RUAFailureMessagesReceivedCount>
<RUAFailureMessagesSentCount>0</RUAFailureMessagesSentCount>
<LNRMessagesReceivedCount>15</LNRMessagesReceivedCount>
<LNRMessagesSentCount>0</LNRMessagesSentCount>
<LNRMessagesTimeoutCount>0</LNRMessagesTimeoutCount>
<LNASuccessMessagesReceivedCount>0</LNASuccessMessagesReceivedCount>
<LNASuccessMessagesSentCount>15</LNASuccessMessagesSentCount>
<LNAFailureMessagesReceivedCount>0</LNAFailureMessagesReceivedCount>
<LNAFailureMessagesSentCount>0</LNAFailureMessagesSentCount>
<LSRMessagesReceivedCount>0</LSRMessagesReceivedCount>
<LSRMessagesSentCount>0</LSRMessagesSentCount>
<LSRMessagesTimeoutCount>0</LSRMessagesTimeoutCount>
<LSASuccessMessagesReceivedCount>0</LSASuccessMessagesReceivedCount>
<LSASuccessMessagesSentCount>0</LSASuccessMessagesSentCount>
<LSAFailureMessagesReceivedCount>0</LSAFailureMessagesReceivedCount>
<LSAFailureMessagesSentCount>0</LSAFailureMessagesSentCount>
<SQRMessagesReceivedCount>0</SQRMessagesReceivedCount>
<SQRMessagesSentCount>0</SQRMessagesSentCount>
<SQRMessagesTimeoutCount>0</SQRMessagesTimeoutCount>
<SQASuccessMessagesReceivedCount>0</SQASuccessMessagesReceivedCount>
<SQASuccessMessagesSentCount>0</SQASuccessMessagesSentCount>
<SQAFailureMessagesReceivedCount>0</SQAFailureMessagesReceivedCount>
<SQAFailureMessagesSentCount>0</SQAFailureMessagesSentCount>
<BindingFoundSentCount>0</BindingFoundSentCount>
<BindingFoundRecvCount>0</BindingFoundRecvCount>
<BindingNotFoundSentCount>0</BindingNotFoundSentCount>
<BindingNotFoundRecvCount>0</BindingNotFoundRecvCount>
<PcrfDownSentCount>0</PcrfDownSentCount>
<PcrfDownReceivedCount>0</PcrfDownReceivedCount>
<AllPcrfsDownSentCount>0</AllPcrfsDownSentCount>
<AllPcrfsDownRecvCount>0</AllPcrfsDownRecvCount>
<PeerOkayCount>1</PeerOkayCount>
<PeerDownCount>0</PeerDownCount>
<PeerSuspectCount>0</PeerSuspectCount>
<PeerReopenCount>0</PeerReopenCount>
</Sample>
<Sample>
<StartTime>2016-05-17T00:15:00Z</StartTime>
<EndTime>2016-05-17T00:30:00Z</EndTime>
<MRA>MRA-35</MRA>
<IsComplete>true</IsComplete>
<CurrentConnectionsCount>1</CurrentConnectionsCount>
<MessagesInCount>15</MessagesInCount>
<MessagesOutCount>15</MessagesOutCount>
<DBRMessagesReceivedCount>0</DBRMessagesReceivedCount>
<DBRMessagesSentCount>0</DBRMessagesSentCount>
<DBRMessagesTimeoutCount>0</DBRMessagesTimeoutCount>
<DBASuccessMessagesReceivedCount>0</DBASuccessMessagesReceivedCount>
<DBASuccessMessagesSentCount>0</DBASuccessMessagesSentCount>
<DBAFailureMessagesReceivedCount>0</DBAFailureMessagesReceivedCount>
<DBAFailureMessagesSentCount>0</DBAFailureMessagesSentCount>
<RURMessagesReceivedCount>0</RURMessagesReceivedCount>
<RURMessagesSentCount>0</RURMessagesSentCount>
<RURMessagesTimeoutCount>0</RURMessagesTimeoutCount>
<RUASuccessMessagesReceivedCount>0</RUASuccessMessagesReceivedCount>
<RUASuccessMessagesSentCount>0</RUASuccessMessagesSentCount>
<RUAFailureMessagesReceivedCount>0</RUAFailureMessagesReceivedCount>
<RUAFailureMessagesSentCount>0</RUAFailureMessagesSentCount>
<LNRMessagesReceivedCount>15</LNRMessagesReceivedCount>
```

```
<LNRMessagesSentCount>0</LNRMessagesSentCount>
<LNRMessagesTimeoutCount>0</LNRMessagesTimeoutCount>
<LNASuccessMessagesReceivedCount>0</LNASuccessMessagesReceivedCount>
<LNASuccessMessagesSentCount>15</LNASuccessMessagesSentCount>
<LNAFailureMessagesReceivedCount>0</LNAFailureMessagesReceivedCount>
<LNAFailureMessagesSentCount>0</LNAFailureMessagesSentCount>
<LSRMessagesReceivedCount>0</LSRMessagesReceivedCount>
<LSRMessagesSentCount>0</LSRMessagesSentCount>
<LSRMessagesTimeoutCount>0</LSRMessagesTimeoutCount>
<LSASuccessMessagesReceivedCount>0</LSASuccessMessagesReceivedCount>
<LSASuccessMessagesSentCount>0</LSASuccessMessagesSentCount>
<LSAFailureMessagesReceivedCount>0</LSAFailureMessagesReceivedCount>
<LSAFailureMessagesSentCount>0</LSAFailureMessagesSentCount>
<SQRMessagesReceivedCount>0</SQRMessagesReceivedCount>
<SQRMessagesSentCount>0</SQRMessagesSentCount>
<SQRMessagesTimeoutCount>0</SQRMessagesTimeoutCount>
<SQASuccessMessagesReceivedCount>0</SQASuccessMessagesReceivedCount>
<SQASuccessMessagesSentCount>0</SQASuccessMessagesSentCount>
<SQAFailureMessagesReceivedCount>0</SQAFailureMessagesReceivedCount>
<SQAFailureMessagesSentCount>0</SQAFailureMessagesSentCount>
<BindingFoundSentCount>0</BindingFoundSentCount>
<BindingFoundRecvCount>0</BindingFoundRecvCount>
<BindingNotFoundSentCount>0</BindingNotFoundSentCount>
<BindingNotFoundRecvCount>0</BindingNotFoundRecvCount>
<PcrfDownSentCount>0</PcrfDownSentCount>
<PcrfDownReceivedCount>0</PcrfDownReceivedCount>
<AllPcrfsDownSentCount>0</AllPcrfsDownSentCount>
<AllPcrfsDownRecvCount>0</AllPcrfsDownRecvCount>
<PeerOkayCount>1</PeerOkayCount>
<PeerDownCount>0</PeerDownCount>
<PeerSuspectCount>0</PeerSuspectCount>
<PeerReopenCount>0</PeerReopenCount>
</Sample>
</DiameterMraDrmaStats>
</Statistics>
```

Diameter MRA Distributed Routing and Management Application (DRMA) Peer Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterMraDrmaPeerStats tag.

Request

This request follows the DiameterMraDrmaPeerStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterMraDrmaPeerStats>
<!-- Name is optional. -->
<Name>mra-82.example.com</Name>
<Name>mra-35.example.com</Name>
<!-- NeId is optional. -->
<NeId />
</DiameterMraDrmaPeerStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterMraDrmaPeerStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterMraDrmaPeerStats>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<MRA>MRA-Cluster</MRA>
<IsComplete>true</IsComplete>
<Name>mpe-84.example.com</Name>
<NeId/>
<NetworkElementType/>
<NetworkElementSubType/>
<ConnectTime>Mon May 16 13:33:32 EDT 2016</ConnectTime>
<DisconnectTime>N/A</DisconnectTime>
<ConnectAddress>10.196.143.179</ConnectAddress>
<ConnectPort>3868</ConnectPort>
<ConnectType>TCP</ConnectType>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<MessagesErrorInCount>0</MessagesErrorInCount>
<MessagesErrorOutCount>0</MessagesErrorOutCount>
<DBRMessagesReceivedCount>0</DBRMessagesReceivedCount>
<DBRMessagesSentCount>0</DBRMessagesSentCount>
<DBRMessagesTimeoutCount>0</DBRMessagesTimeoutCount>
<DBASuccessMessagesReceivedCount>0</DBASuccessMessagesReceivedCount>
<DBASuccessMessagesSentCount>0</DBASuccessMessagesSentCount>
<DBAFailureMessagesReceivedCount>0</DBAFailureMessagesReceivedCount>
<DBAFailureMessagesSentCount>0</DBAFailureMessagesSentCount>
<RURMessagesReceivedCount>0</RURMessagesReceivedCount>
<RURMessagesSentCount>0</RURMessagesSentCount>
<RURMessagesTimeoutCount>0</RURMessagesTimeoutCount>
<RUASuccessMessagesReceivedCount>0</RUASuccessMessagesReceivedCount>
<RUASuccessMessagesSentCount>0</RUASuccessMessagesSentCount>
<RUAFailureMessagesReceivedCount>0</RUAFailureMessagesReceivedCount>
<RUAFailureMessagesSentCount>0</RUAFailureMessagesSentCount>
<LNRMessagesReceivedCount>0</LNRMessagesReceivedCount>
<LNRMessagesSentCount>0</LNRMessagesSentCount>
<LNRMessagesTimeoutCount>0</LNRMessagesTimeoutCount>
<LNASuccessMessagesReceivedCount>0</LNASuccessMessagesReceivedCount>
<LNASuccessMessagesSentCount>0</LNASuccessMessagesSentCount>
<LNAFailureMessagesReceivedCount>0</LNAFailureMessagesReceivedCount>
<LNAFailureMessagesSentCount>0</LNAFailureMessagesSentCount>
<LSRMessagesReceivedCount>0</LSRMessagesReceivedCount>
<LSRMessagesSentCount>0</LSRMessagesSentCount>
<LSRMessagesTimeoutCount>0</LSRMessagesTimeoutCount>
<LSASuccessMessagesReceivedCount>0</LSASuccessMessagesReceivedCount>
<LSASuccessMessagesSentCount>0</LSASuccessMessagesSentCount>
<LSAFailureMessagesReceivedCount>0</LSAFailureMessagesReceivedCount>
<LSAFailureMessagesSentCount>0</LSAFailureMessagesSentCount>
<SQRMessagesReceivedCount>0</SQRMessagesReceivedCount>
<SQRMessagesSentCount>0</SQRMessagesSentCount>
<SQRMessagesTimeoutCount>0</SQRMessagesTimeoutCount>
<SQASuccessMessagesReceivedCount>0</SQASuccessMessagesReceivedCount>
<SQASuccessMessagesSentCount>0</SQASuccessMessagesSentCount>
<SQAFailureMessagesReceivedCount>0</SQAFailureMessagesReceivedCount>
<SQAFailureMessagesSentCount>0</SQAFailureMessagesSentCount>
<BindingFoundSentCount>0</BindingFoundSentCount>
<BindingFoundRecvCount>0</BindingFoundRecvCount>
```

```
<BindingNotFoundSentCount>0</BindingNotFoundSentCount>
<BindingNotFoundRecvCount>0</BindingNotFoundRecvCount>
<PcrfDownSentCount>0</PcrfDownSentCount>
<PcrfDownReceivedCount>0</PcrfDownReceivedCount>
<AllPcrfsDownSentCount>0</AllPcrfsDownSentCount>
<AllPcrfsDownRecvCount>0</AllPcrfsDownRecvCount>
</Sample>
<Sample>
<StartTime>2016-05-17T00:00:01Z</StartTime>
<EndTime>2016-05-17T00:15:01Z</EndTime>
<MRA>MRA-Cluster</MRA>
<IsComplete>true</IsComplete>
<Name>mpe-84.example.com</Name>
<NeId/>
<NetworkElementType/>
<NetworkElementSubType/>
<ConnectTime>Mon May 16 13:33:32 EDT 2016</ConnectTime>
<DisconnectTime>N/A</DisconnectTime>
<ConnectAddress>10.196.143.179</ConnectAddress>
<ConnectPort>3868</ConnectPort>
<ConnectType>TCP</ConnectType>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<MessagesErrorInCount>0</MessagesErrorInCount>
<MessagesErrorOutCount>0</MessagesErrorOutCount>
<DBRMessagesReceivedCount>0</DBRMessagesReceivedCount>
<DBRMessagesSentCount>0</DBRMessagesSentCount>
<DBRMessagesTimeoutCount>0</DBRMessagesTimeoutCount>
<DBASuccessMessagesReceivedCount>0</DBASuccessMessagesReceivedCount>
<DBASuccessMessagesSentCount>0</DBASuccessMessagesSentCount>
<DBAFailureMessagesReceivedCount>0</DBAFailureMessagesReceivedCount>
<DBAFailureMessagesSentCount>0</DBAFailureMessagesSentCount>
<RURMessagesReceivedCount>0</RURMessagesReceivedCount>
<RURMessagesSentCount>0</RURMessagesSentCount>
<RURMessagesTimeoutCount>0</RURMessagesTimeoutCount>
<RUASuccessMessagesReceivedCount>0</RUASuccessMessagesReceivedCount>
<RUASuccessMessagesSentCount>0</RUASuccessMessagesSentCount>
<RUAFailureMessagesReceivedCount>0</RUAFailureMessagesReceivedCount>
<RUAFailureMessagesSentCount>0</RUAFailureMessagesSentCount>
<LNRMessagesReceivedCount>0</LNRMessagesReceivedCount>
<LNRMessagesSentCount>0</LNRMessagesSentCount>
<LNRMessagesTimeoutCount>0</LNRMessagesTimeoutCount>
<LNASuccessMessagesReceivedCount>0</LNASuccessMessagesReceivedCount>
<LNASuccessMessagesSentCount>0</LNASuccessMessagesSentCount>
<LNAFailureMessagesReceivedCount>0</LNAFailureMessagesReceivedCount>
<LNAFailureMessagesSentCount>0</LNAFailureMessagesSentCount>
<LSRMessagesReceivedCount>0</LSRMessagesReceivedCount>
<LSRMessagesSentCount>0</LSRMessagesSentCount>
<LSRMessagesTimeoutCount>0</LSRMessagesTimeoutCount>
<LSASuccessMessagesReceivedCount>0</LSASuccessMessagesReceivedCount>
<LSASuccessMessagesSentCount>0</LSASuccessMessagesSentCount>
<LSAFailureMessagesReceivedCount>0</LSAFailureMessagesReceivedCount>
<LSAFailureMessagesSentCount>0</LSAFailureMessagesSentCount>
<SQRMessagesReceivedCount>0</SQRMessagesReceivedCount>
<SQRMessagesSentCount>0</SQRMessagesSentCount>
<SQRMessagesTimeoutCount>0</SQRMessagesTimeoutCount>
<SQASuccessMessagesReceivedCount>0</SQASuccessMessagesReceivedCount>
<SQASuccessMessagesSentCount>0</SQASuccessMessagesSentCount>
<SQAFailureMessagesReceivedCount>0</SQAFailureMessagesReceivedCount>
<SQAFailureMessagesSentCount>0</SQAFailureMessagesSentCount>
<BindingFoundSentCount>0</BindingFoundSentCount>
<BindingFoundRecvCount>0</BindingFoundRecvCount>
<BindingNotFoundSentCount>0</BindingNotFoundSentCount>
<BindingNotFoundRecvCount>0</BindingNotFoundRecvCount>
```

```
<PcrfDownSentCount>0</PcrfDownSentCount>
<PcrfDownReceivedCount>0</PcrfDownReceivedCount>
<AllPcrfsDownSentCount>0</AllPcrfsDownSentCount>
<AllPcrfsDownRecvCount>0</AllPcrfsDownRecvCount>
</Sample>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:00Z</EndTime>
<MRA>MRA-35</MRA>
<IsComplete>true</IsComplete>
<Name>mpe-173.example.com</Name>
<NeId/>
<NetworkElementType/>
<NetworkElementSubType/>
<ConnectTime>Mon May 16 14:04:47 EDT 2016</ConnectTime>
<DisconnectTime>Mon May 16 14:04:47 EDT 2016</DisconnectTime>
<ConnectAddress>10.196.143.177</ConnectAddress>
<ConnectPort>3868</ConnectPort>
<ConnectType>TCP</ConnectType>
<MessagesInCount>15</MessagesInCount>
<MessagesOutCount>15</MessagesOutCount>
<MessagesErrorInCount>0</MessagesErrorInCount>
<MessagesErrorOutCount>0</MessagesErrorOutCount>
<DBRMessagesReceivedCount>0</DBRMessagesReceivedCount>
<DBRMessagesSentCount>0</DBRMessagesSentCount>
<DBRMessagesTimeoutCount>0</DBRMessagesTimeoutCount>
<DBASuccessMessagesReceivedCount>0</DBASuccessMessagesReceivedCount>
<DBASuccessMessagesSentCount>0</DBASuccessMessagesSentCount>
<DBAFailureMessagesReceivedCount>0</DBAFailureMessagesReceivedCount>
<DBAFailureMessagesSentCount>0</DBAFailureMessagesSentCount>
<RURMessagesReceivedCount>0</RURMessagesReceivedCount>
<RURMessagesSentCount>0</RURMessagesSentCount>
<RURMessagesTimeoutCount>0</RURMessagesTimeoutCount>
<RUASuccessMessagesReceivedCount>0</RUASuccessMessagesReceivedCount>
<RUASuccessMessagesSentCount>0</RUASuccessMessagesSentCount>
<RUAFailureMessagesReceivedCount>0</RUAFailureMessagesReceivedCount>
<RUAFailureMessagesSentCount>0</RUAFailureMessagesSentCount>
<LNRMessagesReceivedCount>15</LNRMessagesReceivedCount>
<LNRMessagesSentCount>0</LNRMessagesSentCount>
<LNRMessagesTimeoutCount>0</LNRMessagesTimeoutCount>
<LNASuccessMessagesReceivedCount>0</LNASuccessMessagesReceivedCount>
<LNASuccessMessagesSentCount>15</LNASuccessMessagesSentCount>
<LNAFailureMessagesReceivedCount>0</LNAFailureMessagesReceivedCount>
<LNAFailureMessagesSentCount>0</LNAFailureMessagesSentCount>
<LSRMessagesReceivedCount>0</LSRMessagesReceivedCount>
<LSRMessagesSentCount>0</LSRMessagesSentCount>
<LSRMessagesTimeoutCount>0</LSRMessagesTimeoutCount>
<LSASuccessMessagesReceivedCount>0</LSASuccessMessagesReceivedCount>
<LSASuccessMessagesSentCount>0</LSASuccessMessagesSentCount>
<LSAFailureMessagesReceivedCount>0</LSAFailureMessagesReceivedCount>
<LSAFailureMessagesSentCount>0</LSAFailureMessagesSentCount>
<SQRMessagesReceivedCount>0</SQRMessagesReceivedCount>
<SQRMessagesSentCount>0</SQRMessagesSentCount>
<SQRMessagesTimeoutCount>0</SQRMessagesTimeoutCount>
<SQASuccessMessagesReceivedCount>0</SQASuccessMessagesReceivedCount>
<SQASuccessMessagesSentCount>0</SQASuccessMessagesSentCount>
<SQAFailureMessagesReceivedCount>0</SQAFailureMessagesReceivedCount>
<SQAFailureMessagesSentCount>0</SQAFailureMessagesSentCount>
<BindingFoundSentCount>0</BindingFoundSentCount>
<BindingFoundRecvCount>0</BindingFoundRecvCount>
<BindingNotFoundSentCount>0</BindingNotFoundSentCount>
<BindingNotFoundRecvCount>0</BindingNotFoundRecvCount>
<PcrfDownSentCount>0</PcrfDownSentCount>
<PcrfDownReceivedCount>0</PcrfDownReceivedCount>
```

```
<AllPcrfsDownSentCount>0</AllPcrfsDownSentCount>
<AllPcrfsDownRecvCount>0</AllPcrfsDownRecvCount>
</Sample>
<Sample>
<StartTime>2016-05-17T00:00:00Z</StartTime>
<EndTime>2016-05-17T00:15:00Z</EndTime>
<MRA>MRA-35</MRA>
<IsComplete>true</IsComplete>
<Name>mpe-173.example.com</Name>
<NeId/>
<NetworkElementType/>
<NetworkElementSubType/>
<ConnectTime>Mon May 16 14:04:47 EDT 2016</ConnectTime>
<DisconnectTime>Mon May 16 14:04:47 EDT 2016</DisconnectTime>
<ConnectAddress>10.196.143.177</ConnectAddress>
<ConnectPort>3868</ConnectPort>
<ConnectType>TCP</ConnectType>
<MessagesInCount>15</MessagesInCount>
<MessagesOutCount>15</MessagesOutCount>
<MessagesErrorInCount>0</MessagesErrorInCount>
<MessagesErrorOutCount>0</MessagesErrorOutCount>
<DBRMessagesReceivedCount>0</DBRMessagesReceivedCount>
<DBRMessagesSentCount>0</DBRMessagesSentCount>
<DBRMessagesTimeoutCount>0</DBRMessagesTimeoutCount>
<DBASuccessMessagesReceivedCount>0</DBASuccessMessagesReceivedCount>
<DBASuccessMessagesSentCount>0</DBASuccessMessagesSentCount>
<DBAFailureMessagesReceivedCount>0</DBAFailureMessagesReceivedCount>
<DBAFailureMessagesSentCount>0</DBAFailureMessagesSentCount>
<RURMessagesReceivedCount>0</RURMessagesReceivedCount>
<RURMessagesSentCount>0</RURMessagesSentCount>
<RURMessagesTimeoutCount>0</RURMessagesTimeoutCount>
<RUASuccessMessagesReceivedCount>0</RUASuccessMessagesReceivedCount>
<RUASuccessMessagesSentCount>0</RUASuccessMessagesSentCount>
<RUAFailureMessagesReceivedCount>0</RUAFailureMessagesReceivedCount>
<RUAFailureMessagesSentCount>0</RUAFailureMessagesSentCount>
<LNRMessagesReceivedCount>15</LNRMessagesReceivedCount>
<LNRMessagesSentCount>0</LNRMessagesSentCount>
<LNRMessagesTimeoutCount>0</LNRMessagesTimeoutCount>
<LNASuccessMessagesReceivedCount>0</LNASuccessMessagesReceivedCount>
<LNASuccessMessagesSentCount>15</LNASuccessMessagesSentCount>
<LNAFailureMessagesReceivedCount>0</LNAFailureMessagesReceivedCount>
<LNAFailureMessagesSentCount>0</LNAFailureMessagesSentCount>
<LSRMessagesReceivedCount>0</LSRMessagesReceivedCount>
<LSRMessagesSentCount>0</LSRMessagesSentCount>
<LSRMessagesTimeoutCount>0</LSRMessagesTimeoutCount>
<LSASuccessMessagesReceivedCount>0</LSASuccessMessagesReceivedCount>
<LSASuccessMessagesSentCount>0</LSASuccessMessagesSentCount>
<LSAFailureMessagesReceivedCount>0</LSAFailureMessagesReceivedCount>
<LSAFailureMessagesSentCount>0</LSAFailureMessagesSentCount>
<SQRMessagesReceivedCount>0</SQRMessagesReceivedCount>
<SQRMessagesSentCount>0</SQRMessagesSentCount>
<SQRMessagesTimeoutCount>0</SQRMessagesTimeoutCount>
<SQASuccessMessagesReceivedCount>0</SQASuccessMessagesReceivedCount>
<SQASuccessMessagesSentCount>0</SQASuccessMessagesSentCount>
<SQAFailureMessagesReceivedCount>0</SQAFailureMessagesReceivedCount>
<SQAFailureMessagesSentCount>0</SQAFailureMessagesSentCount>
<BindingFoundSentCount>0</BindingFoundSentCount>
<BindingFoundRecvCount>0</BindingFoundRecvCount>
<BindingNotFoundSentCount>0</BindingNotFoundSentCount>
<BindingNotFoundRecvCount>0</BindingNotFoundRecvCount>
<PcrfDownSentCount>0</PcrfDownSentCount>
<PcrfDownReceivedCount>0</PcrfDownReceivedCount>
<AllPcrfsDownSentCount>0</AllPcrfsDownSentCount>
<AllPcrfsDownRecvCount>0</AllPcrfsDownRecvCount>
```

```
</Sample>
<Sample>
<StartTime>2016-05-17T00:15:00Z</StartTime>
<EndTime>2016-05-17T00:30:00Z</EndTime>
<MRA>MRA-35</MRA>
<IsComplete>true</IsComplete>
<Name>mpe-173.example.com</Name>
<NeId/>
<NetworkElementType/>
<NetworkElementSubType/>
<ConnectTime>Mon May 16 14:04:47 EDT 2016</ConnectTime>
<DisconnectTime>Mon May 16 14:04:47 EDT 2016</DisconnectTime>
<ConnectAddress>10.196.143.177</ConnectAddress>
<ConnectPort>3868</ConnectPort>
<ConnectType>TCP</ConnectType>
<MessagesInCount>15</MessagesInCount>
<MessagesOutCount>15</MessagesOutCount>
<MessagesErrorInCount>0</MessagesErrorInCount>
<MessagesErrorOutCount>0</MessagesErrorOutCount>
<DBRMessagesReceivedCount>0</DBRMessagesReceivedCount>
<DBRMessagesSentCount>0</DBRMessagesSentCount>
<DBRMessagesTimeoutCount>0</DBRMessagesTimeoutCount>
<DBASuccessMessagesReceivedCount>0</DBASuccessMessagesReceivedCount>
<DBASuccessMessagesSentCount>0</DBASuccessMessagesSentCount>
<DBAFailureMessagesReceivedCount>0</DBAFailureMessagesReceivedCount>
<DBAFailureMessagesSentCount>0</DBAFailureMessagesSentCount>
<RURMessagesReceivedCount>0</RURMessagesReceivedCount>
<RURMessagesSentCount>0</RURMessagesSentCount>
<RURMessagesTimeoutCount>0</RURMessagesTimeoutCount>
<RUASuccessMessagesReceivedCount>0</RUASuccessMessagesReceivedCount>
<RUASuccessMessagesSentCount>0</RUASuccessMessagesSentCount>
<RUAFailureMessagesReceivedCount>0</RUAFailureMessagesReceivedCount>
<RUAFailureMessagesSentCount>0</RUAFailureMessagesSentCount>
<LNRMessagesReceivedCount>15</LNRMessagesReceivedCount>
<LNRMessagesSentCount>0</LNRMessagesSentCount>
<LNRMessagesTimeoutCount>0</LNRMessagesTimeoutCount>
<LNASuccessMessagesReceivedCount>0</LNASuccessMessagesReceivedCount>
<LNASuccessMessagesSentCount>15</LNASuccessMessagesSentCount>
<LNAFailureMessagesReceivedCount>0</LNAFailureMessagesReceivedCount>
<LNAFailureMessagesSentCount>0</LNAFailureMessagesSentCount>
<LSRMessagesReceivedCount>0</LSRMessagesReceivedCount>
<LSRMessagesSentCount>0</LSRMessagesSentCount>
<LSRMessagesTimeoutCount>0</LSRMessagesTimeoutCount>
<LSASuccessMessagesReceivedCount>0</LSASuccessMessagesReceivedCount>
<LSASuccessMessagesSentCount>0</LSASuccessMessagesSentCount>
<LSAFailureMessagesReceivedCount>0</LSAFailureMessagesReceivedCount>
<LSAFailureMessagesSentCount>0</LSAFailureMessagesSentCount>
<SQRMessagesReceivedCount>0</SQRMessagesReceivedCount>
<SQRMessagesSentCount>0</SQRMessagesSentCount>
<SQRMessagesTimeoutCount>0</SQRMessagesTimeoutCount>
<SQASuccessMessagesReceivedCount>0</SQASuccessMessagesReceivedCount>
<SQASuccessMessagesSentCount>0</SQASuccessMessagesSentCount>
<SQAFailureMessagesReceivedCount>0</SQAFailureMessagesReceivedCount>
<SQAFailureMessagesSentCount>0</SQAFailureMessagesSentCount>
<BindingFoundSentCount>0</BindingFoundSentCount>
<BindingFoundRecvCount>0</BindingFoundRecvCount>
<BindingNotFoundSentCount>0</BindingNotFoundSentCount>
<BindingNotFoundRecvCount>0</BindingNotFoundRecvCount>
<PcrfDownSentCount>0</PcrfDownSentCount>
<PcrfDownReceivedCount>0</PcrfDownReceivedCount>
<AllPcrfsDownSentCount>0</AllPcrfsDownSentCount>
<AllPcrfsDownRecvCount>0</AllPcrfsDownRecvCount>
</Sample>
```

```
</DiameterMraDrmaPeerStats>
</Statistics>
```

Diameter MRA Policy Charging Enforcement Function Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterMraPcefStats tag.

Request

This request follows the DiameterMraPcefStats tag defined in the QueryOmStats section in the XSD files.

```
<XmlInterfaceRequest>
 <QueryOmStats>
   <StartTime>2010-04-02T00:01:00</StartTime>
   <EndTime>2011-05-21T23:59:00</EndTime>
     <DiameterMraPcefStats>
    <MRA>mra156</MRA>
   </DiameterMraPcefStats>
 </QueryOmStats><?xml version="1.0" encoding="UTF-8"?>
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterMraPcefStats>
<!-- MRA is optional. -->
<MRA>MRA-Cluster</MRA>
<MRA>MRA-35</MRA>
</DiameterMraPcefStats>
</QueryOmStats>
</XmlInterfaceRequest>
```

Response

The response to this request follows the DiameterMraPcefStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterMraPcefStats>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<MRA>MRA-Cluster</MRA>
<IsComplete>true</IsComplete>
<CurrentConnectionsCount>1</CurrentConnectionsCount>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<RARMessagesReceivedCount>0</RARMessagesReceivedCount>
<RARMessagesSentCount>0</RARMessagesSentCount>
<RARMessagesTimeoutCount>0</RARMessagesTimeoutCount>
<RAASuccessMessagesReceivedCount>0</RAASuccessMessagesReceivedCount>
<RAASuccessMessagesSentCount>0</RAASuccessMessagesSentCount>
<RAAFailureMessagesReceivedCount>0</RAAFailureMessagesReceivedCount>
<RAAFailureMessagesSentCount>0</RAAFailureMessagesSentCount>
<CCRMessagesReceivedCount>0</CCRMessagesReceivedCount>
<CCRMessagesSentCount>0</CCRMessagesSentCount>
```

```
<CCRMessagesTimeoutCount>0</CCRMessagesTimeoutCount>
<CCASuccessMessagesReceivedCount>0</CCASuccessMessagesReceivedCount>
<CCASuccessMessagesSentCount>0</CCASuccessMessagesSentCount>
<CCAFailureMessagesReceivedCount>0</CCAFailureMessagesReceivedCount>
<CCAFailureMessagesSentCount>0</CCAFailureMessagesSentCount>
<CCRIMessagesReceivedCount>0</CCRIMessagesReceivedCount>
<CCRIMessagesSentCount>0</CCRIMessagesSentCount>
<CCRIMessagesTimeoutCount>0</CCRIMessagesTimeoutCount>
<CCRUMessagesReceivedCount>0</CCRUMessagesReceivedCount>
<CCRUMessagesSentCount>0</CCRUMessagesSentCount>
<CCRUMessagesTimeoutCount>0</CCRUMessagesTimeoutCount>
<CCRTMessagesReceivedCount>0</CCRTMessagesReceivedCount>
<CCRTMessagesSentCount>0</CCRTMessagesSentCount>
<CCRTMessagesTimeoutCount>0</CCRTMessagesTimeoutCount>
<CCAISuccessMessagesReceivedCount>0</CCAISuccessMessagesReceivedCount>
<CCAISuccessMessagesSentCount>0</CCAISuccessMessagesSentCount>
<CCAIFailureMessagesReceivedCount>0</CCAIFailureMessagesReceivedCount>
<CCAIFailureMessagesSentCount>0</CCAIFailureMessagesSentCount>
<CCAUSuccessMessagesReceivedCount>0</CCAUSuccessMessagesReceivedCount>
<CCAUSuccessMessagesSentCount>0</CCAUSuccessMessagesSentCount>
<CCAUFailureMessagesReceivedCount>0</CCAUFailureMessagesReceivedCount>
<CCAUFailureMessagesSentCount>0</CCAUFailureMessagesSentCount>
<CCATSuccessMessagesReceivedCount>0</CCATSuccessMessagesReceivedCount>
<CCATSuccessMessagesSentCount>0</CCATSuccessMessagesSentCount>
<CCATFailureMessagesReceivedCount>0</CCATFailureMessagesReceivedCount>
<CCATFailureMessagesSentCount>0</CCATFailureMessagesSentCount>
<PeerOkayCount>1</PeerOkayCount>
<PeerDownCount>0</PeerDownCount>
<PeerSuspectCount>0</PeerSuspectCount>
<PeerReopenCount>0</PeerReopenCount>
</Sample>
<Sample>
<StartTime>2016-05-17T00:00:01Z</StartTime>
<EndTime>2016-05-17T00:15:01Z</EndTime>
<MRA>MRA-Cluster</MRA>
<IsComplete>true</IsComplete>
<CurrentConnectionsCount>1</CurrentConnectionsCount>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<RARMessagesReceivedCount>0</RARMessagesReceivedCount>
<RARMessagesSentCount>0</RARMessagesSentCount>
<RARMessagesTimeoutCount>0</RARMessagesTimeoutCount>
<RAASuccessMessagesReceivedCount>0</RAASuccessMessagesReceivedCount>
<RAASuccessMessagesSentCount>0</RAASuccessMessagesSentCount>
<RAAFailureMessagesReceivedCount>0</RAAFailureMessagesReceivedCount>
<RAAFailureMessagesSentCount>0</RAAFailureMessagesSentCount>
<CCRMessagesReceivedCount>0</CCRMessagesReceivedCount>
<CCRMessagesSentCount>0</CCRMessagesSentCount>
<CCRMessagesTimeoutCount>0</CCRMessagesTimeoutCount>
<CCASuccessMessagesReceivedCount>0</CCASuccessMessagesReceivedCount>
<CCASuccessMessagesSentCount>0</CCASuccessMessagesSentCount>
<CCAFailureMessagesReceivedCount>0</CCAFailureMessagesReceivedCount>
<CCAFailureMessagesSentCount>0</CCAFailureMessagesSentCount>
<CCRIMessagesReceivedCount>0</CCRIMessagesReceivedCount>
<CCRIMessagesSentCount>0</CCRIMessagesSentCount>
<CCRIMessagesTimeoutCount>0</CCRIMessagesTimeoutCount>
<CCRUMessagesReceivedCount>0</CCRUMessagesReceivedCount>
<CCRUMessagesSentCount>0</CCRUMessagesSentCount>
<CCRUMessagesTimeoutCount>0</CCRUMessagesTimeoutCount>
<CCRTMessagesReceivedCount>0</CCRTMessagesReceivedCount>
<CCRTMessagesSentCount>0</CCRTMessagesSentCount>
<CCRTMessagesTimeoutCount>0</CCRTMessagesTimeoutCount>
<CCAISuccessMessagesReceivedCount>0</CCAISuccessMessagesReceivedCount>
<CCAISuccessMessagesSentCount>0</CCAISuccessMessagesSentCount>
```

```
<CCAIFailureMessagesReceivedCount>0</CCAIFailureMessagesReceivedCount>
<CCAIFailureMessagesSentCount>0</CCAIFailureMessagesSentCount>
<CCAUSuccessMessagesReceivedCount>0</CCAUSuccessMessagesReceivedCount>
<CCAUSuccessMessagesSentCount>0</CCAUSuccessMessagesSentCount>
<CCAUFailureMessagesReceivedCount>0</CCAUFailureMessagesReceivedCount>
<CCAUFailureMessagesSentCount>0</CCAUFailureMessagesSentCount>
<CCATSuccessMessagesReceivedCount>0</CCATSuccessMessagesReceivedCount>
<CCATSuccessMessagesSentCount>0</CCATSuccessMessagesSentCount>
<CCATFailureMessagesReceivedCount>0</CCATFailureMessagesReceivedCount>
<CCATFailureMessagesSentCount>0</CCATFailureMessagesSentCount>
<PeerOkayCount>1</PeerOkayCount>
<PeerDownCount>0</PeerDownCount>
<PeerSuspectCount>0</PeerSuspectCount>
<PeerReopenCount>0</PeerReopenCount>
</Sample>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:00Z</EndTime>
<MRA>MRA-35</MRA>
<IsComplete>true</IsComplete>
<CurrentConnectionsCount>1</CurrentConnectionsCount>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<RARMessagesReceivedCount>0</RARMessagesReceivedCount>
<RARMessagesSentCount>0</RARMessagesSentCount>
<RARMessagesTimeoutCount>0</RARMessagesTimeoutCount>
<RAASuccessMessagesReceivedCount>0</RAASuccessMessagesReceivedCount>
<RAASuccessMessagesSentCount>0</RAASuccessMessagesSentCount>
<RAAFailureMessagesReceivedCount>0</RAAFailureMessagesReceivedCount>
<RAAFailureMessagesSentCount>0</RAAFailureMessagesSentCount>
<CCRMessagesReceivedCount>0</CCRMessagesReceivedCount>
<CCRMessagesSentCount>0</CCRMessagesSentCount>
<CCRMessagesTimeoutCount>0</CCRMessagesTimeoutCount>
<CCASuccessMessagesReceivedCount>0</CCASuccessMessagesReceivedCount>
<CCASuccessMessagesSentCount>0</CCASuccessMessagesSentCount>
<CCAFailureMessagesReceivedCount>0</CCAFailureMessagesReceivedCount>
<CCAFailureMessagesSentCount>0</CCAFailureMessagesSentCount>
<CCRIMessagesReceivedCount>0</CCRIMessagesReceivedCount>
<CCRIMessagesSentCount>0</CCRIMessagesSentCount>
<CCRIMessagesTimeoutCount>0</CCRIMessagesTimeoutCount>
<CCRUMessagesReceivedCount>0</CCRUMessagesReceivedCount>
<CCRUMessagesSentCount>0</CCRUMessagesSentCount>
<CCRUMessagesTimeoutCount>0</CCRUMessagesTimeoutCount>
<CCRTMessagesReceivedCount>0</CCRTMessagesReceivedCount>
<CCRTMessagesSentCount>0</CCRTMessagesSentCount>
<CCRTMessagesTimeoutCount>0</CCRTMessagesTimeoutCount>
<CCAISuccessMessagesReceivedCount>0</CCAISuccessMessagesReceivedCount>
<CCAISuccessMessagesSentCount>0</CCAISuccessMessagesSentCount>
<CCAIFailureMessagesReceivedCount>0</CCAIFailureMessagesReceivedCount>
<CCAIFailureMessagesSentCount>0</CCAIFailureMessagesSentCount>
<CCAUSuccessMessagesReceivedCount>0</CCAUSuccessMessagesReceivedCount>
<CCAUSuccessMessagesSentCount>0</CCAUSuccessMessagesSentCount>
<CCAUFailureMessagesReceivedCount>0</CCAUFailureMessagesReceivedCount>
<CCAUFailureMessagesSentCount>0</CCAUFailureMessagesSentCount>
<CCATSuccessMessagesReceivedCount>0</CCATSuccessMessagesReceivedCount>
<CCATSuccessMessagesSentCount>0</CCATSuccessMessagesSentCount>
<CCATFailureMessagesReceivedCount>0</CCATFailureMessagesReceivedCount>
<CCATFailureMessagesSentCount>0</CCATFailureMessagesSentCount>
<PeerOkayCount>1</PeerOkayCount>
<PeerDownCount>0</PeerDownCount>
<PeerSuspectCount>0</PeerSuspectCount>
<PeerReopenCount>0</PeerReopenCount>
</Sample>
<Sample>
```

```
<StartTime>2016-05-17T00:00:00Z</StartTime>
<EndTime>2016-05-17T00:15:00Z</EndTime>
<MRA>MRA-35</MRA>
<IsComplete>true</IsComplete>
<CurrentConnectionsCount>1</CurrentConnectionsCount>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<RARMessagesReceivedCount>0</RARMessagesReceivedCount>
<RARMessagesSentCount>0</RARMessagesSentCount>
<RARMessagesTimeoutCount>0</RARMessagesTimeoutCount>
<RAASuccessMessagesReceivedCount>0</RAASuccessMessagesReceivedCount>
<RAASuccessMessagesSentCount>0</RAASuccessMessagesSentCount>
<RAAFailureMessagesReceivedCount>0</RAAFailureMessagesReceivedCount>
<RAAFailureMessagesSentCount>0</RAAFailureMessagesSentCount>
<CCRMessagesReceivedCount>0</CCRMessagesReceivedCount>
<CCRMessagesSentCount>0</CCRMessagesSentCount>
<CCRMessagesTimeoutCount>0</CCRMessagesTimeoutCount>
<CCASuccessMessagesReceivedCount>0</CCASuccessMessagesReceivedCount>
<CCASuccessMessagesSentCount>0</CCASuccessMessagesSentCount>
<CCAFailureMessagesReceivedCount>0</CCAFailureMessagesReceivedCount>
<CCAFailureMessagesSentCount>0</CCAFailureMessagesSentCount>
<CCRIMessagesReceivedCount>0</CCRIMessagesReceivedCount>
<CCRIMessagesSentCount>0</CCRIMessagesSentCount>
<CCRIMessagesTimeoutCount>0</CCRIMessagesTimeoutCount>
<CCRUMessagesReceivedCount>0</CCRUMessagesReceivedCount>
<CCRUMessagesSentCount>0</CCRUMessagesSentCount>
<CCRUMessagesTimeoutCount>0</CCRUMessagesTimeoutCount>
<CCRTMessagesReceivedCount>0</CCRTMessagesReceivedCount>
<CCRTMessagesSentCount>0</CCRTMessagesSentCount>
<CCRTMessagesTimeoutCount>0</CCRTMessagesTimeoutCount>
<CCAISuccessMessagesReceivedCount>0</CCAISuccessMessagesReceivedCount>
<CCAISuccessMessagesSentCount>0</CCAISuccessMessagesSentCount>
<CCAIFailureMessagesReceivedCount>0</CCAIFailureMessagesReceivedCount>
<CCAIFailureMessagesSentCount>0</CCAIFailureMessagesSentCount>
<CCAUSuccessMessagesReceivedCount>0</CCAUSuccessMessagesReceivedCount>
<CCAUSuccessMessagesSentCount>0</CCAUSuccessMessagesSentCount>
<CCAUFailureMessagesReceivedCount>0</CCAUFailureMessagesReceivedCount>
<CCAUFailureMessagesSentCount>0</CCAUFailureMessagesSentCount>
<CCATSuccessMessagesReceivedCount>0</CCATSuccessMessagesReceivedCount>
<CCATSuccessMessagesSentCount>0</CCATSuccessMessagesSentCount>
<CCATFailureMessagesReceivedCount>0</CCATFailureMessagesReceivedCount>
<CCATFailureMessagesSentCount>0</CCATFailureMessagesSentCount>
<PeerOkayCount>1</PeerOkayCount>
<PeerDownCount>0</PeerDownCount>
<PeerSuspectCount>0</PeerSuspectCount>
<PeerReopenCount>0</PeerReopenCount>
</Sample>
<Sample>
<StartTime>2016-05-17T00:15:00Z</StartTime>
<EndTime>2016-05-17T00:30:00Z</EndTime>
<MRA>MRA-35</MRA>
<IsComplete>true</IsComplete>
<CurrentConnectionsCount>1</CurrentConnectionsCount>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<RARMessagesReceivedCount>0</RARMessagesReceivedCount>
<RARMessagesSentCount>0</RARMessagesSentCount>
<RARMessagesTimeoutCount>0</RARMessagesTimeoutCount>
<RAASuccessMessagesReceivedCount>0</RAASuccessMessagesReceivedCount>
<RAASuccessMessagesSentCount>0</RAASuccessMessagesSentCount>
<RAAFailureMessagesReceivedCount>0</RAAFailureMessagesReceivedCount>
<RAAFailureMessagesSentCount>0</RAAFailureMessagesSentCount>
<CCRMessagesReceivedCount>0</CCRMessagesReceivedCount>
<CCRMessagesSentCount>0</CCRMessagesSentCount>
```

```
<CCRMessagesTimeoutCount>0</CCRMessagesTimeoutCount>
<CCASuccessMessagesReceivedCount>0</CCASuccessMessagesReceivedCount>
<CCASuccessMessagesSentCount>0</CCASuccessMessagesSentCount>
<CCAFailureMessagesReceivedCount>0</CCAFailureMessagesReceivedCount>
<CCAFailureMessagesSentCount>0</CCAFailureMessagesSentCount>
<CCRIMessagesReceivedCount>0</CCRIMessagesReceivedCount>
<CCRIMessagesSentCount>0</CCRIMessagesSentCount>
<CCRIMessagesTimeoutCount>0</CCRIMessagesTimeoutCount>
<CCRUMessagesReceivedCount>0</CCRUMessagesReceivedCount>
<CCRUMessagesSentCount>0</CCRUMessagesSentCount>
<CCRUMessagesTimeoutCount>0</CCRUMessagesTimeoutCount>
<CCRTMessagesReceivedCount>0</CCRTMessagesReceivedCount>
<CCRTMessagesSentCount>0</CCRTMessagesSentCount>
<CCRTMessagesTimeoutCount>0</CCRTMessagesTimeoutCount>
<CCAISuccessMessagesReceivedCount>0</CCAISuccessMessagesReceivedCount>
<CCAISuccessMessagesSentCount>0</CCAISuccessMessagesSentCount>
<CCAIFailureMessagesReceivedCount>0</CCAIFailureMessagesReceivedCount>
<CCAIFailureMessagesSentCount>0</CCAIFailureMessagesSentCount>
<CCAUSuccessMessagesReceivedCount>0</CCAUSuccessMessagesReceivedCount>
<CCAUSuccessMessagesSentCount>0</CCAUSuccessMessagesSentCount>
<CCAUFailureMessagesReceivedCount>0</CCAUFailureMessagesReceivedCount>
<CCAUFailureMessagesSentCount>0</CCAUFailureMessagesSentCount>
<CCATSuccessMessagesReceivedCount>0</CCATSuccessMessagesReceivedCount>
<CCATSuccessMessagesSentCount>0</CCATSuccessMessagesSentCount>
<CCATFailureMessagesReceivedCount>0</CCATFailureMessagesReceivedCount>
<CCATFailureMessagesSentCount>0</CCATFailureMessagesSentCount>
<PeerOkayCount>1</PeerOkayCount>
<PeerDownCount>0</PeerDownCount>
<PeerSuspectCount>0</PeerSuspectCount>
<PeerReopenCount>0</PeerReopenCount>
</Sample>
</DiameterMraPcefStats>
</Statistics>
```

Diameter MRA Policy Charging Enforcement Function Peer Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterMraPcefPeerStats tag.

Request

This request follows the DiameterMraPcefPeerStats tag defined in the QueryOmStats section in the XSD files.

```
<?xml version="1.0" encoding="UTF-8"?>
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterMraPcefPeerStats>
<!-- Name is optional. -->
<Name>mra-82.example.com</Name>
<Name>mra-35.example.com</Name>
<!-- NeId is optional. -->
<NeId />
</DiameterMraPcefPeerStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterMraPcefPeerStats tag defined in the Statistics section in the XSD files. The following is an example XML response to this tag request.

```
<Statistics>
<DiameterMraPcefPeerStats>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<MRA>MRA-Cluster</MRA>
<IsComplete>true</IsComplete>
<Name>dpi-sanity.test.com</Name>
<NeId/>
<NetworkElementType/>
<NetworkElementSubType/>
<ConnectTime>Mon May 16 13:53:25 EDT 2016</ConnectTime>
<DisconnectTime>Mon May 16 13:53:34 EDT 2016</DisconnectTime>
<ConnectAddress>10.148.240.54</ConnectAddress>
<ConnectPort>59038</ConnectPort>
<ConnectType>TCP</ConnectType>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<MessagesErrorInCount>0</MessagesErrorInCount>
<MessagesErrorOutCount>0</MessagesErrorOutCount>
<RARMessagesReceivedCount>0</RARMessagesReceivedCount>
<RARMessagesSentCount>0</RARMessagesSentCount>
<RARMessagesTimeoutCount>0</RARMessagesTimeoutCount>
<RAASuccessMessagesReceivedCount>0</RAASuccessMessagesReceivedCount>
<RAASuccessMessagesSentCount>0</RAASuccessMessagesSentCount>
<RAAFailureMessagesReceivedCount>0</RAAFailureMessagesReceivedCount>
<RAAFailureMessagesSentCount>0</RAAFailureMessagesSentCount>
<CCRMessagesReceivedCount>0</CCRMessagesReceivedCount>
<CCRMessagesSentCount>0</CCRMessagesSentCount>
<CCRMessagesTimeoutCount>0</CCRMessagesTimeoutCount>
<CCASuccessMessagesReceivedCount>0</CCASuccessMessagesReceivedCount>
<CCASuccessMessagesSentCount>0</CCASuccessMessagesSentCount>
<CCAFailureMessagesReceivedCount>0</CCAFailureMessagesReceivedCount>
<CCAFailureMessagesSentCount>0</CCAFailureMessagesSentCount>
<CCRIMessagesReceivedCount>0</CCRIMessagesReceivedCount>
<CCRIMessagesSentCount>0</CCRIMessagesSentCount>
<CCRIMessagesTimeoutCount>0</CCRIMessagesTimeoutCount>
<CCRUMessagesReceivedCount>0</CCRUMessagesReceivedCount>
<CCRUMessagesSentCount>0</CCRUMessagesSentCount>
<CCRUMessagesTimeoutCount>0</CCRUMessagesTimeoutCount>
<CCRTMessagesReceivedCount>0</CCRTMessagesReceivedCount>
<CCRTMessagesSentCount>0</CCRTMessagesSentCount>
<CCRTMessagesTimeoutCount>0</CCRTMessagesTimeoutCount>
<CCAISuccessMessagesReceivedCount>0</CCAISuccessMessagesReceivedCount>
<CCAISuccessMessagesSentCount>0</CCAISuccessMessagesSentCount>
<CCAIFailureMessagesReceivedCount>0</CCAIFailureMessagesReceivedCount>
<CCAIFailureMessagesSentCount>0</CCAIFailureMessagesSentCount>
<CCAUSuccessMessagesReceivedCount>0</CCAUSuccessMessagesReceivedCount>
<CCAUSuccessMessagesSentCount>0</CCAUSuccessMessagesSentCount>
<CCAUFailureMessagesReceivedCount>0</CCAUFailureMessagesReceivedCount>
<CCAUFailureMessagesSentCount>0</CCAUFailureMessagesSentCount>
<CCATSuccessMessagesReceivedCount>0</CCATSuccessMessagesReceivedCount>
<CCATSuccessMessagesSentCount>0</CCATSuccessMessagesSentCount>
<CCATFailureMessagesReceivedCount>0</CCATFailureMessagesReceivedCount>
<CCATFailureMessagesSentCount>0</CCATFailureMessagesSentCount>
</Sample>
```

```
</DiameterMraPcefPeerStats>
</Statistics>
```

Diameter MRA S9 Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterMraS9Stats tag.

Request

This request follows the DiameterMraS9Stats tag defined in the QueryOmStats section in the XSD files.

```
<?xml version="1.0" encoding="UTF-8"?>
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterMraS9Stats>
<!-- MRA is optional. -->
<MRA>MRA-Cluster</MRA>
<MRA>MRA-35</MRA>
</DiameterMraS9Stats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterMraS9Stats tag defined in the section in the XSD files.

```
<Statistics>
<DiameterMraS9Stats>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<MRA>MRA-Cluster</MRA>
<IsComplete>true</IsComplete>
<CurrentConnectionsCount>1</CurrentConnectionsCount>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<RARMessagesReceivedCount>0</RARMessagesReceivedCount>
<RARMessagesSentCount>0</RARMessagesSentCount>
<RARMessagesTimeoutCount>0</RARMessagesTimeoutCount>
<RAASuccessMessagesReceivedCount>0</RAASuccessMessagesReceivedCount>
<RAASuccessMessagesSentCount>0</RAASuccessMessagesSentCount>
<RAAFailureMessagesReceivedCount>0</RAAFailureMessagesReceivedCount>
<RAAFailureMessagesSentCount>0</RAAFailureMessagesSentCount>
<CCRMessagesReceivedCount>0</CCRMessagesReceivedCount>
<CCRMessagesSentCount>0</CCRMessagesSentCount>
<CCRMessagesTimeoutCount>0</CCRMessagesTimeoutCount>
<CCASuccessMessagesReceivedCount>0</CCASuccessMessagesReceivedCount>
<CCASuccessMessagesSentCount>0</CCASuccessMessagesSentCount>
<CCAFailureMessagesReceivedCount>0</CCAFailureMessagesReceivedCount>
<CCAFailureMessagesSentCount>0</CCAFailureMessagesSentCount>
<CCRIMessagesReceivedCount>0</CCRIMessagesReceivedCount>
<CCRIMessagesSentCount>0</CCRIMessagesSentCount>
<CCRIMessagesTimeoutCount>0</CCRIMessagesTimeoutCount>
```

```
<CCRUMessagesReceivedCount>0</CCRUMessagesReceivedCount>
<CCRUMessagesSentCount>0</CCRUMessagesSentCount>
<CCRUMessagesTimeoutCount>0</CCRUMessagesTimeoutCount>
<CCRTMessagesReceivedCount>0</CCRTMessagesReceivedCount>
<CCRTMessagesSentCount>0</CCRTMessagesSentCount>
<CCRTMessagesTimeoutCount>0</CCRTMessagesTimeoutCount>
<CCAISuccessMessagesReceivedCount>0</CCAISuccessMessagesReceivedCount>
<CCAISuccessMessagesSentCount>0</CCAISuccessMessagesSentCount>
<CCAIFailureMessagesReceivedCount>0</CCAIFailureMessagesReceivedCount>
<CCAIFailureMessagesSentCount>0</CCAIFailureMessagesSentCount>
<CCAUSuccessMessagesReceivedCount>0</CCAUSuccessMessagesReceivedCount>
<CCAUSuccessMessagesSentCount>0</CCAUSuccessMessagesSentCount>
<CCAUFailureMessagesReceivedCount>0</CCAUFailureMessagesReceivedCount>
<CCAUFailureMessagesSentCount>0</CCAUFailureMessagesSentCount>
<CCATSuccessMessagesReceivedCount>0</CCATSuccessMessagesReceivedCount>
<CCATSuccessMessagesSentCount>0</CCATSuccessMessagesSentCount>
<CCATFailureMessagesReceivedCount>0</CCATFailureMessagesReceivedCount>
<CCATFailureMessagesSentCount>0</CCATFailureMessagesSentCount>
<PeerOkayCount>1</PeerOkayCount>
<PeerDownCount>0</PeerDownCount>
<PeerSuspectCount>0</PeerSuspectCount>
<PeerReopenCount>0</PeerReopenCount>
</Sample>
<Sample>
<StartTime>2016-05-17T00:00:01Z</StartTime>
<EndTime>2016-05-17T00:15:01Z</EndTime>
<MRA>MRA-Cluster</MRA>
<IsComplete>true</IsComplete>
<CurrentConnectionsCount>1</CurrentConnectionsCount>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<RARMessagesReceivedCount>0</RARMessagesReceivedCount>
<RARMessagesSentCount>0</RARMessagesSentCount>
<RARMessagesTimeoutCount>0</RARMessagesTimeoutCount>
<RAASuccessMessagesReceivedCount>0</RAASuccessMessagesReceivedCount>
<RAASuccessMessagesSentCount>0</RAASuccessMessagesSentCount>
<RAAFailureMessagesReceivedCount>0</RAAFailureMessagesReceivedCount>
<RAAFailureMessagesSentCount>0</RAAFailureMessagesSentCount>
<CCRMessagesReceivedCount>0</CCRMessagesReceivedCount>
<CCRMessagesSentCount>0</CCRMessagesSentCount>
<CCRMessagesTimeoutCount>0</CCRMessagesTimeoutCount>
<CCASuccessMessagesReceivedCount>0</CCASuccessMessagesReceivedCount>
<CCASuccessMessagesSentCount>0</CCASuccessMessagesSentCount>
<CCAFailureMessagesReceivedCount>0</CCAFailureMessagesReceivedCount>
<CCAFailureMessagesSentCount>0</CCAFailureMessagesSentCount>
<CCRIMessagesReceivedCount>0</CCRIMessagesReceivedCount>
<CCRIMessagesSentCount>0</CCRIMessagesSentCount>
<CCRIMessagesTimeoutCount>0</CCRIMessagesTimeoutCount>
<CCRUMessagesReceivedCount>0</CCRUMessagesReceivedCount>
<CCRUMessagesSentCount>0</CCRUMessagesSentCount>
<CCRUMessagesTimeoutCount>0</CCRUMessagesTimeoutCount>
<CCRTMessagesReceivedCount>0</CCRTMessagesReceivedCount>
<CCRTMessagesSentCount>0</CCRTMessagesSentCount>
<CCRTMessagesTimeoutCount>0</CCRTMessagesTimeoutCount>
<CCAISuccessMessagesReceivedCount>0</CCAISuccessMessagesReceivedCount>
<CCAISuccessMessagesSentCount>0</CCAISuccessMessagesSentCount>
<CCAIFailureMessagesReceivedCount>0</CCAIFailureMessagesReceivedCount>
<CCAIFailureMessagesSentCount>0</CCAIFailureMessagesSentCount>
<CCAUSuccessMessagesReceivedCount>0</CCAUSuccessMessagesReceivedCount>
<CCAUSuccessMessagesSentCount>0</CCAUSuccessMessagesSentCount>
<CCAUFailureMessagesReceivedCount>0</CCAUFailureMessagesReceivedCount>
<CCAUFailureMessagesSentCount>0</CCAUFailureMessagesSentCount>
<CCATSuccessMessagesReceivedCount>0</CCATSuccessMessagesReceivedCount>
<CCATSuccessMessagesSentCount>0</CCATSuccessMessagesSentCount>
```

```
<CCATFailureMessagesReceivedCount>0</CCATFailureMessagesReceivedCount>
<CCATFailureMessagesSentCount>0</CCATFailureMessagesSentCount>
<PeerOkayCount>1</PeerOkayCount>
<PeerDownCount>0</PeerDownCount>
<PeerSuspectCount>0</PeerSuspectCount>
<PeerReopenCount>0</PeerReopenCount>
</Sample>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:00Z</EndTime>
<MRA>MRA-35</MRA>
<IsComplete>true</IsComplete>
<CurrentConnectionsCount>1</CurrentConnectionsCount>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<RARMessagesReceivedCount>0</RARMessagesReceivedCount>
<RARMessagesSentCount>0</RARMessagesSentCount>
<RARMessagesTimeoutCount>0</RARMessagesTimeoutCount>
<RAASuccessMessagesReceivedCount>0</RAASuccessMessagesReceivedCount>
<RAASuccessMessagesSentCount>0</RAASuccessMessagesSentCount>
<RAAFailureMessagesReceivedCount>0</RAAFailureMessagesReceivedCount>
<RAAFailureMessagesSentCount>0</RAAFailureMessagesSentCount>
<CCRMessagesReceivedCount>0</CCRMessagesReceivedCount>
<CCRMessagesSentCount>0</CCRMessagesSentCount>
<CCRMessagesTimeoutCount>0</CCRMessagesTimeoutCount>
<CCASuccessMessagesReceivedCount>0</CCASuccessMessagesReceivedCount>
<CCASuccessMessagesSentCount>0</CCASuccessMessagesSentCount>
<CCAFailureMessagesReceivedCount>0</CCAFailureMessagesReceivedCount>
<CCAFailureMessagesSentCount>0</CCAFailureMessagesSentCount>
<CCRIMessagesReceivedCount>0</CCRIMessagesReceivedCount>
<CCRIMessagesSentCount>0</CCRIMessagesSentCount>
<CCRIMessagesTimeoutCount>0</CCRIMessagesTimeoutCount>
<CCRUMessagesReceivedCount>0</CCRUMessagesReceivedCount>
<CCRUMessagesSentCount>0</CCRUMessagesSentCount>
<CCRUMessagesTimeoutCount>0</CCRUMessagesTimeoutCount>
<CCRTMessagesReceivedCount>0</CCRTMessagesReceivedCount>
<CCRTMessagesSentCount>0</CCRTMessagesSentCount>
<CCRTMessagesTimeoutCount>0</CCRTMessagesTimeoutCount>
<CCAISuccessMessagesReceivedCount>0</CCAISuccessMessagesReceivedCount>
<CCAISuccessMessagesSentCount>0</CCAISuccessMessagesSentCount>
<CCAIFailureMessagesReceivedCount>0</CCAIFailureMessagesReceivedCount>
<CCAIFailureMessagesSentCount>0</CCAIFailureMessagesSentCount>
<CCAUSuccessMessagesReceivedCount>0</CCAUSuccessMessagesReceivedCount>
<CCAUSuccessMessagesSentCount>0</CCAUSuccessMessagesSentCount>
<CCAUFailureMessagesReceivedCount>0</CCAUFailureMessagesReceivedCount>
<CCAUFailureMessagesSentCount>0</CCAUFailureMessagesSentCount>
<CCATSuccessMessagesReceivedCount>0</CCATSuccessMessagesReceivedCount>
<CCATSuccessMessagesSentCount>0</CCATSuccessMessagesSentCount>
<CCATFailureMessagesReceivedCount>0</CCATFailureMessagesReceivedCount>
<CCATFailureMessagesSentCount>0</CCATFailureMessagesSentCount>
<PeerOkayCount>1</PeerOkayCount>
<PeerDownCount>0</PeerDownCount>
<PeerSuspectCount>0</PeerSuspectCount>
<PeerReopenCount>0</PeerReopenCount>
</Sample>
<Sample>
<StartTime>2016-05-17T00:00:00Z</StartTime>
<EndTime>2016-05-17T00:15:00Z</EndTime>
<MRA>MRA-35</MRA>
<IsComplete>true</IsComplete>
<CurrentConnectionsCount>1</CurrentConnectionsCount>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<RARMessagesReceivedCount>0</RARMessagesReceivedCount>
```

```
<RARMessagesSentCount>0</RARMessagesSentCount>
<RARMessagesTimeoutCount>0</RARMessagesTimeoutCount>
<RAASuccessMessagesReceivedCount>0</RAASuccessMessagesReceivedCount>
<RAASuccessMessagesSentCount>0</RAASuccessMessagesSentCount>
<RAAFailureMessagesReceivedCount>0</RAAFailureMessagesReceivedCount>
<RAAFailureMessagesSentCount>0</RAAFailureMessagesSentCount>
<CCRMessagesReceivedCount>0</CCRMessagesReceivedCount>
<CCRMessagesSentCount>0</CCRMessagesSentCount>
<CCRMessagesTimeoutCount>0</CCRMessagesTimeoutCount>
<CCASuccessMessagesReceivedCount>0</CCASuccessMessagesReceivedCount>
<CCASuccessMessagesSentCount>0</CCASuccessMessagesSentCount>
<CCAFailureMessagesReceivedCount>0</CCAFailureMessagesReceivedCount>
<CCAFailureMessagesSentCount>0</CCAFailureMessagesSentCount>
<CCRIMessagesReceivedCount>0</CCRIMessagesReceivedCount>
<CCRIMessagesSentCount>0</CCRIMessagesSentCount>
<CCRIMessagesTimeoutCount>0</CCRIMessagesTimeoutCount>
<CCRUMessagesReceivedCount>0</CCRUMessagesReceivedCount>
<CCRUMessagesSentCount>0</CCRUMessagesSentCount>
<CCRUMessagesTimeoutCount>0</CCRUMessagesTimeoutCount>
<CCRTMessagesReceivedCount>0</CCRTMessagesReceivedCount>
<CCRTMessagesSentCount>0</CCRTMessagesSentCount>
<CCRTMessagesTimeoutCount>0</CCRTMessagesTimeoutCount>
<CCAISuccessMessagesReceivedCount>0</CCAISuccessMessagesReceivedCount>
<CCAISuccessMessagesSentCount>0</CCAISuccessMessagesSentCount>
<CCAIFailureMessagesReceivedCount>0</CCAIFailureMessagesReceivedCount>
<CCAIFailureMessagesSentCount>0</CCAIFailureMessagesSentCount>
<CCAUSuccessMessagesReceivedCount>0</CCAUSuccessMessagesReceivedCount>
<CCAUSuccessMessagesSentCount>0</CCAUSuccessMessagesSentCount>
<CCAUFailureMessagesReceivedCount>0</CCAUFailureMessagesReceivedCount>
<CCAUFailureMessagesSentCount>0</CCAUFailureMessagesSentCount>
<CCATSuccessMessagesReceivedCount>0</CCATSuccessMessagesReceivedCount>
<CCATSuccessMessagesSentCount>0</CCATSuccessMessagesSentCount>
<CCATFailureMessagesReceivedCount>0</CCATFailureMessagesReceivedCount>
<CCATFailureMessagesSentCount>0</CCATFailureMessagesSentCount>
<PeerOkayCount>1</PeerOkayCount>
<PeerDownCount>0</PeerDownCount>
<PeerSuspectCount>0</PeerSuspectCount>
<PeerReopenCount>0</PeerReopenCount>
</Sample>
<Sample>
<StartTime>2016-05-17T00:15:00Z</StartTime>
<EndTime>2016-05-17T00:30:00Z</EndTime>
<MRA>MRA-35</MRA>
<IsComplete>true</IsComplete>
<CurrentConnectionsCount>1</CurrentConnectionsCount>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<RARMessagesReceivedCount>0</RARMessagesReceivedCount>
<RARMessagesSentCount>0</RARMessagesSentCount>
<RARMessagesTimeoutCount>0</RARMessagesTimeoutCount>
<RAASuccessMessagesReceivedCount>0</RAASuccessMessagesReceivedCount>
<RAASuccessMessagesSentCount>0</RAASuccessMessagesSentCount>
<RAAFailureMessagesReceivedCount>0</RAAFailureMessagesReceivedCount>
<RAAFailureMessagesSentCount>0</RAAFailureMessagesSentCount>
<CCRMessagesReceivedCount>0</CCRMessagesReceivedCount>
<CCRMessagesSentCount>0</CCRMessagesSentCount>
<CCRMessagesTimeoutCount>0</CCRMessagesTimeoutCount>
<CCASuccessMessagesReceivedCount>0</CCASuccessMessagesReceivedCount>
<CCASuccessMessagesSentCount>0</CCASuccessMessagesSentCount>
<CCAFailureMessagesReceivedCount>0</CCAFailureMessagesReceivedCount>
<CCAFailureMessagesSentCount>0</CCAFailureMessagesSentCount>
<CCRIMessagesReceivedCount>0</CCRIMessagesReceivedCount>
<CCRIMessagesSentCount>0</CCRIMessagesSentCount>
<CCRIMessagesTimeoutCount>0</CCRIMessagesTimeoutCount>
```

```
<CCRUMessagesReceivedCount>0</CCRUMessagesReceivedCount>
<CCRUMessagesSentCount>0</CCRUMessagesSentCount>
<CCRUMessagesTimeoutCount>0</CCRUMessagesTimeoutCount>
<CCRTMessagesReceivedCount>0</CCRTMessagesReceivedCount>
<CCRTMessagesSentCount>0</CCRTMessagesSentCount>
<CCRTMessagesTimeoutCount>0</CCRTMessagesTimeoutCount>
<CCAISuccessMessagesReceivedCount>0</CCAISuccessMessagesReceivedCount>
<CCAISuccessMessagesSentCount>0</CCAISuccessMessagesSentCount>
<CCAIFailureMessagesReceivedCount>0</CCAIFailureMessagesReceivedCount>
<CCAIFailureMessagesSentCount>0</CCAIFailureMessagesSentCount>
<CCAUSuccessMessagesReceivedCount>0</CCAUSuccessMessagesReceivedCount>
<CCAUSuccessMessagesSentCount>0</CCAUSuccessMessagesSentCount>
<CCAUFailureMessagesReceivedCount>0</CCAUFailureMessagesReceivedCount>
<CCAUFailureMessagesSentCount>0</CCAUFailureMessagesSentCount>
<CCATSuccessMessagesReceivedCount>0</CCATSuccessMessagesReceivedCount>
<CCATSuccessMessagesSentCount>0</CCATSuccessMessagesSentCount>
<CCATFailureMessagesReceivedCount>0</CCATFailureMessagesReceivedCount>
<CCATFailureMessagesSentCount>0</CCATFailureMessagesSentCount>
<PeerOkayCount>1</PeerOkayCount>
<PeerDownCount>0</PeerDownCount>
<PeerSuspectCount>0</PeerSuspectCount>
<PeerReopenCount>0</PeerReopenCount>
</Sample>
</DiameterMraS9Stats>
</Statistics>
```

Diameter MRA S9 Peer Statistics

The following examples show the request and response that are defined in the XSD files for the **DiameterMraS9PeerStats** tag.

Request

This request follows the DiameterMraS9PeerStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2017-04-21T14:15:00</StartTime>
<EndTime>2017-04-21T14:30:00</EndTime>
<DiameterMraS9PeerStats>
<!-- MRA is optional. -->
<MRA>MRA-Cluster</MRA>
<MRA>MRA-35</MRA>
</DiameterMraS9PeerStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterMraS9PeerStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterMraS9PeerStats>
<Sample>
<StartTime>2017-05-16T23:45:00Z</StartTime>
<EndTime>2017-05-17T00:00:01Z</EndTime>
```

```
<MRA>MRA-Cluster</MRA>
<IsComplete>true</IsComplete>
<Name>mpe-84.example.com</Name>
<NeId/>
<NetworkElementType/>
<NetworkElementSubType/>
<ConnectTime>Mon May 16 13:33:32 EDT 2017</ConnectTime>
<DisconnectTime>N/A</DisconnectTime>
<ConnectAddress>10.196.143.179</ConnectAddress>
<ConnectPort>3868</ConnectPort>
<ConnectType>TCP</ConnectType>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<MessagesErrorInCount>0</MessagesErrorInCount>
<MessagesErrorOutCount>0</MessagesErrorOutCount>
<RARMessagesReceivedCount>0</RARMessagesReceivedCount>
<RARMessagesSentCount>0</RARMessagesSentCount>
<RARMessagesTimeoutCount>0</RARMessagesTimeoutCount>
<RAASuccessMessagesReceivedCount>0</RAASuccessMessagesReceivedCount>
<RAASuccessMessagesSentCount>0</RAASuccessMessagesSentCount>
<RAAFailureMessagesReceivedCount>0</RAAFailureMessagesReceivedCount>
<RAAFailureMessagesSentCount>0</RAAFailureMessagesSentCount>
<CCRMessagesReceivedCount>0</CCRMessagesReceivedCount>
<CCRMessagesSentCount>0</CCRMessagesSentCount>
<CCRMessagesTimeoutCount>0</CCRMessagesTimeoutCount>
<CCASuccessMessagesReceivedCount>0</CCASuccessMessagesReceivedCount>
<CCASuccessMessagesSentCount>0</CCASuccessMessagesSentCount>
<CCAFailureMessagesReceivedCount>0</CCAFailureMessagesReceivedCount>
<CCAFailureMessagesSentCount>0</CCAFailureMessagesSentCount>
<CCRIMessagesReceivedCount>0</CCRIMessagesReceivedCount>
<CCRIMessagesSentCount>0</CCRIMessagesSentCount>
<CCRIMessagesTimeoutCount>0</CCRIMessagesTimeoutCount>
<CCRUMessagesReceivedCount>0</CCRUMessagesReceivedCount>
<CCRUMessagesSentCount>0</CCRUMessagesSentCount>
<CCRUMessagesTimeoutCount>0</CCRUMessagesTimeoutCount>
<CCRTMessagesReceivedCount>0</CCRTMessagesReceivedCount>
<CCRTMessagesSentCount>0</CCRTMessagesSentCount>
<CCRTMessagesTimeoutCount>0</CCRTMessagesTimeoutCount>
<CCAISuccessMessagesReceivedCount>0</CCAISuccessMessagesReceivedCount>
<CCAISuccessMessagesSentCount>0</CCAISuccessMessagesSentCount>
<CCAIFailureMessagesReceivedCount>0</CCAIFailureMessagesReceivedCount>
<CCAIFailureMessagesSentCount>0</CCAIFailureMessagesSentCount>
<CCAUSuccessMessagesReceivedCount>0</CCAUSuccessMessagesReceivedCount>
<CCAUSuccessMessagesSentCount>0</CCAUSuccessMessagesSentCount>
<CCAUFailureMessagesReceivedCount>0</CCAUFailureMessagesReceivedCount>
<CCAUFailureMessagesSentCount>0</CCAUFailureMessagesSentCount>
<CCATSuccessMessagesReceivedCount>0</CCATSuccessMessagesReceivedCount>
<CCATSuccessMessagesSentCount>0</CCATSuccessMessagesSentCount>
<CCATFailureMessagesReceivedCount>0</CCATFailureMessagesReceivedCount>
<CCATFailureMessagesSentCount>0</CCATFailureMessagesSentCount>
</Sample>
</DiameterMraS9PeerStats>
</Statistics>
```

Diameter MRA TDF Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterMraTdfStats tag.

Request

This request follows the DiameterMraTdfStats tag defined in the QueryOmStats section in the XSD files.

The following is an example of this request.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterMraTdfStats>
<!-- MRA is optional. -->
<MRA>MRA-Cluster</MRA>
<MRA>MRA-35</MRA>
</DiameterMraTdfStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterMraTdfStats tag defined in the Statistics section in the XSD files. The following is an example XML response to this tag request.

```
<Statistics>
<DiameterMraTdfStats>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<MRA>MRA-Cluster</MRA>
<IsComplete>true</IsComplete>
<CurrentConnectionsCount>1</CurrentConnectionsCount>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<TSRMessagesReceivedCount>0</TSRMessagesReceivedCount>
<TSRMessagesSentCount>0</TSRMessagesSentCount>
<TSRMessagesTimeoutCount>0</TSRMessagesTimeoutCount>
<TSASuccessMessagesReceivedCount>0</TSASuccessMessagesReceivedCount>
<TSASuccessMessagesSentCount>0</TSASuccessMessagesSentCount>
<TSAFailureMessagesReceivedCount>0</TSAFailureMessagesReceivedCount>
<TSAFailureMessagesSentCount>0</TSAFailureMessagesSentCount>
<RARMessagesReceivedCount>0</RARMessagesReceivedCount>
<RARMessagesSentCount>0</RARMessagesSentCount>
<RARMessagesTimeoutCount>0</RARMessagesTimeoutCount>
<RAASuccessMessagesReceivedCount>0</RAASuccessMessagesReceivedCount>
<RAASuccessMessagesSentCount>0</RAASuccessMessagesSentCount>
<RAAFailureMessagesReceivedCount>0</RAAFailureMessagesReceivedCount>
<RAAFailureMessagesSentCount>0</RAAFailureMessagesSentCount>
<CCRMessagesReceivedCount>0</CCRMessagesReceivedCount>
<CCRMessagesSentCount>0</CCRMessagesSentCount>
<CCRMessagesTimeoutCount>0</CCRMessagesTimeoutCount>
<CCASuccessMessagesReceivedCount>0</CCASuccessMessagesReceivedCount>
<CCASuccessMessagesSentCount>0</CCASuccessMessagesSentCount>
<CCAFailureMessagesReceivedCount>0</CCAFailureMessagesReceivedCount>
<CCAFailureMessagesSentCount>0</CCAFailureMessagesSentCount>
<CCRIMessagesReceivedCount>0</CCRIMessagesReceivedCount>
<CCRIMessagesSentCount>0</CCRIMessagesSentCount>
<CCRIMessagesTimeoutCount>0</CCRIMessagesTimeoutCount>
<CCRUMessagesReceivedCount>0</CCRUMessagesReceivedCount>
<CCRUMessagesSentCount>0</CCRUMessagesSentCount>
<CCRUMessagesTimeoutCount>0</CCRUMessagesTimeoutCount>
<CCRTMessagesReceivedCount>0</CCRTMessagesReceivedCount>
```

```
<CCRTMessagesSentCount>0</CCRTMessagesSentCount>
<CCRTMessagesTimeoutCount>0</CCRTMessagesTimeoutCount>
<CCAISuccessMessagesReceivedCount>0</CCAISuccessMessagesReceivedCount>
<CCAISuccessMessagesSentCount>0</CCAISuccessMessagesSentCount>
<CCAIFailureMessagesReceivedCount>0</CCAIFailureMessagesReceivedCount>
<CCAIFailureMessagesSentCount>0</CCAIFailureMessagesSentCount>
<CCAUSuccessMessagesReceivedCount>0</CCAUSuccessMessagesReceivedCount>
<CCAUSuccessMessagesSentCount>0</CCAUSuccessMessagesSentCount>
<CCAUFailureMessagesReceivedCount>0</CCAUFailureMessagesReceivedCount>
<CCAUFailureMessagesSentCount>0</CCAUFailureMessagesSentCount>
<CCATSuccessMessagesReceivedCount>0</CCATSuccessMessagesReceivedCount>
<CCATSuccessMessagesSentCount>0</CCATSuccessMessagesSentCount>
<CCATFailureMessagesReceivedCount>0</CCATFailureMessagesReceivedCount>
<CCATFailureMessagesSentCount>0</CCATFailureMessagesSentCount>
<PeerOkayCount>1</PeerOkayCount>
<PeerDownCount>0</PeerDownCount>
<PeerSuspectCount>0</PeerSuspectCount>
<PeerReopenCount>0</PeerReopenCount>
</Sample>
</DiameterMraTdfStats>
</Statistics>
```

Diameter MRA TDF Peer Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterMraTdfPeerStats tag.

Request

This request follows the DiameterMraTdfPeerStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterMraTdfPeerStats>
<!-- Name is optional. -->
<Name>mra-82.example.com</Name>
<Name>mra-35.example.com</Name>
<!-- NeId is optional. -->
<NeId />
</DiameterMraTdfPeerStats>
</QueryOmStats>
```

Request

The response to this request follows the DiameterMraTdfPeerStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterMraTdfPeerStats>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<MRA>MRA-Cluster</MRA>
<IsComplete>true</IsComplete>
```

```
<Name>mpe-84.example.com</Name>
<NeId/>
<NetworkElementType/>
<NetworkElementSubType/>
<ConnectTime>Mon May 16 13:33:32 EDT 2016</ConnectTime>
<DisconnectTime>N/A</DisconnectTime>
<ConnectAddress>10.196.143.179</ConnectAddress>
<ConnectPort>3868</ConnectPort>
<ConnectType>TCP</ConnectType>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<MessagesErrorInCount>0</MessagesErrorInCount>
<MessagesErrorOutCount>0</MessagesErrorOutCount>
<TSRMessagesReceivedCount>0</TSRMessagesReceivedCount>
<TSRMessagesSentCount>0</TSRMessagesSentCount>
<TSRMessagesTimeoutCount>0</TSRMessagesTimeoutCount>
<TSASuccessMessagesReceivedCount>0</TSASuccessMessagesReceivedCount>
<TSASuccessMessagesSentCount>0</TSASuccessMessagesSentCount>
<TSAFailureMessagesReceivedCount>0</TSAFailureMessagesReceivedCount>
<TSAFailureMessagesSentCount>0</TSAFailureMessagesSentCount>
<RARMessagesReceivedCount>0</RARMessagesReceivedCount>
<RARMessagesSentCount>0</RARMessagesSentCount>
<RARMessagesTimeoutCount>0</RARMessagesTimeoutCount>
<RAASuccessMessagesReceivedCount>0</RAASuccessMessagesReceivedCount>
<RAASuccessMessagesSentCount>0</RAASuccessMessagesSentCount>
<RAAFailureMessagesReceivedCount>0</RAAFailureMessagesReceivedCount>
<RAAFailureMessagesSentCount>0</RAAFailureMessagesSentCount>
<CCRMessagesReceivedCount>0</CCRMessagesReceivedCount>
<CCRMessagesSentCount>0</CCRMessagesSentCount>
<CCRMessagesTimeoutCount>0</CCRMessagesTimeoutCount>
<CCASuccessMessagesReceivedCount>0</CCASuccessMessagesReceivedCount>
<CCASuccessMessagesSentCount>0</CCASuccessMessagesSentCount>
<CCAFailureMessagesReceivedCount>0</CCAFailureMessagesReceivedCount>
<CCAFailureMessagesSentCount>0</CCAFailureMessagesSentCount>
<CCRIMessagesReceivedCount>0</CCRIMessagesReceivedCount>
<CCRIMessagesSentCount>0</CCRIMessagesSentCount>
<CCRIMessagesTimeoutCount>0</CCRIMessagesTimeoutCount>
<CCRUMessagesReceivedCount>0</CCRUMessagesReceivedCount>
<CCRUMessagesSentCount>0</CCRUMessagesSentCount>
<CCRUMessagesTimeoutCount>0</CCRUMessagesTimeoutCount>
<CCRTMessagesReceivedCount>0</CCRTMessagesReceivedCount>
<CCRTMessagesSentCount>0</CCRTMessagesSentCount>
<CCRTMessagesTimeoutCount>0</CCRTMessagesTimeoutCount>
<CCAISuccessMessagesReceivedCount>0</CCAISuccessMessagesReceivedCount>
<CCAISuccessMessagesSentCount>0</CCAISuccessMessagesSentCount>
<CCAIFailureMessagesReceivedCount>0</CCAIFailureMessagesReceivedCount>
<CCAIFailureMessagesSentCount>0</CCAIFailureMessagesSentCount>
<CCAUSuccessMessagesReceivedCount>0</CCAUSuccessMessagesReceivedCount>
<CCAUSuccessMessagesSentCount>0</CCAUSuccessMessagesSentCount>
<CCAUFailureMessagesReceivedCount>0</CCAUFailureMessagesReceivedCount>
<CCAUFailureMessagesSentCount>0</CCAUFailureMessagesSentCount>
<CCATSuccessMessagesReceivedCount>0</CCATSuccessMessagesReceivedCount>
<CCATSuccessMessagesSentCount>0</CCATSuccessMessagesSentCount>
<CCATFailureMessagesReceivedCount>0</CCATFailureMessagesReceivedCount>
<CCATFailureMessagesSentCount>0</CCATFailureMessagesSentCount>
</Sample>
</DiameterMraTdfPeerStats>
</Statistics>
```

Diameter MRA TDF over SCTP Statistics

The statistics field can be set to SCTP with the ability to support multiple IP addresses.

The following examples show the SCTP response defined in the XSD files for the DiameterMraDrmaPeerStats tag.

Response

The response to this request follows the DiameterMraTdfPeerStats tag defined in the Statistics section of the XSD files.

```
<Statistics>
   <DiameterMraTdfPeerStats>
     <Sample>
      <StartTime>2001-12-31T12:00:00</StartTime>
      <EndTime>2001-12-31T12:15:00</EndTime>
      <MRA>MRA</MRA>
      <IsComplete>true</IsComplete>
         <Name>NetworkElementName</Name>
         <ConnectTime>2001-12-31T12:00:00</ConnectTime>
         <DisconnectTime>2001-12-31T12:00:00</DisconnectTime>
         <ConnectType>TCP</ConnectType>
         <ConnectAddress>10.15.25.110</ConnectAddress>
         <ConnectPort>3868</ConnectPort>
   </DiameterMraTdfPeerStats>
</Statistics>
```

Diameter MRA VZR Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterMraVzrStatstag.

Request

This request follows the DiameterMraVzrStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterMraVzrStats>
<!-- MRA is optional. -->
<MRA>MRA-Cluster</MRA>
<MRA>MRA-35</MRA>
</DiameterMraVzrStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterMraVzrStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterMraVzrStats>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
```

```
<MRA>MRA-Cluster</MRA>
<IsComplete>true</IsComplete>
<CurrentConnectionsCount>1</CurrentConnectionsCount>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<SDRMessagesReceivedCount>0</SDRMessagesReceivedCount>
<SDRMessagesSentCount>0</SDRMessagesSentCount>
<SDRMessagesTimeoutCount>0</SDRMessagesTimeoutCount>
<SDASuccessMessagesReceivedCount>0</SDASuccessMessagesReceivedCount>
<SDASuccessMessagesSentCount>0</SDASuccessMessagesSentCount>
<SDAFailureMessagesReceivedCount>0</SDAFailureMessagesReceivedCount>
<SDAFailureMessagesSentCount>0</SDAFailureMessagesSentCount>
</Sample>
</DiameterMraVzrStats>
</Statistics>
```

Diameter MRA VZR Peer Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterMraVzrPeerStatstag.

Request

This request follows the DiameterMraVzrPeerStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterMraVzrPeerStats>
<!-- Name is optional. -->
<Name>mra-82.example.com</Name>
<Name>mra-35.example.com</Name>
<!-- NeId is optional. -->
<NeId />
</DiameterMraVzrPeerStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterMraVzrPeerStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterMraVzrPeerStats>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<MRA>MRA-Cluster</MRA>
<IsComplete>true</IsComplete>
<Name>mpe-84.example.com</Name>
<NeId/>
<NetworkElementType/>
<NetworkElementSubType/>
<ConnectTime>Mon May 16 13:33:32 EDT 2016</ConnectTime>
<DisconnectTime>N/A</DisconnectTime>
```

```
<ConnectAddress>10.196.143.179</ConnectAddress>
<ConnectPort>3868</ConnectPort>
<ConnectType>TCP</ConnectType>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<MessagesErrorInCount>0</MessagesErrorInCount>
<MessagesErrorOutCount>0</MessagesErrorOutCount>
<SDRMessagesReceivedCount>0</SDRMessagesReceivedCount>
<SDRMessagesSentCount>0</SDRMessagesSentCount>
<SDRMessagesTimeoutCount>0</SDRMessagesTimeoutCount>
<SDASuccessMessagesReceivedCount>0</SDASuccessMessagesReceivedCount>
<SDASuccessMessagesSentCount>0</SDASuccessMessagesSentCount>
<SDAFailureMessagesReceivedCount>0</SDAFailureMessagesReceivedCount>
<SDAFailureMessagesSentCount>0</SDAFailureMessagesSentCount>
</Sample>
</DiameterMraVzrPeerStats>
</Statistics>
```

RADIUS-CoA based B-RAS Operational Measurement Requests

This section shows the requests and responses for:

- *RADIUS-CoA Statistics*
- *RADIUS-CoA Network Element Statistics*
- *RADIUS Accounting Statistics*
- *RADIUS Accounting Network Element Statistics*

RADIUS-CoA Statistics

The following examples show the request and response that are defined in the XSD files for the RadiusStats tag.

Request

This request follows the RadiusStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<RadiusStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
</RadiusStats>
</QueryOmStats>
```

Reponse

The response to this request follows the RadiusStats tag defined in the Statistics section in the XSD files. The following is an example XML response to this tag request.

```
<Statistics>
<RadiusStats>
<Sample>
```

```
<StartTime>2016-05-16T23:45:01Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<UnknowMsgRecv>0</UnknowMsgRecv>
<MessageDecoded>0</MessageDecoded>
<MessageDropped>0</MessageDropped>
<InterimUpdateRecv>0</InterimUpdateRecv>
<InterimUpdateRecvUnknowSession>0</InterimUpdateRecvUnknowSession>
<ActiveSessionCount>0</ActiveSessionCount>
<MaxActiveSessionCount>0</MaxActiveSessionCount>
<Md5MismatchRecv>0</Md5MismatchRecv>
<LastMsgRecv>0</LastMsgRecv>
<CoASent>0</CoASent>
<CoARecv>0</CoARecv>
<CoAAckSent>0</CoAAckSent>
<CoAAckRecv>0</CoAAckRecv>
<CoANakSent>0</CoANakSent>
<CoANakRecv>0</CoANakRecv>
<AcctStartSent>0</AcctStartSent>
<AcctStartRecv>0</AcctStartRecv>
<AcctStopSent>0</AcctStopSent>
<AcctStopRecv>0</AcctStopRecv>
<AcctStopRecvUnknownSession>0</AcctStopRecvUnknownSession>
<AcctOnSent>0</AcctOnSent>
<AcctOnRecv>0</AcctOnRecv>
<AcctOffSent>0</AcctOffSent>
<AcctOffRecv>0</AcctOffRecv>
<AcctRspSent>0</AcctRspSent>
<AcctRspRecv>0</AcctRspRecv>
<ConnectCount>0</ConnectCount>
<InErrorCount>0</InErrorCount>
<OutErrorCount>0</OutErrorCount>
<ParseUnder100>0</ParseUnder100>
<ParseUnder200>0</ParseUnder200>
<ParseUnder500>0</ParseUnder500>
<ParseUnder1000>0</ParseUnder1000>
<ParseOver1000>0</ParseOver1000>
<TotalParseTime>0</TotalParseTime>
<AvgParseTime>0</AvgParseTime>
<MaxParseTime>0</MaxParseTime>
<UnknowBng>0</UnknowBng>
<UnknowBngAcctStart>0</UnknowBngAcctStart>
<UnknowBngAcctStop>0</UnknowBngAcctStop>
<UnknowBngInterimUpdate>0</UnknowBngInterimUpdate>
<StaleSessionsRemoved>0</StaleSessionsRemoved>
<StaleSessionsRemovedMissedInterimUpdate>0</StaleSessionsRemovedMissedInterimUpdate>
<StaleSessionsRemovedAcctOnOff>0</StaleSessionsRemovedAcctOnOff>
<StaleSessionsRemovedByPolicyOrOperator>0</StaleSessionsRemovedByPolicyOrOperator>
<InvalidSubKey>0</InvalidSubKey>
<InvalidAcctSessionId>0</InvalidAcctSessionId>
<CoASentFailed>0</CoASentFailed>
<CoASentTimeOut>0</CoASentTimeOut>
<CoADisconnectRecv>0</CoADisconnectRecv>
<CoADisconnectSent>0</CoADisconnectSent>
<CoADisconnectSentFailed>0</CoADisconnectSentFailed>
<CoADisconnectSentTimeOut>0</CoADisconnectSentTimeOut>
<CoAAckTimeOut>0</CoAAckTimeOut>
<CoADisconnectAckRecv>0</CoADisconnectAckRecv>
<CoADisconnectAckSent>0</CoADisconnectAckSent>
<CoADisconnectAckTimeOut>0</CoADisconnectAckTimeOut>
<CoANakTimeOut>0</CoANakTimeOut>
<CoADisconnectNakRecv>0</CoADisconnectNakRecv>
```

```
<CoADisconnectNakSent>0</CoADisconnectNakSent>
<CoADisconnectNakTimeOut>0</CoADisconnectNakTimeOut>
</Sample>
<Sample>
<StartTime>2016-05-17T00:00:01Z</StartTime>
<EndTime>2016-05-17T00:15:01Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<UnknowMsgRecv>0</UnknowMsgRecv>
<MessageDecoded>0</MessageDecoded>
<MessageDropped>0</MessageDropped>
<InterimUpdateRecv>0</InterimUpdateRecv>
<InterimUpdateRecvUnknowSession>0</InterimUpdateRecvUnknowSession>
<ActiveSessionCount>0</ActiveSessionCount>
<MaxActiveSessionCount>0</MaxActiveSessionCount>
<Md5MismatchRecv>0</Md5MismatchRecv>
<LastMsgRecv>0</LastMsgRecv>
<CoASent>0</CoASent>
<CoARecv>0</CoARecv>
<CoAAckSent>0</CoAAckSent>
<CoAAckRecv>0</CoAAckRecv>
<CoANakSent>0</CoANakSent>
<CoANakRecv>0</CoANakRecv>
<AcctStartSent>0</AcctStartSent>
<AcctStartRecv>0</AcctStartRecv>
<AcctStopSent>0</AcctStopSent>
<AcctStopRecv>0</AcctStopRecv>
<AcctStopRecvUnknownSession>0</AcctStopRecvUnknownSession>
<AcctOnSent>0</AcctOnSent>
<AcctOnRecv>0</AcctOnRecv>
<AcctOffSent>0</AcctOffSent>
<AcctOffRecv>0</AcctOffRecv>
<AcctRspSent>0</AcctRspSent>
<AcctRspRecv>0</AcctRspRecv>
<ConnectCount>0</ConnectCount>
<InErrorCount>0</InErrorCount>
<OutErrorCount>0</OutErrorCount>
<ParseUnder100>0</ParseUnder100>
<ParseUnder200>0</ParseUnder200>
<ParseUnder500>0</ParseUnder500>
<ParseUnder1000>0</ParseUnder1000>
<ParseOver1000>0</ParseOver1000>
<TotalParseTime>0</TotalParseTime>
<AvgParseTime>0</AvgParseTime>
<MaxParseTime>0</MaxParseTime>
<UnknowBng>0</UnknowBng>
<UnknowBngAcctStart>0</UnknowBngAcctStart>
<UnknowBngAcctStop>0</UnknowBngAcctStop>
<UnknowBngInterimUpdate>0</UnknowBngInterimUpdate>
<StaleSessionsRemoved>0</StaleSessionsRemoved>
<StaleSessionsRemovedMissedInterimUpdate>0</StaleSessionsRemovedMissedInterimUpdate>
<StaleSessionsRemovedAcctOnOff>0</StaleSessionsRemovedAcctOnOff>
<StaleSessionsRemovedByPolicyOrOperator>0</StaleSessionsRemovedByPolicyOrOperator>
<InvalidSubKey>0</InvalidSubKey>
<InvalidAcctSessionId>0</InvalidAcctSessionId>
<CoASentFailed>0</CoASentFailed>
<CoASentTimeOut>0</CoASentTimeOut>
<CoADisconnectRecv>0</CoADisconnectRecv>
<CoADisconnectSent>0</CoADisconnectSent>
<CoADisconnectSentFailed>0</CoADisconnectSentFailed>
<CoADisconnectSentTimeOut>0</CoADisconnectSentTimeOut>
<CoAAckTimeOut>0</CoAAckTimeOut>
<CoADisconnectAckRecv>0</CoADisconnectAckRecv>
```

```
<CoADisconnectAckSent>0</CoADisconnectAckSent>
<CoADisconnectAckTimeOut>0</CoADisconnectAckTimeOut>
<CoANakTimeOut>0</CoANakTimeOut>
<CoADisconnectNakRecv>0</CoADisconnectNakRecv>
<CoADisconnectNakSent>0</CoADisconnectNakSent>
<CoADisconnectNakTimeOut>0</CoADisconnectNakTimeOut>
</Sample>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<UnknowMsgRecv>0</UnknowMsgRecv>
<MessageDecoded>0</MessageDecoded>
<MessageDropped>0</MessageDropped>
<InterimUpdateRecv>0</InterimUpdateRecv>
<InterimUpdateRecvUnknowSession>0</InterimUpdateRecvUnknowSession>
<ActiveSessionCount>0</ActiveSessionCount>
<MaxActiveSessionCount>0</MaxActiveSessionCount>
<Md5MismatchRecv>0</Md5MismatchRecv>
<LastMsgRecv>1463422435013</LastMsgRecv>
<CoASent>0</CoASent>
<CoARecv>0</CoARecv>
<CoAAckSent>0</CoAAckSent>
<CoAAckRecv>0</CoAAckRecv>
<CoANakSent>0</CoANakSent>
<CoANakRecv>0</CoANakRecv>
<AcctStartSent>0</AcctStartSent>
<AcctStartRecv>0</AcctStartRecv>
<AcctStopSent>0</AcctStopSent>
<AcctStopRecv>0</AcctStopRecv>
<AcctStopRecvUnknownSession>0</AcctStopRecvUnknownSession>
<AcctOnSent>0</AcctOnSent>
<AcctOnRecv>0</AcctOnRecv>
<AcctOffSent>0</AcctOffSent>
<AcctOffRecv>0</AcctOffRecv>
<AcctRspSent>0</AcctRspSent>
<AcctRspRecv>0</AcctRspRecv>
<ConnectCount>0</ConnectCount>
<InErrorCount>0</InErrorCount>
<OutErrorCount>0</OutErrorCount>
<ParseUnder100>0</ParseUnder100>
<ParseUnder200>0</ParseUnder200>
<ParseUnder500>0</ParseUnder500>
<ParseUnder1000>0</ParseUnder1000>
<ParseOver1000>0</ParseOver1000>
<TotalParseTime>0</TotalParseTime>
<AvgParseTime>0</AvgParseTime>
<MaxParseTime>0</MaxParseTime>
<UnknowBng>0</UnknowBng>
<UnknowBngAcctStart>0</UnknowBngAcctStart>
<UnknowBngAcctStop>0</UnknowBngAcctStop>
<UnknowBngInterimUpdate>0</UnknowBngInterimUpdate>
<StaleSessionsRemoved>0</StaleSessionsRemoved>
<StaleSessionsRemovedMissedInterimUpdate>0</StaleSessionsRemovedMissedInterimUpdate>
<StaleSessionsRemovedAcctOnOff>0</StaleSessionsRemovedAcctOnOff>
<StaleSessionsRemovedByPolicyOrOperator>0</StaleSessionsRemovedByPolicyOrOperator>
<InvalidSubKey>0</InvalidSubKey>
<InvalidAcctSessionId>0</InvalidAcctSessionId>
<CoASentFailed>0</CoASentFailed>
<CoASentTimeOut>0</CoASentTimeOut>
<CoADisconnectRecv>0</CoADisconnectRecv>
<CoADisconnectSent>0</CoADisconnectSent>
```

```
<CoADisconnectSentFailed>0</CoADisconnectSentFailed>
<CoADisconnectSentTimeOut>0</CoADisconnectSentTimeOut>
<CoAAckTimeOut>0</CoAAckTimeOut>
<CoADisconnectAckRecv>0</CoADisconnectAckRecv>
<CoADisconnectAckSent>0</CoADisconnectAckSent>
<CoADisconnectAckTimeOut>0</CoADisconnectAckTimeOut>
<CoANakTimeOut>0</CoANakTimeOut>
<CoADisconnectNakRecv>0</CoADisconnectNakRecv>
<CoADisconnectNakSent>0</CoADisconnectNakSent>
<CoADisconnectNakTimeOut>0</CoADisconnectNakTimeOut>
</Sample>
<Sample>
<StartTime>2016-05-17T00:00:00Z</StartTime>
<EndTime>2016-05-17T00:15:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<UnknowMsgRecv>0</UnknowMsgRecv>
<MessageDecoded>0</MessageDecoded>
<MessageDropped>0</MessageDropped>
<InterimUpdateRecv>0</InterimUpdateRecv>
<InterimUpdateRecvUnknowSession>0</InterimUpdateRecvUnknowSession>
<ActiveSessionCount>0</ActiveSessionCount>
<MaxActiveSessionCount>0</MaxActiveSessionCount>
<Md5MismatchRecv>0</Md5MismatchRecv>
<LastMsgRecv>1463422435013</LastMsgRecv>
<CoASent>0</CoASent>
<CoARecv>0</CoARecv>
<CoAAckSent>0</CoAAckSent>
<CoAAckRecv>0</CoAAckRecv>
<CoANakSent>0</CoANakSent>
<CoANakRecv>0</CoANakRecv>
<AcctStartSent>0</AcctStartSent>
<AcctStartRecv>0</AcctStartRecv>
<AcctStopSent>0</AcctStopSent>
<AcctStopRecv>0</AcctStopRecv>
<AcctStopRecvUnknownSession>0</AcctStopRecvUnknownSession>
<AcctOnSent>0</AcctOnSent>
<AcctOnRecv>0</AcctOnRecv>
<AcctOffSent>0</AcctOffSent>
<AcctOffRecv>0</AcctOffRecv>
<AcctRspSent>0</AcctRspSent>
<AcctRspRecv>0</AcctRspRecv>
<ConnectCount>0</ConnectCount>
<InErrorCount>0</InErrorCount>
<OutErrorCount>0</OutErrorCount>
<ParseUnder100>0</ParseUnder100>
<ParseUnder200>0</ParseUnder200>
<ParseUnder500>0</ParseUnder500>
<ParseUnder1000>0</ParseUnder1000>
<ParseOver1000>0</ParseOver1000>
<TotalParseTime>0</TotalParseTime>
<AvgParseTime>0</AvgParseTime>
<MaxParseTime>0</MaxParseTime>
<UnknowBng>0</UnknowBng>
<UnknowBngAcctStart>0</UnknowBngAcctStart>
<UnknowBngAcctStop>0</UnknowBngAcctStop>
<UnknowBngInterimUpdate>0</UnknowBngInterimUpdate>
<StaleSessionsRemoved>0</StaleSessionsRemoved>
<StaleSessionsRemovedMissedInterimUpdate>0</StaleSessionsRemovedMissedInterimUpdate>
<StaleSessionsRemovedAcctOnOff>0</StaleSessionsRemovedAcctOnOff>
<StaleSessionsRemovedByPolicyOrOperator>0</StaleSessionsRemovedByPolicyOrOperator>
<InvalidSubKey>0</InvalidSubKey>
<InvalidAcctSessionId>0</InvalidAcctSessionId>
```

```
<CoASentFailed>0</CoASentFailed>
<CoASentTimeOut>0</CoASentTimeOut>
<CoADisconnectRecv>0</CoADisconnectRecv>
<CoADisconnectSent>0</CoADisconnectSent>
<CoADisconnectSentFailed>0</CoADisconnectSentFailed>
<CoADisconnectSentTimeOut>0</CoADisconnectSentTimeOut>
<CoAAckTimeOut>0</CoAAckTimeOut>
<CoADisconnectAckRecv>0</CoADisconnectAckRecv>
<CoADisconnectAckSent>0</CoADisconnectAckSent>
<CoADisconnectAckTimeOut>0</CoADisconnectAckTimeOut>
<CoANakTimeOut>0</CoANakTimeOut>
<CoADisconnectNakRecv>0</CoADisconnectNakRecv>
<CoADisconnectNakSent>0</CoADisconnectNakSent>
<CoADisconnectNakTimeOut>0</CoADisconnectNakTimeOut>
</Sample>
<Sample>
<StartTime>2016-05-17T00:15:00Z</StartTime>
<EndTime>2016-05-17T00:30:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<UnknowMsgRecv>0</UnknowMsgRecv>
<MessageDecoded>0</MessageDecoded>
<MessageDropped>0</MessageDropped>
<InterimUpdateRecv>0</InterimUpdateRecv>
<InterimUpdateRecvUnknowSession>0</InterimUpdateRecvUnknowSession>
<ActiveSessionCount>0</ActiveSessionCount>
<MaxActiveSessionCount>0</MaxActiveSessionCount>
<Md5MismatchRecv>0</Md5MismatchRecv>
<LastMsgRecv>1463422435013</LastMsgRecv>
<CoASent>0</CoASent>
<CoARecv>0</CoARecv>
<CoAAckSent>0</CoAAckSent>
<CoAAckRecv>0</CoAAckRecv>
<CoANakSent>0</CoANakSent>
<CoANakRecv>0</CoANakRecv>
<AcctStartSent>0</AcctStartSent>
<AcctStartRecv>0</AcctStartRecv>
<AcctStopSent>0</AcctStopSent>
<AcctStopRecv>0</AcctStopRecv>
<AcctStopRecvUnknownSession>0</AcctStopRecvUnknownSession>
<AcctOnSent>0</AcctOnSent>
<AcctOnRecv>0</AcctOnRecv>
<AcctOffSent>0</AcctOffSent>
<AcctOffRecv>0</AcctOffRecv>
<AcctRspSent>0</AcctRspSent>
<AcctRspRecv>0</AcctRspRecv>
<ConnectCount>0</ConnectCount>
<InErrorCount>0</InErrorCount>
<OutErrorCount>0</OutErrorCount>
<ParseUnder100>0</ParseUnder100>
<ParseUnder200>0</ParseUnder200>
<ParseUnder500>0</ParseUnder500>
<ParseUnder1000>0</ParseUnder1000>
<ParseOver1000>0</ParseOver1000>
<TotalParseTime>0</TotalParseTime>
<AvgParseTime>0</AvgParseTime>
<MaxParseTime>0</MaxParseTime>
<UnknowBng>0</UnknowBng>
<UnknowBngAcctStart>0</UnknowBngAcctStart>
<UnknowBngAcctStop>0</UnknowBngAcctStop>
<UnknowBngInterimUpdate>0</UnknowBngInterimUpdate>
<StaleSessionsRemoved>0</StaleSessionsRemoved>
<StaleSessionsRemovedMissedInterimUpdate>0</StaleSessionsRemovedMissedInterimUpdate>
```

```
<StaleSessionsRemovedAcctOnOff>0</StaleSessionsRemovedAcctOnOff>
<StaleSessionsRemovedByPolicyOrOperator>0</StaleSessionsRemovedByPolicyOrOperator>
<InvalidSubKey>0</InvalidSubKey>
<InvalidAcctSessionId>0</InvalidAcctSessionId>
<CoASentFailed>0</CoASentFailed>
<CoASentTimeOut>0</CoASentTimeOut>
<CoADisconnectRecv>0</CoADisconnectRecv>
<CoADisconnectSent>0</CoADisconnectSent>
<CoADisconnectSentFailed>0</CoADisconnectSentFailed>
<CoADisconnectSentTimeOut>0</CoADisconnectSentTimeOut>
<CoAAckTimeOut>0</CoAAckTimeOut>
<CoADisconnectAckRecv>0</CoADisconnectAckRecv>
<CoADisconnectAckSent>0</CoADisconnectAckSent>
<CoADisconnectAckTimeOut>0</CoADisconnectAckTimeOut>
<CoANakTimeOut>0</CoANakTimeOut>
<CoADisconnectNakRecv>0</CoADisconnectNakRecv>
<CoADisconnectNakSent>0</CoADisconnectNakSent>
<CoADisconnectNakTimeOut>0</CoADisconnectNakTimeOut>
</Sample>
</RadiusStats>
</Statistics>
```

Individual Statistics

Individual statistics defined for this tag are:

- PolicyServer

  Name of the Policy Server queried.

- MessagesInCount

  Number of messages in.

- MessagesOutCount

  Number of messages out.

- AccountingStartCount

  Number of Accounting Start messages received.

- AccountingStopCount

  Number of Accounting Stop messages received.

- AccountingUpdateCount

  Number of Accounting Interim Update messages received.

- AccountingResponseCount

  Number of Accounting Responses sent.

- ReceivedMd5ErrorCount

  Number of received messages dropped because of MD5 errors.

- SendMd5ErrorCount

  Number of CoA requests that failed because of MD5 errors.

- ReceivedErrorCount

Number of received messages dropped because of errors.

- CoACount

  Number of CoA messages sent.

- CoASuccessCount

  Number of CoA-ACK messages received.

- CoAProvisionCount

  Number of CoA messages to provision a default QoS profile.

- CoaApplicationCount

  Number of CoA messages to adjust QoS for an application request.

- CoANckCount

  Number of CoA-NAK messages received.

- NoResponseCount

  Number of requests that received no response.

- UnknownGatewayRequestCount

  Number of received messages dropped from unknown gateways.

- UnknownSubscriberRequestCount

  Number of received messages dropped from unknown subscribers.

- UnknownTierRequestCount

  Number of received messages dropped from unknown tiers.

- ResendCount

  Number of CoA requests that were re-transmitted.

- SendErrorCount

  Number of CoA requests that were not sent because of errors.

- SharedSecretAuthFailureCount

  Number of messages that dropped by SharedSecretAuthFailure.

- DuplicatedMessageCount

  Number of messages that are duplicated.

- InterimUpdateMessagesInCount

  Number of interim update message, whose acct-status-type is 3.

- ActiveSessionsCount

  Number of sessions whose state is active, not including the sessions whose state is potential stale.

- TimeLastMessageReceived

  The time of receiving last message.

- CoARequestCount

  Number of CoA request messages.

- CoARetryCount

  Number of CoA retry request messages that caused by timeout of CoA-ACK.

- CoATimeoutCount

  Number of COA request messages that receiving COA-ACK timeout.

- CoAAckCount

  Number of COA-ACK messages.

RADIUS-CoA Network Element Statistics

The following examples show the request and response that are defined in the XSD files for the RadiusNetworkElementStats tag.

Request

This request follows the RadiusNetworkElementStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<RadiusNetworkElementStats>
<!-- Name is optional. -->
<Name>mra-82.example.com</Name>
<Name>mra-35.example.com</Name>
<!-- NeId is optional. -->
<NeId />
</RadiusNetworkElementStats>
</QueryOmStats>
```

Response

The response to this request follows the RadiusNetworkElementStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<RadiusNetworkElementStats>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<Name>BNG-Sanity</Name>
<NeId/>
<NetworkElementType>Radius-BNG</NetworkElementType>
<NetworkElementSubType>None</NetworkElementSubType>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount/>
<UnknowMsgRecv>0</UnknowMsgRecv>
```

```
<MessageDecoded>0</MessageDecoded>
<MessageDropped>0</MessageDropped>
<InterimUpdateRecv>0</InterimUpdateRecv>
<InterimUpdateRecvUnknowSession>0</InterimUpdateRecvUnknowSession>
<ActiveSessionCount>1</ActiveSessionCount>
<MaxActiveSessionCount>1</MaxActiveSessionCount>
<Md5MismatchRecv>0</Md5MismatchRecv>
<LastMsgRecv>1463442300362</LastMsgRecv>
<CoASent>0</CoASent>
<CoARecv>0</CoARecv>
<CoAAckSent>0</CoAAckSent>
<CoAAckRecv>0</CoAAckRecv>
<CoANakSent>0</CoANakSent>
<CoANakRecv>0</CoANakRecv>
<AcctStartSent>0</AcctStartSent>
<AcctStartRecv>0</AcctStartRecv>
<AcctStopSent>0</AcctStopSent>
<AcctStopRecv>0</AcctStopRecv>
<AcctStopRecvUnknownSession>0</AcctStopRecvUnknownSession>
<AcctOnSent>0</AcctOnSent>
<AcctOnRecv>0</AcctOnRecv>
<AcctOffSent>0</AcctOffSent>
<AcctOffRecv>0</AcctOffRecv>
<AcctRspSent>0</AcctRspSent>
<AcctRspRecv>0</AcctRspRecv>
<ConnectCount>0</ConnectCount>
<InErrorCount>0</InErrorCount>
<OutErrorCount>0</OutErrorCount>
<ParseUnder100>0</ParseUnder100>
<ParseUnder200>0</ParseUnder200>
<ParseUnder500>0</ParseUnder500>
<ParseUnder1000>0</ParseUnder1000>
<ParseOver1000>0</ParseOver1000>
<TotalParseTime>0</TotalParseTime>
<AvgParseTime>0</AvgParseTime>
<MaxParseTime>0</MaxParseTime>
<UnknowBng>0</UnknowBng>
<UnknowBngAcctStart>0</UnknowBngAcctStart>
<UnknowBngAcctStop>0</UnknowBngAcctStop>
<UnknowBngInterimUpdate>0</UnknowBngInterimUpdate>
<StaleSessionsRemoved>0</StaleSessionsRemoved>
<StaleSessionsRemovedMissedInterimUpdate>0</StaleSessionsRemovedMissedInterimUpdate>
<StaleSessionsRemovedAcctOnOff>0</StaleSessionsRemovedAcctOnOff>
<StaleSessionsRemovedByPolicyOrOperator>0</StaleSessionsRemovedByPolicyOrOperator>
<InvalidSubKey>0</InvalidSubKey>
<InvalidAcctSessionId>0</InvalidAcctSessionId>
<CoASentFailed>0</CoASentFailed>
<CoASentTimeOut>0</CoASentTimeOut>
<CoADisconnectRecv>0</CoADisconnectRecv>
<CoADisconnectSent>0</CoADisconnectSent>
<CoADisconnectSentFailed>0</CoADisconnectSentFailed>
<CoADisconnectSentTimeOut>0</CoADisconnectSentTimeOut>
<CoAAckTimeOut>0</CoAAckTimeOut>
<CoADisconnectAckRecv>0</CoADisconnectAckRecv>
<CoADisconnectAckSent>0</CoADisconnectAckSent>
<CoADisconnectAckTimeOut>0</CoADisconnectAckTimeOut>
<CoANakTimeOut>0</CoANakTimeOut>
<CoADisconnectNakRecv>0</CoADisconnectNakRecv>
<CoADisconnectNakSent>0</CoADisconnectNakSent>
<CoADisconnectNakTimeOut>0</CoADisconnectNakTimeOut>
</Sample>
<Sample>
<StartTime>2016-05-17T00:00:00Z</StartTime>
<EndTime>2016-05-17T00:15:00Z</EndTime>
```

```
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<Name>BNG-Sanity</Name>
<NeId/>
<NetworkElementType>Radius-BNG</NetworkElementType>
<NetworkElementSubType>None</NetworkElementSubType>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount/>
<UnknowMsgRecv>0</UnknowMsgRecv>
<MessageDecoded>0</MessageDecoded>
<MessageDropped>0</MessageDropped>
<InterimUpdateRecv>0</InterimUpdateRecv>
<InterimUpdateRecvUnknowSession>0</InterimUpdateRecvUnknowSession>
<ActiveSessionCount>1</ActiveSessionCount>
<MaxActiveSessionCount>1</MaxActiveSessionCount>
<Md5MismatchRecv>0</Md5MismatchRecv>
<LastMsgRecv>1463443200368</LastMsgRecv>
<CoASent>0</CoASent>
<CoARecv>0</CoARecv>
<CoAAckSent>0</CoAAckSent>
<CoAAckRecv>0</CoAAckRecv>
<CoANakSent>0</CoANakSent>
<CoANakRecv>0</CoANakRecv>
<AcctStartSent>0</AcctStartSent>
<AcctStartRecv>0</AcctStartRecv>
<AcctStopSent>0</AcctStopSent>
<AcctStopRecv>0</AcctStopRecv>
<AcctStopRecvUnknownSession>0</AcctStopRecvUnknownSession>
<AcctOnSent>0</AcctOnSent>
<AcctOnRecv>0</AcctOnRecv>
<AcctOffSent>0</AcctOffSent>
<AcctOffRecv>0</AcctOffRecv>
<AcctRspSent>0</AcctRspSent>
<AcctRspRecv>0</AcctRspRecv>
<ConnectCount>0</ConnectCount>
<InErrorCount>0</InErrorCount>
<OutErrorCount>0</OutErrorCount>
<ParseUnder100>0</ParseUnder100>
<ParseUnder200>0</ParseUnder200>
<ParseUnder500>0</ParseUnder500>
<ParseUnder1000>0</ParseUnder1000>
<ParseOver1000>0</ParseOver1000>
<TotalParseTime>0</TotalParseTime>
<AvgParseTime>0</AvgParseTime>
<MaxParseTime>0</MaxParseTime>
<UnknowBng>0</UnknowBng>
<UnknowBngAcctStart>0</UnknowBngAcctStart>
<UnknowBngAcctStop>0</UnknowBngAcctStop>
<UnknowBngInterimUpdate>0</UnknowBngInterimUpdate>
<StaleSessionsRemoved>0</StaleSessionsRemoved>
<StaleSessionsRemovedMissedInterimUpdate>0</StaleSessionsRemovedMissedInterimUpdate>
<StaleSessionsRemovedAcctOnOff>0</StaleSessionsRemovedAcctOnOff>
<StaleSessionsRemovedByPolicyOrOperator>0</StaleSessionsRemovedByPolicyOrOperator>
<InvalidSubKey>0</InvalidSubKey>
<InvalidAcctSessionId>0</InvalidAcctSessionId>
<CoASentFailed>0</CoASentFailed>
<CoASentTimeOut>0</CoASentTimeOut>
<CoADisconnectRecv>0</CoADisconnectRecv>
<CoADisconnectSent>0</CoADisconnectSent>
<CoADisconnectSentFailed>0</CoADisconnectSentFailed>
<CoADisconnectSentTimeOut>0</CoADisconnectSentTimeOut>
<CoAAckTimeOut>0</CoAAckTimeOut>
<CoADisconnectAckRecv>0</CoADisconnectAckRecv>
<CoADisconnectAckSent>0</CoADisconnectAckSent>
```

```
<CoADisconnectAckTimeOut>0</CoADisconnectAckTimeOut>
<CoANakTimeOut>0</CoANakTimeOut>
<CoADisconnectNakRecv>0</CoADisconnectNakRecv>
<CoADisconnectNakSent>0</CoADisconnectNakSent>
<CoADisconnectNakTimeOut>0</CoADisconnectNakTimeOut>
</Sample>
<Sample>
<StartTime>2016-05-17T00:15:00Z</StartTime>
<EndTime>2016-05-17T00:30:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<Name>BNG-Sanity</Name>
<NeId/>
<NetworkElementType>Radius-BNG</NetworkElementType>
<NetworkElementSubType>None</NetworkElementSubType>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount/>
<UnknowMsgRecv>0</UnknowMsgRecv>
<MessageDecoded>0</MessageDecoded>
<MessageDropped>0</MessageDropped>
<InterimUpdateRecv>0</InterimUpdateRecv>
<InterimUpdateRecvUnknowSession>0</InterimUpdateRecvUnknowSession>
<ActiveSessionCount>1</ActiveSessionCount>
<MaxActiveSessionCount>1</MaxActiveSessionCount>
<Md5MismatchRecv>0</Md5MismatchRecv>
<LastMsgRecv>1463444100374</LastMsgRecv>
<CoASent>0</CoASent>
<CoARecv>0</CoARecv>
<CoAAckSent>0</CoAAckSent>
<CoAAckRecv>0</CoAAckRecv>
<CoANakSent>0</CoANakSent>
<CoANakRecv>0</CoANakRecv>
<AcctStartSent>0</AcctStartSent>
<AcctStartRecv>0</AcctStartRecv>
<AcctStopSent>0</AcctStopSent>
<AcctStopRecv>0</AcctStopRecv>
<AcctStopRecvUnknownSession>0</AcctStopRecvUnknownSession>
<AcctOnSent>0</AcctOnSent>
<AcctOnRecv>0</AcctOnRecv>
<AcctOffSent>0</AcctOffSent>
<AcctOffRecv>0</AcctOffRecv>
<AcctRspSent>0</AcctRspSent>
<AcctRspRecv>0</AcctRspRecv>
<ConnectCount>0</ConnectCount>
<InErrorCount>0</InErrorCount>
<OutErrorCount>0</OutErrorCount>
<ParseUnder100>0</ParseUnder100>
<ParseUnder200>0</ParseUnder200>
<ParseUnder500>0</ParseUnder500>
<ParseUnder1000>0</ParseUnder1000>
<ParseOver1000>0</ParseOver1000>
<TotalParseTime>0</TotalParseTime>
<AvgParseTime>0</AvgParseTime>
<MaxParseTime>0</MaxParseTime>
<UnknowBng>0</UnknowBng>
<UnknowBngAcctStart>0</UnknowBngAcctStart>
<UnknowBngAcctStop>0</UnknowBngAcctStop>
<UnknowBngInterimUpdate>0</UnknowBngInterimUpdate>
<StaleSessionsRemoved>0</StaleSessionsRemoved>
<StaleSessionsRemovedMissedInterimUpdate>0</StaleSessionsRemovedMissedInterimUpdate>
<StaleSessionsRemovedAcctOnOff>0</StaleSessionsRemovedAcctOnOff>
<StaleSessionsRemovedByPolicyOrOperator>0</StaleSessionsRemovedByPolicyOrOperator>
<InvalidSubKey>0</InvalidSubKey>
<InvalidAcctSessionId>0</InvalidAcctSessionId>
```

```
<CoASentFailed>0</CoASentFailed>
<CoASentTimeOut>0</CoASentTimeOut>
<CoADisconnectRecv>0</CoADisconnectRecv>
<CoADisconnectSent>0</CoADisconnectSent>
<CoADisconnectSentFailed>0</CoADisconnectSentFailed>
<CoADisconnectSentTimeOut>0</CoADisconnectSentTimeOut>
<CoAAckTimeOut>0</CoAAckTimeOut>
<CoADisconnectAckRecv>0</CoADisconnectAckRecv>
<CoADisconnectAckSent>0</CoADisconnectAckSent>
<CoADisconnectAckTimeOut>0</CoADisconnectAckTimeOut>
<CoANakTimeOut>0</CoANakTimeOut>
<CoADisconnectNakRecv>0</CoADisconnectNakRecv>
<CoADisconnectNakSent>0</CoADisconnectNakSent>
<CoADisconnectNakTimeOut>0</CoADisconnectNakTimeOut>
</Sample>
</RadiusNetworkElementStats>
</Statistics>
```

Individual Statistics

Individual statistics defined for this tag are:

- Name

  Unique name identifying the Network Element for the following statistics.

- NeId

  Optional identifier field for the Network Element.

- NetworkElementType

  Type of the Network Element.

- NetworkElementSubType

  Sub Type of the Network Element.

- AccountingStartCount

  Number of Accounting Start messages received.

- AccountingStopCount

  Number of Accounting Stop messages received.

- AccountingUpdateCount

  Number of Accounting Interim Update messages received.

- AccountingResponseCount

  Number of Accounting responses sent.

- AccessRequestCount

  Number of Access-Request messages received.

- AccessAcceptCount

  Number of Access-Accept messages received.

- AccessRejectCount

Number of Access-Reject messages received.

- ReceivedMd5ErrorCount

  Number of received messages dropped because of MD5 errors.

- SendMd5ErrorCount

  Number of CoA requests that failed errors because of MD5 errors.

- ReceivedErrorCount

  Number of messages dropped because of errors.

- CoACount

  Number of CoA messages sent.

- CoASuccessCount

  Number of CoA-ACK messages received.

- CoAProvisionCount

  Number of CoA messages to provision a default QoS profile.

- CoaApplicationCount

  Number of CoA messages to adjust QoS for an application request.

- CoANckCount

  Number of CoA-NAK messages received.

- NoResponseCount

  Number of CoA requests that received no response.

- SendErrorCount

  Number of CoA requests that were not sent because of errors.

- ResendCount

  Number of CoA requests that were retransmitted.

RADIUS Accounting Statistics

The following examples show the request and response that are defined in the XSD files for the RadiusAccountingStats tag.

Request

This request follows the RadiusAccountingStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<RadiusAccountingStats>
```

```
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
</RadiusAccountingStats>
</QueryOmStats>
```

Response

The response to this request follows the RadiusAccountingStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<RadiusAccountingStats>
<Sample>
<StartTime>2016-05-16T23:45:01Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<IsComplete>true</IsComplete>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<MessagesDecodedCount>0</MessagesDecodedCount>
<AccountingStartCount>0</AccountingStartCount>
<AccountingStopCount>0</AccountingStopCount>
<AccountingUpdateCount>0</AccountingUpdateCount>
<DuplicateMessageCount>0</DuplicateMessageCount>
<Md5MismatchReceivedCount>0</Md5MismatchReceivedCount>
<UnknownMessageCount>0</UnknownMessageCount>
<ActiveSessionsCount>0</ActiveSessionsCount>
<MaximumActiveSessionsCount>0</MaximumActiveSessionsCount>
<StaleSessionsCount>0</StaleSessionsCount>
</Sample>
<Sample>
<StartTime>2016-05-17T00:00:01Z</StartTime>
<EndTime>2016-05-17T00:15:01Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<IsComplete>true</IsComplete>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<MessagesDecodedCount>0</MessagesDecodedCount>
<AccountingStartCount>0</AccountingStartCount>
<AccountingStopCount>0</AccountingStopCount>
<AccountingUpdateCount>0</AccountingUpdateCount>
<DuplicateMessageCount>0</DuplicateMessageCount>
<Md5MismatchReceivedCount>0</Md5MismatchReceivedCount>
<UnknownMessageCount>0</UnknownMessageCount>
<ActiveSessionsCount>0</ActiveSessionsCount>
<MaximumActiveSessionsCount>0</MaximumActiveSessionsCount>
<StaleSessionsCount>0</StaleSessionsCount>
</Sample>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<MessagesDecodedCount>0</MessagesDecodedCount>
<AccountingStartCount>0</AccountingStartCount>
<AccountingStopCount>0</AccountingStopCount>
<AccountingUpdateCount>0</AccountingUpdateCount>
<DuplicateMessageCount>0</DuplicateMessageCount>
```

```
<Md5MismatchReceivedCount>0</Md5MismatchReceivedCount>
<UnknownMessageCount>0</UnknownMessageCount>
<ActiveSessionsCount>0</ActiveSessionsCount>
<MaximumActiveSessionsCount>0</MaximumActiveSessionsCount>
<StaleSessionsCount>0</StaleSessionsCount>
</Sample>
<Sample>
<StartTime>2016-05-17T00:00:00Z</StartTime>
<EndTime>2016-05-17T00:15:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<MessagesDecodedCount>0</MessagesDecodedCount>
<AccountingStartCount>0</AccountingStartCount>
<AccountingStopCount>0</AccountingStopCount>
<AccountingUpdateCount>0</AccountingUpdateCount>
<DuplicateMessageCount>0</DuplicateMessageCount>
<Md5MismatchReceivedCount>0</Md5MismatchReceivedCount>
<UnknownMessageCount>0</UnknownMessageCount>
<ActiveSessionsCount>0</ActiveSessionsCount>
<MaximumActiveSessionsCount>0</MaximumActiveSessionsCount>
<StaleSessionsCount>0</StaleSessionsCount>
</Sample>
<Sample>
<StartTime>2016-05-17T00:15:00Z</StartTime>
<EndTime>2016-05-17T00:30:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<MessagesDecodedCount>0</MessagesDecodedCount>
<AccountingStartCount>0</AccountingStartCount>
<AccountingStopCount>0</AccountingStopCount>
<AccountingUpdateCount>0</AccountingUpdateCount>
<DuplicateMessageCount>0</DuplicateMessageCount>
<Md5MismatchReceivedCount>0</Md5MismatchReceivedCount>
<UnknownMessageCount>0</UnknownMessageCount>
<ActiveSessionsCount>0</ActiveSessionsCount>
<MaximumActiveSessionsCount>0</MaximumActiveSessionsCount>
<StaleSessionsCount>0</StaleSessionsCount>
</Sample>
</RadiusAccountingStats>
</Statistics>
```

Individual Statistics

Individual statistics defined for this tag are:

- Name

  Unique name identifying the Network Element for the following statistics.

- NeId

  Optional identifier field for the Network Element.

- NetworkElementType

  Type of the Network Element.

- NetworkElementSubType

Sub Type of the Network Element.

- AccountingStartCount

  Number of Accounting Start messages received.

- AccountingStopCount

  Number of Accounting Stop messages received.

- AccountingUpdateCount

  Number of Accounting Interim Update messages received.

- AccountingResponseCount

  Number of Accounting responses sent.

- AccessRequestCount

  Number of Access-Request messages received.

- AccessAcceptCount

  Number of Access-Accept messages received.

- AccessRejectCount

  Number of Access-Reject messages received.

- ReceivedMd5ErrorCount

  Number of received messages dropped because of MD5 errors.

- SendMd5ErrorCount

  Number of CoA requests that failed errors because of MD5 errors.

- ReceivedErrorCount

  Number of messages dropped because of errors.

- CoACount

  Number of CoA messages sent.

- CoASuccessCount

  Number of CoA-ACK messages received.

- CoAProvisionCount

  Number of CoA messages to provision a default QoS profile.

- CoaApplicationCount

  Number of CoA messages to adjust QoS for an application request.

- CoANckCount

  Number of CoA-NAK messages received.

- NoResponseCount

  Number of CoA requests that received no response.

- SendErrorCount

  Number of CoA requests that were not sent because of errors.

- ResendCount

  Number of CoA requests that were retransmitted.

RADIUS Accounting Network Element Statistics

The following examples show the request and response that are defined in the XSD files for the RadiusAccountingNetworkElementStats tag.

Request

This request follows the RadiusAccountingNetworkElementStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<RadiusAccountingNetworkElementStats>
<!-- Name is optional. -->
<Name>mra-82.oracle.com</Name>
<Name>mra-35.oracle.com</Name>
<!-- NeId is optional. -->
<NeId />
</RadiusAccountingNetworkElementStats>
</QueryOmStats>
```

Response

The response to this request follows the RadiusAccountingNetworkElementStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<RadiusAccountingNetworkElementStats>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<Name>BNG-Sanity</Name>
<NeId/>
<NetworkElementType>Radius-BNG</NetworkElementType>
<NetworkElementSubType>None</NetworkElementSubType>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<MessagesDecodedCount>0</MessagesDecodedCount>
<AccountingStartCount>0</AccountingStartCount>
<AccountingStopCount>0</AccountingStopCount>
<AccountingUpdateCount>0</AccountingUpdateCount>
<DuplicateMessageCount>0</DuplicateMessageCount>
<Md5MismatchReceivedCount>0</Md5MismatchReceivedCount>
<UnknownMessageCount>0</UnknownMessageCount>
<ActiveSessionsCount>1</ActiveSessionsCount>
<MaximumActiveSessionsCount>1</MaximumActiveSessionsCount>
```

```
<StaleSessionsCount>0</StaleSessionsCount>
</Sample>
<Sample>
<StartTime>2016-05-17T00:00:00Z</StartTime>
<EndTime>2016-05-17T00:15:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<Name>BNG-Sanity</Name>
<NeId/>
<NetworkElementType>Radius-BNG</NetworkElementType>
<NetworkElementSubType>None</NetworkElementSubType>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<MessagesDecodedCount>0</MessagesDecodedCount>
<AccountingStartCount>0</AccountingStartCount>
<AccountingStopCount>0</AccountingStopCount>
<AccountingUpdateCount>0</AccountingUpdateCount>
<DuplicateMessageCount>0</DuplicateMessageCount>
<Md5MismatchReceivedCount>0</Md5MismatchReceivedCount>
<UnknownMessageCount>0</UnknownMessageCount>
<ActiveSessionsCount>1</ActiveSessionsCount>
<MaximumActiveSessionsCount>1</MaximumActiveSessionsCount>
<StaleSessionsCount>0</StaleSessionsCount>
</Sample>
<Sample>
<StartTime>2016-05-17T00:15:00Z</StartTime>
<EndTime>2016-05-17T00:30:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<Name>BNG-Sanity</Name>
<NeId/>
<NetworkElementType>Radius-BNG</NetworkElementType>
<NetworkElementSubType>None</NetworkElementSubType>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<MessagesDecodedCount>0</MessagesDecodedCount>
<AccountingStartCount>0</AccountingStartCount>
<AccountingStopCount>0</AccountingStopCount>
<AccountingUpdateCount>0</AccountingUpdateCount>
<DuplicateMessageCount>0</DuplicateMessageCount>
<Md5MismatchReceivedCount>0</Md5MismatchReceivedCount>
<UnknownMessageCount>0</UnknownMessageCount>
<ActiveSessionsCount>1</ActiveSessionsCount>
<MaximumActiveSessionsCount>1</MaximumActiveSessionsCount>
<StaleSessionsCount>0</StaleSessionsCount>
</Sample>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<Name>RADIUS:10.148.240.54</Name>
<NeId/>
<NetworkElementType/>
<NetworkElementSubType/>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<MessagesDecodedCount>0</MessagesDecodedCount>
<AccountingStartCount>0</AccountingStartCount>
<AccountingStopCount>0</AccountingStopCount>
<AccountingUpdateCount>0</AccountingUpdateCount>
<DuplicateMessageCount>0</DuplicateMessageCount>
<Md5MismatchReceivedCount>0</Md5MismatchReceivedCount>
<UnknownMessageCount>0</UnknownMessageCount>
```

```
<ActiveSessionsCount>0</ActiveSessionsCount>
<MaximumActiveSessionsCount>0</MaximumActiveSessionsCount>
<StaleSessionsCount>0</StaleSessionsCount>
</Sample>
<Sample>
<StartTime>2016-05-17T00:00:00Z</StartTime>
<EndTime>2016-05-17T00:15:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<Name>RADIUS:10.148.240.54</Name>
<NeId/>
<NetworkElementType/>
<NetworkElementSubType/>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<MessagesDecodedCount>0</MessagesDecodedCount>
<AccountingStartCount>0</AccountingStartCount>
<AccountingStopCount>0</AccountingStopCount>
<AccountingUpdateCount>0</AccountingUpdateCount>
<DuplicateMessageCount>0</DuplicateMessageCount>
<Md5MismatchReceivedCount>0</Md5MismatchReceivedCount>
<UnknownMessageCount>0</UnknownMessageCount>
<ActiveSessionsCount>0</ActiveSessionsCount>
<MaximumActiveSessionsCount>0</MaximumActiveSessionsCount>
<StaleSessionsCount>0</StaleSessionsCount>
</Sample>
<Sample>
<StartTime>2016-05-17T00:15:00Z</StartTime>
<EndTime>2016-05-17T00:30:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<Name>RADIUS:10.148.240.54</Name>
<NeId/>
<NetworkElementType/>
<NetworkElementSubType/>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<MessagesDecodedCount>0</MessagesDecodedCount>
<AccountingStartCount>0</AccountingStartCount>
<AccountingStopCount>0</AccountingStopCount>
<AccountingUpdateCount>0</AccountingUpdateCount>
<DuplicateMessageCount>0</DuplicateMessageCount>
<Md5MismatchReceivedCount>0</Md5MismatchReceivedCount>
<UnknownMessageCount>0</UnknownMessageCount>
<ActiveSessionsCount>0</ActiveSessionsCount>
<MaximumActiveSessionsCount>0</MaximumActiveSessionsCount>
<StaleSessionsCount>0</StaleSessionsCount>
</Sample>
</RadiusAccountingNetworkElementStats>
</Statistics>
```

Individual Statistics

Individual statistics defined for this tag are:

- Name

  Unique name identifying the Network Element for the following statistics.

- NeId

  Optional identifier field for the Network Element.

- NetworkElementType

  Type of the Network Element.
- NetworkElementSubType

  Sub Type of the Network Element.
- AccountingStartCount

  Number of Accounting Start messages received.
- AccountingStopCount

  Number of Accounting Stop messages received.
- AccountingUpdateCount

  Number of Accounting Interim Update messages received.
- AccountingResponseCount

  Number of Accounting responses sent.
- AccessRequestCount

  Number of Access-Request messages received.
- AccessAcceptCount

  Number of Access-Accept messages received.
- AccessRejectCount

  Number of Access-Reject messages received.
- ReceivedMd5ErrorCount

  Number of received messages dropped because of MD5 errors.
- SendMd5ErrorCount

  Number of CoA requests that failed errors because of MD5 errors.
- ReceivedErrorCount

  Number of messages dropped because of errors.
- CoACount

  Number of CoA messages sent.
- CoASuccessCount

  Number of CoA-ACK messages received.
- CoAProvisionCount

  Number of CoA messages to provision a default QoS profile.
- CoaApplicationCount

  Number of CoA messages to adjust QoS for an application request.
- CoANckCount

Number of CoA-NAK messages received.

- NoResponseCount

  Number of CoA requests that received no response.

- SendErrorCount

  Number of CoA requests that were not sent because of errors.

- ResendCount:

  Number of CoA requests that were retransmitted.

About Latency Statistics

This section shows the requests and responses for the following:

- *Diameter MRA S9 Latency Statistics*
- *Diameter S9 Peer Latency Statistics*
- *Diameter Sh Latency Statistics*
- *Diameter Sh Peer Latency Statistics*
- *Diameter Sy Latency Statistics*
- *Diameter Sy Peer Latency Statistics*
- *Diameter Application Function Latency Statistics*
- *Diameter Application Function Peer Latency Statistics*
- *Diameter PCEF Latency Statistics*
- *Diameter PCEF Peer Latency Statistics*
- *Diameter DRMA Latency Statistics*
- *Diameter DRMA Peer Latency Statistics*
- *Diameter Bberf Latency Statistics*
- *Diameter Bberf Peer Latency Statistics*
- *Diameter TDF Latency Statistics*
- *Diameter MRA AF Latency Statistics*
- *Diameter TDF Peer Latency Statistics*
- *Diameter MRA Bberf Latency Statistics*
- *Diameter MRA Bberf Peer Latency Statistics*
- *Diameter DRMA Latency Statistics*
- *Diameter DRMA Peer Latency Statistics*
- *Diameter MRA Policy Charging Enforcement Function Latency Statistics*
- *Diameter MRA Policy Charging Enforcement Function Peer Latency Statistics*
- *Diameter MRA S9 Latency Statistics*
- *Diameter MRA S9 Peer Latency Statistics*
- *Diameter MRA TDF Latency Statistics*
- *Diameter TDF Peer Latency Statistics*

Diameter Sh Latency Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterShLatencyStats tag.

Request

This request follows the DiameterShLatencyStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterShLatencyStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
</DiameterShLatencyStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterShLatencyStats tag defined in the Statistics section in the XSD files. The following is an example XML response to this tag request.

```
<Statistics>
<DiameterShLatencyStats>
<Sample>
<StartTime>2016-05-16T23:45:01Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<IsComplete>true</IsComplete>
<CurrentConnectionsCount>1</CurrentConnectionsCount>
<MaxTransactionInProcessingTime>0</MaxTransactionInProcessingTime>
<AverageTransactionInProcessingTime>0</AverageTransactionInProcessingTime>
<MaxTransactionOutProcessingTime>0</MaxTransactionOutProcessingTime>
<AverageTransactionOutProcessingTime>0</AverageTransactionOutProcessingTime>
<TransactionTime_In_0_20_Count>0</TransactionTime_In_0_20_Count>
<TransactionTime_In_20_40_Count>0</TransactionTime_In_20_40_Count>
<TransactionTime_In_40_60_Count>0</TransactionTime_In_40_60_Count>
<TransactionTime_In_60_80_Count>0</TransactionTime_In_60_80_Count>
<TransactionTime_In_80_100_Count>0</TransactionTime_In_80_100_Count>
<TransactionTime_In_100_120_Count>0</TransactionTime_In_100_120_Count>
<TransactionTime_In_120_140_Count>0</TransactionTime_In_120_140_Count>
<TransactionTime_In_140_160_Count>0</TransactionTime_In_140_160_Count>
<TransactionTime_In_160_180_Count>0</TransactionTime_In_160_180_Count>
<TransactionTime_In_180_200_Count>0</TransactionTime_In_180_200_Count>
<TransactionTime_In_gt_200_Count>0</TransactionTime_In_gt_200_Count>
<TransactionTime_Out_0_20_Count>0</TransactionTime_Out_0_20_Count>
<TransactionTime_Out_20_40_Count>0</TransactionTime_Out_20_40_Count>
<TransactionTime_Out_40_60_Count>0</TransactionTime_Out_40_60_Count>
<TransactionTime_Out_60_80_Count>0</TransactionTime_Out_60_80_Count>
<TransactionTime_Out_80_100_Count>0</TransactionTime_Out_80_100_Count>
<TransactionTime_Out_100_120_Count>0</TransactionTime_Out_100_120_Count>
<TransactionTime_Out_120_140_Count>0</TransactionTime_Out_120_140_Count>
<TransactionTime_Out_140_160_Count>0</TransactionTime_Out_140_160_Count>
<TransactionTime_Out_160_180_Count>0</TransactionTime_Out_160_180_Count>
```

```
<TransactionTime_Out_180_200_Count>0</TransactionTime_Out_180_200_Count>
<TransactionTime_Out_gt_200_Count>0</TransactionTime_Out_gt_200_Count>
</Sample>
</DiameterShLatencyStats>
</Statistics>
```

Diameter Sh Peer Latency Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterShPeerStats tag.

Request

This request follows the DiameterShPeerStats tag defined in the QueryOmStats section in the XSD files.

```
<?xml version="1.0" encoding="UTF-8"?>
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterShPeerLatencyStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
<!-- Name is optional. -->
<Name>mra-82.example.com</Name>
<Name>mra-35.example.com</Name>
<!-- NeId is optional. -->
<NeId />
</DiameterShPeerLatencyStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterShPeerStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterShPeerLatencyStats>
<Sample>
<StartTime>2016-05-16T23:45:01Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<IsComplete>true</IsComplete>
<Name>hss-profilev1.hss.com</Name>
<NeId/>
<NetworkElementType/>
<NetworkElementSubType/>
<ConnectAddress>10.148.240.54</ConnectAddress>
<ConnectPort>3868</ConnectPort>
<ConnectType>TCP</ConnectType>
<MaxTransactionInProcessingTime>0</MaxTransactionInProcessingTime>
<AverageTransactionInProcessingTime>0</AverageTransactionInProcessingTime>
<MaxTransactionOutProcessingTime>0</MaxTransactionOutProcessingTime>
<AverageTransactionOutProcessingTime>0</AverageTransactionOutProcessingTime>
```

```
<TransactionTime_In_0_20_Count>0</TransactionTime_In_0_20_Count>
<TransactionTime_In_20_40_Count>0</TransactionTime_In_20_40_Count>
<TransactionTime_In_40_60_Count>0</TransactionTime_In_40_60_Count>
<TransactionTime_In_60_80_Count>0</TransactionTime_In_60_80_Count>
<TransactionTime_In_80_100_Count>0</TransactionTime_In_80_100_Count>
<TransactionTime_In_100_120_Count>0</TransactionTime_In_100_120_Count>
<TransactionTime_In_120_140_Count>0</TransactionTime_In_120_140_Count>
<TransactionTime_In_140_160_Count>0</TransactionTime_In_140_160_Count>
<TransactionTime_In_160_180_Count>0</TransactionTime_In_160_180_Count>
<TransactionTime_In_180_200_Count>0</TransactionTime_In_180_200_Count>
<TransactionTime_In_gt_200_Count>0</TransactionTime_In_gt_200_Count>
<TransactionTime_Out_0_20_Count>0</TransactionTime_Out_0_20_Count>
<TransactionTime_Out_20_40_Count>0</TransactionTime_Out_20_40_Count>
<TransactionTime_Out_40_60_Count>0</TransactionTime_Out_40_60_Count>
<TransactionTime_Out_60_80_Count>0</TransactionTime_Out_60_80_Count>
<TransactionTime_Out_80_100_Count>0</TransactionTime_Out_80_100_Count>
<TransactionTime_Out_100_120_Count>0</TransactionTime_Out_100_120_Count>
<TransactionTime_Out_120_140_Count>0</TransactionTime_Out_120_140_Count>
<TransactionTime_Out_140_160_Count>0</TransactionTime_Out_140_160_Count>
<TransactionTime_Out_160_180_Count>0</TransactionTime_Out_160_180_Count>
<TransactionTime_Out_180_200_Count>0</TransactionTime_Out_180_200_Count>
<TransactionTime_Out_gt_200_Count>0</TransactionTime_Out_gt_200_Count>
</Sample>
</DiameterShPeerLatencyStats>
</Statistics>
```

Diameter S9 Latency Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterS9LatencyStats tag.

Request

This request follows the DiameterS9LatencyStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterS9LatencyStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
</DiameterS9LatencyStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterS9LatencyStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterS9LatencyStats>
<Sample>
<StartTime>2016-05-16T23:45:01Z</StartTime>
```

```
<EndTime>2016-05-17T00:00:01Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<IsComplete>true</IsComplete>
<CurrentConnectionsCount>1</CurrentConnectionsCount>
<MaxTransactionInProcessingTime>0</MaxTransactionInProcessingTime>
<AverageTransactionInProcessingTime>0</AverageTransactionInProcessingTime>
<MaxTransactionOutProcessingTime>0</MaxTransactionOutProcessingTime>
<AverageTransactionOutProcessingTime>0</AverageTransactionOutProcessingTime>
<TransactionTime_In_0_20_Count>0</TransactionTime_In_0_20_Count>
<TransactionTime_In_20_40_Count>0</TransactionTime_In_20_40_Count>
<TransactionTime_In_40_60_Count>0</TransactionTime_In_40_60_Count>
<TransactionTime_In_60_80_Count>0</TransactionTime_In_60_80_Count>
<TransactionTime_In_80_100_Count>0</TransactionTime_In_80_100_Count>
<TransactionTime_In_100_120_Count>0</TransactionTime_In_100_120_Count>
<TransactionTime_In_120_140_Count>0</TransactionTime_In_120_140_Count>
<TransactionTime_In_140_160_Count>0</TransactionTime_In_140_160_Count>
<TransactionTime_In_160_180_Count>0</TransactionTime_In_160_180_Count>
<TransactionTime_In_180_200_Count>0</TransactionTime_In_180_200_Count>
<TransactionTime_In_gt_200_Count>0</TransactionTime_In_gt_200_Count>
<TransactionTime_Out_0_20_Count>0</TransactionTime_Out_0_20_Count>
<TransactionTime_Out_20_40_Count>0</TransactionTime_Out_20_40_Count>
<TransactionTime_Out_40_60_Count>0</TransactionTime_Out_40_60_Count>
<TransactionTime_Out_60_80_Count>0</TransactionTime_Out_60_80_Count>
<TransactionTime_Out_80_100_Count>0</TransactionTime_Out_80_100_Count>
<TransactionTime_Out_100_120_Count>0</TransactionTime_Out_100_120_Count>
<TransactionTime_Out_120_140_Count>0</TransactionTime_Out_120_140_Count>
<TransactionTime_Out_140_160_Count>0</TransactionTime_Out_140_160_Count>
<TransactionTime_Out_160_180_Count>0</TransactionTime_Out_160_180_Count>
<TransactionTime_Out_180_200_Count>0</TransactionTime_Out_180_200_Count>
<TransactionTime_Out_gt_200_Count>0</TransactionTime_Out_gt_200_Count>
</Sample>
</DiameterS9LatencyStats>
</Statistics>
```

Diameter S9 Peer Latency Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterS9PeerLatencyStats tag.

Request

This request follows the DiameterS9PeerLatencyStats tag defined in the QueryOmStats section in the XSD files.

The following is an example of a request for all policy servers within the system:

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterS9PeerLatencyStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
<!-- Name is optional. -->
<Name>mra-82.example.com</Name>
<Name>mra-35.example.com</Name>
<!-- NeId is optional. -->
<NeId />
```

```
</DiameterS9PeerLatencyStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterS9PeerLatencyStats tag defined in the Statistics section in the XSD files. The following is an example XML response to this tag request.

```
<Statistics>
<DiameterS9PeerLatencyStats>
<Sample>
<StartTime>2016-05-16T23:45:01Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<IsComplete>true</IsComplete>
<Name>mra-35.example.com</Name>
<NeId/>
<NetworkElementType/>
<NetworkElementSubType/>
<ConnectAddress>10.196.143.176</ConnectAddress>
<ConnectPort>34283</ConnectPort>
<ConnectType>TCP</ConnectType>
<MaxTransactionInProcessingTime>0</MaxTransactionInProcessingTime>
<AverageTransactionInProcessingTime>0</AverageTransactionInProcessingTime>
<MaxTransactionOutProcessingTime>0</MaxTransactionOutProcessingTime>
<AverageTransactionOutProcessingTime>0</AverageTransactionOutProcessingTime>
<TransactionTime_In_0_20_Count>0</TransactionTime_In_0_20_Count>
<TransactionTime_In_20_40_Count>0</TransactionTime_In_20_40_Count>
<TransactionTime_In_40_60_Count>0</TransactionTime_In_40_60_Count>
<TransactionTime_In_60_80_Count>0</TransactionTime_In_60_80_Count>
<TransactionTime_In_80_100_Count>0</TransactionTime_In_80_100_Count>
<TransactionTime_In_100_120_Count>0</TransactionTime_In_100_120_Count>
<TransactionTime_In_120_140_Count>0</TransactionTime_In_120_140_Count>
<TransactionTime_In_140_160_Count>0</TransactionTime_In_140_160_Count>
<TransactionTime_In_160_180_Count>0</TransactionTime_In_160_180_Count>
<TransactionTime_In_180_200_Count>0</TransactionTime_In_180_200_Count>
<TransactionTime_In_gt_200_Count>0</TransactionTime_In_gt_200_Count>
<TransactionTime_Out_0_20_Count>0</TransactionTime_Out_0_20_Count>
<TransactionTime_Out_20_40_Count>0</TransactionTime_Out_20_40_Count>
<TransactionTime_Out_40_60_Count>0</TransactionTime_Out_40_60_Count>
<TransactionTime_Out_60_80_Count>0</TransactionTime_Out_60_80_Count>
<TransactionTime_Out_80_100_Count>0</TransactionTime_Out_80_100_Count>
<TransactionTime_Out_100_120_Count>0</TransactionTime_Out_100_120_Count>
<TransactionTime_Out_120_140_Count>0</TransactionTime_Out_120_140_Count>
<TransactionTime_Out_140_160_Count>0</TransactionTime_Out_140_160_Count>
<TransactionTime_Out_160_180_Count>0</TransactionTime_Out_160_180_Count>
<TransactionTime_Out_180_200_Count>0</TransactionTime_Out_180_200_Count>
<TransactionTime_Out_gt_200_Count>0</TransactionTime_Out_gt_200_Count>
</Sample>
</DiameterS9PeerLatencyStats>
</Statistics>
```

Diameter Sy Latency Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterSyLatencyStats tag.

Request

This request follows the DiameterSyLatencyStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-2T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterSyLatencyStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
</DiameterSyLatencyStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterSyLatencyStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterSyLatencyStats>
<Sample>
<StartTime>2016-05-16T23:45:01Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<IsComplete>true</IsComplete>
<CurrentConnectionsCount>0</CurrentConnectionsCount>
<MaxTransactionInProcessingTime>0</MaxTransactionInProcessingTime>
<AverageTransactionInProcessingTime>0</AverageTransactionInProcessingTime>
<MaxTransactionOutProcessingTime>0</MaxTransactionOutProcessingTime>
<AverageTransactionOutProcessingTime>0</AverageTransactionOutProcessingTime>
<TransactionTime_In_0_20_Count>0</TransactionTime_In_0_20_Count>
<TransactionTime_In_20_40_Count>0</TransactionTime_In_20_40_Count>
<TransactionTime_In_40_60_Count>0</TransactionTime_In_40_60_Count>
<TransactionTime_In_60_80_Count>0</TransactionTime_In_60_80_Count>
<TransactionTime_In_80_100_Count>0</TransactionTime_In_80_100_Count>
<TransactionTime_In_100_120_Count>0</TransactionTime_In_100_120_Count>
<TransactionTime_In_120_140_Count>0</TransactionTime_In_120_140_Count>
<TransactionTime_In_140_160_Count>0</TransactionTime_In_140_160_Count>
<TransactionTime_In_160_180_Count>0</TransactionTime_In_160_180_Count>
<TransactionTime_In_180_200_Count>0</TransactionTime_In_180_200_Count>
<TransactionTime_In_gt_200_Count>0</TransactionTime_In_gt_200_Count>
<TransactionTime_Out_0_20_Count>0</TransactionTime_Out_0_20_Count>
<TransactionTime_Out_20_40_Count>0</TransactionTime_Out_20_40_Count>
<TransactionTime_Out_40_60_Count>0</TransactionTime_Out_40_60_Count>
<TransactionTime_Out_60_80_Count>0</TransactionTime_Out_60_80_Count>
<TransactionTime_Out_80_100_Count>0</TransactionTime_Out_80_100_Count>
<TransactionTime_Out_100_120_Count>0</TransactionTime_Out_100_120_Count>
<TransactionTime_Out_120_140_Count>0</TransactionTime_Out_120_140_Count>
<TransactionTime_Out_140_160_Count>0</TransactionTime_Out_140_160_Count>
<TransactionTime_Out_160_180_Count>0</TransactionTime_Out_160_180_Count>
<TransactionTime_Out_180_200_Count>0</TransactionTime_Out_180_200_Count>
<TransactionTime_Out_gt_200_Count>0</TransactionTime_Out_gt_200_Count>
</Sample>
</DiameterSyLatencyStats>
</Statistics>
```

Individual Statistics

Individual statistics defined for this tag are:

- PolicyServer

  The name of the MPE.

- IsComplete

  Shows if the statistics are complete.

- CurrentConnectionCount

  Number of servers currently connected.

- MessagesInCount

  The number of total messages received.

- MessagesOutcount

  The number of total messages sent.

- SLRMessagesReceivedCount

  The number of Spending-Limit-Request (SLR) messages received.

- SLRMessagesSentCount

  The number of Spending-Limit-Request (SLR) messages sent.

- SLRMessagesTimeoutCount

  The number of Spending-Limit-Request (SLR) messages sent where a message was not received in a predefined amount of time.

- SLASuccessMessagesReceivedCount

  The number of Spending-Limit-Answer (SLA) messages received with success status.

- SLASuccessMessagesSentCount

  The number of Spending-Limit-Answer (SLA) messages sent with success status.

- SLAFailureMessagesReceivedCount

  The number of Spending-Limit-Answer (SLA) messages received with failure status.

- SLAFailureMessagesSentCount

  The number of Spending-Limit-Answer (SLA) messages sent with failure status.

- SNRMessagesReceivedCount

  The number of Spending-Status-Notification-Request (SNR) messages received.

- SNRMessagesReceivedCount

  The number of Spending-Status-Notification-Request (SNR) messages sent.

- SNRMessagesTimeoutCount

  The number of Spending-Status-Notification-Request (SNR) messages sent where a message was not received in a predefined amount of time.

- SNASuccessMessagesReceivedCount

  The number of Spending-Status-Notification-Answer (SNA) messages received.

- SNASuccessMessagesSentCount

  The number of Spending-Status-Notification-Answer (SNA) messages sent with success status.

- SNAFailureMessagesReceivedCount

  The number of Spending-Status-Notification-Answer (SNA) messages received with failure status.

- SNAFailureMessagesSentCount

  The number of Spending-Status-Notification-Answer (SNA) messages sent with failure status.

- STRMessagesReceivedCount

  The number of Session-Termination-Request (STR) messages received.

- STRMessagesSentCount

  The number of Session-Termination-Request (STR) messages sent.

- STRMessagesTimeoutCount

  The number of Session-Termination-Request (STR) messages sent where a message was not received in a predefined amount of time.

- STASuccessMessagesReceivedCount

  The number of Session-Termination-Answer (STA) messages received with success status.

- STASuccessMessagesSentCount

  The number of Session-Termination-Answer (STA) messages sent with success status.

- STAFailureMessagesReceivedCount

  The number of Session-Termination-Answer (STA) messages received with failure status.

- STAFailureMessagesSentCount

  The number of Session-Termination-Answer (STA) messages sent with failure status.

- ActiveSessionsCount

  The number of AF active sessions.

- MaximumActiveSessionsCount

  The number of historical maximum active sessions.

- PeerOkayCount

  The count of peers whose state is okay.

- PeerDownCount

  The count of peers whose state is down.

- PeerSuspectCount

  The count of peers whose state is suspect.

- PeerReopenCount

  The count of peers whose state is reopened.

Diameter Sy Peer Latency Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterSyPeerLatencyStats tag.

Request

This request follows the DiameterSyPeerLatencyStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterSyPeerLatencyStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
<!-- Name is optional. -->
<Name>mra-82.example.com</Name>
<Name>mra-35.example.com</Name>
<!-- NeId is optional. -->
<NeId />
</DiameterSyPeerLatencyStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterSyPeerLatencyStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterSyPeerLatencyStats>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<Name>sy1-sanity-primary.example.com</Name>
<NeId/>
<NetworkElementType/>
<NetworkElementSubType/>
<ConnectAddress>10.148.240.54</ConnectAddress>
<ConnectPort>13890</ConnectPort>
<ConnectType>TCP</ConnectType>
<MaxTransactionInProcessingTime>0</MaxTransactionInProcessingTime>
<AverageTransactionInProcessingTime>0</AverageTransactionInProcessingTime>
<MaxTransactionOutProcessingTime>0</MaxTransactionOutProcessingTime>
<AverageTransactionOutProcessingTime>0</AverageTransactionOutProcessingTime>
<TransactionTime_In_0_20_Count>0</TransactionTime_In_0_20_Count>
<TransactionTime_In_20_40_Count>0</TransactionTime_In_20_40_Count>
<TransactionTime_In_40_60_Count>0</TransactionTime_In_40_60_Count>
<TransactionTime_In_60_80_Count>0</TransactionTime_In_60_80_Count>
```

```
<TransactionTime_In_80_100_Count>0</TransactionTime_In_80_100_Count>
<TransactionTime_In_100_120_Count>0</TransactionTime_In_100_120_Count>
<TransactionTime_In_120_140_Count>0</TransactionTime_In_120_140_Count>
<TransactionTime_In_140_160_Count>0</TransactionTime_In_140_160_Count>
<TransactionTime_In_160_180_Count>0</TransactionTime_In_160_180_Count>
<TransactionTime_In_180_200_Count>0</TransactionTime_In_180_200_Count>
<TransactionTime_In_gt_200_Count>0</TransactionTime_In_gt_200_Count>
<TransactionTime_Out_0_20_Count>0</TransactionTime_Out_0_20_Count>
<TransactionTime_Out_20_40_Count>0</TransactionTime_Out_20_40_Count>
<TransactionTime_Out_40_60_Count>0</TransactionTime_Out_40_60_Count>
<TransactionTime_Out_60_80_Count>0</TransactionTime_Out_60_80_Count>
<TransactionTime_Out_80_100_Count>0</TransactionTime_Out_80_100_Count>
<TransactionTime_Out_100_120_Count>0</TransactionTime_Out_100_120_Count>
<TransactionTime_Out_120_140_Count>0</TransactionTime_Out_120_140_Count>
<TransactionTime_Out_140_160_Count>0</TransactionTime_Out_140_160_Count>
<TransactionTime_Out_160_180_Count>0</TransactionTime_Out_160_180_Count>
<TransactionTime_Out_180_200_Count>0</TransactionTime_Out_180_200_Count>
<TransactionTime_Out_gt_200_Count>0</TransactionTime_Out_gt_200_Count>
</Sample>
</DiameterSyPeerLatencyStats>
</Statistics>
```

Individual Statistics

Individual statistics defined for this tag are:

- PolicyServer

  The name of the MPE.

- IsComplete

  Shows if the statistics are complete.

- CurrentConnectionCount

  Number of servers currently connected.

- MessagesInCount

  The number of total messages received.

- MessagesOutcount

  The number of total messages sent.

- SLRMessagesReceivedCount

  The number of Spending-Limit-Request (SLR) messages received.

- SLRMessagesSentCount

  The number of Spending-Limit-Request (SLR) messages sent.

- SLRMessagesTimeoutCount

  The number of Spending-Limit-Request (SLR) messages sent where a message was not received in a predefined amount of time.

- SLASuccessMessagesReceivedCount

  The number of Spending-Limit-Answer (SLA) messages received with success status.

- SLASuccessMessagesSentCount

  The number of Spending-Limit-Answer (SLA) messages sent with success status.

- SLAFailureMessagesReceivedCount

  The number of Spending-Limit-Answer (SLA) messages received with failure status.

- SLAFailureMessagesSentCount

  The number of Spending-Limit-Answer (SLA) messages sent with failure status.

- SNRMessagesReceivedCount

  The number of Spending-Status-Notification-Request (SNR) messages received.

- SNRMessagesReceivedCount

  The number of Spending-Status-Notification-Request (SNR) messages sent.

- SNRMessagesTimeoutCount

  The number of Spending-Status-Notification-Request (SNR) messages sent where a message was not received in a predefined amount of time.

- SNASuccessMessagesReceivedCount

  The number of Spending-Status-Notification-Answer (SNA) messages received.

- SNASuccessMessagesSentCount

  The number of Spending-Status-Notification-Answer (SNA) messages sent with success status.

- SNAFailureMessagesReceivedCount

  The number of Spending-Status-Notification-Answer (SNA) messages received with failure status.

- SNAFailureMessagesSentCount

  The number of Spending-Status-Notification-Answer (SNA) messages sent with failure status.

- STRMessagesReceivedCount

  The number of Session-Termination-Request (STR) messages received.

- STRMessagesSentCount

  The number of Session-Termination-Request (STR) messages sent.

- STRMessagesTimeoutCount

  The number of Session-Termination-Request (STR) messages sent where a message was not received in a predefined amount of time.

- STASuccessMessagesReceivedCount

  The number of Session-Termination-Answer (STA) messages received with success status.

- STASuccessMessagesSentCount

  The number of Session-Termination-Answer (STA) messages sent with success status.

- STAFailureMessagesReceivedCount

  The number of Session-Termination-Answer (STA) messages received with failure status.

- STAFailureMessagesSentCount

  The number of Session-Termination-Answer (STA) messages sent with failure status.

- ActiveSessionsCount

  The number of AF active sessions.

- MaximumActiveSessionsCount

  The number of historical maximum active sessions.

- PeerOkayCount

  The count of peers whose state is okay.

- PeerDownCount

  The count of peers whose state is down.

- PeerSuspectCount

  The count of peers whose state is suspect.

- PeerReopenCount

  The count of peers whose state is reopened.

Diameter Application Function Latency Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterAfLatencyStats tag.

Request

This request follows the DiameterAfLatencyStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterAfLatencyStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
</DiameterAfLatencyStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterAfLatencyStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterAfLatencyStats>
<Sample>
```

```
<StartTime>2016-05-16T23:45:01Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<IsComplete>true</IsComplete>
<CurrentConnectionsCount>1</CurrentConnectionsCount>
<MaxTransactionInProcessingTime>0</MaxTransactionInProcessingTime>
<AverageTransactionInProcessingTime>0</AverageTransactionInProcessingTime>
<MaxTransactionOutProcessingTime>0</MaxTransactionOutProcessingTime>
<AverageTransactionOutProcessingTime>0</AverageTransactionOutProcessingTime>
<TransactionTime_In_0_20_Count>0</TransactionTime_In_0_20_Count>
<TransactionTime_In_20_40_Count>0</TransactionTime_In_20_40_Count>
<TransactionTime_In_40_60_Count>0</TransactionTime_In_40_60_Count>
<TransactionTime_In_60_80_Count>0</TransactionTime_In_60_80_Count>
<TransactionTime_In_80_100_Count>0</TransactionTime_In_80_100_Count>
<TransactionTime_In_100_120_Count>0</TransactionTime_In_100_120_Count>
<TransactionTime_In_120_140_Count>0</TransactionTime_In_120_140_Count>
<TransactionTime_In_140_160_Count>0</TransactionTime_In_140_160_Count>
<TransactionTime_In_160_180_Count>0</TransactionTime_In_160_180_Count>
<TransactionTime_In_180_200_Count>0</TransactionTime_In_180_200_Count>
<TransactionTime_In_gt_200_Count>0</TransactionTime_In_gt_200_Count>
<TransactionTime_Out_0_20_Count>0</TransactionTime_Out_0_20_Count>
<TransactionTime_Out_20_40_Count>0</TransactionTime_Out_20_40_Count>
<TransactionTime_Out_40_60_Count>0</TransactionTime_Out_40_60_Count>
<TransactionTime_Out_60_80_Count>0</TransactionTime_Out_60_80_Count>
<TransactionTime_Out_80_100_Count>0</TransactionTime_Out_80_100_Count>
<TransactionTime_Out_100_120_Count>0</TransactionTime_Out_100_120_Count>
<TransactionTime_Out_120_140_Count>0</TransactionTime_Out_120_140_Count>
<TransactionTime_Out_140_160_Count>0</TransactionTime_Out_140_160_Count>
<TransactionTime_Out_160_180_Count>0</TransactionTime_Out_160_180_Count>
<TransactionTime_Out_180_200_Count>0</TransactionTime_Out_180_200_Count>
<TransactionTime_Out_gt_200_Count>0</TransactionTime_Out_gt_200_Count>
</Sample>
</DiameterAfLatencyStats>
</Statistics>
```

Diameter Application Function Peer Latency Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterAfPeerLatencyStats tag.

Request

This request follows the DiameterAfPeerLatencyStats tag defined in the QueryOmStats section in the XSD files.

```
<?xml version="1.0" encoding="UTF-8"?>
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterAfPeerLatencyStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
<!-- Name is optional. -->
<Name>mra-82.example.com</Name>
<Name>mra-35.example.com</Name>
<!-- NeId is optional. -->
<NeId />
```

```
</DiameterAfPeerLatencyStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterAfPeerLatencyStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterAfPeerLatencyStats>
<Sample>
<StartTime>2016-05-16T23:45:01Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<IsComplete>true</IsComplete>
<Name>mra-35.example.com</Name>
<NeId/>
<NetworkElementType/>
<NetworkElementSubType/>
<ConnectAddress>10.196.143.176</ConnectAddress>
<ConnectPort>34283</ConnectPort>
<ConnectType>TCP</ConnectType>
<MaxTransactionInProcessingTime>0</MaxTransactionInProcessingTime>
<AverageTransactionInProcessingTime>0</AverageTransactionInProcessingTime>
<MaxTransactionOutProcessingTime>0</MaxTransactionOutProcessingTime>
<AverageTransactionOutProcessingTime>0</AverageTransactionOutProcessingTime>
<TransactionTime_In_0_20_Count>0</TransactionTime_In_0_20_Count>
<TransactionTime_In_20_40_Count>0</TransactionTime_In_20_40_Count>
<TransactionTime_In_40_60_Count>0</TransactionTime_In_40_60_Count>
<TransactionTime_In_60_80_Count>0</TransactionTime_In_60_80_Count>
<TransactionTime_In_80_100_Count>0</TransactionTime_In_80_100_Count>
<TransactionTime_In_100_120_Count>0</TransactionTime_In_100_120_Count>
<TransactionTime_In_120_140_Count>0</TransactionTime_In_120_140_Count>
<TransactionTime_In_140_160_Count>0</TransactionTime_In_140_160_Count>
<TransactionTime_In_160_180_Count>0</TransactionTime_In_160_180_Count>
<TransactionTime_In_180_200_Count>0</TransactionTime_In_180_200_Count>
<TransactionTime_In_gt_200_Count>0</TransactionTime_In_gt_200_Count>
<TransactionTime_Out_0_20_Count>0</TransactionTime_Out_0_20_Count>
<TransactionTime_Out_20_40_Count>0</TransactionTime_Out_20_40_Count>
<TransactionTime_Out_40_60_Count>0</TransactionTime_Out_40_60_Count>
<TransactionTime_Out_60_80_Count>0</TransactionTime_Out_60_80_Count>
<TransactionTime_Out_80_100_Count>0</TransactionTime_Out_80_100_Count>
<TransactionTime_Out_100_120_Count>0</TransactionTime_Out_100_120_Count>
<TransactionTime_Out_120_140_Count>0</TransactionTime_Out_120_140_Count>
<TransactionTime_Out_140_160_Count>0</TransactionTime_Out_140_160_Count>
<TransactionTime_Out_160_180_Count>0</TransactionTime_Out_160_180_Count>
<TransactionTime_Out_180_200_Count>0</TransactionTime_Out_180_200_Count>
<TransactionTime_Out_gt_200_Count>0</TransactionTime_Out_gt_200_Count>
</Sample>
</DiameterAfPeerLatencyStats>
</Statistics>
```

Diameter PCEF Latency Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterPcefPeerLatencyStats tag.

Request

This request follows the DiameterPcefPeerLatencyStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterPcefPeerLatencyStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
<!-- Name is optional. -->
<Name>mra-82.example.com</Name>
<Name>mra-35.example.com</Name>
<!-- NeId is optional. -->
<NeId />
</DiameterPcefPeerLatencyStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterPcefPeerLatencyStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterPcefPeerLatencyStats>
<Sample>
<StartTime>2016-05-16T23:45:01Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<IsComplete>true</IsComplete>
<Name>mra-35.example.com</Name>
<NeId/>
<NetworkElementType/>
<NetworkElementSubType/>
<ConnectAddress>10.196.143.176</ConnectAddress>
<ConnectPort>34283</ConnectPort>
<ConnectType>TCP</ConnectType>
<MaxTransactionInProcessingTime>0</MaxTransactionInProcessingTime>
<AverageTransactionInProcessingTime>0</AverageTransactionInProcessingTime>
<MaxTransactionOutProcessingTime>0</MaxTransactionOutProcessingTime>
<AverageTransactionOutProcessingTime>0</AverageTransactionOutProcessingTime>
<TransactionTime_In_0_20_Count>0</TransactionTime_In_0_20_Count>
<TransactionTime_In_20_40_Count>0</TransactionTime_In_20_40_Count>
<TransactionTime_In_40_60_Count>0</TransactionTime_In_40_60_Count>
<TransactionTime_In_60_80_Count>0</TransactionTime_In_60_80_Count>
<TransactionTime_In_80_100_Count>0</TransactionTime_In_80_100_Count>
<TransactionTime_In_100_120_Count>0</TransactionTime_In_100_120_Count>
<TransactionTime_In_120_140_Count>0</TransactionTime_In_120_140_Count>
<TransactionTime_In_140_160_Count>0</TransactionTime_In_140_160_Count>
<TransactionTime_In_160_180_Count>0</TransactionTime_In_160_180_Count>
<TransactionTime_In_180_200_Count>0</TransactionTime_In_180_200_Count>
<TransactionTime_In_gt_200_Count>0</TransactionTime_In_gt_200_Count>
<TransactionTime_Out_0_20_Count>0</TransactionTime_Out_0_20_Count>
<TransactionTime_Out_20_40_Count>0</TransactionTime_Out_20_40_Count>
<TransactionTime_Out_40_60_Count>0</TransactionTime_Out_40_60_Count>
<TransactionTime_Out_60_80_Count>0</TransactionTime_Out_60_80_Count>
<TransactionTime_Out_80_100_Count>0</TransactionTime_Out_80_100_Count>
<TransactionTime_Out_100_120_Count>0</TransactionTime_Out_100_120_Count>
```

```
<TransactionTime_Out_120_140_Count>0</TransactionTime_Out_120_140_Count>
<TransactionTime_Out_140_160_Count>0</TransactionTime_Out_140_160_Count>
<TransactionTime_Out_160_180_Count>0</TransactionTime_Out_160_180_Count>
<TransactionTime_Out_180_200_Count>0</TransactionTime_Out_180_200_Count>
<TransactionTime_Out_gt_200_Count>0</TransactionTime_Out_gt_200_Count>
</Sample>
</DiameterPcefPeerLatencyStats>
</Statistics>
```

Diameter PCEF Peer Latency Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterPcefPeerLatencyStats tag.

Request

This request follows the DiameterPcefPeerLatencyStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterPcefPeerLatencyStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
<!-- Name is optional. -->
<Name>mra-82.example.com</Name>
<Name>mra-35.example.com</Name>
<!-- NeId is optional. -->
<NeId />
</DiameterPcefPeerLatencyStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterPcefPeerLatencyStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterPcefPeerLatencyStats>
<Sample>
<StartTime>2016-05-16T23:45:01Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<IsComplete>true</IsComplete>
<Name>mra-35.example.com</Name>
<NeId/>
<NetworkElementType/>
<NetworkElementSubType/>
<ConnectAddress>10.196.143.176</ConnectAddress>
<ConnectPort>34283</ConnectPort>
<ConnectType>TCP</ConnectType>
<MaxTransactionInProcessingTime>0</MaxTransactionInProcessingTime>
<AverageTransactionInProcessingTime>0</AverageTransactionInProcessingTime>
<MaxTransactionOutProcessingTime>0</MaxTransactionOutProcessingTime>
```

```
<AverageTransactionOutProcessingTime>0</AverageTransactionOutProcessingTime>
<TransactionTime_In_0_20_Count>0</TransactionTime_In_0_20_Count>
<TransactionTime_In_20_40_Count>0</TransactionTime_In_20_40_Count>
<TransactionTime_In_40_60_Count>0</TransactionTime_In_40_60_Count>
<TransactionTime_In_60_80_Count>0</TransactionTime_In_60_80_Count>
<TransactionTime_In_80_100_Count>0</TransactionTime_In_80_100_Count>
<TransactionTime_In_100_120_Count>0</TransactionTime_In_100_120_Count>
<TransactionTime_In_120_140_Count>0</TransactionTime_In_120_140_Count>
<TransactionTime_In_140_160_Count>0</TransactionTime_In_140_160_Count>
<TransactionTime_In_160_180_Count>0</TransactionTime_In_160_180_Count>
<TransactionTime_In_180_200_Count>0</TransactionTime_In_180_200_Count>
<TransactionTime_In_gt_200_Count>0</TransactionTime_In_gt_200_Count>
<TransactionTime_Out_0_20_Count>0</TransactionTime_Out_0_20_Count>
<TransactionTime_Out_20_40_Count>0</TransactionTime_Out_20_40_Count>
<TransactionTime_Out_40_60_Count>0</TransactionTime_Out_40_60_Count>
<TransactionTime_Out_60_80_Count>0</TransactionTime_Out_60_80_Count>
<TransactionTime_Out_80_100_Count>0</TransactionTime_Out_80_100_Count>
<TransactionTime_Out_100_120_Count>0</TransactionTime_Out_100_120_Count>
<TransactionTime_Out_120_140_Count>0</TransactionTime_Out_120_140_Count>
<TransactionTime_Out_140_160_Count>0</TransactionTime_Out_140_160_Count>
<TransactionTime_Out_160_180_Count>0</TransactionTime_Out_160_180_Count>
<TransactionTime_Out_180_200_Count>0</TransactionTime_Out_180_200_Count>
<TransactionTime_Out_gt_200_Count>0</TransactionTime_Out_gt_200_Count>
</Sample>
</DiameterPcefPeerLatencyStats>
</Statistics>
```

Diameter DRMA Latency Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterDrmaLatencyStats tag.

Request

This request follows the DiameterDrmaLatencyStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterDrmaLatencyStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
</DiameterDrmaLatencyStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterDrmaLatencyStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterDrmaLatencyStats>
<Sample>
<StartTime>2016-05-16T23:45:01Z</StartTime>
```

```
<EndTime>2016-05-17T00:00:01Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<IsComplete>true</IsComplete>
<CurrentConnectionsCount>1</CurrentConnectionsCount>
<MaxTransactionInProcessingTime>0</MaxTransactionInProcessingTime>
<AverageTransactionInProcessingTime>0</AverageTransactionInProcessingTime>
<MaxTransactionOutProcessingTime>4</MaxTransactionOutProcessingTime>
<AverageTransactionOutProcessingTime>2</AverageTransactionOutProcessingTime>
<TransactionTime_In_0_20_Count>0</TransactionTime_In_0_20_Count>
<TransactionTime_In_20_40_Count>0</TransactionTime_In_20_40_Count>
<TransactionTime_In_40_60_Count>0</TransactionTime_In_40_60_Count>
<TransactionTime_In_60_80_Count>0</TransactionTime_In_60_80_Count>
<TransactionTime_In_80_100_Count>0</TransactionTime_In_80_100_Count>
<TransactionTime_In_100_120_Count>0</TransactionTime_In_100_120_Count>
<TransactionTime_In_120_140_Count>0</TransactionTime_In_120_140_Count>
<TransactionTime_In_140_160_Count>0</TransactionTime_In_140_160_Count>
<TransactionTime_In_160_180_Count>0</TransactionTime_In_160_180_Count>
<TransactionTime_In_180_200_Count>0</TransactionTime_In_180_200_Count>
<TransactionTime_In_gt_200_Count>0</TransactionTime_In_gt_200_Count>
<TransactionTime_Out_0_20_Count>15</TransactionTime_Out_0_20_Count>
<TransactionTime_Out_20_40_Count>0</TransactionTime_Out_20_40_Count>
<TransactionTime_Out_40_60_Count>0</TransactionTime_Out_40_60_Count>
<TransactionTime_Out_60_80_Count>0</TransactionTime_Out_60_80_Count>
<TransactionTime_Out_80_100_Count>0</TransactionTime_Out_80_100_Count>
<TransactionTime_Out_100_120_Count>0</TransactionTime_Out_100_120_Count>
<TransactionTime_Out_120_140_Count>0</TransactionTime_Out_120_140_Count>
<TransactionTime_Out_140_160_Count>0</TransactionTime_Out_140_160_Count>
<TransactionTime_Out_160_180_Count>0</TransactionTime_Out_160_180_Count>
<TransactionTime_Out_180_200_Count>0</TransactionTime_Out_180_200_Count>
<TransactionTime_Out_gt_200_Count>0</TransactionTime_Out_gt_200_Count>
</Sample>
</DiameterDrmaLatencyStats>
</Statistics>
```

Diameter DRMA Peer Latency Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterDrmaPeerLatencyStats tag.

Request

This request follows the DiameterDrmaPeerLatencyStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterDrmaPeerLatencyStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
<!-- Name is optional. -->
<Name>mra-82.oracle.com</Name>
<Name>mra-35.oracle.com</Name>
<!-- NeId is optional. -->
<NeId />
</DiameterDrmaPeerLatencyStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterDrmaPeerLatencyStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterDrmaPeerLatencyStats>
<Sample>
<StartTime>2016-05-16T23:45:01Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<IsComplete>true</IsComplete>
<Name>mra-35.oracle.com</Name>
<NeId/>
<NetworkElementType/>
<NetworkElementSubType/>
<ConnectAddress>10.196.143.176</ConnectAddress>
<ConnectPort>34283</ConnectPort>
<ConnectType>TCP</ConnectType>
<MaxTransactionInProcessingTime>0</MaxTransactionInProcessingTime>
<AverageTransactionInProcessingTime>0</AverageTransactionInProcessingTime>
<MaxTransactionOutProcessingTime>0</MaxTransactionOutProcessingTime>
<AverageTransactionOutProcessingTime>0</AverageTransactionOutProcessingTime>
<TransactionTime_In_0_20_Count>0</TransactionTime_In_0_20_Count>
<TransactionTime_In_20_40_Count>0</TransactionTime_In_20_40_Count>
<TransactionTime_In_40_60_Count>0</TransactionTime_In_40_60_Count>
<TransactionTime_In_60_80_Count>0</TransactionTime_In_60_80_Count>
<TransactionTime_In_80_100_Count>0</TransactionTime_In_80_100_Count>
<TransactionTime_In_100_120_Count>0</TransactionTime_In_100_120_Count>
<TransactionTime_In_120_140_Count>0</TransactionTime_In_120_140_Count>
<TransactionTime_In_140_160_Count>0</TransactionTime_In_140_160_Count>
<TransactionTime_In_160_180_Count>0</TransactionTime_In_160_180_Count>
<TransactionTime_In_180_200_Count>0</TransactionTime_In_180_200_Count>
<TransactionTime_In_gt_200_Count>0</TransactionTime_In_gt_200_Count>
<TransactionTime_Out_0_20_Count>0</TransactionTime_Out_0_20_Count>
<TransactionTime_Out_20_40_Count>0</TransactionTime_Out_20_40_Count>
<TransactionTime_Out_40_60_Count>0</TransactionTime_Out_40_60_Count>
<TransactionTime_Out_60_80_Count>0</TransactionTime_Out_60_80_Count>
<TransactionTime_Out_80_100_Count>0</TransactionTime_Out_80_100_Count>
<TransactionTime_Out_100_120_Count>0</TransactionTime_Out_100_120_Count>
<TransactionTime_Out_120_140_Count>0</TransactionTime_Out_120_140_Count>
<TransactionTime_Out_140_160_Count>0</TransactionTime_Out_140_160_Count>
<TransactionTime_Out_160_180_Count>0</TransactionTime_Out_160_180_Count>
<TransactionTime_Out_180_200_Count>0</TransactionTime_Out_180_200_Count>
<TransactionTime_Out_gt_200_Count>0</TransactionTime_Out_gt_200_Count>
</Sample>
</DiameterDrmaPeerLatencyStats>
</Statistics>
```

Diameter Bberf Latency Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterBberfLatencyStats tag.

Request

This request follows the DiameterBberfLatencyStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2017-04-21T14:15:00</StartTime>
<EndTime>2017-04-21T14:30:00</EndTime>
<DiameterBberfLatencyStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
</DiameterBberfLatencyStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterBberfLatencyStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterBberfLatencyStats>
<Sample>
<StartTime>2017-05-16T23:45:01Z</StartTime>
<EndTime>2017-05-17T00:00:01Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<IsComplete>true</IsComplete>
<CurrentConnectionsCount>1</CurrentConnectionsCount>
<MaxTransactionInProcessingTime>0</MaxTransactionInProcessingTime>
<AverageTransactionInProcessingTime>0</AverageTransactionInProcessingTime>
<MaxTransactionOutProcessingTime>0</MaxTransactionOutProcessingTime>
<AverageTransactionOutProcessingTime>0</AverageTransactionOutProcessingTime>
<TransactionTime_In_0_20_Count>0</TransactionTime_In_0_20_Count>
<TransactionTime_In_20_40_Count>0</TransactionTime_In_20_40_Count>
<TransactionTime_In_40_60_Count>0</TransactionTime_In_40_60_Count>
<TransactionTime_In_60_80_Count>0</TransactionTime_In_60_80_Count>
<TransactionTime_In_80_100_Count>0</TransactionTime_In_80_100_Count>
<TransactionTime_In_100_120_Count>0</TransactionTime_In_100_120_Count>
<TransactionTime_In_120_140_Count>0</TransactionTime_In_120_140_Count>
<TransactionTime_In_140_160_Count>0</TransactionTime_In_140_160_Count>
<TransactionTime_In_160_180_Count>0</TransactionTime_In_160_180_Count>
<TransactionTime_In_180_200_Count>0</TransactionTime_In_180_200_Count>
<TransactionTime_In_gt_200_Count>0</TransactionTime_In_gt_200_Count>
<TransactionTime_Out_0_20_Count>0</TransactionTime_Out_0_20_Count>
<TransactionTime_Out_20_40_Count>0</TransactionTime_Out_20_40_Count>
<TransactionTime_Out_40_60_Count>0</TransactionTime_Out_40_60_Count>
<TransactionTime_Out_60_80_Count>0</TransactionTime_Out_60_80_Count>
<TransactionTime_Out_80_100_Count>0</TransactionTime_Out_80_100_Count>
<TransactionTime_Out_100_120_Count>0</TransactionTime_Out_100_120_Count>
<TransactionTime_Out_120_140_Count>0</TransactionTime_Out_120_140_Count>
<TransactionTime_Out_140_160_Count>0</TransactionTime_Out_140_160_Count>
<TransactionTime_Out_160_180_Count>0</TransactionTime_Out_160_180_Count>
<TransactionTime_Out_180_200_Count>0</TransactionTime_Out_180_200_Count>
<TransactionTime_Out_gt_200_Count>0</TransactionTime_Out_gt_200_Count>
</Sample>
</DiameterBberfLatencyStats>
</Statistics>
```

Diameter Bberf Peer Latency Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterBberfPeerLatencyStats tag.

Request

This request follows the DiameterBberfPeerLatencyStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterBberfPeerLatencyStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
<!-- Name is optional. -->
<Name>mra-82.oracle.com</Name>
<Name>mra-35.oracle.com</Name>
<!-- NeId is optional. -->
<NeId />
</DiameterBberfPeerLatencyStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterBberfPeerLatencyStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterAfPeerLatencyStats>
<Sample>
<StartTime>2016-05-16T23:45:01Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<IsComplete>true</IsComplete>
<Name>mra-35.oracle.com</Name>
<NeId/>
<NetworkElementType/>
<NetworkElementSubType/>
<ConnectAddress>10.196.143.176</ConnectAddress>
<ConnectPort>34283</ConnectPort>
<ConnectType>TCP</ConnectType>
<MaxTransactionInProcessingTime>0</MaxTransactionInProcessingTime>
<AverageTransactionInProcessingTime>0</AverageTransactionInProcessingTime>
<MaxTransactionOutProcessingTime>0</MaxTransactionOutProcessingTime>
<AverageTransactionOutProcessingTime>0</AverageTransactionOutProcessingTime>
<TransactionTime_In_0_20_Count>0</TransactionTime_In_0_20_Count>
<TransactionTime_In_20_40_Count>0</TransactionTime_In_20_40_Count>
<TransactionTime_In_40_60_Count>0</TransactionTime_In_40_60_Count>
<TransactionTime_In_60_80_Count>0</TransactionTime_In_60_80_Count>
<TransactionTime_In_80_100_Count>0</TransactionTime_In_80_100_Count>
<TransactionTime_In_100_120_Count>0</TransactionTime_In_100_120_Count>
<TransactionTime_In_120_140_Count>0</TransactionTime_In_120_140_Count>
<TransactionTime_In_140_160_Count>0</TransactionTime_In_140_160_Count>
<TransactionTime_In_160_180_Count>0</TransactionTime_In_160_180_Count>
```

```
<TransactionTime_In_180_200_Count>0</TransactionTime_In_180_200_Count>
<TransactionTime_In_gt_200_Count>0</TransactionTime_In_gt_200_Count>
<TransactionTime_Out_0_20_Count>0</TransactionTime_Out_0_20_Count>
<TransactionTime_Out_20_40_Count>0</TransactionTime_Out_20_40_Count>
<TransactionTime_Out_40_60_Count>0</TransactionTime_Out_40_60_Count>
<TransactionTime_Out_60_80_Count>0</TransactionTime_Out_60_80_Count>
<TransactionTime_Out_80_100_Count>0</TransactionTime_Out_80_100_Count>
<TransactionTime_Out_100_120_Count>0</TransactionTime_Out_100_120_Count>
<TransactionTime_Out_120_140_Count>0</TransactionTime_Out_120_140_Count>
<TransactionTime_Out_140_160_Count>0</TransactionTime_Out_140_160_Count>
<TransactionTime_Out_160_180_Count>0</TransactionTime_Out_160_180_Count>
<TransactionTime_Out_180_200_Count>0</TransactionTime_Out_180_200_Count>
<TransactionTime_Out_gt_200_Count>0</TransactionTime_Out_gt_200_Count>
</Sample>
</DiameterAfPeerLatencyStats>
</Statistics>
```

Diameter TDF Latency Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterTdfLatencyStats tag.

Request

This request follows the DiameterTdfLatencyStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterTdfLatencyStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
</DiameterTdfLatencyStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterTdfLatencyStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterTdfLatencyStats>
<Sample>
<StartTime>2016-05-16T23:45:01Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<IsComplete>true</IsComplete>
<CurrentConnectionsCount>1</CurrentConnectionsCount>
<MaxTransactionInProcessingTime>0</MaxTransactionInProcessingTime>
<AverageTransactionInProcessingTime>0</AverageTransactionInProcessingTime>
<MaxTransactionOutProcessingTime>0</MaxTransactionOutProcessingTime>
<AverageTransactionOutProcessingTime>0</AverageTransactionOutProcessingTime>
<TransactionTime_In_0_20_Count>0</TransactionTime_In_0_20_Count>
<TransactionTime_In_20_40_Count>0</TransactionTime_In_20_40_Count>
```

```
<TransactionTime_In_40_60_Count>0</TransactionTime_In_40_60_Count>
<TransactionTime_In_60_80_Count>0</TransactionTime_In_60_80_Count>
<TransactionTime_In_80_100_Count>0</TransactionTime_In_80_100_Count>
<TransactionTime_In_100_120_Count>0</TransactionTime_In_100_120_Count>
<TransactionTime_In_120_140_Count>0</TransactionTime_In_120_140_Count>
<TransactionTime_In_140_160_Count>0</TransactionTime_In_140_160_Count>
<TransactionTime_In_160_180_Count>0</TransactionTime_In_160_180_Count>
<TransactionTime_In_180_200_Count>0</TransactionTime_In_180_200_Count>
<TransactionTime_In_gt_200_Count>0</TransactionTime_In_gt_200_Count>
<TransactionTime_Out_0_20_Count>0</TransactionTime_Out_0_20_Count>
<TransactionTime_Out_20_40_Count>0</TransactionTime_Out_20_40_Count>
<TransactionTime_Out_40_60_Count>0</TransactionTime_Out_40_60_Count>
<TransactionTime_Out_60_80_Count>0</TransactionTime_Out_60_80_Count>
<TransactionTime_Out_80_100_Count>0</TransactionTime_Out_80_100_Count>
<TransactionTime_Out_100_120_Count>0</TransactionTime_Out_100_120_Count>
<TransactionTime_Out_120_140_Count>0</TransactionTime_Out_120_140_Count>
<TransactionTime_Out_140_160_Count>0</TransactionTime_Out_140_160_Count>
<TransactionTime_Out_160_180_Count>0</TransactionTime_Out_160_180_Count>
<TransactionTime_Out_180_200_Count>0</TransactionTime_Out_180_200_Count>
<TransactionTime_Out_gt_200_Count>0</TransactionTime_Out_gt_200_Count>
</Sample>
</DiameterTdfLatencyStats>
</Statistics>
```

Diameter TDF Peer Latency Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterTdfPeerLatencyStats tag.

Request

This request follows the DiameterTdfPeerLatencyStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterTdfPeerLatencyStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
<!-- Name is optional. -->
<Name>mra-82.oracle.com</Name>
<Name>mra-35.oracle.com</Name>
<!-- NeId is optional. -->
<NeId />
</DiameterTdfPeerLatencyStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterTdfPeerLatencyStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterTdfPeerLatencyStats>
```

```
<Sample>
<StartTime>2016-05-16T23:45:01Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<IsComplete>true</IsComplete>
<Name>mra-35.oracle.com</Name>
<NeId/>
<NetworkElementType/>
<NetworkElementSubType/>
<ConnectAddress>10.196.143.176</ConnectAddress>
<ConnectPort>34283</ConnectPort>
<ConnectType>TCP</ConnectType>
<MaxTransactionInProcessingTime>0</MaxTransactionInProcessingTime>
<AverageTransactionInProcessingTime>0</AverageTransactionInProcessingTime>
<MaxTransactionOutProcessingTime>0</MaxTransactionOutProcessingTime>
<AverageTransactionOutProcessingTime>0</AverageTransactionOutProcessingTime>
<TransactionTime_In_0_20_Count>0</TransactionTime_In_0_20_Count>
<TransactionTime_In_20_40_Count>0</TransactionTime_In_20_40_Count>
<TransactionTime_In_40_60_Count>0</TransactionTime_In_40_60_Count>
<TransactionTime_In_60_80_Count>0</TransactionTime_In_60_80_Count>
<TransactionTime_In_80_100_Count>0</TransactionTime_In_80_100_Count>
<TransactionTime_In_100_120_Count>0</TransactionTime_In_100_120_Count>
<TransactionTime_In_120_140_Count>0</TransactionTime_In_120_140_Count>
<TransactionTime_In_140_160_Count>0</TransactionTime_In_140_160_Count>
<TransactionTime_In_160_180_Count>0</TransactionTime_In_160_180_Count>
<TransactionTime_In_180_200_Count>0</TransactionTime_In_180_200_Count>
<TransactionTime_In_gt_200_Count>0</TransactionTime_In_gt_200_Count>
<TransactionTime_Out_0_20_Count>0</TransactionTime_Out_0_20_Count>
<TransactionTime_Out_20_40_Count>0</TransactionTime_Out_20_40_Count>
<TransactionTime_Out_40_60_Count>0</TransactionTime_Out_40_60_Count>
<TransactionTime_Out_60_80_Count>0</TransactionTime_Out_60_80_Count>
<TransactionTime_Out_80_100_Count>0</TransactionTime_Out_80_100_Count>
<TransactionTime_Out_100_120_Count>0</TransactionTime_Out_100_120_Count>
<TransactionTime_Out_120_140_Count>0</TransactionTime_Out_120_140_Count>
<TransactionTime_Out_140_160_Count>0</TransactionTime_Out_140_160_Count>
<TransactionTime_Out_160_180_Count>0</TransactionTime_Out_160_180_Count>
<TransactionTime_Out_180_200_Count>0</TransactionTime_Out_180_200_Count>
<TransactionTime_Out_gt_200_Count>0</TransactionTime_Out_gt_200_Count>
</Sample>
</DiameterTdfPeerLatencyStats>
</Statistics>
```

Diameter MRA AF Latency Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterMraAfLatencyStats tag.

Request

This request follows the DiameterMraAfLatencyStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterMraAfLatencyStats>
<!-- MRA is optional. -->
<MRA>MRA-Cluster</MRA>
<MRA>MRA-35</MRA>
```

```
</DiameterMraAfLatencyStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterMraAfLatencyStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterMraAfLatencyStats>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<MRA>MRA-Cluster</MRA>
<IsComplete>true</IsComplete>
<CurrentConnectionsCount>1</CurrentConnectionsCount>
<MaxTransactionInProcessingTime>0</MaxTransactionInProcessingTime>
<AverageTransactionInProcessingTime>0</AverageTransactionInProcessingTime>
<MaxTransactionOutProcessingTime>0</MaxTransactionOutProcessingTime>
<AverageTransactionOutProcessingTime>0</AverageTransactionOutProcessingTime>
<TransactionTime_In_0_20_Count>0</TransactionTime_In_0_20_Count>
<TransactionTime_In_20_40_Count>0</TransactionTime_In_20_40_Count>
<TransactionTime_In_40_60_Count>0</TransactionTime_In_40_60_Count>
<TransactionTime_In_60_80_Count>0</TransactionTime_In_60_80_Count>
<TransactionTime_In_80_100_Count>0</TransactionTime_In_80_100_Count>
<TransactionTime_In_100_120_Count>0</TransactionTime_In_100_120_Count>
<TransactionTime_In_120_140_Count>0</TransactionTime_In_120_140_Count>
<TransactionTime_In_140_160_Count>0</TransactionTime_In_140_160_Count>
<TransactionTime_In_160_180_Count>0</TransactionTime_In_160_180_Count>
<TransactionTime_In_180_200_Count>0</TransactionTime_In_180_200_Count>
<TransactionTime_In_gt_200_Count>0</TransactionTime_In_gt_200_Count>
<TransactionTime_Out_0_20_Count>0</TransactionTime_Out_0_20_Count>
<TransactionTime_Out_20_40_Count>0</TransactionTime_Out_20_40_Count>
<TransactionTime_Out_40_60_Count>0</TransactionTime_Out_40_60_Count>
<TransactionTime_Out_60_80_Count>0</TransactionTime_Out_60_80_Count>
<TransactionTime_Out_80_100_Count>0</TransactionTime_Out_80_100_Count>
<TransactionTime_Out_100_120_Count>0</TransactionTime_Out_100_120_Count>
<TransactionTime_Out_120_140_Count>0</TransactionTime_Out_120_140_Count>
<TransactionTime_Out_140_160_Count>0</TransactionTime_Out_140_160_Count>
<TransactionTime_Out_160_180_Count>0</TransactionTime_Out_160_180_Count>
<TransactionTime_Out_180_200_Count>0</TransactionTime_Out_180_200_Count>
<TransactionTime_Out_gt_200_Count>0</TransactionTime_Out_gt_200_Count>
</Sample>
</DiameterMraAfLatencyStats>
</Statistics>
```

Diameter MRA AF Peer Latency Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterMraAfPeerLatencyStats tag.

Request

This request follows the DiameterMraAfPeerLatencyStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2017-04-21T14:15:00</StartTime>
<EndTime>2017-04-21T14:30:00</EndTime>
<DiameterMraAfPeerLatencyStats>
<!-- MRA is optional. -->
<MRA>MRA-Cluster</MRA>
<MRA>MRA-35</MRA>
<!-- Name is optional. -->
<Name>mra-82.example.com</Name>
<Name>mra-35.example.com</Name>
<!-- NeId is optional. -->
<NeId />
</DiameterMraAfPeerLatencyStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterMraAfPeerLatencyStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterMraAfPeerLatencyStats>
<Sample>
<StartTime>2017-05-16T23:45:00Z</StartTime>
<EndTime>2017-05-17T00:00:01Z</EndTime>
<MRA>MRA-Cluster</MRA>
<IsComplete>true</IsComplete>
<Name>af-sanity.test.com</Name>
<NeId/>
<NetworkElementType/>
<NetworkElementSubType/>
<ConnectAddress>10.148.240.54</ConnectAddress>
<ConnectPort>59720</ConnectPort>
<ConnectType>TCP</ConnectType>
<MaxTransactionInProcessingTime>0</MaxTransactionInProcessingTime>
<AverageTransactionInProcessingTime>0</AverageTransactionInProcessingTime>
<MaxTransactionOutProcessingTime>0</MaxTransactionOutProcessingTime>
<AverageTransactionOutProcessingTime>0</AverageTransactionOutProcessingTime>
<TransactionTime_In_0_20_Count>0</TransactionTime_In_0_20_Count>
<TransactionTime_In_20_40_Count>0</TransactionTime_In_20_40_Count>
<TransactionTime_In_40_60_Count>0</TransactionTime_In_40_60_Count>
<TransactionTime_In_60_80_Count>0</TransactionTime_In_60_80_Count>
<TransactionTime_In_80_100_Count>0</TransactionTime_In_80_100_Count>
<TransactionTime_In_100_120_Count>0</TransactionTime_In_100_120_Count>
<TransactionTime_In_120_140_Count>0</TransactionTime_In_120_140_Count>
<TransactionTime_In_140_160_Count>0</TransactionTime_In_140_160_Count>
<TransactionTime_In_160_180_Count>0</TransactionTime_In_160_180_Count>
<TransactionTime_In_180_200_Count>0</TransactionTime_In_180_200_Count>
<TransactionTime_In_gt_200_Count>0</TransactionTime_In_gt_200_Count>
<TransactionTime_Out_0_20_Count>0</TransactionTime_Out_0_20_Count>
<TransactionTime_Out_20_40_Count>0</TransactionTime_Out_20_40_Count>
<TransactionTime_Out_40_60_Count>0</TransactionTime_Out_40_60_Count>
<TransactionTime_Out_60_80_Count>0</TransactionTime_Out_60_80_Count>
<TransactionTime_Out_80_100_Count>0</TransactionTime_Out_80_100_Count>
<TransactionTime_Out_100_120_Count>0</TransactionTime_Out_100_120_Count>
```

```
<TransactionTime_Out_120_140_Count>0</TransactionTime_Out_120_140_Count>
<TransactionTime_Out_140_160_Count>0</TransactionTime_Out_140_160_Count>
<TransactionTime_Out_160_180_Count>0</TransactionTime_Out_160_180_Count>
<TransactionTime_Out_180_200_Count>0</TransactionTime_Out_180_200_Count>
<TransactionTime_Out_gt_200_Count>0</TransactionTime_Out_gt_200_Count>
</Sample>
</DiameterMraAfPeerLatencyStats>
</Statistics>
```

Diameter MRA Bberf Latency Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterMraBberfLatencyStats tag.

Request

This request follows the DiameterMraBberfLatencyStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterMraBberfLatencyStats>
<!-- MRA is optional. -->
<MRA>MRA-Cluster</MRA>
<MRA>MRA-35</MRA>
</DiameterMraBberfLatencyStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterMraBberfLatencyStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterMraBberfLatencyStats>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<MRA>MRA-Cluster</MRA>
<IsComplete>true</IsComplete>
<CurrentConnectionsCount>1</CurrentConnectionsCount>
<MaxTransactionInProcessingTime>0</MaxTransactionInProcessingTime>
<AverageTransactionInProcessingTime>0</AverageTransactionInProcessingTime>
<MaxTransactionOutProcessingTime>0</MaxTransactionOutProcessingTime>
<AverageTransactionOutProcessingTime>0</AverageTransactionOutProcessingTime>
<TransactionTime_In_0_20_Count>0</TransactionTime_In_0_20_Count>
<TransactionTime_In_20_40_Count>0</TransactionTime_In_20_40_Count>
<TransactionTime_In_40_60_Count>0</TransactionTime_In_40_60_Count>
<TransactionTime_In_60_80_Count>0</TransactionTime_In_60_80_Count>
<TransactionTime_In_80_100_Count>0</TransactionTime_In_80_100_Count>
<TransactionTime_In_100_120_Count>0</TransactionTime_In_100_120_Count>
<TransactionTime_In_120_140_Count>0</TransactionTime_In_120_140_Count>
<TransactionTime_In_140_160_Count>0</TransactionTime_In_140_160_Count>
<TransactionTime_In_160_180_Count>0</TransactionTime_In_160_180_Count>
<TransactionTime_In_180_200_Count>0</TransactionTime_In_180_200_Count>
```

```
<TransactionTime_In_gt_200_Count>0</TransactionTime_In_gt_200_Count>
<TransactionTime_Out_0_20_Count>0</TransactionTime_Out_0_20_Count>
<TransactionTime_Out_20_40_Count>0</TransactionTime_Out_20_40_Count>
<TransactionTime_Out_40_60_Count>0</TransactionTime_Out_40_60_Count>
<TransactionTime_Out_60_80_Count>0</TransactionTime_Out_60_80_Count>
<TransactionTime_Out_80_100_Count>0</TransactionTime_Out_80_100_Count>
<TransactionTime_Out_100_120_Count>0</TransactionTime_Out_100_120_Count>
<TransactionTime_Out_120_140_Count>0</TransactionTime_Out_120_140_Count>
<TransactionTime_Out_140_160_Count>0</TransactionTime_Out_140_160_Count>
<TransactionTime_Out_160_180_Count>0</TransactionTime_Out_160_180_Count>
<TransactionTime_Out_180_200_Count>0</TransactionTime_Out_180_200_Count>
<TransactionTime_Out_gt_200_Count>0</TransactionTime_Out_gt_200_Count>
</Sample>
</DiameterMraBberfLatencyStats>
</Statistics>
```

Diameter MRA Bberf Peer Latency Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterMraBberfPeerLatencyStats tag.

Request

This request follows the DiameterMraBberfPeerLatencyStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterMraBberfPeerLatencyStats>
<!-- MRA is optional. -->
<MRA>MRA-Cluster</MRA>
<MRA>MRA-35</MRA>
<!-- Name is optional. -->
<Name>mra-82.example.com</Name>
<Name>mra-35.example.com</Name>
<!-- NeId is optional. -->
<NeId />
</DiameterMraBberfPeerLatencyStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterMraBberfPeerLatencyStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterMraBberfPeerLatencyStats>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<MRA>MRA-Cluster</MRA>
<IsComplete>true</IsComplete>
<Name>mpe-84.example.com</Name>
<NeId/>
<NetworkElementType/>
```

```
<NetworkElementSubType/>
<ConnectAddress>10.196.143.179</ConnectAddress>
<ConnectPort>3868</ConnectPort>
<ConnectType>TCP</ConnectType>
<MaxTransactionInProcessingTime>0</MaxTransactionInProcessingTime>
<AverageTransactionInProcessingTime>0</AverageTransactionInProcessingTime>
<MaxTransactionOutProcessingTime>0</MaxTransactionOutProcessingTime>
<AverageTransactionOutProcessingTime>0</AverageTransactionOutProcessingTime>
<TransactionTime_In_0_20_Count>0</TransactionTime_In_0_20_Count>
<TransactionTime_In_20_40_Count>0</TransactionTime_In_20_40_Count>
<TransactionTime_In_40_60_Count>0</TransactionTime_In_40_60_Count>
<TransactionTime_In_60_80_Count>0</TransactionTime_In_60_80_Count>
<TransactionTime_In_80_100_Count>0</TransactionTime_In_80_100_Count>
<TransactionTime_In_100_120_Count>0</TransactionTime_In_100_120_Count>
<TransactionTime_In_120_140_Count>0</TransactionTime_In_120_140_Count>
<TransactionTime_In_140_160_Count>0</TransactionTime_In_140_160_Count>
<TransactionTime_In_160_180_Count>0</TransactionTime_In_160_180_Count>
<TransactionTime_In_180_200_Count>0</TransactionTime_In_180_200_Count>
<TransactionTime_In_gt_200_Count>0</TransactionTime_In_gt_200_Count>
<TransactionTime_Out_0_20_Count>0</TransactionTime_Out_0_20_Count>
<TransactionTime_Out_20_40_Count>0</TransactionTime_Out_20_40_Count>
<TransactionTime_Out_40_60_Count>0</TransactionTime_Out_40_60_Count>
<TransactionTime_Out_60_80_Count>0</TransactionTime_Out_60_80_Count>
<TransactionTime_Out_80_100_Count>0</TransactionTime_Out_80_100_Count>
<TransactionTime_Out_100_120_Count>0</TransactionTime_Out_100_120_Count>
<TransactionTime_Out_120_140_Count>0</TransactionTime_Out_120_140_Count>
<TransactionTime_Out_140_160_Count>0</TransactionTime_Out_140_160_Count>
<TransactionTime_Out_160_180_Count>0</TransactionTime_Out_160_180_Count>
<TransactionTime_Out_180_200_Count>0</TransactionTime_Out_180_200_Count>
<TransactionTime_Out_gt_200_Count>0</TransactionTime_Out_gt_200_Count>
</Sample>
<Sample>
<StartTime>2016-05-17T00:00:01Z</StartTime>
<EndTime>2016-05-17T00:15:01Z</EndTime>
<MRA>MRA-Cluster</MRA>
<IsComplete>true</IsComplete>
<Name>mpe-84.example.com</Name>
<NeId/>
<NetworkElementType/>
<NetworkElementSubType/>
<ConnectAddress>10.196.143.179</ConnectAddress>
<ConnectPort>3868</ConnectPort>
<ConnectType>TCP</ConnectType>
<MaxTransactionInProcessingTime>0</MaxTransactionInProcessingTime>
<AverageTransactionInProcessingTime>0</AverageTransactionInProcessingTime>
<MaxTransactionOutProcessingTime>0</MaxTransactionOutProcessingTime>
<AverageTransactionOutProcessingTime>0</AverageTransactionOutProcessingTime>
<TransactionTime_In_0_20_Count>0</TransactionTime_In_0_20_Count>
<TransactionTime_In_20_40_Count>0</TransactionTime_In_20_40_Count>
<TransactionTime_In_40_60_Count>0</TransactionTime_In_40_60_Count>
<TransactionTime_In_60_80_Count>0</TransactionTime_In_60_80_Count>
<TransactionTime_In_80_100_Count>0</TransactionTime_In_80_100_Count>
<TransactionTime_In_100_120_Count>0</TransactionTime_In_100_120_Count>
<TransactionTime_In_120_140_Count>0</TransactionTime_In_120_140_Count>
<TransactionTime_In_140_160_Count>0</TransactionTime_In_140_160_Count>
<TransactionTime_In_160_180_Count>0</TransactionTime_In_160_180_Count>
<TransactionTime_In_180_200_Count>0</TransactionTime_In_180_200_Count>
<TransactionTime_In_gt_200_Count>0</TransactionTime_In_gt_200_Count>
<TransactionTime_Out_0_20_Count>0</TransactionTime_Out_0_20_Count>
<TransactionTime_Out_20_40_Count>0</TransactionTime_Out_20_40_Count>
<TransactionTime_Out_40_60_Count>0</TransactionTime_Out_40_60_Count>
<TransactionTime_Out_60_80_Count>0</TransactionTime_Out_60_80_Count>
<TransactionTime_Out_80_100_Count>0</TransactionTime_Out_80_100_Count>
<TransactionTime_Out_100_120_Count>0</TransactionTime_Out_100_120_Count>
```

```
<TransactionTime_Out_120_140_Count>0</TransactionTime_Out_120_140_Count>
<TransactionTime_Out_140_160_Count>0</TransactionTime_Out_140_160_Count>
<TransactionTime_Out_160_180_Count>0</TransactionTime_Out_160_180_Count>
<TransactionTime_Out_180_200_Count>0</TransactionTime_Out_180_200_Count>
<TransactionTime_Out_gt_200_Count>0</TransactionTime_Out_gt_200_Count>
</Sample>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:00Z</EndTime>
<MRA>MRA-35</MRA>
<IsComplete>true</IsComplete>
<Name>hsgw-sanity.test.com</Name>
<NeId/>
<NetworkElementType/>
<NetworkElementSubType/>
<ConnectAddress>10.148.240.54</ConnectAddress>
<ConnectPort>50861</ConnectPort>
<ConnectType>TCP</ConnectType>
<MaxTransactionInProcessingTime>0</MaxTransactionInProcessingTime>
<AverageTransactionInProcessingTime>0</AverageTransactionInProcessingTime>
<MaxTransactionOutProcessingTime>0</MaxTransactionOutProcessingTime>
<AverageTransactionOutProcessingTime>0</AverageTransactionOutProcessingTime>
<TransactionTime_In_0_20_Count>0</TransactionTime_In_0_20_Count>
<TransactionTime_In_20_40_Count>0</TransactionTime_In_20_40_Count>
<TransactionTime_In_40_60_Count>0</TransactionTime_In_40_60_Count>
<TransactionTime_In_60_80_Count>0</TransactionTime_In_60_80_Count>
<TransactionTime_In_80_100_Count>0</TransactionTime_In_80_100_Count>
<TransactionTime_In_100_120_Count>0</TransactionTime_In_100_120_Count>
<TransactionTime_In_120_140_Count>0</TransactionTime_In_120_140_Count>
<TransactionTime_In_140_160_Count>0</TransactionTime_In_140_160_Count>
<TransactionTime_In_160_180_Count>0</TransactionTime_In_160_180_Count>
<TransactionTime_In_180_200_Count>0</TransactionTime_In_180_200_Count>
<TransactionTime_In_gt_200_Count>0</TransactionTime_In_gt_200_Count>
<TransactionTime_Out_0_20_Count>0</TransactionTime_Out_0_20_Count>
<TransactionTime_Out_20_40_Count>0</TransactionTime_Out_20_40_Count>
<TransactionTime_Out_40_60_Count>0</TransactionTime_Out_40_60_Count>
<TransactionTime_Out_60_80_Count>0</TransactionTime_Out_60_80_Count>
<TransactionTime_Out_80_100_Count>0</TransactionTime_Out_80_100_Count>
<TransactionTime_Out_100_120_Count>0</TransactionTime_Out_100_120_Count>
<TransactionTime_Out_120_140_Count>0</TransactionTime_Out_120_140_Count>
<TransactionTime_Out_140_160_Count>0</TransactionTime_Out_140_160_Count>
<TransactionTime_Out_160_180_Count>0</TransactionTime_Out_160_180_Count>
<TransactionTime_Out_180_200_Count>0</TransactionTime_Out_180_200_Count>
<TransactionTime_Out_gt_200_Count>0</TransactionTime_Out_gt_200_Count>
</Sample>
<Sample>
<StartTime>2016-05-17T00:00:00Z</StartTime>
<EndTime>2016-05-17T00:15:00Z</EndTime>
<MRA>MRA-35</MRA>
<IsComplete>true</IsComplete>
<Name>hsgw-sanity.test.com</Name>
<NeId/>
<NetworkElementType/>
<NetworkElementSubType/>
<ConnectAddress>10.148.240.54</ConnectAddress>
<ConnectPort>50861</ConnectPort>
<ConnectType>TCP</ConnectType>
<MaxTransactionInProcessingTime>0</MaxTransactionInProcessingTime>
<AverageTransactionInProcessingTime>0</AverageTransactionInProcessingTime>
<MaxTransactionOutProcessingTime>0</MaxTransactionOutProcessingTime>
<AverageTransactionOutProcessingTime>0</AverageTransactionOutProcessingTime>
<TransactionTime_In_0_20_Count>0</TransactionTime_In_0_20_Count>
<TransactionTime_In_20_40_Count>0</TransactionTime_In_20_40_Count>
<TransactionTime_In_40_60_Count>0</TransactionTime_In_40_60_Count>
```

```
<TransactionTime_In_60_80_Count>0</TransactionTime_In_60_80_Count>
<TransactionTime_In_80_100_Count>0</TransactionTime_In_80_100_Count>
<TransactionTime_In_100_120_Count>0</TransactionTime_In_100_120_Count>
<TransactionTime_In_120_140_Count>0</TransactionTime_In_120_140_Count>
<TransactionTime_In_140_160_Count>0</TransactionTime_In_140_160_Count>
<TransactionTime_In_160_180_Count>0</TransactionTime_In_160_180_Count>
<TransactionTime_In_180_200_Count>0</TransactionTime_In_180_200_Count>
<TransactionTime_In_gt_200_Count>0</TransactionTime_In_gt_200_Count>
<TransactionTime_Out_0_20_Count>0</TransactionTime_Out_0_20_Count>
<TransactionTime_Out_20_40_Count>0</TransactionTime_Out_20_40_Count>
<TransactionTime_Out_40_60_Count>0</TransactionTime_Out_40_60_Count>
<TransactionTime_Out_60_80_Count>0</TransactionTime_Out_60_80_Count>
<TransactionTime_Out_80_100_Count>0</TransactionTime_Out_80_100_Count>
<TransactionTime_Out_100_120_Count>0</TransactionTime_Out_100_120_Count>
<TransactionTime_Out_120_140_Count>0</TransactionTime_Out_120_140_Count>
<TransactionTime_Out_140_160_Count>0</TransactionTime_Out_140_160_Count>
<TransactionTime_Out_160_180_Count>0</TransactionTime_Out_160_180_Count>
<TransactionTime_Out_180_200_Count>0</TransactionTime_Out_180_200_Count>
<TransactionTime_Out_gt_200_Count>0</TransactionTime_Out_gt_200_Count>
</Sample>
<Sample>
<StartTime>2016-05-17T00:15:00Z</StartTime>
<EndTime>2016-05-17T00:30:00Z</EndTime>
<MRA>MRA-35</MRA>
<IsComplete>true</IsComplete>
<Name>hsgw-sanity.test.com</Name>
<NeId/>
<NetworkElementType/>
<NetworkElementSubType/>
<ConnectAddress>10.148.240.54</ConnectAddress>
<ConnectPort>50861</ConnectPort>
<ConnectType>TCP</ConnectType>
<MaxTransactionInProcessingTime>0</MaxTransactionInProcessingTime>
<AverageTransactionInProcessingTime>0</AverageTransactionInProcessingTime>
<MaxTransactionOutProcessingTime>0</MaxTransactionOutProcessingTime>
<AverageTransactionOutProcessingTime>0</AverageTransactionOutProcessingTime>
<TransactionTime_In_0_20_Count>0</TransactionTime_In_0_20_Count>
<TransactionTime_In_20_40_Count>0</TransactionTime_In_20_40_Count>
<TransactionTime_In_40_60_Count>0</TransactionTime_In_40_60_Count>
<TransactionTime_In_60_80_Count>0</TransactionTime_In_60_80_Count>
<TransactionTime_In_80_100_Count>0</TransactionTime_In_80_100_Count>
<TransactionTime_In_100_120_Count>0</TransactionTime_In_100_120_Count>
<TransactionTime_In_120_140_Count>0</TransactionTime_In_120_140_Count>
<TransactionTime_In_140_160_Count>0</TransactionTime_In_140_160_Count>
<TransactionTime_In_160_180_Count>0</TransactionTime_In_160_180_Count>
<TransactionTime_In_180_200_Count>0</TransactionTime_In_180_200_Count>
<TransactionTime_In_gt_200_Count>0</TransactionTime_In_gt_200_Count>
<TransactionTime_Out_0_20_Count>0</TransactionTime_Out_0_20_Count>
<TransactionTime_Out_20_40_Count>0</TransactionTime_Out_20_40_Count>
<TransactionTime_Out_40_60_Count>0</TransactionTime_Out_40_60_Count>
<TransactionTime_Out_60_80_Count>0</TransactionTime_Out_60_80_Count>
<TransactionTime_Out_80_100_Count>0</TransactionTime_Out_80_100_Count>
<TransactionTime_Out_100_120_Count>0</TransactionTime_Out_100_120_Count>
<TransactionTime_Out_120_140_Count>0</TransactionTime_Out_120_140_Count>
<TransactionTime_Out_140_160_Count>0</TransactionTime_Out_140_160_Count>
<TransactionTime_Out_160_180_Count>0</TransactionTime_Out_160_180_Count>
<TransactionTime_Out_180_200_Count>0</TransactionTime_Out_180_200_Count>
<TransactionTime_Out_gt_200_Count>0</TransactionTime_Out_gt_200_Count>
</Sample>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:00Z</EndTime>
<MRA>MRA-35</MRA>
<IsComplete>true</IsComplete>
```

```
<Name>mpe-173.example.com</Name>
<NeId/>
<NetworkElementType/>
<NetworkElementSubType/>
<ConnectAddress>10.196.143.177</ConnectAddress>
<ConnectPort>3868</ConnectPort>
<ConnectType>TCP</ConnectType>
<MaxTransactionInProcessingTime>0</MaxTransactionInProcessingTime>
<AverageTransactionInProcessingTime>0</AverageTransactionInProcessingTime>
<MaxTransactionOutProcessingTime>0</MaxTransactionOutProcessingTime>
<AverageTransactionOutProcessingTime>0</AverageTransactionOutProcessingTime>
<TransactionTime_In_0_20_Count>0</TransactionTime_In_0_20_Count>
<TransactionTime_In_20_40_Count>0</TransactionTime_In_20_40_Count>
<TransactionTime_In_40_60_Count>0</TransactionTime_In_40_60_Count>
<TransactionTime_In_60_80_Count>0</TransactionTime_In_60_80_Count>
<TransactionTime_In_80_100_Count>0</TransactionTime_In_80_100_Count>
<TransactionTime_In_100_120_Count>0</TransactionTime_In_100_120_Count>
<TransactionTime_In_120_140_Count>0</TransactionTime_In_120_140_Count>
<TransactionTime_In_140_160_Count>0</TransactionTime_In_140_160_Count>
<TransactionTime_In_160_180_Count>0</TransactionTime_In_160_180_Count>
<TransactionTime_In_180_200_Count>0</TransactionTime_In_180_200_Count>
<TransactionTime_In_gt_200_Count>0</TransactionTime_In_gt_200_Count>
<TransactionTime_Out_0_20_Count>0</TransactionTime_Out_0_20_Count>
<TransactionTime_Out_20_40_Count>0</TransactionTime_Out_20_40_Count>
<TransactionTime_Out_40_60_Count>0</TransactionTime_Out_40_60_Count>
<TransactionTime_Out_60_80_Count>0</TransactionTime_Out_60_80_Count>
<TransactionTime_Out_80_100_Count>0</TransactionTime_Out_80_100_Count>
<TransactionTime_Out_100_120_Count>0</TransactionTime_Out_100_120_Count>
<TransactionTime_Out_120_140_Count>0</TransactionTime_Out_120_140_Count>
<TransactionTime_Out_140_160_Count>0</TransactionTime_Out_140_160_Count>
<TransactionTime_Out_160_180_Count>0</TransactionTime_Out_160_180_Count>
<TransactionTime_Out_180_200_Count>0</TransactionTime_Out_180_200_Count>
<TransactionTime_Out_gt_200_Count>0</TransactionTime_Out_gt_200_Count>
</Sample>
<Sample>
<StartTime>2016-05-17T00:00:00Z</StartTime>
<EndTime>2016-05-17T00:15:00Z</EndTime>
<MRA>MRA-35</MRA>
<IsComplete>true</IsComplete>
<Name>mpe-173.example.com</Name>
<NeId/>
<NetworkElementType/>
<NetworkElementSubType/>
<ConnectAddress>10.196.143.177</ConnectAddress>
<ConnectPort>3868</ConnectPort>
<ConnectType>TCP</ConnectType>
<MaxTransactionInProcessingTime>0</MaxTransactionInProcessingTime>
<AverageTransactionInProcessingTime>0</AverageTransactionInProcessingTime>
<MaxTransactionOutProcessingTime>0</MaxTransactionOutProcessingTime>
<AverageTransactionOutProcessingTime>0</AverageTransactionOutProcessingTime>
<TransactionTime_In_0_20_Count>0</TransactionTime_In_0_20_Count>
<TransactionTime_In_20_40_Count>0</TransactionTime_In_20_40_Count>
<TransactionTime_In_40_60_Count>0</TransactionTime_In_40_60_Count>
<TransactionTime_In_60_80_Count>0</TransactionTime_In_60_80_Count>
<TransactionTime_In_80_100_Count>0</TransactionTime_In_80_100_Count>
<TransactionTime_In_100_120_Count>0</TransactionTime_In_100_120_Count>
<TransactionTime_In_120_140_Count>0</TransactionTime_In_120_140_Count>
<TransactionTime_In_140_160_Count>0</TransactionTime_In_140_160_Count>
<TransactionTime_In_160_180_Count>0</TransactionTime_In_160_180_Count>
<TransactionTime_In_180_200_Count>0</TransactionTime_In_180_200_Count>
<TransactionTime_In_gt_200_Count>0</TransactionTime_In_gt_200_Count>
<TransactionTime_Out_0_20_Count>0</TransactionTime_Out_0_20_Count>
<TransactionTime_Out_20_40_Count>0</TransactionTime_Out_20_40_Count>
<TransactionTime_Out_40_60_Count>0</TransactionTime_Out_40_60_Count>
```

```
<TransactionTime_Out_60_80_Count>0</TransactionTime_Out_60_80_Count>
<TransactionTime_Out_80_100_Count>0</TransactionTime_Out_80_100_Count>
<TransactionTime_Out_100_120_Count>0</TransactionTime_Out_100_120_Count>
<TransactionTime_Out_120_140_Count>0</TransactionTime_Out_120_140_Count>
<TransactionTime_Out_140_160_Count>0</TransactionTime_Out_140_160_Count>
<TransactionTime_Out_160_180_Count>0</TransactionTime_Out_160_180_Count>
<TransactionTime_Out_180_200_Count>0</TransactionTime_Out_180_200_Count>
<TransactionTime_Out_gt_200_Count>0</TransactionTime_Out_gt_200_Count>
</Sample>
<Sample>
<StartTime>2016-05-17T00:15:00Z</StartTime>
<EndTime>2016-05-17T00:30:00Z</EndTime>
<MRA>MRA-35</MRA>
<IsComplete>true</IsComplete>
<Name>mpe-173.example.com</Name>
<NeId/>
<NetworkElementType/>
<NetworkElementSubType/>
<ConnectAddress>10.196.143.177</ConnectAddress>
<ConnectPort>3868</ConnectPort>
<ConnectType>TCP</ConnectType>
<MaxTransactionInProcessingTime>0</MaxTransactionInProcessingTime>
<AverageTransactionInProcessingTime>0</AverageTransactionInProcessingTime>
<MaxTransactionOutProcessingTime>0</MaxTransactionOutProcessingTime>
<AverageTransactionOutProcessingTime>0</AverageTransactionOutProcessingTime>
<TransactionTime_In_0_20_Count>0</TransactionTime_In_0_20_Count>
<TransactionTime_In_20_40_Count>0</TransactionTime_In_20_40_Count>
<TransactionTime_In_40_60_Count>0</TransactionTime_In_40_60_Count>
<TransactionTime_In_60_80_Count>0</TransactionTime_In_60_80_Count>
<TransactionTime_In_80_100_Count>0</TransactionTime_In_80_100_Count>
<TransactionTime_In_100_120_Count>0</TransactionTime_In_100_120_Count>
<TransactionTime_In_120_140_Count>0</TransactionTime_In_120_140_Count>
<TransactionTime_In_140_160_Count>0</TransactionTime_In_140_160_Count>
<TransactionTime_In_160_180_Count>0</TransactionTime_In_160_180_Count>
<TransactionTime_In_180_200_Count>0</TransactionTime_In_180_200_Count>
<TransactionTime_In_gt_200_Count>0</TransactionTime_In_gt_200_Count>
<TransactionTime_Out_0_20_Count>0</TransactionTime_Out_0_20_Count>
<TransactionTime_Out_20_40_Count>0</TransactionTime_Out_20_40_Count>
<TransactionTime_Out_40_60_Count>0</TransactionTime_Out_40_60_Count>
<TransactionTime_Out_60_80_Count>0</TransactionTime_Out_60_80_Count>
<TransactionTime_Out_80_100_Count>0</TransactionTime_Out_80_100_Count>
<TransactionTime_Out_100_120_Count>0</TransactionTime_Out_100_120_Count>
<TransactionTime_Out_120_140_Count>0</TransactionTime_Out_120_140_Count>
<TransactionTime_Out_140_160_Count>0</TransactionTime_Out_140_160_Count>
<TransactionTime_Out_160_180_Count>0</TransactionTime_Out_160_180_Count>
<TransactionTime_Out_180_200_Count>0</TransactionTime_Out_180_200_Count>
<TransactionTime_Out_gt_200_Count>0</TransactionTime_Out_gt_200_Count>
</Sample>
</DiameterMraBberfPeerLatencyStats>
</Statistics>
```

Diameter MRA DRMA Latency Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterMraDrmaLatencyStats tag.

Request

This request follows the DiameterMraDrmaLatencyStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterMraDrmaLatencyStats>
<!-- MRA is optional. -->
<MRA>MRA-Cluster</MRA>
<MRA>MRA-35</MRA>
</DiameterMraDrmaLatencyStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterMraDrmaLatencyStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterMraDrmaLatencyStats>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<MRA>MRA-Cluster</MRA>
<IsComplete>true</IsComplete>
<CurrentConnectionsCount>1</CurrentConnectionsCount>
<MaxTransactionInProcessingTime>0</MaxTransactionInProcessingTime>
<AverageTransactionInProcessingTime>0</AverageTransactionInProcessingTime>
<MaxTransactionOutProcessingTime>0</MaxTransactionOutProcessingTime>
<AverageTransactionOutProcessingTime>0</AverageTransactionOutProcessingTime>
<TransactionTime_In_0_20_Count>0</TransactionTime_In_0_20_Count>
<TransactionTime_In_20_40_Count>0</TransactionTime_In_20_40_Count>
<TransactionTime_In_40_60_Count>0</TransactionTime_In_40_60_Count>
<TransactionTime_In_60_80_Count>0</TransactionTime_In_60_80_Count>
<TransactionTime_In_80_100_Count>0</TransactionTime_In_80_100_Count>
<TransactionTime_In_100_120_Count>0</TransactionTime_In_100_120_Count>
<TransactionTime_In_120_140_Count>0</TransactionTime_In_120_140_Count>
<TransactionTime_In_140_160_Count>0</TransactionTime_In_140_160_Count>
<TransactionTime_In_160_180_Count>0</TransactionTime_In_160_180_Count>
<TransactionTime_In_180_200_Count>0</TransactionTime_In_180_200_Count>
<TransactionTime_In_gt_200_Count>0</TransactionTime_In_gt_200_Count>
<TransactionTime_Out_0_20_Count>0</TransactionTime_Out_0_20_Count>
<TransactionTime_Out_20_40_Count>0</TransactionTime_Out_20_40_Count>
<TransactionTime_Out_40_60_Count>0</TransactionTime_Out_40_60_Count>
<TransactionTime_Out_60_80_Count>0</TransactionTime_Out_60_80_Count>
<TransactionTime_Out_80_100_Count>0</TransactionTime_Out_80_100_Count>
<TransactionTime_Out_100_120_Count>0</TransactionTime_Out_100_120_Count>
<TransactionTime_Out_120_140_Count>0</TransactionTime_Out_120_140_Count>
<TransactionTime_Out_140_160_Count>0</TransactionTime_Out_140_160_Count>
<TransactionTime_Out_160_180_Count>0</TransactionTime_Out_160_180_Count>
<TransactionTime_Out_180_200_Count>0</TransactionTime_Out_180_200_Count>
<TransactionTime_Out_gt_200_Count>0</TransactionTime_Out_gt_200_Count>
</Sample>
</DiameterMraDrmaLatencyStats>
</Statistics>
```

Diameter MRA DRMA Peer Latency Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterMraDrmaPeerLatencyStats tag.

Request

This request follows the DiameterMraDrmaPeerLatencyStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterMraDrmaPeerLatencyStats>
<!-- MRA is optional. -->
<MRA>MRA-Cluster</MRA>
<MRA>MRA-35</MRA>
<!-- Name is optional. -->
<Name>mra-82.oracle.com</Name>
<Name>mra-35.oracle.com</Name>
<!-- NeId is optional. -->
<NeId />
</DiameterMraDrmaPeerLatencyStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterMraDrmaPeerLatencyStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterMraDrmaPeerLatencyStats>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<MRA>MRA-Cluster</MRA>
<IsComplete>true</IsComplete>
<Name>mpe-84.oracle.com</Name>
<NeId/>
<NetworkElementType/>
<NetworkElementSubType/>
<ConnectAddress>10.196.143.179</ConnectAddress>
<ConnectPort>3868</ConnectPort>
<ConnectType>TCP</ConnectType>
<MaxTransactionInProcessingTime>0</MaxTransactionInProcessingTime>
<AverageTransactionInProcessingTime>0</AverageTransactionInProcessingTime>
<MaxTransactionOutProcessingTime>0</MaxTransactionOutProcessingTime>
<AverageTransactionOutProcessingTime>0</AverageTransactionOutProcessingTime>
<TransactionTime_In_0_20_Count>0</TransactionTime_In_0_20_Count>
<TransactionTime_In_20_40_Count>0</TransactionTime_In_20_40_Count>
<TransactionTime_In_40_60_Count>0</TransactionTime_In_40_60_Count>
<TransactionTime_In_60_80_Count>0</TransactionTime_In_60_80_Count>
<TransactionTime_In_80_100_Count>0</TransactionTime_In_80_100_Count>
<TransactionTime_In_100_120_Count>0</TransactionTime_In_100_120_Count>
<TransactionTime_In_120_140_Count>0</TransactionTime_In_120_140_Count>
<TransactionTime_In_140_160_Count>0</TransactionTime_In_140_160_Count>
<TransactionTime_In_160_180_Count>0</TransactionTime_In_160_180_Count>
```

```
<TransactionTime_In_180_200_Count>0</TransactionTime_In_180_200_Count>
<TransactionTime_In_gt_200_Count>0</TransactionTime_In_gt_200_Count>
<TransactionTime_Out_0_20_Count>0</TransactionTime_Out_0_20_Count>
<TransactionTime_Out_20_40_Count>0</TransactionTime_Out_20_40_Count>
<TransactionTime_Out_40_60_Count>0</TransactionTime_Out_40_60_Count>
<TransactionTime_Out_60_80_Count>0</TransactionTime_Out_60_80_Count>
<TransactionTime_Out_80_100_Count>0</TransactionTime_Out_80_100_Count>
<TransactionTime_Out_100_120_Count>0</TransactionTime_Out_100_120_Count>
<TransactionTime_Out_120_140_Count>0</TransactionTime_Out_120_140_Count>
<TransactionTime_Out_140_160_Count>0</TransactionTime_Out_140_160_Count>
<TransactionTime_Out_160_180_Count>0</TransactionTime_Out_160_180_Count>
<TransactionTime_Out_180_200_Count>0</TransactionTime_Out_180_200_Count>
<TransactionTime_Out_gt_200_Count>0</TransactionTime_Out_gt_200_Count>
</Sample>
</DiameterMraDrmaPeerLatencyStats>
</Statistics>
```

Diameter MRA Policy Charging Enforcement Function Latency Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterMraPcefLatencyStats tag.

Request

This request follows the DiameterMraPcefLatencyStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterMraPcefLatencyStats>
<!-- MRA is optional. -->
<MRA>MRA-Cluster</MRA>
<MRA>MRA-35</MRA>
</DiameterMraPcefLatencyStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterMraPcefLatencyStats tag defined in the Statistics section in the XSD files .

```
<Statistics>
<DiameterMraPcefLatencyStats>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<MRA>MRA-Cluster</MRA>
<IsComplete>true</IsComplete>
<CurrentConnectionsCount>1</CurrentConnectionsCount>
<MaxTransactionInProcessingTime>0</MaxTransactionInProcessingTime>
<AverageTransactionInProcessingTime>0</AverageTransactionInProcessingTime>
<MaxTransactionOutProcessingTime>0</MaxTransactionOutProcessingTime>
<AverageTransactionOutProcessingTime>0</AverageTransactionOutProcessingTime>
<TransactionTime_In_0_20_Count>0</TransactionTime_In_0_20_Count>
```

```
<TransactionTime_In_20_40_Count>0</TransactionTime_In_20_40_Count>
<TransactionTime_In_40_60_Count>0</TransactionTime_In_40_60_Count>
<TransactionTime_In_60_80_Count>0</TransactionTime_In_60_80_Count>
<TransactionTime_In_80_100_Count>0</TransactionTime_In_80_100_Count>
<TransactionTime_In_100_120_Count>0</TransactionTime_In_100_120_Count>
<TransactionTime_In_120_140_Count>0</TransactionTime_In_120_140_Count>
<TransactionTime_In_140_160_Count>0</TransactionTime_In_140_160_Count>
<TransactionTime_In_160_180_Count>0</TransactionTime_In_160_180_Count>
<TransactionTime_In_180_200_Count>0</TransactionTime_In_180_200_Count>
<TransactionTime_In_gt_200_Count>0</TransactionTime_In_gt_200_Count>
<TransactionTime_Out_0_20_Count>0</TransactionTime_Out_0_20_Count>
<TransactionTime_Out_20_40_Count>0</TransactionTime_Out_20_40_Count>
<TransactionTime_Out_40_60_Count>0</TransactionTime_Out_40_60_Count>
<TransactionTime_Out_60_80_Count>0</TransactionTime_Out_60_80_Count>
<TransactionTime_Out_80_100_Count>0</TransactionTime_Out_80_100_Count>
<TransactionTime_Out_100_120_Count>0</TransactionTime_Out_100_120_Count>
<TransactionTime_Out_120_140_Count>0</TransactionTime_Out_120_140_Count>
<TransactionTime_Out_140_160_Count>0</TransactionTime_Out_140_160_Count>
<TransactionTime_Out_160_180_Count>0</TransactionTime_Out_160_180_Count>
<TransactionTime_Out_180_200_Count>0</TransactionTime_Out_180_200_Count>
<TransactionTime_Out_gt_200_Count>0</TransactionTime_Out_gt_200_Count>
</Sample>
</DiameterMraPcefLatencyStats>
</Statistics>
```

Diameter MRA Policy Charging Enforcement Function Peer Latency Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterMraPcefPeerLatencyStats tag.

Request

This request follows the DiameterMraPcefPeerLatencyStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterMraPcefPeerLatencyStats>
<!-- MRA is optional. -->
<MRA>MRA-Cluster</MRA>
<MRA>MRA-35</MRA>
<!-- Name is optional. -->
<Name>mra-82.example.com</Name>
<Name>mra-35.example.com</Name>
<!-- NeId is optional. -->
<NeId />
</DiameterMraPcefPeerLatencyStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterMraPcefPeerLatencyStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterMraPcefPeerLatencyStats>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<MRA>MRA-Cluster</MRA>
<IsComplete>true</IsComplete>
<Name>dpi-sanity.test.com</Name>
<NeId/>
<NetworkElementType/>
<NetworkElementSubType/>
<ConnectAddress>10.148.240.54</ConnectAddress>
<ConnectPort>59038</ConnectPort>
<ConnectType>TCP</ConnectType>
<MaxTransactionInProcessingTime>0</MaxTransactionInProcessingTime>
<AverageTransactionInProcessingTime>0</AverageTransactionInProcessingTime>
<MaxTransactionOutProcessingTime>0</MaxTransactionOutProcessingTime>
<AverageTransactionOutProcessingTime>0</AverageTransactionOutProcessingTime>
<TransactionTime_In_0_20_Count>0</TransactionTime_In_0_20_Count>
<TransactionTime_In_20_40_Count>0</TransactionTime_In_20_40_Count>
<TransactionTime_In_40_60_Count>0</TransactionTime_In_40_60_Count>
<TransactionTime_In_60_80_Count>0</TransactionTime_In_60_80_Count>
<TransactionTime_In_80_100_Count>0</TransactionTime_In_80_100_Count>
<TransactionTime_In_100_120_Count>0</TransactionTime_In_100_120_Count>
<TransactionTime_In_120_140_Count>0</TransactionTime_In_120_140_Count>
<TransactionTime_In_140_160_Count>0</TransactionTime_In_140_160_Count>
<TransactionTime_In_160_180_Count>0</TransactionTime_In_160_180_Count>
<TransactionTime_In_180_200_Count>0</TransactionTime_In_180_200_Count>
<TransactionTime_In_gt_200_Count>0</TransactionTime_In_gt_200_Count>
<TransactionTime_Out_0_20_Count>0</TransactionTime_Out_0_20_Count>
<TransactionTime_Out_20_40_Count>0</TransactionTime_Out_20_40_Count>
<TransactionTime_Out_40_60_Count>0</TransactionTime_Out_40_60_Count>
<TransactionTime_Out_60_80_Count>0</TransactionTime_Out_60_80_Count>
<TransactionTime_Out_80_100_Count>0</TransactionTime_Out_80_100_Count>
<TransactionTime_Out_100_120_Count>0</TransactionTime_Out_100_120_Count>
<TransactionTime_Out_120_140_Count>0</TransactionTime_Out_120_140_Count>
<TransactionTime_Out_140_160_Count>0</TransactionTime_Out_140_160_Count>
<TransactionTime_Out_160_180_Count>0</TransactionTime_Out_160_180_Count>
<TransactionTime_Out_180_200_Count>0</TransactionTime_Out_180_200_Count>
<TransactionTime_Out_gt_200_Count>0</TransactionTime_Out_gt_200_Count>
</Sample>
</DiameterMraPcefPeerLatencyStats>
</Statistics>
```

Diameter MRA S9 Latency Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterS9LatencyStats tag.

Request

This request follows the DiameterMraS9LatencyStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterMraS9LatencyStats>
<!-- MRA is optional. -->
<MRA>MRA-Cluster</MRA>
<MRA>MRA-35</MRA>
</DiameterMraS9LatencyStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterMraS9LatencyStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterMraS9LatencyStats>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<MRA>MRA-Cluster</MRA>
<IsComplete>true</IsComplete>
<CurrentConnectionsCount>1</CurrentConnectionsCount>
<MaxTransactionInProcessingTime>0</MaxTransactionInProcessingTime>
<AverageTransactionInProcessingTime>0</AverageTransactionInProcessingTime>
<MaxTransactionOutProcessingTime>0</MaxTransactionOutProcessingTime>
<AverageTransactionOutProcessingTime>0</AverageTransactionOutProcessingTime>
<TransactionTime_In_0_20_Count>0</TransactionTime_In_0_20_Count>
<TransactionTime_In_20_40_Count>0</TransactionTime_In_20_40_Count>
<TransactionTime_In_40_60_Count>0</TransactionTime_In_40_60_Count>
<TransactionTime_In_60_80_Count>0</TransactionTime_In_60_80_Count>
<TransactionTime_In_80_100_Count>0</TransactionTime_In_80_100_Count>
<TransactionTime_In_100_120_Count>0</TransactionTime_In_100_120_Count>
<TransactionTime_In_120_140_Count>0</TransactionTime_In_120_140_Count>
<TransactionTime_In_140_160_Count>0</TransactionTime_In_140_160_Count>
<TransactionTime_In_160_180_Count>0</TransactionTime_In_160_180_Count>
<TransactionTime_In_180_200_Count>0</TransactionTime_In_180_200_Count>
<TransactionTime_In_gt_200_Count>0</TransactionTime_In_gt_200_Count>
<TransactionTime_Out_0_20_Count>0</TransactionTime_Out_0_20_Count>
<TransactionTime_Out_20_40_Count>0</TransactionTime_Out_20_40_Count>
<TransactionTime_Out_40_60_Count>0</TransactionTime_Out_40_60_Count>
<TransactionTime_Out_60_80_Count>0</TransactionTime_Out_60_80_Count>
<TransactionTime_Out_80_100_Count>0</TransactionTime_Out_80_100_Count>
<TransactionTime_Out_100_120_Count>0</TransactionTime_Out_100_120_Count>
<TransactionTime_Out_120_140_Count>0</TransactionTime_Out_120_140_Count>
<TransactionTime_Out_140_160_Count>0</TransactionTime_Out_140_160_Count>
<TransactionTime_Out_160_180_Count>0</TransactionTime_Out_160_180_Count>
<TransactionTime_Out_180_200_Count>0</TransactionTime_Out_180_200_Count>
<TransactionTime_Out_gt_200_Count>0</TransactionTime_Out_gt_200_Count>
</Sample>
</DiameterMraS9LatencyStats>
</Statistics>
```

Diameter MRA S9 Peer Latency Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterS9PeerLatencyStats tag.

Request

This request follows the DiameterMraS9PeerLatencyStats tag defined in the QueryOmStats section in the XSD files.

```
<?xml version="1.0" encoding="UTF-8"?>
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterMraS9PeerLatencyStats>
<!-- MRA is optional. -->
<MRA>MRA-Cluster</MRA>
<MRA>MRA-35</MRA>
<!-- Name is optional. -->
<Name>mra-82.example.com</Name>
<Name>mra-35.example.com</Name>
<!-- NeId is optional. -->
<NeId />
</DiameterMraS9PeerLatencyStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterMraS9PeerLatencyStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterMraS9PeerLatencyStats>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<MRA>MRA-Cluster</MRA>
<IsComplete>true</IsComplete>
<Name>mpe-84.example.com</Name>
<NeId/>
<NetworkElementType/>
<NetworkElementSubType/>
<ConnectAddress>10.196.143.179</ConnectAddress>
<ConnectPort>3868</ConnectPort>
<ConnectType>TCP</ConnectType>
<MaxTransactionInProcessingTime>0</MaxTransactionInProcessingTime>
<AverageTransactionInProcessingTime>0</AverageTransactionInProcessingTime>
<MaxTransactionOutProcessingTime>0</MaxTransactionOutProcessingTime>
<AverageTransactionOutProcessingTime>0</AverageTransactionOutProcessingTime>
<TransactionTime_In_0_20_Count>0</TransactionTime_In_0_20_Count>
<TransactionTime_In_20_40_Count>0</TransactionTime_In_20_40_Count>
<TransactionTime_In_40_60_Count>0</TransactionTime_In_40_60_Count>
<TransactionTime_In_60_80_Count>0</TransactionTime_In_60_80_Count>
<TransactionTime_In_80_100_Count>0</TransactionTime_In_80_100_Count>
<TransactionTime_In_100_120_Count>0</TransactionTime_In_100_120_Count>
<TransactionTime_In_120_140_Count>0</TransactionTime_In_120_140_Count>
<TransactionTime_In_140_160_Count>0</TransactionTime_In_140_160_Count>
```

```
<TransactionTime_In_160_180_Count>0</TransactionTime_In_160_180_Count>
<TransactionTime_In_180_200_Count>0</TransactionTime_In_180_200_Count>
<TransactionTime_In_gt_200_Count>0</TransactionTime_In_gt_200_Count>
<TransactionTime_Out_0_20_Count>0</TransactionTime_Out_0_20_Count>
<TransactionTime_Out_20_40_Count>0</TransactionTime_Out_20_40_Count>
<TransactionTime_Out_40_60_Count>0</TransactionTime_Out_40_60_Count>
<TransactionTime_Out_60_80_Count>0</TransactionTime_Out_60_80_Count>
<TransactionTime_Out_80_100_Count>0</TransactionTime_Out_80_100_Count>
<TransactionTime_Out_100_120_Count>0</TransactionTime_Out_100_120_Count>
<TransactionTime_Out_120_140_Count>0</TransactionTime_Out_120_140_Count>
<TransactionTime_Out_140_160_Count>0</TransactionTime_Out_140_160_Count>
<TransactionTime_Out_160_180_Count>0</TransactionTime_Out_160_180_Count>
<TransactionTime_Out_180_200_Count>0</TransactionTime_Out_180_200_Count>
<TransactionTime_Out_gt_200_Count>0</TransactionTime_Out_gt_200_Count>
</Sample>
</DiameterMraS9PeerLatencyStats>
</Statistics>
```

Diameter MRA TDF Latency Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterMraTdfLatencyStats tag.

Request

This request follows the DiameterMraTdfLatencyStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterMraTdfLatencyStats>
<!-- MRA is optional. -->
<MRA>MRA-Cluster</MRA>
<MRA>MRA-35</MRA>
</DiameterMraTdfLatencyStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterMraTdfLatencyStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterMraTdfLatencyStats>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<MRA>MRA-Cluster</MRA>
<IsComplete>true</IsComplete>
<CurrentConnectionsCount>1</CurrentConnectionsCount>
<MaxTransactionInProcessingTime>0</MaxTransactionInProcessingTime>
<AverageTransactionInProcessingTime>0</AverageTransactionInProcessingTime>
<MaxTransactionOutProcessingTime>0</MaxTransactionOutProcessingTime>
<AverageTransactionOutProcessingTime>0</AverageTransactionOutProcessingTime>
<TransactionTime_In_0_20_Count>0</TransactionTime_In_0_20_Count>
```

```
<TransactionTime_In_20_40_Count>0</TransactionTime_In_20_40_Count>
<TransactionTime_In_40_60_Count>0</TransactionTime_In_40_60_Count>
<TransactionTime_In_60_80_Count>0</TransactionTime_In_60_80_Count>
<TransactionTime_In_80_100_Count>0</TransactionTime_In_80_100_Count>
<TransactionTime_In_100_120_Count>0</TransactionTime_In_100_120_Count>
<TransactionTime_In_120_140_Count>0</TransactionTime_In_120_140_Count>
<TransactionTime_In_140_160_Count>0</TransactionTime_In_140_160_Count>
<TransactionTime_In_160_180_Count>0</TransactionTime_In_160_180_Count>
<TransactionTime_In_180_200_Count>0</TransactionTime_In_180_200_Count>
<TransactionTime_In_gt_200_Count>0</TransactionTime_In_gt_200_Count>
<TransactionTime_Out_0_20_Count>0</TransactionTime_Out_0_20_Count>
<TransactionTime_Out_20_40_Count>0</TransactionTime_Out_20_40_Count>
<TransactionTime_Out_40_60_Count>0</TransactionTime_Out_40_60_Count>
<TransactionTime_Out_60_80_Count>0</TransactionTime_Out_60_80_Count>
<TransactionTime_Out_80_100_Count>0</TransactionTime_Out_80_100_Count>
<TransactionTime_Out_100_120_Count>0</TransactionTime_Out_100_120_Count>
<TransactionTime_Out_120_140_Count>0</TransactionTime_Out_120_140_Count>
<TransactionTime_Out_140_160_Count>0</TransactionTime_Out_140_160_Count>
<TransactionTime_Out_160_180_Count>0</TransactionTime_Out_160_180_Count>
<TransactionTime_Out_180_200_Count>0</TransactionTime_Out_180_200_Count>
<TransactionTime_Out_gt_200_Count>0</TransactionTime_Out_gt_200_Count>
</Sample>
<Sample>
<StartTime>2016-05-17T00:00:01Z</StartTime>
<EndTime>2016-05-17T00:15:01Z</EndTime>
<MRA>MRA-Cluster</MRA>
<IsComplete>true</IsComplete>
<CurrentConnectionsCount>1</CurrentConnectionsCount>
<MaxTransactionInProcessingTime>0</MaxTransactionInProcessingTime>
<AverageTransactionInProcessingTime>0</AverageTransactionInProcessingTime>
<MaxTransactionOutProcessingTime>0</MaxTransactionOutProcessingTime>
<AverageTransactionOutProcessingTime>0</AverageTransactionOutProcessingTime>
<TransactionTime_In_0_20_Count>0</TransactionTime_In_0_20_Count>
<TransactionTime_In_20_40_Count>0</TransactionTime_In_20_40_Count>
<TransactionTime_In_40_60_Count>0</TransactionTime_In_40_60_Count>
<TransactionTime_In_60_80_Count>0</TransactionTime_In_60_80_Count>
<TransactionTime_In_80_100_Count>0</TransactionTime_In_80_100_Count>
<TransactionTime_In_100_120_Count>0</TransactionTime_In_100_120_Count>
<TransactionTime_In_120_140_Count>0</TransactionTime_In_120_140_Count>
<TransactionTime_In_140_160_Count>0</TransactionTime_In_140_160_Count>
<TransactionTime_In_160_180_Count>0</TransactionTime_In_160_180_Count>
<TransactionTime_In_180_200_Count>0</TransactionTime_In_180_200_Count>
<TransactionTime_In_gt_200_Count>0</TransactionTime_In_gt_200_Count>
<TransactionTime_Out_0_20_Count>0</TransactionTime_Out_0_20_Count>
<TransactionTime_Out_20_40_Count>0</TransactionTime_Out_20_40_Count>
<TransactionTime_Out_40_60_Count>0</TransactionTime_Out_40_60_Count>
<TransactionTime_Out_60_80_Count>0</TransactionTime_Out_60_80_Count>
<TransactionTime_Out_80_100_Count>0</TransactionTime_Out_80_100_Count>
<TransactionTime_Out_100_120_Count>0</TransactionTime_Out_100_120_Count>
<TransactionTime_Out_120_140_Count>0</TransactionTime_Out_120_140_Count>
<TransactionTime_Out_140_160_Count>0</TransactionTime_Out_140_160_Count>
<TransactionTime_Out_160_180_Count>0</TransactionTime_Out_160_180_Count>
<TransactionTime_Out_180_200_Count>0</TransactionTime_Out_180_200_Count>
<TransactionTime_Out_gt_200_Count>0</TransactionTime_Out_gt_200_Count>
</Sample>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:00Z</EndTime>
<MRA>MRA-35</MRA>
<IsComplete>true</IsComplete>
<CurrentConnectionsCount>1</CurrentConnectionsCount>
<MaxTransactionInProcessingTime>0</MaxTransactionInProcessingTime>
<AverageTransactionInProcessingTime>0</AverageTransactionInProcessingTime>
<MaxTransactionOutProcessingTime>0</MaxTransactionOutProcessingTime>
```

```
<AverageTransactionOutProcessingTime>0</AverageTransactionOutProcessingTime>
<TransactionTime_In_0_20_Count>0</TransactionTime_In_0_20_Count>
<TransactionTime_In_20_40_Count>0</TransactionTime_In_20_40_Count>
<TransactionTime_In_40_60_Count>0</TransactionTime_In_40_60_Count>
<TransactionTime_In_60_80_Count>0</TransactionTime_In_60_80_Count>
<TransactionTime_In_80_100_Count>0</TransactionTime_In_80_100_Count>
<TransactionTime_In_100_120_Count>0</TransactionTime_In_100_120_Count>
<TransactionTime_In_120_140_Count>0</TransactionTime_In_120_140_Count>
<TransactionTime_In_140_160_Count>0</TransactionTime_In_140_160_Count>
<TransactionTime_In_160_180_Count>0</TransactionTime_In_160_180_Count>
<TransactionTime_In_180_200_Count>0</TransactionTime_In_180_200_Count>
<TransactionTime_In_gt_200_Count>0</TransactionTime_In_gt_200_Count>
<TransactionTime_Out_0_20_Count>0</TransactionTime_Out_0_20_Count>
<TransactionTime_Out_20_40_Count>0</TransactionTime_Out_20_40_Count>
<TransactionTime_Out_40_60_Count>0</TransactionTime_Out_40_60_Count>
<TransactionTime_Out_60_80_Count>0</TransactionTime_Out_60_80_Count>
<TransactionTime_Out_80_100_Count>0</TransactionTime_Out_80_100_Count>
<TransactionTime_Out_100_120_Count>0</TransactionTime_Out_100_120_Count>
<TransactionTime_Out_120_140_Count>0</TransactionTime_Out_120_140_Count>
<TransactionTime_Out_140_160_Count>0</TransactionTime_Out_140_160_Count>
<TransactionTime_Out_160_180_Count>0</TransactionTime_Out_160_180_Count>
<TransactionTime_Out_180_200_Count>0</TransactionTime_Out_180_200_Count>
<TransactionTime_Out_gt_200_Count>0</TransactionTime_Out_gt_200_Count>
</Sample>
<Sample>
<StartTime>2016-05-17T00:00:00Z</StartTime>
<EndTime>2016-05-17T00:15:00Z</EndTime>
<MRA>MRA-35</MRA>
<IsComplete>true</IsComplete>
<CurrentConnectionsCount>1</CurrentConnectionsCount>
<MaxTransactionInProcessingTime>0</MaxTransactionInProcessingTime>
<AverageTransactionInProcessingTime>0</AverageTransactionInProcessingTime>
<MaxTransactionOutProcessingTime>0</MaxTransactionOutProcessingTime>
<AverageTransactionOutProcessingTime>0</AverageTransactionOutProcessingTime>
<TransactionTime_In_0_20_Count>0</TransactionTime_In_0_20_Count>
<TransactionTime_In_20_40_Count>0</TransactionTime_In_20_40_Count>
<TransactionTime_In_40_60_Count>0</TransactionTime_In_40_60_Count>
<TransactionTime_In_60_80_Count>0</TransactionTime_In_60_80_Count>
<TransactionTime_In_80_100_Count>0</TransactionTime_In_80_100_Count>
<TransactionTime_In_100_120_Count>0</TransactionTime_In_100_120_Count>
<TransactionTime_In_120_140_Count>0</TransactionTime_In_120_140_Count>
<TransactionTime_In_140_160_Count>0</TransactionTime_In_140_160_Count>
<TransactionTime_In_160_180_Count>0</TransactionTime_In_160_180_Count>
<TransactionTime_In_180_200_Count>0</TransactionTime_In_180_200_Count>
<TransactionTime_In_gt_200_Count>0</TransactionTime_In_gt_200_Count>
<TransactionTime_Out_0_20_Count>0</TransactionTime_Out_0_20_Count>
<TransactionTime_Out_20_40_Count>0</TransactionTime_Out_20_40_Count>
<TransactionTime_Out_40_60_Count>0</TransactionTime_Out_40_60_Count>
<TransactionTime_Out_60_80_Count>0</TransactionTime_Out_60_80_Count>
<TransactionTime_Out_80_100_Count>0</TransactionTime_Out_80_100_Count>
<TransactionTime_Out_100_120_Count>0</TransactionTime_Out_100_120_Count>
<TransactionTime_Out_120_140_Count>0</TransactionTime_Out_120_140_Count>
<TransactionTime_Out_140_160_Count>0</TransactionTime_Out_140_160_Count>
<TransactionTime_Out_160_180_Count>0</TransactionTime_Out_160_180_Count>
<TransactionTime_Out_180_200_Count>0</TransactionTime_Out_180_200_Count>
<TransactionTime_Out_gt_200_Count>0</TransactionTime_Out_gt_200_Count>
</Sample>
<Sample>
<StartTime>2016-05-17T00:15:00Z</StartTime>
<EndTime>2016-05-17T00:30:00Z</EndTime>
<MRA>MRA-35</MRA>
<IsComplete>true</IsComplete>
<CurrentConnectionsCount>1</CurrentConnectionsCount>
<MaxTransactionInProcessingTime>0</MaxTransactionInProcessingTime>
```

```
<AverageTransactionInProcessingTime>0</AverageTransactionInProcessingTime>
<MaxTransactionOutProcessingTime>0</MaxTransactionOutProcessingTime>
<AverageTransactionOutProcessingTime>0</AverageTransactionOutProcessingTime>
<TransactionTime_In_0_20_Count>0</TransactionTime_In_0_20_Count>
<TransactionTime_In_20_40_Count>0</TransactionTime_In_20_40_Count>
<TransactionTime_In_40_60_Count>0</TransactionTime_In_40_60_Count>
<TransactionTime_In_60_80_Count>0</TransactionTime_In_60_80_Count>
<TransactionTime_In_80_100_Count>0</TransactionTime_In_80_100_Count>
<TransactionTime_In_100_120_Count>0</TransactionTime_In_100_120_Count>
<TransactionTime_In_120_140_Count>0</TransactionTime_In_120_140_Count>
<TransactionTime_In_140_160_Count>0</TransactionTime_In_140_160_Count>
<TransactionTime_In_160_180_Count>0</TransactionTime_In_160_180_Count>
<TransactionTime_In_180_200_Count>0</TransactionTime_In_180_200_Count>
<TransactionTime_In_gt_200_Count>0</TransactionTime_In_gt_200_Count>
<TransactionTime_Out_0_20_Count>0</TransactionTime_Out_0_20_Count>
<TransactionTime_Out_20_40_Count>0</TransactionTime_Out_20_40_Count>
<TransactionTime_Out_40_60_Count>0</TransactionTime_Out_40_60_Count>
<TransactionTime_Out_60_80_Count>0</TransactionTime_Out_60_80_Count>
<TransactionTime_Out_80_100_Count>0</TransactionTime_Out_80_100_Count>
<TransactionTime_Out_100_120_Count>0</TransactionTime_Out_100_120_Count>
<TransactionTime_Out_120_140_Count>0</TransactionTime_Out_120_140_Count>
<TransactionTime_Out_140_160_Count>0</TransactionTime_Out_140_160_Count>
<TransactionTime_Out_160_180_Count>0</TransactionTime_Out_160_180_Count>
<TransactionTime_Out_180_200_Count>0</TransactionTime_Out_180_200_Count>
<TransactionTime_Out_gt_200_Count>0</TransactionTime_Out_gt_200_Count>
</Sample>
</DiameterMraTdfLatencyStats>
</Statistics>
```

Diameter MRA TDF Peer Latency Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterMraTdfPeerLatencyStats tag.

Request

This request follows the DiameterMraTdfPeerLatencyStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<DiameterMraTdfPeerLatencyStats>
<!-- MRA is optional. -->
<MRA>MRA-Cluster</MRA>
<MRA>MRA-35</MRA>
<!-- Name is optional. -->
<Name>mra-82.example.com</Name>
<Name>mra-35.example.com</Name>
<!-- NeId is optional. -->
<NeId />
</DiameterMraTdfPeerLatencyStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterMraTdfPeerLatencyStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterMraTdfPeerLatencyStats>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<MRA>MRA-Cluster</MRA>
<IsComplete>true</IsComplete>
<Name>mpe-84.example.com</Name>
<NeId/>
<NetworkElementType/>
<NetworkElementSubType/>
<ConnectAddress>10.196.143.179</ConnectAddress>
<ConnectPort>3868</ConnectPort>
<ConnectType>TCP</ConnectType>
<MaxTransactionInProcessingTime>0</MaxTransactionInProcessingTime>
<AverageTransactionInProcessingTime>0</AverageTransactionInProcessingTime>
<MaxTransactionOutProcessingTime>0</MaxTransactionOutProcessingTime>
<AverageTransactionOutProcessingTime>0</AverageTransactionOutProcessingTime>
<TransactionTime_In_0_20_Count>0</TransactionTime_In_0_20_Count>
<TransactionTime_In_20_40_Count>0</TransactionTime_In_20_40_Count>
<TransactionTime_In_40_60_Count>0</TransactionTime_In_40_60_Count>
<TransactionTime_In_60_80_Count>0</TransactionTime_In_60_80_Count>
<TransactionTime_In_80_100_Count>0</TransactionTime_In_80_100_Count>
<TransactionTime_In_100_120_Count>0</TransactionTime_In_100_120_Count>
<TransactionTime_In_120_140_Count>0</TransactionTime_In_120_140_Count>
<TransactionTime_In_140_160_Count>0</TransactionTime_In_140_160_Count>
<TransactionTime_In_160_180_Count>0</TransactionTime_In_160_180_Count>
<TransactionTime_In_180_200_Count>0</TransactionTime_In_180_200_Count>
<TransactionTime_In_gt_200_Count>0</TransactionTime_In_gt_200_Count>
<TransactionTime_Out_0_20_Count>0</TransactionTime_Out_0_20_Count>
<TransactionTime_Out_20_40_Count>0</TransactionTime_Out_20_40_Count>
<TransactionTime_Out_40_60_Count>0</TransactionTime_Out_40_60_Count>
<TransactionTime_Out_60_80_Count>0</TransactionTime_Out_60_80_Count>
<TransactionTime_Out_80_100_Count>0</TransactionTime_Out_80_100_Count>
<TransactionTime_Out_100_120_Count>0</TransactionTime_Out_100_120_Count>
<TransactionTime_Out_120_140_Count>0</TransactionTime_Out_120_140_Count>
<TransactionTime_Out_140_160_Count>0</TransactionTime_Out_140_160_Count>
<TransactionTime_Out_160_180_Count>0</TransactionTime_Out_160_180_Count>
<TransactionTime_Out_180_200_Count>0</TransactionTime_Out_180_200_Count>
<TransactionTime_Out_gt_200_Count>0</TransactionTime_Out_gt_200_Count>
</Sample>
</DiameterMraTdfPeerLatencyStats>
</Statistics>
```

About Error Statistics

This section shows the requests and responses for the following:

- *Connection Error Statistics*
- *Protocol Error Statistics*
- *Diameter Message Error Statistics*

Connection Error Statistics

The following examples show the request and response that are defined in the XSD files for the ConnectionErrorStats tag.

Request

This request follows the ConnectionErrorStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<ConnectionErrorStats>
<!-- Name is optional. -->
<Name>mra-82.example.com</Name>
<Name>mra-35.example.com</Name>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
<!-- MRA is optional. -->
<MRA>MRA-Cluster</MRA>
<MRA>MRA-35</MRA>
</ConnectionErrorStats>
</QueryOmStats>
```

Response

The response to this request follows the ConnectionErrorStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<ConnectionErrorStats>
<Sample>
<StartTime>2016-05-16T23:45:01Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<IsComplete>true</IsComplete>
<Name>MRA-82.example.com</Name>
<NeId>MRA-82.example.com</NeId>
<DiameterUserUnknownReceived>0</DiameterUserUnknownReceived>
<DiameterUserUnknownSent>0</DiameterUserUnknownSent>
<DiameterUnableToComplyReceived>0</DiameterUnableToComplyReceived>
<DiameterUnableToComplySent>0</DiameterUnableToComplySent>
<DiameterErrorUserUnknownReceived>0</DiameterErrorUserUnknownReceived>
<DiameterErrorUserUnknownSent>0</DiameterErrorUserUnknownSent>
</Sample>
</ConnectionErrorStats>
</Statistics>
```

Protocol Error Statistics

The following examples show the request and response that are defined in the XSD files for the ProtocolErrorStats tag.

Request

This request follows the ProtocolErrorStats tag defined in the QueryOmStats section of the XSD files.

```
<?xml version="1.0" encoding="UTF-8"?>
<QueryOmStats>
<StartTime>2016-04-21T14:15:00Z</StartTime>
<EndTime>2016-04-21T14:30:00Z</EndTime>
<ProtocolErrorStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
</ProtocolErrorStats>
</QueryOmStats>
```

Response

The response to this request follows the ProtocolErrorStats tag defined in the Statistics section of the XSD files.

```
<?xml version='1.0' ?>
<Statistics>
 <ProtocolErrorStats>
   <Sample>
     <StartTime>2016-04-21T03:45:11Z</StartTime>
     <EndTime>2016-04-21T03:45:33Z</EndTime>
     <PolicyServer>MPE-Cluster</PolicyServer>
     <PolicyServer>MPE-173</PolicyServer>
     <DiameterCommandUnsupportedReceived>0</DiameterCommandUnsupportedReceived>

     <DiameterCommandUnsupportedSent>0</DiameterCommandUnsupportedSent>
     <DiameterUnableToDeliverReceived>0</DiameterUnableToDeliverReceived>
     <DiameterUnableToDeliverSent>0</DiameterUnableToDeliverSent>
     <DiameterRealmNotServedReceived>0</DiameterRealmNotServedReceived>
     <DiameterRealmNotServedSent>0</DiameterRealmNotServedSent>
     <DiameterTooBusyReceived>0</DiameterTooBusyReceived>
     <DiameterTooBusySent>0</DiameterTooBusySent>
     <DiameterLoopDetectedReceived>0</DiameterLoopDetectedReceived>
     <DiameterLoopDetectedSent>0</DiameterLoopDetectedSent>
     <DiameterRedirectIndicationReceived>0</DiameterRedirectIndicationReceived>

     <DiameterRedirectIndicationSent>0</DiameterRedirectIndicationSent>

<DiameterApplicationUnsupportedReceived>0</DiameterApplicationUnsupportedReceived>

     <DiameterApplicationUnsupportedSent>0</DiameterApplicationUnsupportedSent>

     <DiameterInvalidHdrBitsReceived>0</DiameterInvalidHdrBitsReceived>
     <DiameterInvalidHdrBitsSent>0</DiameterInvalidHdrBitsSent>
     <DiameterInvalidAvpBitsReceived>0</DiameterInvalidAvpBitsReceived>
     <DiameterInvalidAvpBitsSent>0</DiameterInvalidAvpBitsSent>
     <DiameterUnknownPeerReceived>0</DiameterUnknownPeerReceived>
     <DiameterUnknownPeerSent>0</DiameterUnknownPeerSent>

<DiameterAuthenticationRejectedReceived>0</DiameterAuthenticationRejectedReceived>

     <DiameterAuthenticationRejectedSent>0</DiameterAuthenticationRejectedSent>

     <DiameterOutOfSpaceReceived>0</DiameterOutOfSpaceReceived>
     <DiameterOutOfSpaceSent>0</DiameterOutOfSpaceSent>
```

```
     <ElectionLostReceived>0</ElectionLostReceived>
     <ElectionLostSent>0</ElectionLostSent>

<DiameterEndUserServiceDeniedReceived>0</DiameterEndUserServiceDeniedReceived>
     <DiameterEndUserServiceDeniedSent>0</DiameterEndUserServiceDeniedSent>

<DiameterCreditControlNotApplicableReceived>0</DiameterCreditControlNotApplicableReceived>


<DiameterCreditControlNotApplicableSent>0</DiameterCreditControlNotApplicableSent>

     <DiameterCreditLimitReachedReceived>0</DiameterCreditLimitReachedReceived>

     <DiameterCreditLimitReachedSent>0</DiameterCreditLimitReachedSent>
     <DiameterAvpUnsupportedReceived>0</DiameterAvpUnsupportedReceived>
     <DiameterAvpUnsupportedSent>0</DiameterAvpUnsupportedSent>
     <DiameterUnknownSessionIdReceived>0</DiameterUnknownSessionIdReceived>
     <DiameterUnknownSessionIdSent>0</DiameterUnknownSessionIdSent>

<DiameterAuthorizationRejectedReceived>0</DiameterAuthorizationRejectedReceived>

     <DiameterAuthorizationRejectedSent>0</DiameterAuthorizationRejectedSent>
     <DiameterInvalidAvpValueReceived>0</DiameterInvalidAvpValueReceived>
     <DiameterInvalidAvpValueSent>0</DiameterInvalidAvpValueSent>
     <DiameterMissingAvpReceived>0</DiameterMissingAvpReceived>
     <DiameterMissingAvpSent>0</DiameterMissingAvpSent>
     <DiameterResourcesExceededReceived>0</DiameterResourcesExceededReceived>

     <DiameterResourcesExceededSent>0</DiameterResourcesExceededSent>
     <DiameterContradictingAvpsReceived>0</DiameterContradictingAvpsReceived>
     <DiameterContradictingAvpsSent>0</DiameterContradictingAvpsSent>
     <DiameterAvpNotAllowedReceived>0</DiameterAvpNotAllowedReceived>
     <DiameterAvpNotAllowedSent>0</DiameterAvpNotAllowedSent>

<DiameterAvpOccursTooManyTimesReceived>0</DiameterAvpOccursTooManyTimesReceived>

     <DiameterAvpOccursTooManyTimesSent>0</DiameterAvpOccursTooManyTimesSent>
    <DiameterNoCommonApplicationReceived>0</DiameterNoCommonApplicationReceived>

     <DiameterNoCommonApplicationSent>0</DiameterNoCommonApplicationSent>
     <DiameterUnsupportedVersionReceived>0</DiameterUnsupportedVersionReceived>

     <DiameterUnsupportedVersionSent>0</DiameterUnsupportedVersionSent>
     <DiameterUnableToComplyReceived>0</DiameterUnableToComplyReceived>
     <DiameterUnableToComplySent>0</DiameterUnableToComplySent>
     <DiameterInvalidBitInHeaderReceived>0</DiameterInvalidBitInHeaderReceived>

     <DiameterInvalidBitInHeaderSent>0</DiameterInvalidBitInHeaderSent>
     <DiameterInvalidAvpLengthReceived>0</DiameterInvalidAvpLengthReceived>
     <DiameterInvalidAvpLengthSent>0</DiameterInvalidAvpLengthSent>

<DiameterInvalidMessageLengthReceived>0</DiameterInvalidMessageLengthReceived>
     <DiameterInvalidMessageLengthSent>0</DiameterInvalidMessageLengthSent>
     <DiameterInvalidAvpBitComboReceived>0</DiameterInvalidAvpBitComboReceived>

     <DiameterInvalidAvpBitComboSent>0</DiameterInvalidAvpBitComboSent>
     <DiameterNoCommonSecurityReceived>0</DiameterNoCommonSecurityReceived>
     <DiameterNoCommonSecuritySent>0</DiameterNoCommonSecuritySent>
     <DiameterUserUnknownReceived>0</DiameterUserUnknownReceived>
     <DiameterUserUnknownSent>0</DiameterUserUnknownSent>
     <DiameterRatingFailedReceived>0</DiameterRatingFailedReceived>
     <DiameterRatingFailedSent>0</DiameterRatingFailedSent>

<DiameterErrorInitialParametersReceived>0</DiameterErrorInitialParametersReceived>
```

```
     <DiameterErrorInitialParametersSent>2</DiameterErrorInitialParametersSent>


<RadiusSessionContyextRemovedReceived>0</RadiusSessionContyextRemovedReceived>
     <RadiusSessionContyextRemovedSent>0</RadiusSessionContyextRemovedSent>
     <RadiusInvalidEapPacketReceived>0</RadiusInvalidEapPacketReceived>
     <RadiusInvalidEapPacketSent>0</RadiusInvalidEapPacketSent>
     <RadiusUnsupportedAttributeReceived>0</RadiusUnsupportedAttributeReceived>

     <RadiusUnsupportedAttributeSent>0</RadiusUnsupportedAttributeSent>
     <RadiusMissingAttributeReceived>0</RadiusMissingAttributeReceived>
     <RadiusMissingAttributeSent>0</RadiusMissingAttributeSent>
     <RadiusNasIdMismatchReceived>0</RadiusNasIdMismatchReceived>
     <RadiusNasIdMismatchSent>0</RadiusNasIdMismatchSent>
     <RadiusInvalidRequestReceived>0</RadiusInvalidRequestReceived>
     <RadiusInvalidRequestSent>0</RadiusInvalidRequestSent>
     <RadiusUnsupportedServiceReceived>0</RadiusUnsupportedServiceReceived>
     <RadiusUnsupportedServiceSent>0</RadiusUnsupportedServiceSent>
     <RadiusUnsupportedExtensionReceived>0</RadiusUnsupportedExtensionReceived>

     <RadiusUnsupportedExtensionSent>0</RadiusUnsupportedExtensionSent>
    <RadiusInvalidAttributeValueReceived>0</RadiusInvalidAttributeValueReceived>

     <RadiusInvalidAttributeValueSent>0</RadiusInvalidAttributeValueSent>

<RadiusAdministrativelyProhibitedReceived>0</RadiusAdministrativelyProhibitedReceived>


<RadiusAdministrativelyProhibitedSent>0</RadiusAdministrativelyProhibitedSent>
     <RadiusRequestNotRoutableReceived>0</RadiusRequestNotRoutableReceived>

     <RadiusRequestNotRoutableSent>0</RadiusRequestNotRoutableSent>
     <RadiusSessionNotFoundReceived>0</RadiusSessionNotFoundReceived>
     <RadiusSessionNotFoundSent>0</RadiusSessionNotFoundSent>
     <RadiusSessionNotRemoveableReceived>0</RadiusSessionNotRemoveableReceived>

     <RadiusSessionNotRemoveableSent>0</RadiusSessionNotRemoveableSent>
     <RadiusProxyProcessingErrorReceived>0</RadiusProxyProcessingErrorReceived>

     <RadiusProxyProcessingErrorSent>0</RadiusProxyProcessingErrorSent>
     <RadiusResourcesUnavailableReceived>0</RadiusResourcesUnavailableReceived>

     <RadiusResourcesUnavailableSent>0</RadiusResourcesUnavailableSent>
     <RadiusRequestInitiatedReceived>0</RadiusRequestInitiatedReceived>
     <RadiusRequestInitiatedSent>0</RadiusRequestInitiatedSent>

<RadiusMultiSessionSelectionUnsupportedReceived>0</RadiusMultiSessionSelectionUnsupportedReceived>


<RadiusMultiSessionSelectionUnsupportedSent>0</RadiusMultiSessionSelectionUnsupportedSent>

     <RadiusLocationInfoRequiredReceived>0</RadiusLocationInfoRequiredReceived>

     <RadiusLocationInfoRequiredSent>0</RadiusLocationInfoRequiredSent>
    </Sample>
  </ProtocolErrorStats>
</Statistics>
```

Individual Statistics

Individual statistics defined for this tag are:

- DiameterCommandUnsupported

  The request contained a command code that the receiver did not recognize or support.

- DiameterUnableToDeliver

  This error is given when the diameter node cannot deliver the message to the destination, either because a host within the realm that supports the required application is not available to process the request, or because Destination-Host AVP is given without the associated Destination-Realm AVP.

- DiameterRealmNotServed

  The intended realm of the request is not recognized.

- DiameterTooBusy

  The diameter node has too much traffic. When returned, a diameter node attempts to send the message to an alternate peer.

- DiameterLoopDetected

  An agent detected a loop while trying to get the message to the intended recipient. The message may be sent to an alternate peer if available.

- DiameterRedirectIndication

  A redirect agent has determined that the request could not be satisfied locally and the initiator of the request should direct the request directly to the server, whose contact information has been added to the response. When set, the Redirect-Host AVP must be present.

- DiameterApplicationUnsupported

  A request was sent for an application that is not supported.

- DiameterInvalidHdrBits

  A request was received whose bits in the diameter header were either set to an invalid combination, or to a value that is inconsistent with the definition of the command code.

- DiameterInvalidAvpBits

  A request was received that included an AVP whose flag bits are set to an unrecognized value, or that is inconsistent with the definition of the AVP.

- DiameterUnknownPeer

  A CER was received from an unknown peer.

- DiameterAuthenticationRejected

  The authentication process for the user failed, most likely due to an invalid password used by the user. The user is then prompted for a new password.

- DiameterOutOfSpace

  A diameter node received the accounting request but was unable to commit it to stable storage due to a temporary lack of space.

- ElectionLost

  The peer has lost the election process and has disconnected the transport connection.

- DiameterEndUserServiceDenied

  The credit-control server denied the service request due to service restrictions. If the CCR contained used-service-units, they are deducted, if possible.

- DiameterCreditControlNotApplicable

  The credit-control server determined that the service can be granted to the end user, but that no further credit control is needed for the service (for example, the service is free of charge).

- DiameterCreditLimitReached

  The credit-control server denied the service request because the account for the end user could not cover the requested service. If the CCR contained used-service-units, they are deducted, if possible.

- DiameterAvpUnsupported

  The peer received a message that contained an AVP that is not recognized or supported and was marked with the Mandatory bit.

- DiameterUnknownSessionId

  The request contained an unknown Session-ID.

- DiameterAuthorizationRejected

  A request was received for which the user could not be authorized. This error could occur if the requested service is not permitted to the user.

- DiameterInvalidAvpValue

  The request contained an AVP with an invalid value in its data portion.

- DiameterMissingAvp

  The request did not contain an AVP that is required by the command code definition. If this value is sent in the Result-Code AVP, a Failed-AVP AVP is included in the message.

- DiameterResourcesExceeded

  A request was received that cannot be authorized because the user has already expended its allowed resources.

- DiameterContradictingAvps

  The Home Diameter server has detected AVPs in the request that contradict each other, and is not willing to provide service to the user.

- DiameterAvpNotAllowed

  A message was received with an AVP that cannot be present.

- DiameterAvpOccursTooManyTimes

  A message was received that included an AVP that appeared more often than permitted.

- DiameterNoCommonApplication

  This error is returned when a CER message is received, and there are no common applications supported between the peers.

- DiameterUnsupportedVersion

This error is returned when a request was received with an unsupported version number.

- DiameterUnableToComply

  This error is returned when a request is rejected for unspecified reasons.

- DiameterInvalidBitInHeader

  This error is returned when an unrecognized bit in the diameter header is set to one (1).

- DiameterInvalidAvpLength

  The request contained an AVP with an invalid length.

- DiameterInvalidMessageLength

  This error is returned when a request is received with an invalid message length.

- DiameterInvalidAvpBitCombo

  The request contained an AVP with an invalid AVP Flags value.

- DiameterNoCommonSecurity

  This error is returned when a CER message is received, but there are no common security mechanisms supported between the peers.

- DiameterUserUnknown

  The specified end user is unknown in the credit-control server.

- DiameterRatingFailed

  This error code is used to inform the credit-control client that the credit-control server cannot rate the service request due to insufficient rating input, an incorrect AVP combination, or an AVP or AVP value that is not recognized or supported in the rating.

- DiameterErrorInitialParameters

  The initial parameters contain an error.

- RadiusSessionContyextRemoved

  The residual session context has been removed.

- RadiusInvalidEapPacket

  An invalid EAP Packet was detected.

- RadiusUnsupportedAttribute

  The request contained an unsupported attribute.

- RadiusMissingAttribute

  A request was missing a required attribute.

- RadiusNasIdMismatch

  The system was unable to match the received NAS to the stored information.

- RadiusInvalidRequest

  The system has received an invalid request.

- RadiusUnsupportedService

  The requested service is not supported.

- RadiusUnsupportedExtension

  The requested extension is not supported.

- RadiusInvalidAttributeValue

  The request contains an invalid attribute value.

- RadiusAdministrativelyProhibited

  The request is administratively prohibited.

- RadiusRequestNotRoutable

  The request cannot be routed.

- RadiusSessionNotFound

  The session context cannot be found.

- RadiusSessionNotRemoveable

  The session context cannot be removed.

- RadiusProxyProcessingError

  An unknown proxy processing error has occurred.

- RadiusResourcesUnavailable

  The necessary resources are unavailable.

- RadiusRequestInitiated

  A request has been initiated.

- RadiusMultiSessionSelectionUnsupported

  The requested multiple-session selection is not supported.

- RadiusLocationInfoRequired

  The location information is missing.

Protocol APN Error Statistics

The following examples show the request and response that are defined in the XSD files for the ProtocolErrorApnStats tag.

Request

This request follows the ProtocolErrorApnStats tag defined in the QueryOmStats section in the XSD files.

```
<XmlInterfaceRequest>
  <QueryOmStats  >
```

```
    <StartTime>2017-06-02T07:00:00Z</StartTime>
    <EndTime>2017-06-02T07:30:00Z</EndTime>
    <ProtocolErrorApnStats>
      <PolicyServer>mpe133</PolicyServer>
      <Name>cmwap</Name>    <!--APN prefix-->
    </ProtocolErrorApnStats>
  </QueryOmStats>
</XmlInterfaceRequest>
```

Response

The response to this request follows the ProtocolErrorApnStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
   <ProtocolErrorApnStats>
      <Sample>
         <StartTime>2017-06-02T07:00:00Z</StartTime>
         <EndTime>2017-06-02T07:15:00Z</EndTime>
         <PolicyServer>mpe133</PolicyServer>
         <Name>cmwap</Name>
         <IsComplete>true</IsComplete>
         <DiameterUnableToComplyReceived>0</DiameterUnableToComplyReceived>
         <DiameterUnableToComplySent>0</DiameterUnableToComplySent>
         <DiameterUnableToDeliverReceived>0</DiameterUnableToDeliverReceived>
         <DiameterUnableToDeliverSent>0</DiameterUnableToDeliverSent>
      </Sample>
      <Sample>
         <StartTime>2017-06-02T07:15:00Z</StartTime>
         <EndTime>2017-06-02T07:30:00Z</EndTime>
         <PolicyServer>mpe133</PolicyServer>
         <Name>cmwap</Name>
         <IsComplete>true</IsComplete>
         <DiameterUnableToComplyReceived>0</DiameterUnableToComplyReceived>
         <DiameterUnableToComplySent>0</DiameterUnableToComplySent>
         <DiameterUnableToDeliverReceived>0</DiameterUnableToDeliverReceived>
         <DiameterUnableToDeliverSent>0</DiameterUnableToDeliverSent>
      </Sample>
   </ProtocolErrorApnStats>
</Statistics>
```

Diameter Message Error Statistics

The following examples show the request and response that are defined in the XSD files for the MessageErrorStats tag.

Request

This request follows the MessageErrorStats tag defined in the QueryOmStats section in the XSD files.

```
<?xml version="1.0" encoding="UTF-8"?>
    <XmlInterfaceRequest>
        <QueryOmStats DeltaCount="true">
            <StartTime>2014-12-18T03:30:00Z</StartTime>
            <EndTime>2014-12-18T03:45:00Z</EndTime>
            <MessageErrorStats></MessageErrorStats>
```

```
    </QueryOmStats>
</XmlInterfaceRequest>
```

Response

The response to this request follows the MessageErrorStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
   <MessageErrorStats>
      <Sample>
         <StartTime>2014-12-18T03:30:00Z</StartTime>
         <EndTime>2014-12-18T03:45:00Z</EndTime>
         <PolicyServer>MPE </PolicyServer>
         <IsComplete>true</IsComplete>
         <Name>mra.company.com</Name>
         <NeId/>
         <MessageCommand>AAA</MessageCommand>
         <MessageErrorName>DIAMETER_ETC_FAIL_REASON</MessageErrorName>
         <MessageErrorCode>-1</MessageErrorCode>
         <MessagesErrorInCount>0</MessagesErrorInCount>
         <MessagesErrorOutCount>0</MessagesErrorOutCount>
      </Sample>
   </MessageErrorStats>
</Statistics>
```

APN Message Error Statistics

The following examples show the request and response that are defined in the XSD files for the MessageErrorApnStats tag.

Request

This request follows the MessageErrorApnStats tag defined in the QueryOmStats section in the XSD files.

```
<XmlInterfaceRequest>
  <QueryOmStats  >
    <StartTime>2017-06-01T06:00:00Z</StartTime>
    <EndTime>2017-06-01T07:00:00Z</EndTime>
    <MessageErrorApnStats>
      <PolicyServer>mpe133</PolicyServer>
      <Name>cmwap</Name>          <!--APN prefix-->
    </MessageErrorApnStats>
  </QueryOmStats>
</XmlInterfaceRequest>
```

Response

The response to this request follows the MessageErrorApnStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
```

```
<MessageErrorApnStats>
   <Sample>
      <StartTime>2017-06-27T07:15:00Z</StartTime>
      <EndTime>2017-06-27T07:30:00Z</EndTime>
      <PolicyServer>mpe133</PolicyServer>
      <Name>cmwap</Name>
      <IsComplete>true</IsComplete>
      <MessageCommand>RAA</MessageCommand>
      <MessageErrorName>DIAMETER</MessageErrorName>
      <MessageErrorCode>5061</MessageErrorCode>
      <MessagesErrorInCount>1</MessagesErrorInCount>
      <MessagesErrorOutCount>0</MessagesErrorOutCount>
   </Sample>
<Sample>
      <StartTime>2017-06-27T07:15:00Z</StartTime>
      <EndTime>2017-06-27T07:30:00Z</EndTime>
      <PolicyServer>mpe133</PolicyServer>
      <Name>cmwap</Name>
      <IsComplete>true</IsComplete>
      <MessageCommand>CCA-I</MessageCommand>
      <MessageErrorName>DIAMETER_AUTHORIZATION_REJECTED</MessageErrorName>
      <MessageErrorCode>5003</MessageErrorCode>
      <MessagesErrorInCount>0</MessagesErrorInCount>
      <MessagesErrorOutCount>2</MessagesErrorOutCount>
   </Sample>
   <Sample>
      <StartTime>2017-06-27T07:15:00Z</StartTime>
      <EndTime>2017-06-27T07:30:00Z</EndTime>
      <PolicyServer>mpe133</PolicyServer>
      <Name>cmwap</Name>
      <IsComplete>true</IsComplete>
      <MessageCommand>CCA-I</MessageCommand>
      <MessageErrorName>DIAMETER_ETC_FAIL_REASON</MessageErrorName>
      <MessageErrorCode>-1</MessageErrorCode>
      <MessagesErrorInCount>0</MessagesErrorInCount>
      <MessagesErrorOutCount>4</MessagesErrorOutCount>
   </Sample>
</MessageErrorApnStats>
</Statistics>
```

About KPI Interval Statistics

This section shows the requests and responses for the following:

- *KPI Statistics*
- *Interval Statistics/PCRF Session License Tracking and Reporting*
- *TPS Statistics*
- *TPS MRA Statistics*
- *KPI Statistics for COMCOL Behindness and Sync State*
- *KPI Dashboard Statistics*

KPI Statistics

The following examples show the request and response that are defined in the XSD files for the KpiStats tag.

Request

This request follows the KpiStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<KpiStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
<!-- MRA is optional. -->
<MRA>MRA-Cluster</MRA>
<MRA>MRA-35</MRA>
</KpiStats>
</QueryOmStats>
```

Response

The response to this request follows the KpiStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<KpiStats>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<TransactionStartCount>0</TransactionStartCount>
<TransactionEndCount>0</TransactionEndCount>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<CurrentTransactionsPerSecond>0</CurrentTransactionsPerSecond>
<MaxTransactionsPerSecond>0</MaxTransactionsPerSecond>
<CurrentTPSPercentageOfCapacity>0</CurrentTPSPercentageOfCapacity>
<MaxTPSPercentageOfCapacity>0</MaxTPSPercentageOfCapacity>
<CurrentLTETransactionsPerSecond>0</CurrentLTETransactionsPerSecond>
<CurrentEHRPDTransactionsPerSecond>0</CurrentEHRPDTransactionsPerSecond>
<CurrentRXTransactionsPerSecond>0</CurrentRXTransactionsPerSecond>
<LoadSheddingStatus>0</LoadSheddingStatus>
<LoadSheddingEfficiency>0</LoadSheddingEfficiency>
<LoadSheddingDistressCount>0</LoadSheddingDistressCount>
<CurrentMRABindingCount>0</CurrentMRABindingCount>
<MaxMRABindingCount>0</MaxMRABindingCount>
<TotalMRABindingCount>0</TotalMRABindingCount>
<CurrentSessionCount>0</CurrentSessionCount>
<MaxSessionCount>0</MaxSessionCount>
<CurrentPDNConnectionCount>0</CurrentPDNConnectionCount>
<MaxPDNConnectionCount>0</MaxPDNConnectionCount>
<CurrentPDNConnectionPercentageOfCapacity>0</CurrentPDNConnectionPercentageOfCapacity>
<MaxPDNConnectionPercentageOfCapacity>0</MaxPDNConnectionPercentageOfCapacity>
<CurrentSessionPercentageOfCapacity>0</CurrentSessionPercentageOfCapacity>
<MaxSessionPercentageOfCapacity>0</MaxSessionPercentageOfCapacity>
<CurrentMPEConnectionCount>0</CurrentMPEConnectionCount>
<ConfiguredMPEConnectionCount>0</ConfiguredMPEConnectionCount>
<CurrentDRMAConnectionCount>0</CurrentDRMAConnectionCount>
<ConfiguredDRMAConnectionCount>0</ConfiguredDRMAConnectionCount>
<CurrentConnectedNECount>0</CurrentConnectedNECount>
<ConfiguredNECount>3</ConfiguredNECount>
<CurrentMRAConnectionCount>1</CurrentMRAConnectionCount>
```

```
<ConfiguredMRAConnectionCount>1</ConfiguredMRAConnectionCount>
<CurrentSPRConnectionCount>1</CurrentSPRConnectionCount>
<ConfiguredSPRConnectionCount>2</ConfiguredSPRConnectionCount>
<CurrentProtocolErrorSentCount>0</CurrentProtocolErrorSentCount>
<CurrentProtocolErrorReceivedCount>0</CurrentProtocolErrorReceivedCount>
<CurrentMRABindingPercentageOfCapacity>0</CurrentMRABindingPercentageOfCapacity>
<MaxMRABindingPercentageOfCapacity>0</MaxMRABindingPercentageOfCapacity>
<PrimaryCPUUtilizationPercentage>1</PrimaryCPUUtilizationPercentage>
<PrimaryMemoryUtilizationPercentage>11</PrimaryMemoryUtilizationPercentage>
<PrimaryDiskUtilizationPercentage>0</PrimaryDiskUtilizationPercentage>
<PrimaryBladeFailureCount>2</PrimaryBladeFailureCount>
<PrimaryUpTimeMillis>25577000</PrimaryUpTimeMillis>
<PrimaryBladeStatus>12</PrimaryBladeStatus>
<SecondaryCPUUtilizationPercentage>1</SecondaryCPUUtilizationPercentage>
<SecondaryMemoryUtilizationPercentage>9</SecondaryMemoryUtilizationPercentage>
<SecondaryDiskUtilizationPercentage>0</SecondaryDiskUtilizationPercentage>
<SecondaryBladeFailureCount>3</SecondaryBladeFailureCount>
<SecondaryUpTimeMillis>23708000</SecondaryUpTimeMillis>
<SecondaryBladeStatus>96</SecondaryBladeStatus>
<ServerACPUUtilizationPercentage>1</ServerACPUUtilizationPercentage>
<ServerAMemoryUtilizationPercentage>9</ServerAMemoryUtilizationPercentage>
<ServerADiskUtilizationPercentage>0</ServerADiskUtilizationPercentage>
<ServerABladeFailureCount>3</ServerABladeFailureCount>
<ServerAUpTimeMillis>23708000</ServerAUpTimeMillis>
<ServerABladeStatus>Standby</ServerABladeStatus>
<ServerAHaStatus>Standby</ServerAHaStatus>
<ServerADeltaTime>495.0</ServerADeltaTime>
<ServerAPeakDeltaTime>0</ServerAPeakDeltaTime>
<ServerASyncStatus>OK</ServerASyncStatus>
<ServerBCPUUtilizationPercentage>1</ServerBCPUUtilizationPercentage>
<ServerBMemoryUtilizationPercentage>11</ServerBMemoryUtilizationPercentage>
<ServerBDiskUtilizationPercentage>0</ServerBDiskUtilizationPercentage>
<ServerBBladeFailureCount>2</ServerBBladeFailureCount>
<ServerBUpTimeMillis>25577000</ServerBUpTimeMillis>
<ServerBBladeStatus>Active</ServerBBladeStatus>
<ServerBHaStatus>Active</ServerBHaStatus>
<ServerBDeltaTime>0</ServerBDeltaTime>
<ServerBPeakDeltaTime>0</ServerBPeakDeltaTime>
<ServerBSyncStatus>OK</ServerBSyncStatus>
<ServerCCPUUtilizationPercentage>0</ServerCCPUUtilizationPercentage>
<ServerCMemoryUtilizationPercentage>0</ServerCMemoryUtilizationPercentage>
<ServerCDiskUtilizationPercentage>0</ServerCDiskUtilizationPercentage>
<ServerCBladeFailureCount>0</ServerCBladeFailureCount>
<ServerCUpTimeMillis>0</ServerCUpTimeMillis>
<ServerCBladeStatus>UNKNOWN</ServerCBladeStatus>
<ServerCHaStatus>UNKNOWN</ServerCHaStatus>
<ServerCDeltaTime>-1.0</ServerCDeltaTime>
<ServerCPeakDeltaTime>0</ServerCPeakDeltaTime>
<ServerCSyncStatus>Critical</ServerCSyncStatus>
</Sample>
<Sample>
<StartTime>2016-05-17T00:00:00Z</StartTime>
<EndTime>2016-05-17T00:15:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<TransactionStartCount>0</TransactionStartCount>
<TransactionEndCount>0</TransactionEndCount>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<CurrentTransactionsPerSecond>0</CurrentTransactionsPerSecond>
<MaxTransactionsPerSecond>0</MaxTransactionsPerSecond>
<CurrentTPSPercentageOfCapacity>0</CurrentTPSPercentageOfCapacity>
<MaxTPSPercentageOfCapacity>0</MaxTPSPercentageOfCapacity>
<CurrentLTETransactionsPerSecond>0</CurrentLTETransactionsPerSecond>
```

```
<CurrentEHRPDTransactionsPerSecond>0</CurrentEHRPDTransactionsPerSecond>
<CurrentRXTransactionsPerSecond>0</CurrentRXTransactionsPerSecond>
<LoadSheddingStatus>0</LoadSheddingStatus>
<LoadSheddingEfficiency>0</LoadSheddingEfficiency>
<LoadSheddingDistressCount>0</LoadSheddingDistressCount>
<CurrentMRABindingCount>0</CurrentMRABindingCount>
<MaxMRABindingCount>0</MaxMRABindingCount>
<TotalMRABindingCount>0</TotalMRABindingCount>
<CurrentSessionCount>0</CurrentSessionCount>
<MaxSessionCount>0</MaxSessionCount>
<CurrentPDNConnectionCount>0</CurrentPDNConnectionCount>
<MaxPDNConnectionCount>0</MaxPDNConnectionCount>
<CurrentPDNConnectionPercentageOfCapacity>0</CurrentPDNConnectionPercentageOfCapacity>
<MaxPDNConnectionPercentageOfCapacity>0</MaxPDNConnectionPercentageOfCapacity>
<CurrentSessionPercentageOfCapacity>0</CurrentSessionPercentageOfCapacity>
<MaxSessionPercentageOfCapacity>0</MaxSessionPercentageOfCapacity>
<CurrentMPEConnectionCount>0</CurrentMPEConnectionCount>
<ConfiguredMPEConnectionCount>0</ConfiguredMPEConnectionCount>
<CurrentDRMAConnectionCount>0</CurrentDRMAConnectionCount>
<ConfiguredDRMAConnectionCount>0</ConfiguredDRMAConnectionCount>
<CurrentConnectedNECount>0</CurrentConnectedNECount>
<ConfiguredNECount>3</ConfiguredNECount>
<CurrentMRAConnectionCount>1</CurrentMRAConnectionCount>
<ConfiguredMRAConnectionCount>1</ConfiguredMRAConnectionCount>
<CurrentSPRConnectionCount>1</CurrentSPRConnectionCount>
<ConfiguredSPRConnectionCount>2</ConfiguredSPRConnectionCount>
<CurrentProtocolErrorSentCount>0</CurrentProtocolErrorSentCount>
<CurrentProtocolErrorReceivedCount>0</CurrentProtocolErrorReceivedCount>
<CurrentMRABindingPercentageOfCapacity>0</CurrentMRABindingPercentageOfCapacity>
<MaxMRABindingPercentageOfCapacity>0</MaxMRABindingPercentageOfCapacity>
<PrimaryCPUUtilizationPercentage>1</PrimaryCPUUtilizationPercentage>
<PrimaryMemoryUtilizationPercentage>11</PrimaryMemoryUtilizationPercentage>
<PrimaryDiskUtilizationPercentage>0</PrimaryDiskUtilizationPercentage>
<PrimaryBladeFailureCount>2</PrimaryBladeFailureCount>
<PrimaryUpTimeMillis>26478000</PrimaryUpTimeMillis>
<PrimaryBladeStatus>12</PrimaryBladeStatus>
<SecondaryCPUUtilizationPercentage>1</SecondaryCPUUtilizationPercentage>
<SecondaryMemoryUtilizationPercentage>9</SecondaryMemoryUtilizationPercentage>
<SecondaryDiskUtilizationPercentage>0</SecondaryDiskUtilizationPercentage>
<SecondaryBladeFailureCount>3</SecondaryBladeFailureCount>
<SecondaryUpTimeMillis>24607000</SecondaryUpTimeMillis>
<SecondaryBladeStatus>96</SecondaryBladeStatus>
<ServerACPUUtilizationPercentage>1</ServerACPUUtilizationPercentage>
<ServerAMemoryUtilizationPercentage>9</ServerAMemoryUtilizationPercentage>
<ServerADiskUtilizationPercentage>0</ServerADiskUtilizationPercentage>
<ServerABladeFailureCount>3</ServerABladeFailureCount>
<ServerAUpTimeMillis>24607000</ServerAUpTimeMillis>
<ServerABladeStatus>Standby</ServerABladeStatus>
<ServerAHaStatus>Standby</ServerAHaStatus>
<ServerADeltaTime>495.0</ServerADeltaTime>
<ServerAPeakDeltaTime>0</ServerAPeakDeltaTime>
<ServerASyncStatus>OK</ServerASyncStatus>
<ServerBCPUUtilizationPercentage>1</ServerBCPUUtilizationPercentage>
<ServerBMemoryUtilizationPercentage>11</ServerBMemoryUtilizationPercentage>
<ServerBDiskUtilizationPercentage>0</ServerBDiskUtilizationPercentage>
<ServerBBladeFailureCount>2</ServerBBladeFailureCount>
<ServerBUpTimeMillis>26478000</ServerBUpTimeMillis>
<ServerBBladeStatus>Active</ServerBBladeStatus>
<ServerBHaStatus>Active</ServerBHaStatus>
<ServerBDeltaTime>0</ServerBDeltaTime>
<ServerBPeakDeltaTime>0</ServerBPeakDeltaTime>
<ServerBSyncStatus>OK</ServerBSyncStatus>
<ServerCCPUUtilizationPercentage>0</ServerCCPUUtilizationPercentage>
<ServerCMemoryUtilizationPercentage>0</ServerCMemoryUtilizationPercentage>
```

```
<ServerCDiskUtilizationPercentage>0</ServerCDiskUtilizationPercentage>
<ServerCBladeFailureCount>0</ServerCBladeFailureCount>
<ServerCUpTimeMillis>0</ServerCUpTimeMillis>
<ServerCBladeStatus>UNKNOWN</ServerCBladeStatus>
<ServerCHaStatus>UNKNOWN</ServerCHaStatus>
<ServerCDeltaTime>-1.0</ServerCDeltaTime>
<ServerCPeakDeltaTime>0</ServerCPeakDeltaTime>
<ServerCSyncStatus>Critical</ServerCSyncStatus>
</Sample>
<Sample>
<StartTime>2016-05-17T00:15:00Z</StartTime>
<EndTime>2016-05-17T00:30:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<TransactionStartCount>0</TransactionStartCount>
<TransactionEndCount>0</TransactionEndCount>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<CurrentTransactionsPerSecond>0</CurrentTransactionsPerSecond>
<MaxTransactionsPerSecond>0</MaxTransactionsPerSecond>
<CurrentTPSPercentageOfCapacity>0</CurrentTPSPercentageOfCapacity>
<MaxTPSPercentageOfCapacity>0</MaxTPSPercentageOfCapacity>
<CurrentLTETransactionsPerSecond>0</CurrentLTETransactionsPerSecond>
<CurrentEHRPDTransactionsPerSecond>0</CurrentEHRPDTransactionsPerSecond>
<CurrentRXTransactionsPerSecond>0</CurrentRXTransactionsPerSecond>
<LoadSheddingStatus>0</LoadSheddingStatus>
<LoadSheddingEfficiency>0</LoadSheddingEfficiency>
<LoadSheddingDistressCount>0</LoadSheddingDistressCount>
<CurrentMRABindingCount>0</CurrentMRABindingCount>
<MaxMRABindingCount>0</MaxMRABindingCount>
<TotalMRABindingCount>0</TotalMRABindingCount>
<CurrentSessionCount>0</CurrentSessionCount>
<MaxSessionCount>0</MaxSessionCount>
<CurrentPDNConnectionCount>0</CurrentPDNConnectionCount>
<MaxPDNConnectionCount>0</MaxPDNConnectionCount>
<CurrentPDNConnectionPercentageOfCapacity>0</CurrentPDNConnectionPercentageOfCapacity>
<MaxPDNConnectionPercentageOfCapacity>0</MaxPDNConnectionPercentageOfCapacity>
<CurrentSessionPercentageOfCapacity>0</CurrentSessionPercentageOfCapacity>
<MaxSessionPercentageOfCapacity>0</MaxSessionPercentageOfCapacity>
<CurrentMPEConnectionCount>0</CurrentMPEConnectionCount>
<ConfiguredMPEConnectionCount>0</ConfiguredMPEConnectionCount>
<CurrentDRMAConnectionCount>0</CurrentDRMAConnectionCount>
<ConfiguredDRMAConnectionCount>0</ConfiguredDRMAConnectionCount>
<CurrentConnectedNECount>0</CurrentConnectedNECount>
<ConfiguredNECount>3</ConfiguredNECount>
<CurrentMRAConnectionCount>1</CurrentMRAConnectionCount>
<ConfiguredMRAConnectionCount>1</ConfiguredMRAConnectionCount>
<CurrentSPRConnectionCount>1</CurrentSPRConnectionCount>
<ConfiguredSPRConnectionCount>2</ConfiguredSPRConnectionCount>
<CurrentProtocolErrorSentCount>0</CurrentProtocolErrorSentCount>
<CurrentProtocolErrorReceivedCount>0</CurrentProtocolErrorReceivedCount>
<CurrentMRABindingPercentageOfCapacity>0</CurrentMRABindingPercentageOfCapacity>
<MaxMRABindingPercentageOfCapacity>0</MaxMRABindingPercentageOfCapacity>
<PrimaryCPUUtilizationPercentage>1</PrimaryCPUUtilizationPercentage>
<PrimaryMemoryUtilizationPercentage>12</PrimaryMemoryUtilizationPercentage>
<PrimaryDiskUtilizationPercentage>0</PrimaryDiskUtilizationPercentage>
<PrimaryBladeFailureCount>2</PrimaryBladeFailureCount>
<PrimaryUpTimeMillis>27377000</PrimaryUpTimeMillis>
<PrimaryBladeStatus>12</PrimaryBladeStatus>
<SecondaryCPUUtilizationPercentage>1</SecondaryCPUUtilizationPercentage>
<SecondaryMemoryUtilizationPercentage>9</SecondaryMemoryUtilizationPercentage>
<SecondaryDiskUtilizationPercentage>0</SecondaryDiskUtilizationPercentage>
<SecondaryBladeFailureCount>3</SecondaryBladeFailureCount>
<SecondaryUpTimeMillis>25508000</SecondaryUpTimeMillis>
```

```
<SecondaryBladeStatus>96</SecondaryBladeStatus>
<ServerACPUUtilizationPercentage>1</ServerACPUUtilizationPercentage>
<ServerAMemoryUtilizationPercentage>9</ServerAMemoryUtilizationPercentage>
<ServerADiskUtilizationPercentage>0</ServerADiskUtilizationPercentage>
<ServerABladeFailureCount>3</ServerABladeFailureCount>
<ServerAUpTimeMillis>25508000</ServerAUpTimeMillis>
<ServerABladeStatus>Standby</ServerABladeStatus>
<ServerAHaStatus>Standby</ServerAHaStatus>
<ServerADeltaTime>496.0</ServerADeltaTime>
<ServerAPeakDeltaTime>0</ServerAPeakDeltaTime>
<ServerASyncStatus>OK</ServerASyncStatus>
<ServerBCPUUtilizationPercentage>1</ServerBCPUUtilizationPercentage>
<ServerBMemoryUtilizationPercentage>12</ServerBMemoryUtilizationPercentage>
<ServerBDiskUtilizationPercentage>0</ServerBDiskUtilizationPercentage>
<ServerBBladeFailureCount>2</ServerBBladeFailureCount>
<ServerBUpTimeMillis>27377000</ServerBUpTimeMillis>
<ServerBBladeStatus>Active</ServerBBladeStatus>
<ServerBHaStatus>Active</ServerBHaStatus>
<ServerBDeltaTime>0</ServerBDeltaTime>
<ServerBPeakDeltaTime>0</ServerBPeakDeltaTime>
<ServerBSyncStatus>OK</ServerBSyncStatus>
<ServerCCPUUtilizationPercentage>0</ServerCCPUUtilizationPercentage>
<ServerCMemoryUtilizationPercentage>0</ServerCMemoryUtilizationPercentage>
<ServerCDiskUtilizationPercentage>0</ServerCDiskUtilizationPercentage>
<ServerCBladeFailureCount>0</ServerCBladeFailureCount>
<ServerCUpTimeMillis>0</ServerCUpTimeMillis>
<ServerCBladeStatus>UNKNOWN</ServerCBladeStatus>
<ServerCHaStatus>UNKNOWN</ServerCHaStatus>
<ServerCDeltaTime>-1.0</ServerCDeltaTime>
<ServerCPeakDeltaTime>0</ServerCPeakDeltaTime>
<ServerCSyncStatus>Critical</ServerCSyncStatus>
</Sample>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<MRA>MRA-Cluster</MRA>
<IsComplete>true</IsComplete>
<TransactionStartCount>0</TransactionStartCount>
<TransactionEndCount>0</TransactionEndCount>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<CurrentTransactionsPerSecond>0</CurrentTransactionsPerSecond>
<MaxTransactionsPerSecond>0</MaxTransactionsPerSecond>
<CurrentTPSPercentageOfCapacity>0</CurrentTPSPercentageOfCapacity>
<MaxTPSPercentageOfCapacity>0</MaxTPSPercentageOfCapacity>
<LoadSheddingStatus>0</LoadSheddingStatus>
<LoadSheddingEfficiency>0</LoadSheddingEfficiency>
<LoadSheddingDistressCount>0</LoadSheddingDistressCount>
<CurrentMRABindingCount>0</CurrentMRABindingCount>
<MaxMRABindingCount>0</MaxMRABindingCount>
<TotalMRABindingCount>0</TotalMRABindingCount>
<CurrentSessionCount>0</CurrentSessionCount>
<MaxSessionCount>0</MaxSessionCount>
<CurrentPDNConnectionCount>0</CurrentPDNConnectionCount>
<MaxPDNConnectionCount>0</MaxPDNConnectionCount>
<CurrentPDNConnectionPercentageOfCapacity>0</CurrentPDNConnectionPercentageOfCapacity>
<MaxPDNConnectionPercentageOfCapacity>0</MaxPDNConnectionPercentageOfCapacity>
<CurrentSessionPercentageOfCapacity>0</CurrentSessionPercentageOfCapacity>
<MaxSessionPercentageOfCapacity>0</MaxSessionPercentageOfCapacity>
<CurrentMPEConnectionCount>1</CurrentMPEConnectionCount>
<ConfiguredMPEConnectionCount>1</ConfiguredMPEConnectionCount>
<CurrentDRMAConnectionCount>0</CurrentDRMAConnectionCount>
<ConfiguredDRMAConnectionCount>0</ConfiguredDRMAConnectionCount>
<CurrentConnectedNECount>0</CurrentConnectedNECount>
```

```
<ConfiguredNECount>3</ConfiguredNECount>
<CurrentMRAConnectionCount>0</CurrentMRAConnectionCount>
<ConfiguredMRAConnectionCount>0</ConfiguredMRAConnectionCount>
<CurrentSPRConnectionCount>0</CurrentSPRConnectionCount>
<ConfiguredSPRConnectionCount>0</ConfiguredSPRConnectionCount>
<CurrentProtocolErrorSentCount>0</CurrentProtocolErrorSentCount>
<CurrentProtocolErrorReceivedCount>0</CurrentProtocolErrorReceivedCount>
<CurrentMRABindingPercentageOfCapacity>0</CurrentMRABindingPercentageOfCapacity>
<MaxMRABindingPercentageOfCapacity>0</MaxMRABindingPercentageOfCapacity>
<PrimaryCPUUtilizationPercentage>1</PrimaryCPUUtilizationPercentage>
<PrimaryMemoryUtilizationPercentage>6</PrimaryMemoryUtilizationPercentage>
<PrimaryDiskUtilizationPercentage>0</PrimaryDiskUtilizationPercentage>
<PrimaryBladeFailureCount>2</PrimaryBladeFailureCount>
<PrimaryUpTimeMillis>25526000</PrimaryUpTimeMillis>
<PrimaryBladeStatus>12</PrimaryBladeStatus>
<SecondaryCPUUtilizationPercentage>1</SecondaryCPUUtilizationPercentage>
<SecondaryMemoryUtilizationPercentage>7</SecondaryMemoryUtilizationPercentage>
<SecondaryDiskUtilizationPercentage>0</SecondaryDiskUtilizationPercentage>
<SecondaryBladeFailureCount>3</SecondaryBladeFailureCount>
<SecondaryUpTimeMillis>23775000</SecondaryUpTimeMillis>
<SecondaryBladeStatus>96</SecondaryBladeStatus>
<ServerACPUUtilizationPercentage>1</ServerACPUUtilizationPercentage>
<ServerAMemoryUtilizationPercentage>7</ServerAMemoryUtilizationPercentage>
<ServerADiskUtilizationPercentage>0</ServerADiskUtilizationPercentage>
<ServerABladeFailureCount>3</ServerABladeFailureCount>
<ServerAUpTimeMillis>23775000</ServerAUpTimeMillis>
<ServerABladeStatus>Standby</ServerABladeStatus>
<ServerAHaStatus>Standby</ServerAHaStatus>
<ServerADeltaTime>260.0</ServerADeltaTime>
<ServerAPeakDeltaTime>0</ServerAPeakDeltaTime>
<ServerASyncStatus>OK</ServerASyncStatus>
<ServerBCPUUtilizationPercentage>1</ServerBCPUUtilizationPercentage>
<ServerBMemoryUtilizationPercentage>6</ServerBMemoryUtilizationPercentage>
<ServerBDiskUtilizationPercentage>0</ServerBDiskUtilizationPercentage>
<ServerBBladeFailureCount>2</ServerBBladeFailureCount>
<ServerBUpTimeMillis>25526000</ServerBUpTimeMillis>
<ServerBBladeStatus>Active</ServerBBladeStatus>
<ServerBHaStatus>Active</ServerBHaStatus>
<ServerBDeltaTime>0</ServerBDeltaTime>
<ServerBPeakDeltaTime>0</ServerBPeakDeltaTime>
<ServerBSyncStatus>OK</ServerBSyncStatus>
<ServerCCPUUtilizationPercentage>0</ServerCCPUUtilizationPercentage>
<ServerCMemoryUtilizationPercentage>0</ServerCMemoryUtilizationPercentage>
<ServerCDiskUtilizationPercentage>0</ServerCDiskUtilizationPercentage>
<ServerCBladeFailureCount>0</ServerCBladeFailureCount>
<ServerCUpTimeMillis>0</ServerCUpTimeMillis>
<ServerCBladeStatus>UNKNOWN</ServerCBladeStatus>
<ServerCHaStatus>UNKNOWN</ServerCHaStatus>
<ServerCDeltaTime>-1.0</ServerCDeltaTime>
<ServerCPeakDeltaTime>0</ServerCPeakDeltaTime>
<ServerCSyncStatus>Critical</ServerCSyncStatus>
</Sample>
<Sample>
<StartTime>2016-05-17T00:00:01Z</StartTime>
<EndTime>2016-05-17T00:15:01Z</EndTime>
<MRA>MRA-Cluster</MRA>
<IsComplete>true</IsComplete>
<TransactionStartCount>0</TransactionStartCount>
<TransactionEndCount>0</TransactionEndCount>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<CurrentTransactionsPerSecond>0</CurrentTransactionsPerSecond>
<MaxTransactionsPerSecond>0</MaxTransactionsPerSecond>
<CurrentTPSPercentageOfCapacity>0</CurrentTPSPercentageOfCapacity>
```

```
<MaxTPSPercentageOfCapacity>0</MaxTPSPercentageOfCapacity>
<LoadSheddingStatus>0</LoadSheddingStatus>
<LoadSheddingEfficiency>0</LoadSheddingEfficiency>
<LoadSheddingDistressCount>0</LoadSheddingDistressCount>
<CurrentMRABindingCount>0</CurrentMRABindingCount>
<MaxMRABindingCount>0</MaxMRABindingCount>
<TotalMRABindingCount>0</TotalMRABindingCount>
<CurrentSessionCount>0</CurrentSessionCount>
<MaxSessionCount>0</MaxSessionCount>
<CurrentPDNConnectionCount>0</CurrentPDNConnectionCount>
<MaxPDNConnectionCount>0</MaxPDNConnectionCount>
<CurrentPDNConnectionPercentageOfCapacity>0</CurrentPDNConnectionPercentageOfCapacity>
<MaxPDNConnectionPercentageOfCapacity>0</MaxPDNConnectionPercentageOfCapacity>
<CurrentSessionPercentageOfCapacity>0</CurrentSessionPercentageOfCapacity>
<MaxSessionPercentageOfCapacity>0</MaxSessionPercentageOfCapacity>
<CurrentMPEConnectionCount>1</CurrentMPEConnectionCount>
<ConfiguredMPEConnectionCount>1</ConfiguredMPEConnectionCount>
<CurrentDRMAConnectionCount>0</CurrentDRMAConnectionCount>
<ConfiguredDRMAConnectionCount>0</ConfiguredDRMAConnectionCount>
<CurrentConnectedNECount>0</CurrentConnectedNECount>
<ConfiguredNECount>3</ConfiguredNECount>
<CurrentMRAConnectionCount>0</CurrentMRAConnectionCount>
<ConfiguredMRAConnectionCount>0</ConfiguredMRAConnectionCount>
<CurrentSPRConnectionCount>0</CurrentSPRConnectionCount>
<ConfiguredSPRConnectionCount>0</ConfiguredSPRConnectionCount>
<CurrentProtocolErrorSentCount>0</CurrentProtocolErrorSentCount>
<CurrentProtocolErrorReceivedCount>0</CurrentProtocolErrorReceivedCount>
<CurrentMRABindingPercentageOfCapacity>0</CurrentMRABindingPercentageOfCapacity>
<MaxMRABindingPercentageOfCapacity>0</MaxMRABindingPercentageOfCapacity>
<PrimaryCPUUtilizationPercentage>1</PrimaryCPUUtilizationPercentage>
<PrimaryMemoryUtilizationPercentage>6</PrimaryMemoryUtilizationPercentage>
<PrimaryDiskUtilizationPercentage>0</PrimaryDiskUtilizationPercentage>
<PrimaryBladeFailureCount>2</PrimaryBladeFailureCount>
<PrimaryUpTimeMillis>26427000</PrimaryUpTimeMillis>
<PrimaryBladeStatus>12</PrimaryBladeStatus>
<SecondaryCPUUtilizationPercentage>1</SecondaryCPUUtilizationPercentage>
<SecondaryMemoryUtilizationPercentage>7</SecondaryMemoryUtilizationPercentage>
<SecondaryDiskUtilizationPercentage>0</SecondaryDiskUtilizationPercentage>
<SecondaryBladeFailureCount>3</SecondaryBladeFailureCount>
<SecondaryUpTimeMillis>24674000</SecondaryUpTimeMillis>
<SecondaryBladeStatus>96</SecondaryBladeStatus>
<ServerACPUUtilizationPercentage>1</ServerACPUUtilizationPercentage>
<ServerAMemoryUtilizationPercentage>7</ServerAMemoryUtilizationPercentage>
<ServerADiskUtilizationPercentage>0</ServerADiskUtilizationPercentage>
<ServerABladeFailureCount>3</ServerABladeFailureCount>
<ServerAUpTimeMillis>24674000</ServerAUpTimeMillis>
<ServerABladeStatus>Standby</ServerABladeStatus>
<ServerAHaStatus>Standby</ServerAHaStatus>
<ServerADeltaTime>259.0</ServerADeltaTime>
<ServerAPeakDeltaTime>0</ServerAPeakDeltaTime>
<ServerASyncStatus>OK</ServerASyncStatus>
<ServerBCPUUtilizationPercentage>1</ServerBCPUUtilizationPercentage>
<ServerBMemoryUtilizationPercentage>6</ServerBMemoryUtilizationPercentage>
<ServerBDiskUtilizationPercentage>0</ServerBDiskUtilizationPercentage>
<ServerBBladeFailureCount>2</ServerBBladeFailureCount>
<ServerBUpTimeMillis>26427000</ServerBUpTimeMillis>
<ServerBBladeStatus>Active</ServerBBladeStatus>
<ServerBHaStatus>Active</ServerBHaStatus>
<ServerBDeltaTime>0</ServerBDeltaTime>
<ServerBPeakDeltaTime>0</ServerBPeakDeltaTime>
<ServerBSyncStatus>OK</ServerBSyncStatus>
<ServerCCPUUtilizationPercentage>0</ServerCCPUUtilizationPercentage>
<ServerCMemoryUtilizationPercentage>0</ServerCMemoryUtilizationPercentage>
<ServerCDiskUtilizationPercentage>0</ServerCDiskUtilizationPercentage>
```

```
<ServerCBladeFailureCount>0</ServerCBladeFailureCount>
<ServerCUpTimeMillis>0</ServerCUpTimeMillis>
<ServerCBladeStatus>UNKNOWN</ServerCBladeStatus>
<ServerCHaStatus>UNKNOWN</ServerCHaStatus>
<ServerCDeltaTime>-1.0</ServerCDeltaTime>
<ServerCPeakDeltaTime>0</ServerCPeakDeltaTime>
<ServerCSyncStatus>Critical</ServerCSyncStatus>
</Sample>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:00Z</EndTime>
<MRA>MRA-35</MRA>
<IsComplete>true</IsComplete>
<TransactionStartCount>0</TransactionStartCount>
<TransactionEndCount>0</TransactionEndCount>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<CurrentTransactionsPerSecond>0</CurrentTransactionsPerSecond>
<MaxTransactionsPerSecond>0</MaxTransactionsPerSecond>
<CurrentTPSPercentageOfCapacity>0</CurrentTPSPercentageOfCapacity>
<MaxTPSPercentageOfCapacity>0</MaxTPSPercentageOfCapacity>
<LoadSheddingStatus>0</LoadSheddingStatus>
<LoadSheddingEfficiency>0</LoadSheddingEfficiency>
<LoadSheddingDistressCount>0</LoadSheddingDistressCount>
<CurrentMRABindingCount>0</CurrentMRABindingCount>
<MaxMRABindingCount>0</MaxMRABindingCount>
<TotalMRABindingCount>0</TotalMRABindingCount>
<CurrentSessionCount>0</CurrentSessionCount>
<MaxSessionCount>0</MaxSessionCount>
<CurrentPDNConnectionCount>0</CurrentPDNConnectionCount>
<MaxPDNConnectionCount>0</MaxPDNConnectionCount>
<CurrentPDNConnectionPercentageOfCapacity>0</CurrentPDNConnectionPercentageOfCapacity>
<MaxPDNConnectionPercentageOfCapacity>0</MaxPDNConnectionPercentageOfCapacity>
<CurrentSessionPercentageOfCapacity>0</CurrentSessionPercentageOfCapacity>
<MaxSessionPercentageOfCapacity>0</MaxSessionPercentageOfCapacity>
<CurrentMPEConnectionCount>1</CurrentMPEConnectionCount>
<ConfiguredMPEConnectionCount>1</ConfiguredMPEConnectionCount>
<CurrentDRMAConnectionCount>0</CurrentDRMAConnectionCount>
<ConfiguredDRMAConnectionCount>0</ConfiguredDRMAConnectionCount>
<CurrentConnectedNECount>0</CurrentConnectedNECount>
<ConfiguredNECount>0</ConfiguredNECount>
<CurrentMRAConnectionCount>0</CurrentMRAConnectionCount>
<ConfiguredMRAConnectionCount>0</ConfiguredMRAConnectionCount>
<CurrentSPRConnectionCount>0</CurrentSPRConnectionCount>
<ConfiguredSPRConnectionCount>0</ConfiguredSPRConnectionCount>
<CurrentProtocolErrorSentCount>0</CurrentProtocolErrorSentCount>
<CurrentProtocolErrorReceivedCount>0</CurrentProtocolErrorReceivedCount>
<CurrentMRABindingPercentageOfCapacity>0</CurrentMRABindingPercentageOfCapacity>
<MaxMRABindingPercentageOfCapacity>0</MaxMRABindingPercentageOfCapacity>
<PrimaryCPUUtilizationPercentage>1</PrimaryCPUUtilizationPercentage>
<PrimaryMemoryUtilizationPercentage>8</PrimaryMemoryUtilizationPercentage>
<PrimaryDiskUtilizationPercentage>0</PrimaryDiskUtilizationPercentage>
<PrimaryBladeFailureCount>2</PrimaryBladeFailureCount>
<PrimaryUpTimeMillis>24420000</PrimaryUpTimeMillis>
<PrimaryBladeStatus>12</PrimaryBladeStatus>
<SecondaryCPUUtilizationPercentage>0</SecondaryCPUUtilizationPercentage>
<SecondaryMemoryUtilizationPercentage>0</SecondaryMemoryUtilizationPercentage>
<SecondaryDiskUtilizationPercentage>0</SecondaryDiskUtilizationPercentage>
<SecondaryBladeFailureCount>0</SecondaryBladeFailureCount>
<SecondaryUpTimeMillis>0</SecondaryUpTimeMillis>
<SecondaryBladeStatus>0</SecondaryBladeStatus>
<ServerACPUUtilizationPercentage>1</ServerACPUUtilizationPercentage>
<ServerAMemoryUtilizationPercentage>8</ServerAMemoryUtilizationPercentage>
<ServerADiskUtilizationPercentage>0</ServerADiskUtilizationPercentage>
```

```
<ServerABladeFailureCount>2</ServerABladeFailureCount>
<ServerAUpTimeMillis>24420000</ServerAUpTimeMillis>
<ServerABladeStatus>Active</ServerABladeStatus>
<ServerAHaStatus>Active</ServerAHaStatus>
<ServerADeltaTime>0</ServerADeltaTime>
<ServerAPeakDeltaTime>0</ServerAPeakDeltaTime>
<ServerASyncStatus>OK</ServerASyncStatus>
<ServerBCPUUtilizationPercentage>0</ServerBCPUUtilizationPercentage>
<ServerBMemoryUtilizationPercentage>0</ServerBMemoryUtilizationPercentage>
<ServerBDiskUtilizationPercentage>0</ServerBDiskUtilizationPercentage>
<ServerBBladeFailureCount>0</ServerBBladeFailureCount>
<ServerBUpTimeMillis>0</ServerBUpTimeMillis>
<ServerBBladeStatus>UNKNOWN</ServerBBladeStatus>
<ServerBHaStatus>UNKNOWN</ServerBHaStatus>
<ServerBDeltaTime>-1.0</ServerBDeltaTime>
<ServerBPeakDeltaTime>0</ServerBPeakDeltaTime>
<ServerBSyncStatus>Critical</ServerBSyncStatus>
<ServerCCPUUtilizationPercentage>0</ServerCCPUUtilizationPercentage>
<ServerCMemoryUtilizationPercentage>0</ServerCMemoryUtilizationPercentage>
<ServerCDiskUtilizationPercentage>0</ServerCDiskUtilizationPercentage>
<ServerCBladeFailureCount>0</ServerCBladeFailureCount>
<ServerCUpTimeMillis>0</ServerCUpTimeMillis>
<ServerCBladeStatus>UNKNOWN</ServerCBladeStatus>
<ServerCHaStatus>UNKNOWN</ServerCHaStatus>
<ServerCDeltaTime>-1.0</ServerCDeltaTime>
<ServerCPeakDeltaTime>0</ServerCPeakDeltaTime>
<ServerCSyncStatus>Critical</ServerCSyncStatus>
</Sample>
</KpiStats>
</Statistics>
```

Interval Statistics/PCRF Session License Tracking and Reporting

The following XML requests and responses apply to interval statistics and PCRF session license tracking and reporting. The Interval Stats tag is responsible for collecting specific maximum values for some counters over a time interval of 15 minutes. By using the OSSI data collection feature maximums can be collected for each 15-minute interval of a day, over a 30-day period, to determine peak usage times.

The following examples show the request and response that are defined in the XSD files for the IntervalStats tag.

MPE Request

This request follows the IntervalStats tag defined in the QueryOmStats section of the XSD files.

```
<?xml version="1.0" encoding="UTF-8"?>
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<IntervalStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
</IntervalStats>
</QueryOmStats>
```

MPE Response

The response to this MPE request follows the IntervalStats tag defined in the Statistics section of the XSD files. The following is an example XML response to this tag request.

The TIMESTAMP is in the form:

*yyyy-mm-dd*T*hh*:*mm*:*ss*Z

```
<?xml version='1.0' ?>
<Statistics>
<IntervalStats>
<Sample>
<StartTime>2016-05-16T23:45:01Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<IntervalStartTime>2016-05-16T23:45:01Z</IntervalStartTime>
<IntervalEndTime>2016-05-17T00:00:01Z</IntervalEndTime>
<ConfiguredLength>900</ConfiguredLength>
<ActualLength>900</ActualLength>
<IsComplete>true</IsComplete>
<IntervalMaxTransactionsPerSecond>0</IntervalMaxTransactionsPerSecond>
<IntervalMaxMRABindingCount>0</IntervalMaxMRABindingCount>
<IntervalMaxSessionCount>0</IntervalMaxSessionCount>
<IntervalMaxPDNConnectionCount>0</IntervalMaxPDNConnectionCount>
</Sample>
</IntervalStats>
</Statistics>
```

Individual statistics defined for this tag are:

- IntervalStartTime

  The time when this sub-system began collecting the data presented. If this is the first instance of the sub-system collecting data, this value may be N/A.

- ConfiguredLength

  This value is always 900 seconds, which is 15 minutes.

- ActualLength

  The length of the interval. Normally, this is the same value as ConfiguredLength, however there are two cases where these values differ:

  - Cluster has just started and no data is available (ActualLength = 0)
  - Cluster has started and an interval completed but the software did not start on a quarter boundary (for example, ActualLength = *nnn* where *nnn* is any number between 0 and 900. If the software started 200 seconds after the 15-min boundary, the when the interval is completed, the ActualLength = 700).

- IsComplete

  If the ConfiguredLength has completed, then the value is true. If not, then the value is false.

- IntervalMaxTransactionsPerSecond

  The maximum value of the statistic MaxTransactionsPerSecond for the interval reported.

- IntervalMaxMRABindingCount

The maximum value of the statistic MaxMRABindingCount for the interval reported. This value is 0 on MPE servers.

- IntervalMaxSessionCount

  The maximum value of the statistic MaxSessionCount for the interval reported.

- IntervalMaxPDNConnectionCount

  The maximum value of the statistic MaxPDNConnectionCount for the interval reported.

MRA Request

This request follows the IntervalStats tag defined in the QueryOmStats section of the XSD files.

The following is an example of this request for an MRA device:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<XmlInterfaceRequest>
  <QueryOmStats>
    <StartTime>2016-08-01T10:00:01Z</StartTime>
    <IntervalMraStats>
        <MRA>testmra</MRA>
    </IntervalMraStats>
  </QueryOmStats>
</XmlInterfaceRequest>
```

MRA Response

The response to this MRA request follows the IntervalStats tag defined in the Statistics section of the XSD files. The following is an example XML response to this tag request:

```
<?xml version="1.0" ?>
<Statistics>
  <IntervalMraStats>
    <Sample>
      <StartTime>2011-05-04T13:23:52Z</StartTime>
      <EndTime>2011-05-06T08:15:26Z</EndTime>
      <MRA>testmra</MRA>
      <IntervalStartTime>2011-04-04 09:23:52.0</IntervalStartTime>
      <ConfiguredLength>900</ConfiguredLength>
      <ActualLength>12</ActualLength>
      <IsComplete>false</IsComplete>
      <IntervalMaxTransactionsPerSecond>5</IntervalMaxTransactionsPerSecond>
      <IntervalMaxMRABindingCount>16</IntervalMaxMRABindingCount>
      <IntervalMaxSessionCount>12</IntervalMaxSessionCount>
      <IntervalMaxPDNConnectionCount>12</IntervalMaxPDNConnectionCount>
    </Sample>
  </IntervalMraStats>
</Statistics>
```

Individual statistics defined for this tag are:

- IntervalStartTime

  The time when this sub-system began collecting the data presented. If this is the first instance of the sub-system collecting data, this value may be N/A.

- ConfiguredLength

  This value is always 900 seconds, which is 15 minutes.

- ActualLength

  The length of the interval. Normally, this is the same value as ConfiguredLength, however there are two cases (documented above) where these values differ:

  - Cluster has just started and no data is available (ActualLength = 0)
  - Cluster has started and an interval completed but the software did not start on a quarter boundary (for example, ActualLength = *nnn* where *nnn* is any number between 0 and 900. If the software started 200 seconds after the 15-min boundary, the when the interval is completed, the ActualLength = 700).

- IsComplete

  If the ConfiguredLength has completed, then the value is true. If not, then the value is false.

- IntervalMaxTransactionsPerSecond

  The maximum value of the statistic MaxTransactionsPerSecond for the interval reported.

- IntervalMaxMRABindingCount

  The maximum value of the statistic MaxMRABindingCount for the interval reported.

- IntervalMaxSessionCount

  The maximum value of the statistic MaxSessionCount for the interval reported.

- IntervalMaxPDNConnectionCount

  The maximum value of the statistic MaxPDNConnectionCount for the interval reported.

TPS Statistics

The following examples show the request and response that are defined in the XSD files for the TpsStats tag.

Request

This request follows the TpsStats tag defined in the QueryOmStats section in the XSD files.

```
<?xml version="1.0" encoding="UTF-8"?>
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<TpsStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
</TpsStats>
</QueryOmStats>
```

Response

The response to this request follows the TpsStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<TpsStats>
<Sample>
<StartTime>2016-05-16T23:45:01Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<IsComplete>true</IsComplete>
<AfAARICurrentTPS>0</AfAARICurrentTPS>
<AfAARIMaxTPS>0</AfAARIMaxTPS>
<AfAARITimeOfMaxTPS>0</AfAARITimeOfMaxTPS>
<AfAARMCurrentTPS>0</AfAARMCurrentTPS>
<AfAARMMaxTPS>0</AfAARMMaxTPS>
<AfAARMTimeOfMaxTPS>0</AfAARMTimeOfMaxTPS>
<AfASRCurrentTPS>0</AfASRCurrentTPS>
<AfASRMaxTPS>0</AfASRMaxTPS>
<AfASRTimeOfMaxTPS>0</AfASRTimeOfMaxTPS>
<AfSTRCurrentTPS>0</AfSTRCurrentTPS>
<AfSTRMaxTPS>0</AfSTRMaxTPS>
<AfSTRTimeOfMaxTPS>0</AfSTRTimeOfMaxTPS>
<AfRARCurrentTPS>0</AfRARCurrentTPS>
<AfRARMaxTPS>0</AfRARMaxTPS>
<AfRARTimeOfMaxTPS>0</AfRARTimeOfMaxTPS>
<PcefCCRICurrentTPS>0</PcefCCRICurrentTPS>
<PcefCCRIMaxTPS>0</PcefCCRIMaxTPS>
<PcefCCRITimeOfMaxTPS>0</PcefCCRITimeOfMaxTPS>
<PcefCCRUCurrentTPS>0</PcefCCRUCurrentTPS>
<PcefCCRUMaxTPS>0</PcefCCRUMaxTPS>
<PcefCCRUTimeOfMaxTPS>0</PcefCCRUTimeOfMaxTPS>
<PcefCCRTCurrentTPS>0</PcefCCRTCurrentTPS>
<PcefCCRTMaxTPS>0</PcefCCRTMaxTPS>
<PcefCCRTTimeOfMaxTPS>0</PcefCCRTTimeOfMaxTPS>
<PcefRARCurrentTPS>0</PcefRARCurrentTPS>
<PcefRARMaxTPS>0</PcefRARMaxTPS>
<PcefRARTimeOfMaxTPS>0</PcefRARTimeOfMaxTPS>
<BberfCCRICurrentTPS>0</BberfCCRICurrentTPS>
<BberfCCRIMaxTPS>0</BberfCCRIMaxTPS>
<BberfCCRITimeOfMaxTPS>0</BberfCCRITimeOfMaxTPS>
<BberfCCRUCurrentTPS>0</BberfCCRUCurrentTPS>
<BberfCCRUMaxTPS>0</BberfCCRUMaxTPS>
<BberfCCRUTimeOfMaxTPS>0</BberfCCRUTimeOfMaxTPS>
<BberfCCRTCurrentTPS>0</BberfCCRTCurrentTPS>
<BberfCCRTMaxTPS>0</BberfCCRTMaxTPS>
<BberfCCRTTimeOfMaxTPS>0</BberfCCRTTimeOfMaxTPS>
<BberfRARCurrentTPS>0</BberfRARCurrentTPS>
<BberfRARMaxTPS>0</BberfRARMaxTPS>
<BberfRARTimeOfMaxTPS>0</BberfRARTimeOfMaxTPS>
<TdfTSRCurrentTPS>0</TdfTSRCurrentTPS>
<TdfTSRMaxTPS>0</TdfTSRMaxTPS>
<TdfTSRTimeOfMaxTPS>0</TdfTSRTimeOfMaxTPS>
<TdfCCRUCurrentTPS>0</TdfCCRUCurrentTPS>
<TdfCCRUMaxTPS>0</TdfCCRUMaxTPS>
<TdfCCRUTimeOfMaxTPS>0</TdfCCRUTimeOfMaxTPS>
<TdfCCRTCurrentTPS>0</TdfCCRTCurrentTPS>
<TdfCCRTMaxTPS>0</TdfCCRTMaxTPS>
<TdfCCRTTimeOfMaxTPS>0</TdfCCRTTimeOfMaxTPS>
<TdfRARCurrentTPS>0</TdfRARCurrentTPS>
<TdfRARMaxTPS>0</TdfRARMaxTPS>
<TdfRARTimeOfMaxTPS>0</TdfRARTimeOfMaxTPS>
<ShUDRSentTCurrentTPS>0</ShUDRSentTCurrentTPS>
```

```
<ShUDRSentMaxTPS>0</ShUDRSentMaxTPS>
<ShUDRSentTimeOfMaxTPS>0</ShUDRSentTimeOfMaxTPS>
<ShPNRCurrentTPS>0</ShPNRCurrentTPS>
<ShPNRMaxTPS>0</ShPNRMaxTPS>
<ShPNRTimeOfMaxTPS>0</ShPNRTimeOfMaxTPS>
<ShPURCurrentTPS>0</ShPURCurrentTPS>
<ShPURMaxTPS>0</ShPURMaxTPS>
<ShPURTimeOfMaxTPS>0</ShPURTimeOfMaxTPS>
<ShSNRCurrentTPS>0</ShSNRCurrentTPS>
<ShSNRMaxTPS>0</ShSNRMaxTPS>
<ShSNRTimeOfMaxTPS>0</ShSNRTimeOfMaxTPS>
<SySLRICurrentTPS>0</SySLRICurrentTPS>
<SySLRIMaxTPS>0</SySLRIMaxTPS>
<SySLRITimeOfMaxTPS>0</SySLRITimeOfMaxTPS>
<SySLRUCurrentTPS>0</SySLRUCurrentTPS>
<SySLRUMaxTPS>0</SySLRUMaxTPS>
<SySLRUTimeOfMaxTPS>0</SySLRUTimeOfMaxTPS>
<SySNRTCurrentTPS>0</SySNRTCurrentTPS>
<SySNRTMaxTPS>0</SySNRTMaxTPS>
<SySNRTimeOfMaxTPS>0</SySNRTimeOfMaxTPS>
<SySTRCurrentTPS>0</SySTRCurrentTPS>
<SySTRMaxTPS>0</SySTRMaxTPS>
<SySTRTimeOfMaxTPS>0</SySTRTimeOfMaxTPS>
<S9CCRISentCurrentTPS>0</S9CCRISentCurrentTPS>
<S9CCRISentMaxTPS>0</S9CCRISentMaxTPS>
<S9CCRISentTimeOfMaxTPS>0</S9CCRISentTimeOfMaxTPS>
<S9CCRIRecvCurrentTPS>0</S9CCRIRecvCurrentTPS>
<S9CCRIRecvMaxTPS>0</S9CCRIRecvMaxTPS>
<S9CCRIRecvTimeOfMaxTPS>0</S9CCRIRecvTimeOfMaxTPS>
<S9CCRUSentCurrentTPS>0</S9CCRUSentCurrentTPS>
<S9CCRUSentMaxTPS>0</S9CCRUSentMaxTPS>
<S9CCRUSentTimeOfMaxTPS>0</S9CCRUSentTimeOfMaxTPS>
<S9CCRURecvCurrentTPS>0</S9CCRURecvCurrentTPS>
<S9CCRURecvMaxTPS>0</S9CCRURecvMaxTPS>
<S9CCRURecvTimeOfMaxTPS>0</S9CCRURecvTimeOfMaxTPS>
<S9CCRTSentCurrentTPS>0</S9CCRTSentCurrentTPS>
<S9CCRTSentMaxTPS>0</S9CCRTSentMaxTPS>
<S9CCRTSentTimeOfMaxTPS>0</S9CCRTSentTimeOfMaxTPS>
<S9CCRTRecvCurrentTPS>0</S9CCRTRecvCurrentTPS>
<S9CCRTRecvMaxTPS>0</S9CCRTRecvMaxTPS>
<S9CCRTRecvTimeOfMaxTPS>0</S9CCRTRecvTimeOfMaxTPS>
<S9RARSentCurrentTPS>0</S9RARSentCurrentTPS>
<S9RARSentMaxTPS>0</S9RARSentMaxTPS>
<S9RARSentTimeOfMaxTPS>0</S9RARSentTimeOfMaxTPS>
<S9RARRecvCurrentTPS>0</S9RARRecvCurrentTPS>
<S9RARRecvMaxTPS>0</S9RARRecvMaxTPS>
<S9RARRecvTimeOfMaxTPS>0</S9RARRecvTimeOfMaxTPS>
<S9AfAARISentCurrentTPS>0</S9AfAARISentCurrentTPS>
<S9AfAARISentMaxTPS>0</S9AfAARISentMaxTPS>
<S9AfAARISentTimeOfMaxTPS>0</S9AfAARISentTimeOfMaxTPS>
<S9AfAARMSentCurrentTPS>0</S9AfAARMSentCurrentTPS>
<S9AfAARMSentMaxTPS>0</S9AfAARMSentMaxTPS>
<S9AfAARMSentTimeOfMaxTPS>0</S9AfAARMSentTimeOfMaxTPS>
<S9AfASRSentCurrentTPS>0</S9AfASRSentCurrentTPS>
<S9AfASRSentMaxTPS>0</S9AfASRSentMaxTPS>
<S9AfASRSentTimeOfMaxTPS>0</S9AfASRSentTimeOfMaxTPS>
<S9AfSTRSentCurrentTPS>0</S9AfSTRSentCurrentTPS>
<S9AfSTRSentMaxTPS>0</S9AfSTRSentMaxTPS>
<S9AfSTRSentTimeOfMaxTPS>0</S9AfSTRSentTimeOfMaxTPS>
<S9AfRARSentCurrentTPS>0</S9AfRARSentCurrentTPS>
<S9AfRARSentMaxTPS>0</S9AfRARSentMaxTPS>
<S9AfRARSentTimeOfMaxTPS>0</S9AfRARSentTimeOfMaxTPS>
<S9AfAARIRecvCurrentTPS>0</S9AfAARIRecvCurrentTPS>
<S9AfAARIRecvMaxTPS>0</S9AfAARIRecvMaxTPS>
```

```
<S9AfAARIRecvTimeOfMaxTPS>0</S9AfAARIRecvTimeOfMaxTPS>
<S9AfAARMRecvCurrentTPS>0</S9AfAARMRecvCurrentTPS>
<S9AfAARMRecvMaxTPS>0</S9AfAARMRecvMaxTPS>
<S9AfAARMRecvTimeOfMaxTPS>0</S9AfAARMRecvTimeOfMaxTPS>
<S9AfASRRecvCurrentTPS>0</S9AfASRRecvCurrentTPS>
<S9AfASRRecvMaxTPS>0</S9AfASRRecvMaxTPS>
<S9AfASRRecvTimeOfMaxTPS>0</S9AfASRRecvTimeOfMaxTPS>
<S9AfSTRRecvCurrentTPS>0</S9AfSTRRecvCurrentTPS>
<S9AfSTRRecvMaxTPS>0</S9AfSTRRecvMaxTPS>
<S9AfSTRRecvTimeOfMaxTPS>0</S9AfSTRRecvTimeOfMaxTPS>
<S9AfRARRecvCurrentTPS>0</S9AfRARRecvCurrentTPS>
<S9AfRARRecvMaxTPS>0</S9AfRARRecvMaxTPS>
<S9AfRARRecvTimeOfMaxTPS>0</S9AfRARRecvTimeOfMaxTPS>
<LdapBindReqSentCurrentTPS>0</LdapBindReqSentCurrentTPS>
<LdapBindReqSentMaxTPS>0</LdapBindReqSentMaxTPS>
<LdapBindReqSentTimeOfMaxTPS>0</LdapBindReqSentTimeOfMaxTPS>
<LdapBindReqRecvCurrentTPS>0</LdapBindReqRecvCurrentTPS>
<LdapBindReqRecvMaxTPS>0</LdapBindReqRecvMaxTPS>
<LdapBindReqRecvTimeOfMaxTPS>0</LdapBindReqRecvTimeOfMaxTPS>
<LdapSearchReqSentCurrentTPS>0</LdapSearchReqSentCurrentTPS>
<LdapSearchReqSentMaxTPS>0</LdapSearchReqSentMaxTPS>
<LdapSearchReqSentTimeOfMaxTPS>0</LdapSearchReqSentTimeOfMaxTPS>
<LdapSearchReqRecvCurrentTPS>0</LdapSearchReqRecvCurrentTPS>
<LdapSearchReqRecvMaxTPS>0</LdapSearchReqRecvMaxTPS>
<LdapSearchReqRecvTimeOfMaxTPS>0</LdapSearchReqRecvTimeOfMaxTPS>
<LdapModifyReqSentCurrentTPS>0</LdapModifyReqSentCurrentTPS>
<LdapModifyReqSentMaxTPS>0</LdapModifyReqSentMaxTPS>
<LdapModifyReqSentTimeOfMaxTPS>0</LdapModifyReqSentTimeOfMaxTPS>
<LdapModifyReqRecvCurrentTPS>0</LdapModifyReqRecvCurrentTPS>
<LdapModifyReqRecvMaxTPS>0</LdapModifyReqRecvMaxTPS>
<LdapModifyReqRecvTimeOfMaxTPS>0</LdapModifyReqRecvTimeOfMaxTPS>
<CtfCCRICurrentTPS>0</CtfCCRICurrentTPS>
<CtfCCRIMaxTPS>0</CtfCCRIMaxTPS>
<CtfCCRITimeOfMaxTPS>0</CtfCCRITimeOfMaxTPS>
<CtfCCRUCurrentTPS>0</CtfCCRUCurrentTPS>
<CtfCCRUMaxTPS>0</CtfCCRUMaxTPS>
<CtfCCRUTimeOfMaxTPS>0</CtfCCRUTimeOfMaxTPS>
<CtfCCRTCurrentTPS>0</CtfCCRTCurrentTPS>
<CtfCCRTMaxTPS>0</CtfCCRTMaxTPS>
<CtfCCRTTimeOfMaxTPS>0</CtfCCRTTimeOfMaxTPS>
<CtfRARCurrentTPS>0</CtfRARCurrentTPS>
<CtfRARMaxTPS>0</CtfRARMaxTPS>
<CtfRARTimeOfMaxTPS>0</CtfRARTimeOfMaxTPS>
<CtfASRCurrentTPS>0</CtfASRCurrentTPS>
<CtfASRMaxTPS>0</CtfASRMaxTPS>
<CtfASRTimeOfMaxTPS>0</CtfASRTimeOfMaxTPS>
<RadiusAccountingStartCurrentTPS>0</RadiusAccountingStartCurrentTPS>
<RadiusAccountingStartMaxTPS>0</RadiusAccountingStartMaxTPS>
<RadiusAccountingStartTimeOfMaxTPS>0</RadiusAccountingStartTimeOfMaxTPS>
<RadiusInterimUpdateCurrentTPS>0</RadiusInterimUpdateCurrentTPS>
<RadiusInterimUpdateMaxTPS>0</RadiusInterimUpdateMaxTPS>
<RadiusInterimUpdateTimeOfMaxTPS>0</RadiusInterimUpdateTimeOfMaxTPS>
<RadiusAccountingStopCurrentTPS>0</RadiusAccountingStopCurrentTPS>
<RadiusAccountingStopMaxTPS>0</RadiusAccountingStopMaxTPS>
<RadiusAccountingStopTimeOfMaxTPS>0</RadiusAccountingStopTimeOfMaxTPS>
<RadiusCoaCurrentTPS>0</RadiusCoaCurrentTPS>
<RadiusCoaMaxTPS>0</RadiusCoaMaxTPS>
<RadiusCoaTimeOfMaxTPS>0</RadiusCoaTimeOfMaxTPS>
<RadiusCoaDisconnectCurrentTPS>0</RadiusCoaDisconnectCurrentTPS>
<RadiusCoaDisconnectMaxTPS>0</RadiusCoaDisconnectMaxTPS>
<RadiusCoaDisconnectTimeOfMaxTPS>0</RadiusCoaDisconnectTimeOfMaxTPS>
<RadiusAccountingOnCurrentTPS>0</RadiusAccountingOnCurrentTPS>
<RadiusAccountingOnMaxTPS>0</RadiusAccountingOnMaxTPS>
<RadiusAccountingOnTimeOfMaxTPS>0</RadiusAccountingOnTimeOfMaxTPS>
```

```
<RadiusAccountingOffCurrentTPS>0</RadiusAccountingOffCurrentTPS>
<RadiusAccountingOffMaxTPS>0</RadiusAccountingOffMaxTPS>
<RadiusAccountingOffTimeOfMaxTPS>0</RadiusAccountingOffTimeOfMaxTPS>
</Sample>
</TpsStats>
</Statistics>
```

Individual Statistics

This is a list of all possible individual statistics defined for the TpsStats tag.

Note: Depending on your system requirements, some statistics will not be present.

Note: These statistics are only found in wireless mode.

There are three statistics for each interface. They are in the format <*Interface Name*> <*Message Name*> <*Current/Max/TimeOfMax TPS*>. They describe the current transactions per second, the maximum transactions per second, and the time that maximum transactions per second occurred.

AF TPS Stats per message type

- AfAARICurrentTPS
- AfAARIMaxTPS
- AfAARITimeOfMaxTPS
- AfAARMCurrentTPS
- AfAARMMaxTPS
- AfAARMTimeOfMaxTPS
- AfASRCurrentTPS
- AfASRMaxTPS
- AfASRTimeOfMaxTPS
- AfSTRCurrentTPS
- AfSTRMaxTPS
- AfSTRTimeOfMaxTPS
- AfRARCurrentTPS
- AfRARMaxTPS
- AfRARTimeOfMaxTPS

Gx TPS Stats per message type

- PcefCCRICurrentTPS
- PcefCCRIMaxTPS
- PcefCCRITimeOfMaxTPS
- PcefCCRUCurrentTPS
- PcefCCRUMaxTPS
- PcefCCRUTimeOfMaxTPS
- PcefCCRTCurrentTPS
- PcefCCRTMaxTPS
- PcefCCRITimeOfMaxTPS
- PcefRARCurrentTPS
- PcefRARMaxTPS
- PcefRARTimeOfMaxTPS

Gxx TPS Stats per message type

- BberfCCRICurrentTPS
- BberfCCRIMaxTPS
- BberfCCRITimeOfMaxTPS
- BberfCCRUCurrentTPS
- BberfCCRUMaxTPS
- BberfCCRUTimeOfMaxTPS
- BberfCCRTCurrentTPS
- BberfCCRTMaxTPS
- BberfCCRTTimeOfMaxTPS
- BberfRARCurrentTPS
- BberfRARMaxTPS
- BberfRARTimeOfMaxTPS

Sd TPS Stats per message type

- TdfTSRCurrentTPS
- TdfTSRMaxTPS
- TdfTSRTimeOfMaxTPS
- TdfCCRUCurrentTPS
- TdfCCRUMaxTPS
- TdfCCRUTimeOfMaxTPS
- TdfCCRTCurrentTPS
- TdfCCRTMaxTPS
- TdfCCRTTimeOfMaxTPS
- TdfRARCurrentTPS
- TdfRARMaxTPS
- TdfRARimeOfMaxTPS

Sh TPS Stats per message type

- ShUDRSentTCurrentTPS
- ShUDRSentMaxTPS
- ShUDRSentTimeOfMaxTPS
- ShUDRRecvTCurrentTPS
- ShUDRRecvMaxTPS
- ShUDRRecvTimeOfMaxTPS
- ShPNRCurrentTPS
- ShPNRMaxTPS
- ShPNRimeOfMaxTPS
- ShPURCurrentTPS
- ShPURMaxTPS
- ShPURimeOfMaxTPS
- ShSNRCurrentTPS
- ShSNRMaxTPS
- ShSNRimeOfMaxTPS

Sy TPS Stats per message type

- SySLRICurrentTPS
- SySLRIMaxTPS

- SySLRITimeOfMaxTPS
- SySLRUCurrentTPS
- SySLRUMaxTPS
- SySLRUTimeOfMaxTPS
- SySNRTCurrentTPS
- SySNRTMaxTPS
- SySNRTimeOfMaxTPS
- SySTRCurrentTPS
- SySTRMaxTPS
- SySTRTimeOfMaxTPS

S9 TPS Stats per message type

- S9CCRISentCurrentTPS
- S9CCRISentMaxTPS
- S9CCRISentTimeOfMaxTPS
- S9CCRIRecvCurrentTPS
- S9CCRIRecvMaxTPS
- S9CCRIRecvTimeOfMaxTPS
- S9CCRUSentCurrentTPS
- S9CCRUSentMaxTPS
- S9CCRUSentTimeOfMaxTPS
- S9CCRURecvCurrentTPS
- S9CCRURecvMaxTPS
- S9CCRURecvTimeOfMaxTPS
- S9CCRTSentCurrentTPS
- S9CCRTSentMaxTPS
- S9CCRTSentTimeOfMaxTPS
- S9CCRTRecvCurrentTPS
- S9CCRTRecvMaxTPS
- S9CCRTRecvTimeOfMaxTPS
- S9RARSentCurrentTPS
- S9RARSentMaxTPS
- S9RARSentTimeOfMaxTPS
- S9RARRecvCurrentTPS
- S9RARRecvMaxTPS
- S9RARRecvTimeOfMaxTPS
- S9AfAARICurrentTPS
- S9AfAARIMaxTPS
- S9AfAARITimeOfMaxTPS
- S9AfAARMCurrentTPS
- S9AfAARMMaxTPS
- S9AfAARMTimeOfMaxTPS
- S9AfASRCurrentTPS
- S9AfASRMaxTPS
- S9AfASRTimeOfMaxTPS
- S9AfSTRCurrentTPS

- S9AfSTRMaxTPS
- S9AfSTRTimeOfMaxTPS
- S9AfRARCurrentTPS
- S9AfRARMaxTPS
- S9AfRARTimeOfMaxTPS

LDAP TPS Stats per message type

- LdapBindReqSentCurrentTPS
- LdapBindReqSentMaxTPS
- LdapBindReqSentTimeOfMaxTPS
- LdapBindReqRecvCurrentTPS
- LdapBindReqRecvMaxTPS
- LdapBindReqRecvTimeOfMaxTPS
- LdapSearchReqSentCurrentTPS
- LdapSearchReqSentMaxTPS
- LdapSearchReqSentTimeOfMaxTPS
- LdapSearchReqRecvCurrentTPS
- LdapSearchReqRecvMaxTPS
- LdapSearchReqRecvTimeOfMaxTPS
- LdapModifyReqSentCurrentTPS
- LdapModifyReqSentCurrentTPS
- LdapModifyReqSentTimeOfMaxTPS
- LdapModifyReqRecvCurrentTPS
- LdapModifyReqRecvMaxTPS
- LdapModifyReqRecvTimeOfMaxTPS

CTF Stats per message type

- CtfCCRICurrentTPS
- CtfCCRIMaxTPS
- CtfCCRITimeOfMaxTPS
- CtfCCRTCurrentTPS
- CtfCCRTMaxTPS
- CtfCCRTTimeOfMaxTPS
- CtfRARCurrentTPS
- CtfRARMaxTPS
- CtfRARTimeOfMaxTPS
- CtfASRCurrentTPS
- CtfASRMaxTPS
- CtfASRTimeOfMaxTPS
- CtfRARCurrentTPS
- CtfRARMaxTPS
- CtfRARTimeOfMaxTPS
- CtfASRCurrentTPS
- CtfASRMaxTPS
- CtfASRTimeOfMaxTPS

RADIUS Stats per message type

- RadiusAccountingStartCurrentTPS
- RadiusAccountingStartMaxTPS
- RadiusAccountingStartTimeOfMaxTPS
- RadiusInterimUpdateCurrentTPS
- RadiusInterimUpdateMaxTPS
- RadiusInterimUpdateTimeOfMaxTPS
- RadiusAccountingStopCurrentTPS
- RadiusAccountingStopMaxTPS
- RadiusAccountingStopTimeOfMaxTPS
- RadiusCoaCurrentTPS
- RadiusCoaMaxTPS
- RadiusCoaTimeOfMaxTPS
- RadiusCoaDisconnectCurrentTPS
- RadiusCoaDisconnectMaxTPS
- RadiusCoaDisconnectTimeOfMaxTPS
- RadiusAccountingOnCurrentTPS
- RadiusAccountingOnMaxTPS
- RadiusAccountingOnTimeOfMaxTPS
- RadiusAccountingOffCurrentTPS
- RadiusAccountingOffMaxTPS
- RadiusAccountingOffTimeOfMaxTPS

TPS MRA Statistics

The following examples show the request and response that are defined in the XSD files for the TpsMraStats tag.

Request

This request follows the TpsMraStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-2T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<TpsMraStats>
<!-- MRA is optional. -->
<MRA>MRA-Cluster</MRA>
<MRA>MRA-35</MRA>
</TpsMraStats>
</QueryOmStats>
```

Response

The response to this request follows the TpsMraStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<TpsMraStats>
```

```
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<MRA>MRA-Cluster</MRA>
<IsComplete>true</IsComplete>
<AfAARICurrentTPS>0</AfAARICurrentTPS>
<AfAARIMaxTPS>0</AfAARIMaxTPS>
<AfAARITimeOfMaxTPS>0</AfAARITimeOfMaxTPS>
<AfAARMCurrentTPS>0</AfAARMCurrentTPS>
<AfAARMMaxTPS>0</AfAARMMaxTPS>
<AfAARMTimeOfMaxTPS>0</AfAARMTimeOfMaxTPS>
<AfASRCurrentTPS>0</AfASRCurrentTPS>
<AfASRMaxTPS>0</AfASRMaxTPS>
<AfASRTimeOfMaxTPS>0</AfASRTimeOfMaxTPS>
<AfSTRCurrentTPS>0</AfSTRCurrentTPS>
<AfSTRMaxTPS>0</AfSTRMaxTPS>
<AfSTRTimeOfMaxTPS>0</AfSTRTimeOfMaxTPS>
<AfRARCurrentTPS>0</AfRARCurrentTPS>
<AfRARMaxTPS>0</AfRARMaxTPS>
<AfRARTimeOfMaxTPS>0</AfRARTimeOfMaxTPS>
<PcefCCRICurrentTPS>0</PcefCCRICurrentTPS>
<PcefCCRIMaxTPS>0</PcefCCRIMaxTPS>
<PcefCCRITimeOfMaxTPS>0</PcefCCRITimeOfMaxTPS>
<PcefCCRUCurrentTPS>0</PcefCCRUCurrentTPS>
<PcefCCRUMaxTPS>0</PcefCCRUMaxTPS>
<PcefCCRUTimeOfMaxTPS>0</PcefCCRUTimeOfMaxTPS>
<PcefCCRTCurrentTPS>0</PcefCCRTCurrentTPS>
<PcefCCRTMaxTPS>0</PcefCCRTMaxTPS>
<PcefCCRTTimeOfMaxTPS>0</PcefCCRTTimeOfMaxTPS>
<PcefRARCurrentTPS>0</PcefRARCurrentTPS>
<PcefRARMaxTPS>0</PcefRARMaxTPS>
<PcefRARTimeOfMaxTPS>0</PcefRARTimeOfMaxTPS>
<BberfCCRICurrentTPS>0</BberfCCRICurrentTPS>
<BberfCCRIMaxTPS>0</BberfCCRIMaxTPS>
<BberfCCRITimeOfMaxTPS>0</BberfCCRITimeOfMaxTPS>
<BberfCCRUCurrentTPS>0</BberfCCRUCurrentTPS>
<BberfCCRUMaxTPS>0</BberfCCRUMaxTPS>
<BberfCCRUTimeOfMaxTPS>0</BberfCCRUTimeOfMaxTPS>
<BberfCCRTCurrentTPS>0</BberfCCRTCurrentTPS>
<BberfCCRTMaxTPS>0</BberfCCRTMaxTPS>
<BberfCCRTTimeOfMaxTPS>0</BberfCCRTTimeOfMaxTPS>
<BberfRARCurrentTPS>0</BberfRARCurrentTPS>
<BberfRARMaxTPS>0</BberfRARMaxTPS>
<BberfRARTimeOfMaxTPS>0</BberfRARTimeOfMaxTPS>
<TdfTSRCurrentTPS>0</TdfTSRCurrentTPS>
<TdfTSRMaxTPS>0</TdfTSRMaxTPS>
<TdfTSRTimeOfMaxTPS>0</TdfTSRTimeOfMaxTPS>
<TdfCCRUCurrentTPS>0</TdfCCRUCurrentTPS>
<TdfCCRUMaxTPS>0</TdfCCRUMaxTPS>
<TdfCCRUTimeOfMaxTPS>0</TdfCCRUTimeOfMaxTPS>
<TdfCCRTCurrentTPS>0</TdfCCRTCurrentTPS>
<TdfCCRTMaxTPS>0</TdfCCRTMaxTPS>
<TdfCCRTTimeOfMaxTPS>0</TdfCCRTTimeOfMaxTPS>
<TdfRARCurrentTPS>0</TdfRARCurrentTPS>
<TdfRARMaxTPS>0</TdfRARMaxTPS>
<TdfRARTimeOfMaxTPS>0</TdfRARTimeOfMaxTPS>
<ShUDRSentTCurrentTPS>0</ShUDRSentTCurrentTPS>
<ShUDRSentMaxTPS>0</ShUDRSentMaxTPS>
<ShUDRSentTimeOfMaxTPS>0</ShUDRSentTimeOfMaxTPS>
<ShPNRCurrentTPS>0</ShPNRCurrentTPS>
<ShPNRMaxTPS>0</ShPNRMaxTPS>
<ShPNRTimeOfMaxTPS>0</ShPNRTimeOfMaxTPS>
<ShPURCurrentTPS>0</ShPURCurrentTPS>
<ShPURMaxTPS>0</ShPURMaxTPS>
```

```
<ShPURTimeOfMaxTPS>0</ShPURTimeOfMaxTPS>
<ShSNRCurrentTPS>0</ShSNRCurrentTPS>
<ShSNRMaxTPS>0</ShSNRMaxTPS>
<ShSNRTimeOfMaxTPS>0</ShSNRTimeOfMaxTPS>
<SySLRICurrentTPS>0</SySLRICurrentTPS>
<SySLRIMaxTPS>0</SySLRIMaxTPS>
<SySLRITimeOfMaxTPS>0</SySLRITimeOfMaxTPS>
<SySLRUCurrentTPS>0</SySLRUCurrentTPS>
<SySLRUMaxTPS>0</SySLRUMaxTPS>
<SySLRUTimeOfMaxTPS>0</SySLRUTimeOfMaxTPS>
<SySNRTCurrentTPS>0</SySNRTCurrentTPS>
<SySNRTMaxTPS>0</SySNRTMaxTPS>
<SySNRTimeOfMaxTPS>0</SySNRTimeOfMaxTPS>
<SySTRCurrentTPS>0</SySTRCurrentTPS>
<SySTRMaxTPS>0</SySTRMaxTPS>
<SySTRTimeOfMaxTPS>0</SySTRTimeOfMaxTPS>
<S9CCRISentCurrentTPS>0</S9CCRISentCurrentTPS>
<S9CCRISentMaxTPS>0</S9CCRISentMaxTPS>
<S9CCRISentTimeOfMaxTPS>0</S9CCRISentTimeOfMaxTPS>
<S9CCRIRecvCurrentTPS>0</S9CCRIRecvCurrentTPS>
<S9CCRIRecvMaxTPS>0</S9CCRIRecvMaxTPS>
<S9CCRIRecvTimeOfMaxTPS>0</S9CCRIRecvTimeOfMaxTPS>
<S9CCRUSentCurrentTPS>0</S9CCRUSentCurrentTPS>
<S9CCRUSentMaxTPS>0</S9CCRUSentMaxTPS>
<S9CCRUSentTimeOfMaxTPS>0</S9CCRUSentTimeOfMaxTPS>
<S9CCRURecvCurrentTPS>0</S9CCRURecvCurrentTPS>
<S9CCRURecvMaxTPS>0</S9CCRURecvMaxTPS>
<S9CCRURecvTimeOfMaxTPS>0</S9CCRURecvTimeOfMaxTPS>
<S9CCRTSentCurrentTPS>0</S9CCRTSentCurrentTPS>
<S9CCRTSentMaxTPS>0</S9CCRTSentMaxTPS>
<S9CCRTSentTimeOfMaxTPS>0</S9CCRTSentTimeOfMaxTPS>
<S9CCRTRecvCurrentTPS>0</S9CCRTRecvCurrentTPS>
<S9CCRTRecvMaxTPS>0</S9CCRTRecvMaxTPS>
<S9CCRTRecvTimeOfMaxTPS>0</S9CCRTRecvTimeOfMaxTPS>
<S9RARSentCurrentTPS>0</S9RARSentCurrentTPS>
<S9RARSentMaxTPS>0</S9RARSentMaxTPS>
<S9RARSentTimeOfMaxTPS>0</S9RARSentTimeOfMaxTPS>
<S9RARRecvCurrentTPS>0</S9RARRecvCurrentTPS>
<S9RARRecvMaxTPS>0</S9RARRecvMaxTPS>
<S9RARRecvTimeOfMaxTPS>0</S9RARRecvTimeOfMaxTPS>
<S9AfAARISentCurrentTPS>0</S9AfAARISentCurrentTPS>
<S9AfAARISentMaxTPS>0</S9AfAARISentMaxTPS>
<S9AfAARISentTimeOfMaxTPS>0</S9AfAARISentTimeOfMaxTPS>
<S9AfAARMSentCurrentTPS>0</S9AfAARMSentCurrentTPS>
<S9AfAARMSentMaxTPS>0</S9AfAARMSentMaxTPS>
<S9AfAARMSentTimeOfMaxTPS>0</S9AfAARMSentTimeOfMaxTPS>
<S9AfASRSentCurrentTPS>0</S9AfASRSentCurrentTPS>
<S9AfASRSentMaxTPS>0</S9AfASRSentMaxTPS>
<S9AfASRSentTimeOfMaxTPS>0</S9AfASRSentTimeOfMaxTPS>
<S9AfSTRSentCurrentTPS>0</S9AfSTRSentCurrentTPS>
<S9AfSTRSentMaxTPS>0</S9AfSTRSentMaxTPS>
<S9AfSTRSentTimeOfMaxTPS>0</S9AfSTRSentTimeOfMaxTPS>
<S9AfRARSentCurrentTPS>0</S9AfRARSentCurrentTPS>
<S9AfRARSentMaxTPS>0</S9AfRARSentMaxTPS>
<S9AfRARSentTimeOfMaxTPS>0</S9AfRARSentTimeOfMaxTPS>
<S9AfAARIRecvCurrentTPS>0</S9AfAARIRecvCurrentTPS>
<S9AfAARIRecvMaxTPS>0</S9AfAARIRecvMaxTPS>
<S9AfAARIRecvTimeOfMaxTPS>0</S9AfAARIRecvTimeOfMaxTPS>
<S9AfAARMRecvCurrentTPS>0</S9AfAARMRecvCurrentTPS>
<S9AfAARMRecvMaxTPS>0</S9AfAARMRecvMaxTPS>
<S9AfAARMRecvTimeOfMaxTPS>0</S9AfAARMRecvTimeOfMaxTPS>
<S9AfASRRecvCurrentTPS>0</S9AfASRRecvCurrentTPS>
<S9AfASRRecvMaxTPS>0</S9AfASRRecvMaxTPS>
<S9AfASRRecvTimeOfMaxTPS>0</S9AfASRRecvTimeOfMaxTPS>
```

```
<S9AfSTRRecvCurrentTPS>0</S9AfSTRRecvCurrentTPS>
<S9AfSTRRecvMaxTPS>0</S9AfSTRRecvMaxTPS>
<S9AfSTRRecvTimeOfMaxTPS>0</S9AfSTRRecvTimeOfMaxTPS>
<S9AfRARRecvCurrentTPS>0</S9AfRARRecvCurrentTPS>
<S9AfRARRecvMaxTPS>0</S9AfRARRecvMaxTPS>
<S9AfRARRecvTimeOfMaxTPS>0</S9AfRARRecvTimeOfMaxTPS>
<LdapBindReqSentCurrentTPS>0</LdapBindReqSentCurrentTPS>
<LdapBindReqSentMaxTPS>0</LdapBindReqSentMaxTPS>
<LdapBindReqSentTimeOfMaxTPS>0</LdapBindReqSentTimeOfMaxTPS>
<LdapBindReqRecvCurrentTPS>0</LdapBindReqRecvCurrentTPS>
<LdapBindReqRecvMaxTPS>0</LdapBindReqRecvMaxTPS>
<LdapBindReqRecvTimeOfMaxTPS>0</LdapBindReqRecvTimeOfMaxTPS>
<LdapSearchReqSentCurrentTPS>0</LdapSearchReqSentCurrentTPS>
<LdapSearchReqSentMaxTPS>0</LdapSearchReqSentMaxTPS>
<LdapSearchReqSentTimeOfMaxTPS>0</LdapSearchReqSentTimeOfMaxTPS>
<LdapSearchReqRecvCurrentTPS>0</LdapSearchReqRecvCurrentTPS>
<LdapSearchReqRecvMaxTPS>0</LdapSearchReqRecvMaxTPS>
<LdapSearchReqRecvTimeOfMaxTPS>0</LdapSearchReqRecvTimeOfMaxTPS>
<LdapModifyReqSentCurrentTPS>0</LdapModifyReqSentCurrentTPS>
<LdapModifyReqSentMaxTPS>0</LdapModifyReqSentMaxTPS>
<LdapModifyReqSentTimeOfMaxTPS>0</LdapModifyReqSentTimeOfMaxTPS>
<LdapModifyReqRecvCurrentTPS>0</LdapModifyReqRecvCurrentTPS>
<LdapModifyReqRecvMaxTPS>0</LdapModifyReqRecvMaxTPS>
<LdapModifyReqRecvTimeOfMaxTPS>0</LdapModifyReqRecvTimeOfMaxTPS>
<CtfCCRICurrentTPS>0</CtfCCRICurrentTPS>
<CtfCCRIMaxTPS>0</CtfCCRIMaxTPS>
<CtfCCRITimeOfMaxTPS>0</CtfCCRITimeOfMaxTPS>
<CtfCCRUCurrentTPS>0</CtfCCRUCurrentTPS>
<CtfCCRUMaxTPS>0</CtfCCRUMaxTPS>
<CtfCCRUTimeOfMaxTPS>0</CtfCCRUTimeOfMaxTPS>
<CtfCCRTCurrentTPS>0</CtfCCRTCurrentTPS>
<CtfCCRTMaxTPS>0</CtfCCRTMaxTPS>
<CtfCCRTTimeOfMaxTPS>0</CtfCCRTTimeOfMaxTPS>
<CtfRARCurrentTPS>0</CtfRARCurrentTPS>
<CtfRARMaxTPS>0</CtfRARMaxTPS>
<CtfRARTimeOfMaxTPS>0</CtfRARTimeOfMaxTPS>
<CtfASRCurrentTPS>0</CtfASRCurrentTPS>
<CtfASRMaxTPS>0</CtfASRMaxTPS>
<CtfASRTimeOfMaxTPS>0</CtfASRTimeOfMaxTPS>
<RadiusAccountingStartCurrentTPS>0</RadiusAccountingStartCurrentTPS>
<RadiusAccountingStartMaxTPS>0</RadiusAccountingStartMaxTPS>
<RadiusAccountingStartTimeOfMaxTPS>0</RadiusAccountingStartTimeOfMaxTPS>
<RadiusInterimUpdateCurrentTPS>0</RadiusInterimUpdateCurrentTPS>
<RadiusInterimUpdateMaxTPS>0</RadiusInterimUpdateMaxTPS>
<RadiusInterimUpdateTimeOfMaxTPS>0</RadiusInterimUpdateTimeOfMaxTPS>
<RadiusAccountingStopCurrentTPS>0</RadiusAccountingStopCurrentTPS>
<RadiusAccountingStopMaxTPS>0</RadiusAccountingStopMaxTPS>
<RadiusAccountingStopTimeOfMaxTPS>0</RadiusAccountingStopTimeOfMaxTPS>
<RadiusCoaCurrentTPS>0</RadiusCoaCurrentTPS>
<RadiusCoaMaxTPS>0</RadiusCoaMaxTPS>
<RadiusCoaTimeOfMaxTPS>0</RadiusCoaTimeOfMaxTPS>
<RadiusCoaDisconnectCurrentTPS>0</RadiusCoaDisconnectCurrentTPS>
<RadiusCoaDisconnectMaxTPS>0</RadiusCoaDisconnectMaxTPS>
<RadiusCoaDisconnectTimeOfMaxTPS>0</RadiusCoaDisconnectTimeOfMaxTPS>
<RadiusAccountingOnCurrentTPS>0</RadiusAccountingOnCurrentTPS>
<RadiusAccountingOnMaxTPS>0</RadiusAccountingOnMaxTPS>
<RadiusAccountingOnTimeOfMaxTPS>0</RadiusAccountingOnTimeOfMaxTPS>
<RadiusAccountingOffCurrentTPS>0</RadiusAccountingOffCurrentTPS>
<RadiusAccountingOffMaxTPS>0</RadiusAccountingOffMaxTPS>
<RadiusAccountingOffTimeOfMaxTPS>0</RadiusAccountingOffTimeOfMaxTPS>
</Sample>
</TpsMraStats>
</Statistics>
```

KPI Statistics for COMCOL Behindness and Sync State

The following examples show the request and response that are defined in the XSD files for the KpiStats tag.

Request

This request follows the KpiStats tag defined in the QueryOmStats section in the XSD files.

The following is an example of this request for replication delta and synch status.

```
<QueryOmStats>
    <StartTime>2013-04-24T11:00:00</StartTime>
    <EndTime>2013-04-24T11:15:01</EndTime>
  <KpiStats>
    <PolicyServer> MPE </PolicyServer>
  </KpiStats>
</QueryOmStats>
```

Response

The response to this request follows the KpiStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
 <KpiStats>
   <Sample>
     <StartTime>2013-04-24T11:00:00Z</StartTime>
     <EndTime>2013-04-24T11:15:01Z</EndTime>
     <PolicyServer>MPE</PolicyServer>
     <IsComplete>true</IsComplete>
     <TransactionStartCount>0</TransactionStartCount>
     <TransactionEndCount>0</TransactionEndCount>
     <MessagesInCount>0</MessagesInCount>
     <MessagesOutCount>0</MessagesOutCount>
     <CurrentTransactionsPerSecond>0</CurrentTransactionsPerSecond>
     <MaxTransactionsPerSecond>0</MaxTransactionsPerSecond>
     <CurrentTPSPercentageOfCapacity>0</CurrentTPSPercentageOfCapacity>
     <MaxTPSPercentageOfCapacity>0</MaxTPSPercentageOfCapacity>
     <CurrentLTETransactionsPerSecond>0</CurrentLTETransactionsPerSecond>
     <CurrentEHRPDTransactionsPerSecond>0</CurrentEHRPDTransactionsPerSecond>
     <CurrentRXTransactionsPerSecond>0</CurrentRXTransactionsPerSecond>
     <LoadSheddingStatus>0</LoadSheddingStatus>
     <LoadSheddingEfficiency>0</LoadSheddingEfficiency>
     <LoadSheddingDistressCount>0</LoadSheddingDistressCount>
     <CurrentMRABindingCount>0</CurrentMRABindingCount>
     <MaxMRABindingCount>0</MaxMRABindingCount>
     <TotalMRABindingCount>0</TotalMRABindingCount>
     <CurrentSessionCount>0</CurrentSessionCount>
     <MaxSessionCount>0</MaxSessionCount>
     <CurrentPDNConnectionCount>0</CurrentPDNConnectionCount>
     <MaxPDNConnectionCount>0</MaxPDNConnectionCount>

<CurrentPDNConnectionPercentageOfCapacity>0</CurrentPDNConnectionPercentageOfCapacity>


<MaxPDNConnectionPercentageOfCapacity>0</MaxPDNConnectionPercentageOfCapacity>
     <CurrentSessionPercentageOfCapacity>0</CurrentSessionPercentageOfCapacity>
```

```
     <MaxSessionPercentageOfCapacity>0</MaxSessionPercentageOfCapacity>
     <CurrentMPEConnectionCount>0</CurrentMPEConnectionCount>
     <ConfiguredMPEConnectionCount>0</ConfiguredMPEConnectionCount>
     <CurrentDRMAConnectionCount>0</CurrentDRMAConnectionCount>
     <ConfiguredDRMAConnectionCount>0</ConfiguredDRMAConnectionCount>
     <CurrentConnectedNECount>0</CurrentConnectedNECount>
     <ConfiguredNECount>3</ConfiguredNECount>
     <CurrentMRAConnectionCount>1</CurrentMRAConnectionCount>
     <ConfiguredMRAConnectionCount>1</ConfiguredMRAConnectionCount>
     <CurrentSPRConnectionCount>0</CurrentSPRConnectionCount>
     <ConfiguredSPRConnectionCount>0</ConfiguredSPRConnectionCount>
     <CurrentProtocolErrorSentCount>0</CurrentProtocolErrorSentCount>
     <CurrentProtocolErrorReceivedCount>0</CurrentProtocolErrorReceivedCount>

<CurrentMRABindingPercentageOfCapacity>0</CurrentMRABindingPercentageOfCapacity>

     <MaxMRABindingPercentageOfCapacity>0</MaxMRABindingPercentageOfCapacity>
     <PrimaryCPUUtilizationPercentage>0</PrimaryCPUUtilizationPercentage>
     <PrimaryMemoryUtilizationPercentage>7</PrimaryMemoryUtilizationPercentage>

     <PrimaryDiskUtilizationPercentage>0</PrimaryDiskUtilizationPercentage>
     <PrimaryBladeFailureCount>18</PrimaryBladeFailureCount>
     <PrimaryUpTimeMillis>65886600</PrimaryUpTimeMillis>
     <PrimaryBladeStatus>12</PrimaryBladeStatus>
     <SecondaryCPUUtilizationPercentage>0</SecondaryCPUUtilizationPercentage>

<SecondaryMemoryUtilizationPercentage>0</SecondaryMemoryUtilizationPercentage>
     <SecondaryDiskUtilizationPercentage>0</SecondaryDiskUtilizationPercentage>

     <SecondaryBladeFailureCount>18</SecondaryBladeFailureCount>
     <SecondaryUpTimeMillis>0</SecondaryUpTimeMillis>
     <SecondaryBladeStatus>0</SecondaryBladeStatus>
     <ServerACPUUtilizationPercentage>0</ServerACPUUtilizationPercentage>
     <ServerAMemoryUtilizationPercentage>7</ServerAMemoryUtilizationPercentage>

     <ServerADiskUtilizationPercentage>0</ServerADiskUtilizationPercentage>
     <ServerABladeFailureCount>18</ServerABladeFailureCount>
     <ServerAUpTimeMillis>658866000</ServerAUpTimeMillis>
     <ServerABladeStatus>12</ServerABladeStatus>
     <ServerAHaStatus>Active</ServerAHaStatus>
     <ServerABladeDeltaTimeMillis>0</ServerABladeDeltaTimeMillis>
     <ServerABladePeakDeltaTime>0</ServerABladePeakDeltaTime>
     <ServerABladeSyncStatus>OK</ServerABladeSyncStatus>
     <ServerBCPUUtilizationPercentage>0</ServerBCPUUtilizationPercentage>
     <ServerBMemoryUtilizationPercentage>0</ServerBMemoryUtilizationPercentage>

     <ServerBDiskUtilizationPercentage>0</ServerBDiskUtilizationPercentage>
     <ServerBBladeFailureCount>0</ServerBBladeFailureCount>
     <ServerBUpTimeMillis>250</ServerBUpTimeMillis>
     <ServerBBladeStatus>96</ServerBBladeStatus>
     <ServerBHaStatus>Standby</ServerBHaStatus>
     <ServerBBladeDeltaTimeMillis>12</ServerBBladeDeltaTimeMillis>
     <ServerBBladePeakDeltaTime>200</ServerBBladePeakDeltaTime>
     <ServerBBladeSyncStatus>OK</ServerBBladeSyncStatus>
     <ServerCCPUUtilizationPercentage>0</ServerCCPUUtilizationPercentage>
     <ServerCMemoryUtilizationPercentage>0</ServerCMemoryUtilizationPercentage>

     <ServerCDiskUtilizationPercentage>0</ServerCDiskUtilizationPercentage>
     <ServerCBladeFailureCount>0</ServerCBladeFailureCount>
     <ServerCUpTimeMillis>1250</ServerCUpTimeMillis>
     <ServerCBladeStatus>99</ServerCBladeStatus>
     <ServerCHaStatus>Spare</ServerCHaStatus>
     <ServerCBladeDeltaTimeMillis>8</ServerCBladeStatusDeltaTimeMillis>
     <ServerCBladePeakDeltaTime>500</ServerCBladePeakDeltaTime>
```

```
     <ServerCBladeSyncStatus>OK</ServerCBladeSyncStatus>
   </Sample>
  </KpiStats>
</Statistics>
```

KPI Dashboard Statistics

The request and response that are defined in the XSD files for KPI Statistics including the Active Sessions count under Performance.

Request

This request follows the KpiStats tag defined in the QueryOmStats section of the XSD files.

Response

The response to this request follows the KpiStats tags defined in the Statistics section of the XSD files.

About Data Source Statistics

This section shows the requests and responses for the following:

- *DHCP Data Source Statistics*
- *LDAP Source Statistics*
- *Sh Data Source Statistics*
- *SPR Data Source Statistics*
- *Sy Data Source Statistics*

DHCP Data Source Statistics

The following examples show the request and response that are defined in the XSD files for the DhcpDataSourceStats tag.

Request

This request follows the DhcpDataSourceStats tag defined in the QueryOmStats section in the XSD files.

```
<?xml version="1.0" encoding="UTF-8"?>
<QueryOmStats>
    <StartTime>2016-04-21T14:15:00</StartTime>
    <EndTime>2016-04-21T14:30:00</EndTime>
    <DhcpDataSourceStats>
        <!-- PolicyServer is optional. -->
        <PolicyServer>MPE-Cluster</PolicyServer>
        <PolicyServer>MPE-173</PolicyServer>
    </DhcpDataSourceStats>
</QueryOmStats>
```

Response

The response to this request follows the DhcpDataSourceStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
    <DhcpDataSourceStats>
        <Sample>
           <StartTime>2016-05-16T23:45:00Z</StartTime>
           <EndTime>2016-05-17T00:00:00Z</EndTime>
           <PolicyServer>MPE-Cluster</PolicyServer>
           <SuccessfulSearchCount>0</SuccessfulSearchCount>
           <UnsuccessfulSearchCount>0</UnsuccessfulSearchCount>
           <SearchErrorCount>0</SearchErrorCount>
           <MaxSuccessfulSearchTimeTaken>0</MaxSuccessfulSearchTimeTaken>
           <MaxUnsuccessfulSearchTimeTaken>0</MaxUnsuccessfulSearchTimeTaken>
           <AvgSuccessfulSearchTimeTaken>0.0</AvgSuccessfulSearchTimeTaken>
           <AvgUnsuccessfulSearchTimeTaken>0.0</AvgUnsuccessfulSearchTimeTaken>

        </Sample>
    </DhcpDataSourceStats>
</Statistics>
```

LDAP Source Statistics

The following examples show the request and response that are defined in the XSD files for the LdapDataSourceStats tag.

Request

This request follows the LdapDataSourceStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<LdapDataSourceStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
</LdapDataSourceStats>
</QueryOmStats>
```

Response

The response to this request follows the LdapDataSourceStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<LdapDataSourceStats>
<Sample>
<StartTime>2016-05-17T00:00:00Z</StartTime>
<EndTime>2016-05-17T00:15:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
```

```
<IsComplete>true</IsComplete>
<SuccessfulSearchCount>0</SuccessfulSearchCount>
<UnsuccessfulSearchCount>0</UnsuccessfulSearchCount>
<SearchErrorCount>0</SearchErrorCount>
<MaxSuccessfulSearchTimeTaken>0</MaxSuccessfulSearchTimeTaken>
<MaxUnsuccessfulSearchTimeTaken>0</MaxUnsuccessfulSearchTimeTaken>
<AvgSuccessfulSearchTimeTaken>0.0</AvgSuccessfulSearchTimeTaken>
<AvgUnsuccessfulSearchTimeTaken>0.0</AvgUnsuccessfulSearchTimeTaken>
</Sample>
</LdapDataSourceStats>
</Statistics>
```

Sh Data Source Statistics

The following examples show the request and response that are defined in the XSD files for the ShDataSourceStats tag.

Request

This request follows the ShDataSourceStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<ShDataSourceStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
</ShDataSourceStats>
</QueryOmStats>
```

Response

The response to this request follows the ShDataSourceStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<ShDataSourceStats>
<Sample>
<StartTime>2016-05-16T23:45:01Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<IsComplete>true</IsComplete>
<SuccessfulSearchCount>0</SuccessfulSearchCount>
<UnsuccessfulSearchCount>0</UnsuccessfulSearchCount>
<SearchErrorCount>0</SearchErrorCount>
<SearchTimeoutRetriesCount>0</SearchTimeoutRetriesCount>
<UpdateTimeoutRetriesCount>0</UpdateTimeoutRetriesCount>
<SubscriptionTimeoutRetriesCount>0</SubscriptionTimeoutRetriesCount>
<UnsubscriptionTimeoutRetriesCount>0</UnsubscriptionTimeoutRetriesCount>
<MaxSuccessfulSearchTimeTaken>0</MaxSuccessfulSearchTimeTaken>
<MaxUnsuccessfulSearchTimeTaken>0</MaxUnsuccessfulSearchTimeTaken>
<AvgSuccessfulSearchTimeTaken>0.0</AvgSuccessfulSearchTimeTaken>
<AvgUnsuccessfulSearchTimeTaken>0.0</AvgUnsuccessfulSearchTimeTaken>
</Sample>
```

```
</ShDataSourceStats>
</Statistics>
```

SPR Data Source Statistics

The following examples show the request and response that are defined in the XSD files for the SprDataSourceStats tag.

Request

This request follows the SprDataSourceStats tag defined in the QueryOmStats section in the XSD files.

```
<?xml version="1.0" encoding="UTF-8"?>
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<SprDataSourceStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
</SprDataSourceStats>
</QueryOmStats>
```

Response

The response to this request follows the SprDataSourceStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<SprDataSourceStats>
<Sample>
<StartTime>2016-05-16T23:45:01Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<IsComplete>true</IsComplete>
<SuccessfulSearchCount>0</SuccessfulSearchCount>
<UnsuccessfulSearchCount>0</UnsuccessfulSearchCount>
<SearchErrorCount>0</SearchErrorCount>
<MaxSuccessfulSearchTimeTaken>0</MaxSuccessfulSearchTimeTaken>
<MaxUnsuccessfulSearchTimeTaken>0</MaxUnsuccessfulSearchTimeTaken>
<AvgSuccessfulSearchTimeTaken>0.0</AvgSuccessfulSearchTimeTaken>
<AvgUnsuccessfulSearchTimeTaken>0.0</AvgUnsuccessfulSearchTimeTaken>
</Sample>
</SprDataSourceStats>
</Statistics>
```

Sy Data Source Statistics

The following examples show the request and response that are defined in the XSD files for the SyDataSourceStats tag.

Request

This request follows the SyDataSourceStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<SyDataSourceStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
</SyDataSourceStats>
</QueryOmStats>
```

Response

The response to this request follows the SyDataSourceStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<SyDataSourceStats>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<SuccessfulSearchCount>0</SuccessfulSearchCount>
<UnsuccessfulSearchCount>0</UnsuccessfulSearchCount>
<SearchErrorCount>0</SearchErrorCount>
<MaxSuccessfulSearchTimeTaken>0</MaxSuccessfulSearchTimeTaken>
<MaxUnsuccessfulSearchTimeTaken>0</MaxUnsuccessfulSearchTimeTaken>
<AvgSuccessfulSearchTimeTaken>0.0</AvgSuccessfulSearchTimeTaken>
<AvgUnsuccessfulSearchTimeTaken>0.0</AvgUnsuccessfulSearchTimeTaken>
</Sample>
</SyDataSourceStats>
</Statistics>
```

About Miscellaneous Statistics

This section shows the requests and responses for the following:

- *AF Session Statistics for RAT-Type*
- *Mediation Subscriber Statistics*
- *Message Processing Statistics*
- *Network Element Statistics*
- *PDN Connection APN Statistics*
- *PDN RAT Connection Statistics*
- *Peer Associate Statistics*
- *Quota Profile Statistics*
- *Replication Statistics*
- *SCTP Association Statistics*

- *Stale Session Statistics*
- *Sy Reconciliation Statistics*
- *Traffic Profile Statistics*
- *Topology Update Statistics*
- *Traffic Profile Statistics*
- *Wireline Network Element Statistics*

AF Session Statistics for RAT-Type

The following examples show the request and response that are defined in the XSD files for AFSessionStats tag.

Request

This request follows the AFSessionStats tag defined in the QueryOmStats section of the XSD files.

Note: Current and Maximum AF Session counts are returned for all RAT types that are available from each MPE device. If a RAT type is not available from an MPE device, no entry is returned.

The following are examples of a request for a single policy server and multiple policy servers:

```
<?xml version="1.0" encoding="UTF-8"?>
<XmlInterfaceRequest>
   <QueryOmStats DeltaCount="false">
         <StartTime>2012-09-20T13:00:00</StartTime>
         <EndTime>2012-10-30T13:15:00</EndTime>
         <AFSessionStats>
         <PolicyServer>mpe17-41</PolicyServer>
         </AFSessionStats >
   </QueryOmStats>
</XmlInterfaceRequest>
```

```
<?xml version="1.0" encoding="UTF-8"?>
<XmlInterfaceRequest>
   <QueryOmStats DeltaCount="false">
         <StartTime>2012-10-24T14:00:45</StartTime>
         <EndTime>2012-10-24T14:50:00</EndTime>
         <PdnRatTypeStats>
         <PolicyServer>MPE01</PolicyServer>
         <PolicyServer>MPE02</PolicyServer>
         </PdnRatTypeStats>
   </QueryOmStats>
</XmlInterfaceRequest>
```

Response

The response to this request follows the CurrentConnectionsCount and MaximumConnectionsCount tags defined in the Statistics section of the XSD files.

```
<Statistics>
         < AFSessionStats >
         <Sample>
         <StartTime>2012-10-24T19:45:00Z</StartTime>
```

```
        <EndTime>2012-10-24T19:45:00Z</EndTime>
        <PolicyServer>mpe17-41</PolicyServer>
        <IsComplete>false</IsComplete>
        <Type>WLAN</Type>
        <CurrentAfSessionCount>0</CurrentAfSessionCount>
        <MaximumAfSessionCount>0</MaximumAfSessionCount>
        </Sample>
        <Sample>
        <StartTime>2012-10-24T19:45:00Z</StartTime>
        <EndTime>2012-10-24T19:45:00Z</EndTime>
        <PolicyServer>mpe17-41</PolicyServer>
        <IsComplete>false</IsComplete>
        <Type>HRPD</Type>
        <CurrentAfSessionCount>0</CurrentAfSessionCount>
        <MaximumAfSessionCount>0</MaximumAfSessionCount>
        </Sample>
        <Sample>
        <StartTime>2012-10-24T19:45:00Z</StartTime>
        <EndTime>2012-10-24T19:45:00Z</EndTime>
        <PolicyServer>mpe17-41</PolicyServer>
        <IsComplete>false</IsComplete>
        <Type>HRPD</Type>
        <CurrentAfSessionCount>0</CurrentAfSessionCount>
        <MaximumAfSessionCount>0</MaximumAfSessionCount>
        </Sample>
        <Sample>
        <StartTime>2012-10-24T19:45:00Z</StartTime>
        <EndTime>2012-10-24T19:45:00Z</EndTime>
        <PolicyServer>mpe17-41</PolicyServer>
        <IsComplete>false</IsComplete>
        <Type>EUTRAN</Type>
        <CurrentAfSessionCount>0</CurrentAfSessionCount>
        <MaximumAfSessionCount>0</MaximumAfSessionCount>
        </AFSessionStats>
</Statistics>
```

Individual statistics defined for this tag are:

- StartTime

  The time this stat object was created.

- EndTime

  The time this stat object was ended.

- CurrentConnectionsCount

  The current number of AF Sessions for this RAT-Type.

- MaximumConnectionsCount

  The maximum number of AF Sessions at any one point for this RAT-Type. The default interval time is 15 minutes, and it can be configured by the Stats Collection Period attribute in the Global Configuration Settings menu. It is reset to CurrentConnectionsCount only in the interval mode per interval time.

Mediation Subscriber Statistics

The following examples show the request and response that are defined in the XSD files for the MediationSubscriberStats tag.

Request

This request follows the MediationSubscriberStats tag defined in the QueryOmStats section in the XSD files.

```
<?xml version="1.0" encoding="UTF-8"?>
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<MediationSubscriberStats>
<!-- MediationServer is optional. -->
<MediationServer>Mediation</MediationServer>
<MediationServer>Mediation-1</MediationServer>
</MediationSubscriberStats>
</QueryOmStats>
```

Response

The response to this request follows the MediationSubscriberStats tag defined in the Statistics section in the XSD files.

```
<?xml version='1.0' ?>
<Statistics>
<MediationSubscriberStats>
<Sample>
<StartTime>2016-05-16T07:45:00Z</StartTime>
<EndTime>2016-05-16T08:00:00Z</EndTime>
<MediationServer>Mediation</MediationServer>
<IsComplete>true</IsComplete>
<CurrSubscriberCount>1000</CurrSubscriberCount>
</Sample>
</MediationSubscriberStats>
</Statistics>
```

Message Processing Statistics

The following examples show the request and response that are defined in the XSD files for the MessageProcessingStats tag.

Request

This request follows the MessageProcessingStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
```

```
<MessageProcessingStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
</MessageProcessingStats>
</QueryOmStats>
```

Response

The response to this request follows the MessageProcessingStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<MessageProcessingStats>
<Sample>
<StartTime>2016-05-16T23:45:01Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<SessionCount/>
<SessionSuccessCount/>
<SessionFailCount/>
<SessionProtocolFailCount/>
<SessionPolicyFailCount/>
<SessionUnknownPathFailCount/>
<SessionUnknownSubscriberFailCount/>
<PeakTransactionRate/>
</Sample>
</MessageProcessingStats>
</Statistics>
```

Individual Statistics

Individual statistics defined for this tag are:

- SessionCount

  Session requests received.

- SessionSuccessCount

  Session requests successfully created.

- ActiveSessionCount

  The absolute value representing the current active session request received.

- SessionFailCount

  Session request failures. For example, this could be due to a policy denying a request.

- SessionProtocolFailCount

  Number of session failures due to an invalid message or parameter. This count is incremented whenever the MPE determines that an incoming message from the AM has an invalid message and has to be dropped by the MPE.

- SessionPolicyFailCount

  Number of session requests that trigger a policy. This count is maintained in the MPE, one per policy. When the condition of a policy triggers, the count for that policy is incremented. The value

displayed is a total trigger count. That is, the sum of this value for all the policies. For example, if the definition of a policy is defined as when the device usage is greater than 80% of capacity, reject message, then when the MPE performs this policy in response to a request and the policy triggers because the MPE determined that the device usage is greater than 80 percent, the trigger count for that policy is incremented.

- PeakTransactionRate

  An absolute value representing the peak number of transactions occurring within a given sample period.

- SessionUnknownPathFailCount

  The number of session failures resulting from an unknown or nonexistent path.

- SessionUnknownSubscriberCount

  The number of session failures resulting from an unknown subscriber ID.

Network Element Statistics

The following examples show the request and response that are defined in the XSD files for the NetworkElementStats tag.

Request

This request follows the NetworkElementStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<NetworkElementStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
<!-- Name is optional. -->
<Name>mra-82.example.com</Name>
<Name>mra-35.example.com</Name>
<!-- NeId is optional. -->
<NeId />
</NetworkElementStats>
</QueryOmStats>
```

The following is an example of a request for multiple network elements using the Name and NeId parameters. This example returns statistics for three different network elements:

```
<Statistics>
<NetworkElementStats>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<Name>mra-35.example.com</Name>
<NeId/>
<SessionCount>0</SessionCount>
```

```
<SessionSuccessCount>0</SessionSuccessCount>
<SessionFailCount>0</SessionFailCount>
<Capacity>0</Capacity>
<BandwidthUpstream>0</BandwidthUpstream>
<BandwidthDownstream>0</BandwidthDownstream>
<PolicySuccessCount>0</PolicySuccessCount>
<PolicyFailCount>0</PolicyFailCount>
</Sample>
</NetworkElementStats>
</Statistics>
```

Response

The response to this request follows the NetworkElementStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
    <NetworkElementStats>
        <Sample>
            <StartTime>2006-10-12T11:18:30Z</StartTime>
            <EndTime>2006-10-12T11:19:20Z</EndTime>
            <PolicyServer>Atlanta105</PolicyServer>
            <IsComplete>true</IsComplete>
            <Name>Router1</Name>
            <NeId>12345</NeId>
            <SessionCount>3</SessionCount>
            <SessionSuccessCount>3</SessionSuccessCount>
            <SessionFailCount>0</SessionFailCount>
            <AbnormalDisconnectCount>0</AbnormalDisconnectCount>
            <Capacity>50000000</Capacity>
            <BandwidthUpstream>3000000</BandwidthUpstream>
            <BandwidthDownstream>100000</BandwidthDownstream>
            <Interface>
                <InterfaceName>If1</InterfaceName>
                <SessionCount>3</SessionCount>
                <SessionSuccessCount>3</SessionSuccessCount>
                <SessionFailCount>0</SessionFailCount>
                <AbnormalDisconnectCount>0</AbnormalDisconnectCount>
                <Capacity>50000000</Capacity>
                <BandwidthUpstream>3000000</BandwidthUpstream>
                <BandwidthDownstream>100000</BandwidthDownstream>
            </Interface>
        </Sample>
        <Sample>
            <StartTime>2006-10-12T11:19:20Z</StartTime>
            <EndTime>2006-10-12T11:20:10Z</EndTime>
            <PolicyServer>Atlanta105</PolicyServer>
            <IsComplete>true</IsComplete>
            <Name>Router1</Name>
            <NeId>12345</NeId>
            <SessionCount>0</SessionCount>
            <SessionSuccessCount>0</SessionSuccessCount>
            <SessionFailCount>0</SessionFailCount>
            <AbnormalDisconnectCount>0</AbnormalDisconnectCount>
            <Capacity>50000000</Capacity>
            <BandwidthUpstream>3000000</BandwidthUpstream>
            <BandwidthDownstream>100000</BandwidthDownstream>
            <Interface>
                <InterfaceName>If1</InterfaceName>
                <SessionCount>0</SessionCount>
                <SessionSuccessCount>0</SessionSuccessCount>
```

```
            <SessionFailCount>0</SessionFailCount>
            <AbnormalDisconnectCount>0</AbnormalDisconnectCount>
            <Capacity>50000000</Capacity>
            <BandwidthUpstream>3000000</BandwidthUpstream>
            <BandwidthDownstream>100000</BandwidthDownstream>
        </Interface>
    </Sample>
    <Sample>
        <StartTime>2006-10-12T11:20:10Z</StartTime>
        <EndTime>2006-10-12T11:21:00Z</EndTime>
        <PolicyServer>Atlanta105</PolicyServer>
        <IsComplete>true</IsComplete>
        <Name>Router1</Name>
        <NeId>12345</NeId>
        <SessionCount>9</SessionCount>
        <SessionSuccessCount>9</SessionSuccessCount>
        <SessionFailCount>0</SessionFailCount>
        <AbnormalDisconnectCount>0</AbnormalDisconnectCount>
        <Capacity>50000000</Capacity>
        <BandwidthUpstream>3000000</BandwidthUpstream>
        <BandwidthDownstream>100000</BandwidthDownstream>
        <Interface>
            <InterfaceName>If1</InterfaceName>
            <SessionCount>9</SessionCount>
            <SessionSuccessCount>9</SessionSuccessCount>
            <SessionFailCount>0</SessionFailCount>
            <AbnormalDisconnectCount>0</AbnormalDisconnectCount>
            <Capacity>50000000</Capacity>
            <BandwidthUpstream>3000000</BandwidthUpstream>
            <BandwidthDownstream>100000</BandwidthDownstream>
        </Interface>
    </Sample>
    <Sample>
        <StartTime>2006-10-12T11:18:30Z</StartTime>
        <EndTime>2006-10-12T11:19:20Z</EndTime>
        <PolicyServer>Atlanta105</PolicyServer>
        <IsComplete>true</IsComplete>
        <Name>Router 2</Name>
        <NeId>12341</NeId>
        <SessionCount>11</SessionCount>
        <SessionSuccessCount>11</SessionSuccessCount>
        <SessionFailCount>0</SessionFailCount>
        <AbnormalDisconnectCount>0</AbnormalDisconnectCount>
        <Capacity>50000000</Capacity>
        <BandwidthUpstream>3000000</BandwidthUpstream>
        <BandwidthDownstream>100000</BandwidthDownstream>
        <Interface>
            <InterfaceName>If2</InterfaceName>
            <SessionCount>11</SessionCount>
            <SessionSuccessCount>11</SessionSuccessCount>
            <SessionFailCount>0</SessionFailCount>
            <AbnormalDisconnectCount>0</AbnormalDisconnectCount>
            <Capacity>50000000</Capacity>
            <BandwidthUpstream>3000000</BandwidthUpstream>
            <BandwidthDownstream>100000</BandwidthDownstream>
        </Interface>
    </Sample>
    <Sample>
        <StartTime>2006-10-12T11:19:20Z</StartTime>
        <EndTime>2006-10-12T11:20:10Z</EndTime>
        <PolicyServer>Atlanta105</PolicyServer>
        <IsComplete>true</IsComplete>
        <Name>Router 2</Name>
        <NeId>12341</NeId>
```

```
            <SessionCount>2</SessionCount>
            <SessionSuccessCount>2</SessionSuccessCount>
            <SessionFailCount>0</SessionFailCount>
            <AbnormalDisconnectCount>0</AbnormalDisconnectCount>
            <Capacity>50000000</Capacity>
            <BandwidthUpstream>3000000</BandwidthUpstream>
            <BandwidthDownstream>100000</BandwidthDownstream>
            <Interface>
                <InterfaceName>If2</InterfaceName>
                <SessionCount>2</SessionCount>
                <SessionSuccessCount>2</SessionSuccessCount>
                <SessionFailCount>0</SessionFailCount>
                <AbnormalDisconnectCount>0</AbnormalDisconnectCount>
                <Capacity>50000000</Capacity>
                <BandwidthUpstream>3000000</BandwidthUpstream>
                <BandwidthDownstream>100000</BandwidthDownstream>
            </Interface>
        </Sample>
        <Sample>
            <StartTime>2006-10-12T11:20:10Z</StartTime>
            <EndTime>2006-10-12T11:21:00Z</EndTime>
            <PolicyServer>Atlanta105</PolicyServer>
            <IsComplete>true</IsComplete>
            <Name>Router 2</Name>
            <NeId>12341</NeId>
            <SessionCount>9</SessionCount>
            <SessionSuccessCount>9</SessionSuccessCount>
            <SessionFailCount>0</SessionFailCount>
            <AbnormalDisconnectCount>0</AbnormalDisconnectCount>
            <Capacity>50000000</Capacity>
            <BandwidthUpstream>3000000</BandwidthUpstream>
            <BandwidthDownstream>100000</BandwidthDownstream>
            <Interface>
                <InterfaceName>If2</InterfaceName>
                <SessionCount>9</SessionCount>
                <SessionSuccessCount>9</SessionSuccessCount>
                <SessionFailCount>0</SessionFailCount>
                <AbnormalDisconnectCount>0</AbnormalDisconnectCount>
                <Capacity>50000000</Capacity>
                <BandwidthUpstream>3000000</BandwidthUpstream>
                <BandwidthDownstream>100000</BandwidthDownstream>
            </Interface>
        </Sample>
    </NetworkElementStats>
</Statistics>
```

Note: Both Name and NeId are returned along with the statistics and actual recorded times for those statistics. Sample groups are ordered by policy server, network element, available interfaces, and then by time.

This OM Group, by default, contains a combination of delta and absolute values. Individual statistics returned as absolutes are:

- Name:

  Unique name identifying the Network Element for the following statistics.

  - NeId

    Optional identifier field for the Network Element.

  - InterfaceName

Identifying field for the Network Element's Interface.

- SessionCount

  Current active sessions for that Network Element or Interface. This is a cumulative value and is displayed as an absolute.

- SessionSuccessCount

  Successful sessions.

- SessionFailCount

  Session failures.

  Note: Session failures can occur for a variety of reasons, for example, when a gate is created that is greater than the gate limit, the MPE responds with an error code. The default in this instance is 0 which means no limit.

- AbnormalDisconnectCount

  Number of network elements that have disconnected from the MPE abnormally. For example, due to a break in the network.

- Capacity

  The currently defined maximum capacity for this Network Element or Interface. This is a static absolute value defined in the CMP for that object.

- BandwidthUpstream

  This is the current reserved upstream bandwidth allocated for this Network Element or Interface. This is a non-cumulative value displayed as an absolute.

- BandwidthDownstream

  This is the current reserved downstream bandwidth allocated for this Network Element or Interface. This is a non-cumulative value displayed as an absolute.

- MaxBandwidthDownstream

  This statistic represents the maximum committed bandwidth flows allocated for this Network Element or Interface. This value is also an absolute value that indicates the peak bandwidth usage in the history of a Network Element.

PDN Connection APN Statistics

The following examples show the request and response that are defined in the XSD files for PDNConnectionAPNStats tag.

Request

This request follows the PDNConnectionAPNStats tag defined in the QueryOmStats section in the XSD files.

```
<?xml version="1.0" encoding="UTF-8"?>
```

```
<XmlInterfaceRequest>
   <QueryOmStats DeltaCount="false">
         <StartTime>2012-09-20T13:00:00</StartTime>
         <EndTime>2012-10-30T13:15:00</EndTime>
         <PDNConnectionAPNStats>
         <PolicyServer>MPE 38</PolicyServer>
         </PDNConnectionAPNStats>
   </QueryOmStats>
</XmlInterfaceRequest>
```

Response

The response to this request follows the CurrentConnectionsCount and MaximumConnectionsCount tags defined in the Statistics section in the XSD files.

```
<?xml version="1.0" ?>
<Statistics>
     <PDNConnectionAPNStats>
     <Sample>
         <StartTime>2013-10-15T07:00:00Z</StartTime>
         <EndTime>2013-10-15T07:15:00Z</EndTime>
         <PolicyServer>MPE 38</PolicyServer>
         <IsComplete>true</IsComplete>
         <APNSuffix>apn1</APNSuffix>
         <CurrentConnectionsCount>1</CurrentConnectionsCount>
         <MaximumConnectionsCount>1</MaximumConnectionsCount>
     </Sample>
     </PDNConnectionAPNStats>
</Statistics>
```

Individual Statistics

Individual statistics are defined for this tag are:

- StartTime

  The time this stat object was created.

- Endtime

  The time this stat object was ended.

- CurrentConnectionsCount

  The current number of PDN connections for this APN.

- APNSuffix

  A suffix configured on a CMP system that matches the MPE. After a suffix is created, each new PDN connection for that APN updates the current object. A CMP system can have up to 25 suffixes configured on it and each suffix can be up to 64 characters.

- MaximumConnectionsCount

  The maximum number of PDN connections at any one point for this APN. The default interval time is 15 minutes, and it can be configured by the Stats Collection Period attribute in the Global Configuration Settings menu. It will be reset to CurrentConnectionsCount only in the interval mode per interval time.

PDN RAT Connection Statistics

The following examples show the request and response that are defined in the XSD files for PdnRatTypeStats tag.

Request

This request follows the PdnRatTypeStats tag defined in the QueryOmStats section of the XSD files.

Note: Current and Maximum AF Session counts are returned for all RAT types that are available from each MPE device. If a RAT type is not available from an MPE device, no entry is returned.

```
<?xml version="1.0" encoding="UTF-8"?>
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<PdnRatTypeStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
</PdnRatTypeStats>
</QueryOmStats>
```

Response

The response to this request follows the CurrentConnectionsCount and MaximumConnectionsCount tags defined in the Statistics section of the XSD files.

```
<Statistics>
<PdnRatTypeStats>
<Sample>
<StartTime>2016-05-16T23:45:01Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<IsComplete>true</IsComplete>
<Type>UTRAN</Type>
<CurrentConnectionsCount>0</CurrentConnectionsCount>
<MaximumConnectionsCount>0</MaximumConnectionsCount>
</Sample>
</PdnRatTypeStats>
</Statistics>
```

Note: For multiple policy servers, the names of the servers are listed in the PolicyServer tag. For example:

```
<PdnRatTypeStats>
<Sample>
<StartTime>2012-10-24T19:45:00Z</StartTime>
<EndTime>2012-10-24T19:45:00Z</EndTime>
<PolicyServer>MPE01</PolicyServer>
<PolicyServer>MPE02</PolicyServer>
.
.
.
```

Individual statistics defined for this tag are:

- StartTime

  The time this stat object was created.

- ResetTime

  The last time the counters for this object were reset.

- CurrentConnectionsCount

  The current number of PDN connections for this RAT-Type.

- MaximumConnectionsCount

  The maximum number of PDN connections at any one point for this RAT-Type. The default interval time is 15 minutes, and it can be configured by the Stats Collection Period attribute in the Global Configuration Settings menu. It is reset to CurrentConnectionsCount only in the interval mode per interval time.

Peer Associate Statistics

The following examples show the request and response that are defined in the XSD files for the PeerAssociateStats tag.

Request

This request follows the PeerAssociateStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
    <StartTime>2014-02-18T00:45:00Z</StartTime>
    <EndTime>2014-02-18T01:00:00Z</EndTime>
   < PeerAssociateStats >
   </ PeerAssociateStats >
  </QueryOmStats>
</XmlInterfaceRequest>
```

Response

The response to this request follows the PeerAssociateStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
   <ReplicationStats>
      <Sample>
         <StartTime>2014-02-18T00:45:00Z</StartTime>
         <EndTime>2014-02-18T01:00:00Z</EndTime>
         <MRA>fwang-32-112-mra</MRA>
         <IsComplete>true</IsComplete>
         <LocalAddrs>fe80:0:0:0:5054:ff:fe1d:7630,0:0:0:0:0:0:0:1,127.0.0.1,

fe80:0:0:0:5054:ff:fe4d:5ae1,10.60.32.81,10.60.32.80</LocalAddrs>
         <LocalAddrsPort>3456</LocalAddrsPort >
         <RemoteAddrs> 10.60.32.80,10.60.32.81,0:0:0:0:0:0:0:1,127.0.0.1,
```

```
fe80:0:0:0:5054:ff:fe4d:5ae1,fe80:0:0:0:5054:ff:fe1d:7630</RemoteAddrs >
         <RemoteAddrsAddr>57440</RemoteAddrsAddr>
         < SctpDataChunkSent >0</ SctpDataChunkSent >
         < SctpDataChunkReceived >0</ SctpDataChunkReceived >
         < SctpDataChunkReSent >0</ SctpDataChunkReSent >
         < SctpCongestionDuration >0</ SctpCongestionDuration >
         < NbrSctpCongestion >0</ NbrSctpCongestion >
         < SctpUnavailableDuration >0</ SctpUnavailableDuration >
         < NbrSctpUnavailable >0</ NbrSctpUnavailable >
     </Sample>
   </ReplicationStats>
</Statistics>
```

Quota Profile Statistics

The following examples show the request and response that are defined in the XSD files for the QuotaProfileStats tag.

Request

This request follows the QueryOmStats tag defined in the QuotaProfileStats section of the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T:30:00</EndTime>
<QuotaProfileStats>
<PolicyServer>MPE-Cluster</PolicyServer>
<!-- Name is optional. -->
<Name>mra-82.example.com</Name>
<Name>mra-35.example.com</Name>
</QuotaProfileStats>
</QueryOmStats>
```

Response

The response to this request follows the QuotaProfileStats tag defined in the Statistics section of the XSD files.

```
<Statistics>
<QuotaProfileStats>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<Name>daily_quota_Sanity</Name>
<NumberOfTimesActivated>0</NumberOfTimesActivated>
<NumberOfTimesVolumnThresholdReached>0</NumberOfTimesVolumnThresholdReached>
<NumberOfTimesTimeThresholdReached>0</NumberOfTimesTimeThresholdReached>
<NumberOfTimesEventThresholdReached>0</NumberOfTimesEventThresholdReached>
</Sample>
</QuotaProfileStats>
</Statistics>
```

Individual Statistics

Individual statistics defined for this tag are:

- Activated

  Counter which tracks the number of times that a specific Quota Profile is activated

  .
- Volume Threshold Reached

  Counter which tracks the number of times the configured volume threshold limit is reached for a specific Quota Profile.
- Time Threshold Reached

  Counter which tracks the number of times the configured time threshold limit is reached for a specific Quota Profile.
- Event Threshold Reached

  Counter which tracks the number of times the configured event threshold limit is reached for a specific Quota Profile.

Replication Statistics

The following examples show the request and response that are defined in the XSD files for the ReplicationStats tag.

Request

This request follows the ReplicationStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2017-04-21T14:15:00</StartTime>
<EndTime>2017-04-21T14:30:00</EndTime>
<ReplicationStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
<!-- MRA is optional. -->
<MRA>MRA-Cluster</MRA>
<MRA>MRA-35</MRA>
<!-- BodServer is optional. -->
<BodServer>BOD</BodServer>
<BodServer>BOD-1</BodServer>
</ReplicationStats>
</QueryOmStats>
```

Response

The response to this request follows the ReplicationStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<ReplicationStats>
```

```
<Sample>
<StartTime>2017-05-17T00:00:00Z</StartTime>
<EndTime>2017-05-17T00:15:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<BladeHostName>CE-MPE-174</BladeHostName>
<PeerHostName>CE-MPE-84</PeerHostName>
<TotalSentKB>34</TotalSentKB>
<PeakSentKB>1</PeakSentKB>
<AvgSentKB>0</AvgSentKB>
<TotalRecvKB>15</TotalRecvKB>
<PeakRecvKB>0</PeakRecvKB>
<AvgRecvKB>0</AvgRecvKB>
</Sample>
</ReplicationStats>
</Statistics>
```

Individual Statistics

Individual statistics defined for this tag are:

- PolicyServer

  The name of the Policy Server in the system.

- BladeHostName

  The name of the Blade on the host server.

- PeerHostName

  The name of the peer server in the system.

- TotalSentKB

  The total number of packets sent in KB during the interval.

- PeakSentKB

  The peak rate of packets sent in KB/s during the interval.

- AvgSentKB

  The average rate of packets sent in KB/s during the interval.

- TotalRecvKB

  The total number of packets received in KB during the interval.

- PeakRecvKB

  The peak rate of packets received in KB/s during the interval.

- AvgRecvKB

  The average rate of packets received in KB/s during the interval.

SCTP Association Statistics

The following examples show the request and response that are defined in the XSD files for the SCTPAssociationStats tag.

Request

This request follows the SCTPAssociationStats tag define in the QueryOmStats section of the XSD files.

```
<?xml version="1.0" encoding="UTF-8"?>
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<SCTPAssociationStats>
<!-- MRA is optional. -->
<MRA>MRA-Cluster</MRA>
<MRA>MRA-35</MRA>
</SCTPAssociationStats>
</QueryOmStats>
```

Response

The response to this request follows the SCTPAssociationStats tag defined in the Statistics section of the XSD files.

```
<?xml version="1.0" encoding="UTF-8"?>
<Statistics>
<SCTPAssociationStats>
<Sample>
<StartTime>2016-05-16T23:45:01Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<MRA>MRA-35</MRA>
<IsComplete>true</IsComplete>
<LocalAddrs>10.113.12.101,10.113.12.102</LocalAddrs>
<LocalAddrsPort>3868</LocalAddrsPort>
<RemoteAddrs>10.113.45.12,10.113.45.13</RemoteAddrs>
<RemoteAddrsPort>50000</RemoteAddrsPort>
<SctpDataChunkSent>0</SctpDataChunkSent>
<SctpDataChunkReceived>0</SctpDataChunkReceived>
<SctpDataChunkReSent>0</SctpDataChunkReSent>
<SctpCongestionDuration>0</SctpCongestionDuration>
<NbrSctpCongestion>0</NbrSctpCongestion>
<SctpUnavailableDuration>0</SctpUnavailableDuration>
<NbrSctpUnavailable>0</NbrSctpUnavailable>
</Sample>
</SCTPAssociationStats>
</Statistics>
```

Note: If the SCTP association is established but has not been configured in the CMP while the Diameter Routing feature is closed on the MRA, the statistics of the SCTP association will not be generated in Policy Management file.

Note: If the SCTP association is configured in the CMP but the connection has not been established, the stats of that SCTP association will not be generated in Policy Management file.

Stale Session Statistics

The following examples show the request and response that are defined in the XSD files for the StaleSessionStats tag.

Request

This request follows the StaleSessionStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<StaleSessionStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
</StaleSessionStats>
</QueryOmStats>
```

Response

The response to this request follows the StaleSessionStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<StaleSessionStats>
<Sample>
<StartTime>2016-05-16T23:45:01Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<IsComplete>true</IsComplete>
<Name>CTF</Name>
<SessionReadyForCleanUp>0</SessionReadyForCleanUp>
<SessionCleaned>0</SessionCleaned>
<ReauthorizedSessions>0</ReauthorizedSessions>
<ReauthorizedTimeouts>0</ReauthorizedTimeouts>
<ReauthorizedCleaned>0</ReauthorizedCleaned>
</Sample>
<Sample>
<StartTime>2016-05-16T23:45:01Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<IsComplete>true</IsComplete>
<Name>PCEF</Name>
<SessionReadyForCleanUp>0</SessionReadyForCleanUp>
<SessionCleaned>0</SessionCleaned>
<ReauthorizedSessions>0</ReauthorizedSessions>
<ReauthorizedTimeouts>0</ReauthorizedTimeouts>
<ReauthorizedCleaned>0</ReauthorizedCleaned>
</Sample>
</StaleSessionStats>
</Statistics>
```

Sy Reconciliation Statistics

The following examples show the request and response that are defined in the XSD files for the SyReconciliationStats tag.

Request

This request follows the SyReconciliationStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2017-04-21T14:15:00</StartTime>
<EndTime>2017-04-21T14:30:00</EndTime>
<SyReconciliationStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
</SyReconciliationStats>
</QueryOmStats>
```

Response

The response to this request follows the SyReconciliationStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<SyReconciliationStats>
<Sample>
<StartTime>2017-05-16T23:45:01Z</StartTime>
<EndTime>2017-05-17T00:00:01Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<IsComplete>true</IsComplete>
<TotalRuns>0</TotalRuns>
<TotalAudited>0</TotalAudited>
<TotalReconciled>0</TotalReconciled>
<PercentageReconciled>0</PercentageReconciled>
</Sample>
</SyReconciliationStats>
</Statistics>
```

Timeout Statistics

The following examples show the response defined in the XSD files for the DiameterAfStats tag.

Request

The MRA request follows the DiameterAfStats tag defined in the Statistics section in the XSD files..

- AAR Timeout

  The numeric count of AA-Request messages sent and AA-Answer messages not received in a set amount of time.

- ASR Timeout

  The numeric count of Abort Session Requests (ASR) messages sent where ASA messages not received in a set amount of time.

- RAR Timeout

The numeric count of ReAuthorization Request (RAR) messages sent where RAA messages not received in a set amount of time.

- STR Timeout

  The numeric count of Session Termination Requests (STR) messages sent where STA messages not received in a set amount of time.

```
<Statistics>
  <DiameterAfStats>
   <Sample>
      <StartTime>2001-12-31T12:00:00</StartTime>
      <EndTime>2001-12-31T12:15:00</EndTime>
      <PolicyServer>PolicyServer</PolicyServer>
      ...
      <ASRMessagesReceivedCount>0</ASRMessagesReceivedCount>
      <ASRMessagesSentCount>0</ASRMessagesSentCount>
      <ASRMessagesTimeoutCount>0</ASRMessagesTimeoutCount>
      ...
      <RARMessagesReceivedCount>0</RARMessagesReceivedCount>
      <RARMessagesSentCount>0</RARMessagesSentCount>
      <RARMessagesTimeoutCount>0</RARMessagesTimeoutCount>
      ...
      <STRMessagesReceivedCount>0</STRMessagesReceivedCount>
      <STRMessagesSentCount>0</STRMessagesSentCount>
      <STRMessagesTimeoutCount>0</STRMessagesTimeoutCount>
      ...
      <AARMessagesReceivedCount>0</AARMessagesReceivedCount>
      <AARMessagesSentCount>0</AARMessagesSentCount>
      <AARMessagesTimeoutCount>0</AARMessagesTimeoutCount>
      ...
      <PeerReopenCount>0</PeerReopenCount>
    </Sample>
  </DiameterAfStats>
</Statistics>
```

Response

The MRA response follows the DiameterAfPeerStats tag defined in the Statistics section in the XSD files.

The MRA response follows the DiameterPcefStats tag defined in the Statistics section in the XSD files.

- CCR Timeout

  The numeric count of CC-Request messages sent and CC-Answer messages not received in a set amount of time.

  Note: The number of CCR-I/U/T Timeouts should equal this number combined.

- CCR-I Timeout

  The numeric count of CCR-Initial messages sent and CCA-Initial messages not received in a set amount of time.

- CCR-U Timeout

  The numeric count of CCR-Update messages sent and CCA-Update messages not received in a set amount of time.

- CCR-T Timeout

  The numeric count of CCR-Terminate messages sent and CCA-Terminate messages not received in a set amount of time.

- RAR Timeout

  The numeric count of Reauthorization Request messages sent and RAA messages not received in a set amount of time.

The following is an example of a response for a single policy server:

```
<Statistics>
  <DiameterPcefStats>
   <Sample>
      <StartTime>2001-12-31T12:00:00</StartTime>
      <EndTime>2001-12-31T12:15:00</EndTime>
      <PolicyServer>PolicyServer</PolicyServer>
      <CurrentConnectionsCount>0</CurrentConnectionsCount>
      <MessagesInCount>0</MessagesInCount>
      <MessagesOutCount>0</MessagesOutCount>
      <RARMessagesReceivedCount>0</RARMessagesReceivedCount>
      <RARMessagesSentCount>0</RARMessagesSentCount>
      <RARMessagesTimeoutCount>0</RARMessagesTimeoutCount>
      ...
      <CCRMessagesReceivedCount>0</CCRMessagesReceivedCount>
      <CCRMessagesSentCount>0</CCRMessagesSentCount>
      <CCRMessagesTimeoutCount>0</CCRMessagesTimeoutCount>
      <CCRIMessagesReceivedCount>0</CCRIMessagesReceivedCount>
      <CCRIMessagesSentCount>0</CCRIMessagesSentCount>
      <CCRIMessagesTimeoutCount>0</CCRIMessagesTimeoutCount>
      <CCRUMessagesReceivedCount>0</CCRUMessagesReceivedCount>
      <CCRUMessagesSentCount>0</CCRUMessagesSentCount>
      <CCRUMessagesTimeoutCount>0</CCRUMessagesTimeoutCount>
      <CCRTMessagesReceivedCount>0</CCRTMessagesReceivedCount>
      <CCRTMessagesSentCount>0</CCRTMessagesSentCount>
      <CCRTMessagesTimeoutCount>0</CCRTMessagesTimeoutCount>
      ...
      <PeerSuspectCount>0</PeerSuspectCount>
      <PeerReopenCount>0</PeerReopenCount>
    </Sample>
  </DiameterPcefStats>
</Statistics>
```

The MRA response follows the DiameterPcefPeerStats tag defined in the Statistics section in the XSD files.

The following is an example of a response for a single policy server:

```
<Statistics>
  <DiameterPcefPeerStats>
   <Sample>
      <StartTime>2001-12-31T12:00:00</StartTime>
      <EndTime>2001-12-31T12:15:00</EndTime>
      <PolicyServer>PolicyServer</PolicyServer>
      <Name>NetworkElementName</Name>
      <NeId>NeId<NeId>
      <NetworkElementType>NetworkElementType</NetworkElementType>
      <NetworkElementSubType>NetworkElementSubType</NetworkElementSubType>
      ...
```

```
      <RARMessagesReceivedCount>0</RARMessagesReceivedCount>
      <RARMessagesSentCount>0</RARMessagesSentCount>
      <RARMessagesTimeoutCount>0</RARMessagesTimeoutCount>
      ...
      <CCRMessagesReceivedCount>0</CCRMessagesReceivedCount>
      <CCRMessagesSentCount>0</CCRMessagesSentCount>
      <CCRMessagesTimeoutCount>0</CCRMessagesTimeoutCount>
      <CCRIMessagesReceivedCount>0</CCRIMessagesReceivedCount>
      <CCRIMessagesSentCount>0</CCRIMessagesSentCount>
      <CCRIMessagesTimeoutCount>0</CCRIMessagesTimeoutCount>
      <CCRUMessagesReceivedCount>0</CCRUMessagesReceivedCount>
      <CCRUMessagesSentCount>0</CCRUMessagesSentCount>
      <CCRUMessagesTimeoutCount>0</CCRUMessagesTimeoutCount>
      <CCRTMessagesReceivedCount>0</CCRTMessagesReceivedCount>
      <CCRTMessagesSentCount>0</CCRTMessagesSentCount>
      <CCRTMessagesTimeoutCount>0</CCRTMessagesTimeoutCount>
      ...
      <MaximumActiveSessionsCount>0</MaximumActiveSessionsCount>
    </Sample>
  </DiameterPcefPeerStats>
</Statistics>
```

The MRA response follows the DiameterBberfStats tag defined in the Statistics section in the XSD files.

- CCR Timeout

  The numeric count of CC-Request messages sent and CC-Answer messages not received in a set amount of time.

  Note: The number of CCR-I/U/T Timeouts should equal this number combined.

- CCR-I Timeout

  The numeric count of CCR-Initial messages sent and CCA-Initial messages not received in a set amount of time.

- CCR-U Timeout

  The numeric count of CCR-Update messages sent and CCA-Update messages not received in a set amount of time.

- CCR-T Timeout

  The numeric count of CCR-Terminate messages sent and CCA-Terminate messages not received in a set amount of time.

- RAR Timeout

  The numeric count of Reauthorization Request messages sent and RAA messages not received in a set amount of time.

The following is an example of a response for a single policy server:

```
<Statistics>
  <DiameterBberfStats>
   <Sample>
      <StartTime>2001-12-31T12:00:00</StartTime>
      <EndTime>2001-12-31T12:15:00</EndTime>
      <PolicyServer>PolicyServer</PolicyServer>
      <CurrentConnectionsCount>0</CurrentConnectionsCount>
      ...
```

```
      <RARMessagesReceivedCount>0</RARMessagesReceivedCount>
      <RARMessagesSentCount>0</RARMessagesSentCount>
      <RARMessagesTimeoutCount>0</RARMessagesTimeoutCount>
      ...
      <CCRMessagesReceivedCount>0</CCRMessagesReceivedCount>
      <CCRMessagesSentCount>0</CCRMessagesSentCount>
      <CCRMessagesTimeoutCount>0</CCRMessagesTimeoutCount>
      <CCRIMessagesReceivedCount>0</CCRIMessagesReceivedCount>
      <CCRIMessagesSentCount>0</CCRIMessagesSentCount>
      <CCRIMessagesTimeoutCount>0</CCRIMessagesTimeoutCount>
      <CCRUMessagesReceivedCount>0</CCRUMessagesReceivedCount>
      <CCRUMessagesSentCount>0</CCRUMessagesSentCount>
      <CCRUMessagesTimeoutCount>0</CCRUMessagesTimeoutCount>
      <CCRTMessagesReceivedCount>0</CCRTMessagesReceivedCount>
      <CCRTMessagesSentCount>0</CCRTMessagesSentCount>
      <CCRTMessagesTimeoutCount>0</CCRTMessagesTimeoutCount>
      ...
      <PeerReopenCount>0</PeerReopenCount>
    </Sample>
  </DiameterBberfStats>
</Statistics>
```

The following is an example of a response for an MPE:

```
<Statistics>
  <DiameterBberfStats>
    <Sample>
    <StartTime>2012-06-07T01:00:00Z</StartTime>
    <EndTime>2012-06-07T01:15:00Z</EndTime>
    <PolicyServer>kli-63-mpe</PolicyServer>
    <IsComplete>true</IsComplete>
    <CurrentConnectionsCount>1</CurrentConnectionsCount>
    <MessagesInCount>0</MessagesInCount>
    <MessagesOutCount>0</MessagesOutCount>
    <RARMessagesReceivedCount>0</RARMessagesReceivedCount>
    <RARMessagesSentCount>0</RARMessagesSentCount>
    <RARMessagesTimeoutCount>0</RARMessagesTimeoutCount>
    <RAASuccessMessagesReceivedCount>0</RAASuccessMessagesReceivedCount>
    <RAASuccessMessagesSentCount>0</RAASuccessMessagesSentCount>
    <RAAFailureMessagesReceivedCount>0</RAAFailureMessagesReceivedCount>
    <RAAFailureMessagesSentCount>0</RAAFailureMessagesSentCount>
    <CCRMessagesReceivedCount>0</CCRMessagesReceivedCount>
    <CCRMessagesSentCount>0</CCRMessagesSentCount>
    <CCRMessagesTimeoutCount>0</CCRMessagesTimeoutCount>
    <CCASuccessMessagesReceivedCount>0</CCASuccessMessagesReceivedCount>
    <CCASuccessMessagesSentCount>0</CCASuccessMessagesSentCount>
    <CCAFailureMessagesReceivedCount>0</CCAFailureMessagesReceivedCount>
    <CCAFailureMessagesSentCount>0</CCAFailureMessagesSentCount>
    <CCRIMessagesReceivedCount>0</CCRIMessagesReceivedCount>
    <CCRIMessagesSentCount>0</CCRIMessagesSentCount>
    <CCRIMessagesTimeoutCount>0</CCRIMessagesTimeoutCount>
    <CCRUMessagesReceivedCount>0</CCRUMessagesReceivedCount>
    <CCRUMessagesSentCount>0</CCRUMessagesSentCount>
    <CCRUMessagesTimeoutCount>0</CCRUMessagesTimeoutCount>
    <CCRTMessagesReceivedCount>0</CCRTMessagesReceivedCount>
    <CCRTMessagesSentCount>0</CCRTMessagesSentCount>
    <CCRTMessagesTimeoutCount>0</CCRTMessagesTimeoutCount>
    <CCAISuccessMessagesReceivedCount>0</CCAISuccessMessagesReceivedCount>
    <CCAISuccessMessagesSentCount>0</CCAISuccessMessagesSentCount>
    <CCAIFailureMessagesReceivedCount>0</CCAIFailureMessagesReceivedCount>
    <CCAIFailureMessagesSentCount>0</CCAIFailureMessagesSentCount>
    <CCAUSuccessMessagesReceivedCount>0</CCAUSuccessMessagesReceivedCount>
```

```
    <CCAUSuccessMessagesSentCount>0</CCAUSuccessMessagesSentCount>
    <CCAUFailureMessagesReceivedCount>0</CCAUFailureMessagesReceivedCount>
    <CCAUFailureMessagesSentCount>0</CCAUFailureMessagesSentCount>
    <CCATSuccessMessagesReceivedCount>0</CCATSuccessMessagesReceivedCount>
    <CCATSuccessMessagesSentCount>0</CCATSuccessMessagesSentCount>
    <CCATFailureMessagesReceivedCount>0</CCATFailureMessagesReceivedCount>
    <CCATFailureMessagesSentCount>0</CCATFailureMessagesSentCount>
    <ActiveSessionsCount>0</ActiveSessionsCount>
    <MaximumActiveSessionsCount>0</MaximumActiveSessionsCount>
    <PeerOkayCount>1</PeerOkayCount>
    <PeerDownCount>0</PeerDownCount>
    <PeerSuspectCount>0</PeerSuspectCount>
    <PeerReopenCount>0</PeerReopenCount>
    </Sample>
  </DiameterBberfStats>
</Statistics>
```

The MRA response follows the DiameterBberfPeerStats tag defined in the Statistics section in the XSD files.

The following is an example of a response for a single policy server:

```
<Statistics>
  <DiameterBberfPeerStats>
   <Sample>
      <StartTime>2001-12-31T12:00:00</StartTime>
      <EndTime>2001-12-31T12:15:00</EndTime>
      <PolicyServer>PolicyServer</PolicyServer>
      <Name>NetworkElementName</Name>
      <NeId>NeId</NeId>
      <NetworkElementType>NetworkElementType</NetworkElementType>
      <NetworkElementSubType>NetworkElementSubType</NetworkElementSubType>
      ...
      <RARMessagesReceivedCount>0</RARMessagesReceivedCount>
      <RARMessagesSentCount>0</RARMessagesSentCount>
      <RARMessagesTimeoutCount>0</RARMessagesTimeoutCount>
      ...
      <CCRMessagesReceivedCount>0</CCRMessagesReceivedCount>
      <CCRMessagesSentCount>0</CCRMessagesSentCount>
      <CCRMessagesTimeoutCount>0</CCRMessagesTimeoutCount>
      <CCRIMessagesReceivedCount>0</CCRIMessagesReceivedCount>
      <CCRIMessagesSentCount>0</CCRIMessagesSentCount>
      <CCRIMessagesTimeoutCount>0</CCRIMessagesTimeoutCount>
      <CCRUMessagesReceivedCount>0</CCRUMessagesReceivedCount>
      <CCRUMessagesSentCount>0</CCRUMessagesSentCount>
      <CCRUMessagesTimeoutCount>0</CCRUMessagesTimeoutCount>
      <CCRTMessagesReceivedCount>0</CCRTMessagesReceivedCount>
      <CCRTMessagesSentCount>0</CCRTMessagesSentCount>
      <CCRTMessagesTimeoutCount>0</CCRTMessagesTimeoutCount>
      ...
      <MaximumActiveSessionsCount>0</MaximumActiveSessionsCount>
    </Sample>
  </DiameterBberfPeerStats>
</Statistics>
```

The following is an example of a response for an MPE:

```
<Statistics>
  <DiameterBberfPeerStats>
    <Sample>
```

```
    <StartTime>2012-06-07T01:00:00Z</StartTime>
    <EndTime>2012-06-07T01:15:00Z</EndTime>
    <PolicyServer>kli-63-mpe</PolicyServer>
    <IsComplete>true</IsComplete>
    <Name>mra66</Name>
    <NeId />
    <NetworkElementType />
    <NetworkElementSubType />
    <ConnectTime>Tue Jun 05 02:54:29 EDT 2012</ConnectTime>
    <DisconnectTime>Tue Jun 05 02:54:28 EDT 2012</DisconnectTime>
    <ConnectAddress>10.60.25.66</ConnectAddress>
    <ConnectPort>48526</ConnectPort>
    <ConnectType>TCP</ConnectType>
    <MessagesInCount>0</MessagesInCount>
    <MessagesOutCount>0</MessagesOutCount>
    <MessagesErrorInCount>0</MessagesErrorInCount>
    <MessagesErrorOutCount>0</MessagesErrorOutCount>
    <RARMessagesReceivedCount>0</RARMessagesReceivedCount>
    <RARMessagesSentCount>0</RARMessagesSentCount>
    <RARMessagesTimeoutCount>0</RARMessagesTimeoutCount>
    <RAASuccessMessagesReceivedCount>0</RAASuccessMessagesReceivedCount>
    <RAASuccessMessagesSentCount>0</RAASuccessMessagesSentCount>
    <RAAFailureMessagesReceivedCount>0</RAAFailureMessagesReceivedCount>
    <RAAFailureMessagesSentCount>0</RAAFailureMessagesSentCount>
    <CCRMessagesReceivedCount>0</CCRMessagesReceivedCount>
    <CCRMessagesSentCount>0</CCRMessagesSentCount>
    <CCRMessagesTimeoutCount>0</CCRMessagesTimeoutCount>
    <CCASuccessMessagesReceivedCount>0</CCASuccessMessagesReceivedCount>
    <CCASuccessMessagesSentCount>0</CCASuccessMessagesSentCount>
    <CCAFailureMessagesReceivedCount>0</CCAFailureMessagesReceivedCount>
    <CCAFailureMessagesSentCount>0</CCAFailureMessagesSentCount>
    <CCRIMessagesReceivedCount>0</CCRIMessagesReceivedCount>
    <CCRIMessagesSentCount>0</CCRIMessagesSentCount>
    <CCRIMessagesTimeoutCount>0</CCRIMessagesTimeoutCount>
    <CCRUMessagesReceivedCount>0</CCRUMessagesReceivedCount>
    <CCRUMessagesSentCount>0</CCRUMessagesSentCount>
    <CCRUMessagesTimeoutCount>0</CCRUMessagesTimeoutCount>
    <CCRTMessagesReceivedCount>0</CCRTMessagesReceivedCount>
    <CCRTMessagesSentCount>0</CCRTMessagesSentCount>
    <CCRTMessagesTimeoutCount>0</CCRTMessagesTimeoutCount>
    <CCAISuccessMessagesReceivedCount>0</CCAISuccessMessagesReceivedCount>
    <CCAISuccessMessagesSentCount>0</CCAISuccessMessagesSentCount>
    <CCAIFailureMessagesReceivedCount>0</CCAIFailureMessagesReceivedCount>
    <CCAIFailureMessagesSentCount>0</CCAIFailureMessagesSentCount>
    <CCAUSuccessMessagesReceivedCount>0</CCAUSuccessMessagesReceivedCount>
    <CCAUSuccessMessagesSentCount>0</CCAUSuccessMessagesSentCount>
    <CCAUFailureMessagesReceivedCount>0</CCAUFailureMessagesReceivedCount>
    <CCAUFailureMessagesSentCount>0</CCAUFailureMessagesSentCount>
    <CCATSuccessMessagesReceivedCount>0</CCATSuccessMessagesReceivedCount>
    <CCATSuccessMessagesSentCount>0</CCATSuccessMessagesSentCount>
    <CCATFailureMessagesReceivedCount>0</CCATFailureMessagesReceivedCount>
    <CCATFailureMessagesSentCount>0</CCATFailureMessagesSentCount>
    <ActiveSessionsCount>0</ActiveSessionsCount>
    <MaximumActiveSessionsCount>0</MaximumActiveSessionsCount>
   </Sample>
 </DiameterBberfPeerStats>
</Statistics>
```

The MRA response follows the DiameterShStats tag defined in the Statistics section in the XSD files.

- UDR Timeout

The numeric count of User Data Request (UDR) messages sent and User Data Answer (UDA) messages not received in a set amount of time.

- PUR Timeout

  The numeric count of Profile Update Request (PUR) messages sent and Profile Update Answer (PUA) messages not received in a set amount of time.

- SNR Timeout

  The numeric count of Subscription Notification Request (SNR) messages sent and Subscription Notification Answer (SNA) messages not received in a set amount of time.

```
<Statistics>
  <DiameterShStats>
   <Sample>
      <StartTime>2001-12-31T12:00:00</StartTime>
      <EndTime>2001-12-31T12:15:00</EndTime>
      <PolicyServer>PolicyServer</PolicyServer>
      <CurrentConnectionsCount>0</CurrentConnectionsCount>
      <MessagesInCount>0</MessagesInCount>
      <MessagesOutCount>0</MessagesOutCount>
      <UDRMessagesReceivedCount>0</UDRMessagesReceivedCount>
      <UDRMessagesSentCount>0</UDRMessagesSentCount>
      <UDRMessagesTimeoutCount>0</UDRMessagesTimeoutCount>
      ...
      <PURMessagesReceivedCount>0</PURMessagesReceivedCount>
      <PURMessagesSentCount>0</PURMessagesSentCount>
      <PURMessagesTimeoutCount>0</PURMessagesTimeoutCount>
      ...
      <SNRMessagesReceivedCount>0</SNRMessagesReceivedCount>
      <SNRMessagesSentCount>0</SNRMessagesSentCount>
      <SNRMessagesTimeoutCount>0</SNRMessagesTimeoutCount>
      ...
      <PeerReopenCount>0</PeerReopenCount>
   </Sample>
  </DiameterShStats>
</Statistics>
```

The MRA response follows the DiameterTdfStats tag defined in the Statistics section in the XSD files.

CCR Timeout: The numeric count of CC-Request messages sent and CC-Answer messages not received in a set amount of time.

Note: The number of CCR-I/U/T Timeouts should equal this number combined.

- CCR-I Timeout

  The numeric count of CCR-Initial messages sent and CCA-Initial messages not received in a set amount of time.

- CCR-U Timeout

  The numeric count of CCR-Update messages sent and CCA-Update messages not received in a set amount of time.

- CCR-T Timeout

  The numeric count of CCR-Terminate messages sent and CCA-Terminate messages not received in a set amount of time.

- RAR Timeout

  The numeric count of Reauthorization Request messages sent and RAA messages not received in a set amount of time.

```
<Statistics>
  <DiameterTdfStats>
    <Sample>
      <StartTime>2012-05-28T09:30:00Z</StartTime>
      <EndTime>2012-05-28T09:45:00Z</EndTime>
      <PolicyServer>kli-63-mpe</PolicyServer>
      <IsComplete>true</IsComplete>
      <CurrentConnectionsCount>1</CurrentConnectionsCount>
      <MessagesInCount>0</MessagesInCount>
      <MessagesOutCount>0</MessagesOutCount>
      <TSRMessagesReceivedCount>0</TSRMessagesReceivedCount>
      <TSRMessagesSentCount>0</TSRMessagesSentCount>
      <TSRMessagesTimeoutCount>0</TSRMessagesTimeoutCount>
      <TSASuccessMessagesReceivedCount>0</TSASuccessMessagesReceivedCount>
      <TSASuccessMessagesSentCount>0</TSASuccessMessagesSentCount>
      <TSAFailureMessagesReceivedCount>0</TSAFailureMessagesReceivedCount>
      <TSAFailureMessagesSentCount>0</TSAFailureMessagesSentCount>
      <RARMessagesReceivedCount>0</RARMessagesReceivedCount>
      <RARMessagesSentCount>0</RARMessagesSentCount>
      <RARMessagesTimeoutCount>0</RARMessagesTimeoutCount>
      <RAASuccessMessagesReceivedCount>0</RAASuccessMessagesReceivedCount>
      <RAASuccessMessagesSentCount>0</RAASuccessMessagesSentCount>
      <RAAFailureMessagesReceivedCount>0</RAAFailureMessagesReceivedCount>
      <RAAFailureMessagesSentCount>0</RAAFailureMessagesSentCount>
      <CCRMessagesReceivedCount>0</CCRMessagesReceivedCount>
      <CCRMessagesSentCount>0</CCRMessagesSentCount>
      <CCRMessagesTimeoutCount>0</CCRMessagesTimeoutCount>
      <CCASuccessMessagesReceivedCount>0</CCASuccessMessagesReceivedCount>
      <CCASuccessMessagesSentCount>0</CCASuccessMessagesSentCount>
      <CCAFailureMessagesReceivedCount>0</CCAFailureMessagesReceivedCount>
      <CCAFailureMessagesSentCount>0</CCAFailureMessagesSentCount>
      <CCRIMessagesReceivedCount>0</CCRIMessagesReceivedCount>
      <CCRIMessagesSentCount>0</CCRIMessagesSentCount>
      <CCRIMessagesTimeoutCount>0</CCRIMessagesTimeoutCount>
      <CCRUMessagesReceivedCount>0</CCRUMessagesReceivedCount>
      <CCRUMessagesSentCount>0</CCRUMessagesSentCount>
      <CCRUMessagesTimeoutCount>0</CCRUMessagesTimeoutCount>
      <CCRTMessagesReceivedCount>0</CCRTMessagesReceivedCount>
      <CCRTMessagesSentCount>0</CCRTMessagesSentCount>
      <CCRTMessagesTimeoutCount>0</CCRTMessagesTimeoutCount>
      <CCAISuccessMessagesReceivedCount>0</CCAISuccessMessagesReceivedCount>
      <CCAISuccessMessagesSentCount>0</CCAISuccessMessagesSentCount>
      <CCAIFailureMessagesReceivedCount>0</CCAIFailureMessagesReceivedCount>
      <CCAIFailureMessagesSentCount>0</CCAIFailureMessagesSentCount>
      <CCAUSuccessMessagesReceivedCount>0</CCAUSuccessMessagesReceivedCount>
      <CCAUSuccessMessagesSentCount>0</CCAUSuccessMessagesSentCount>
      <CCAUFailureMessagesReceivedCount>0</CCAUFailureMessagesReceivedCount>
      <CCAUFailureMessagesSentCount>0</CCAUFailureMessagesSentCount>
      <CCATSuccessMessagesReceivedCount>0</CCATSuccessMessagesReceivedCount>
      <CCATSuccessMessagesSentCount>0</CCATSuccessMessagesSentCount>
      <CCATFailureMessagesReceivedCount>0</CCATFailureMessagesReceivedCount>
      <CCATFailureMessagesSentCount>0</CCATFailureMessagesSentCount>
      <ActiveSessionsCount>0</ActiveSessionsCount>
      <MaximumActiveSessionsCount>0</MaximumActiveSessionsCount>
      <PeerOkayCount>1</PeerOkayCount>
      <PeerDownCount>2</PeerDownCount>
      <PeerSuspectCount>0</PeerSuspectCount>
```

```
      <PeerReopenCount>0</PeerReopenCount>
    </Sample>
  </DiameterTdfStats>
</Statistics>
```

The following is an example of a response for an MRA:

```
<Statistics>
  <DiameterTdfStats>
     <Sample>
     <StartTime>2012-05-28T09:30:00Z</StartTime>
     <EndTime>2012-05-28T09:45:00Z</EndTime>
     <PolicyServer>kli-63-mpe</PolicyServer>
     <IsComplete>true</IsComplete>
     <CurrentConnectionsCount>1</CurrentConnectionsCount>
     <MessagesInCount>0</MessagesInCount>
     <MessagesOutCount>0</MessagesOutCount>
     <TSRMessagesReceivedCount>0</TSRMessagesReceivedCount>
     <TSRMessagesSentCount>0</TSRMessagesSentCount>
     <TSRMessagesTimeoutCount>0</TSRMessagesTimeoutCount>
     <TSASuccessMessagesReceivedCount>0</TSASuccessMessagesReceivedCount>
     <TSASuccessMessagesSentCount>0</TSASuccessMessagesSentCount>
     <TSAFailureMessagesReceivedCount>0</TSAFailureMessagesReceivedCount>
     <TSAFailureMessagesSentCount>0</TSAFailureMessagesSentCount>
     <RARMessagesReceivedCount>0</RARMessagesReceivedCount>
     <RARMessagesSentCount>0</RARMessagesSentCount>
     <RARMessagesTimeoutCount>0</RARMessagesTimeoutCount>
     <RAASuccessMessagesReceivedCount>0</RAASuccessMessagesReceivedCount>
     <RAASuccessMessagesSentCount>0</RAASuccessMessagesSentCount>
     <RAAFailureMessagesReceivedCount>0</RAAFailureMessagesReceivedCount>
     <RAAFailureMessagesSentCount>0</RAAFailureMessagesSentCount>
     <CCRMessagesReceivedCount>0</CCRMessagesReceivedCount>
     <CCRMessagesSentCount>0</CCRMessagesSentCount>
     <CCRMessagesTimeoutCount>0</CCRMessagesTimeoutCount>
     <CCASuccessMessagesReceivedCount>0</CCASuccessMessagesReceivedCount>
     <CCASuccessMessagesSentCount>0</CCASuccessMessagesSentCount>
     <CCAFailureMessagesReceivedCount>0</CCAFailureMessagesReceivedCount>
     <CCAFailureMessagesSentCount>0</CCAFailureMessagesSentCount>
     <CCRIMessagesReceivedCount>0</CCRIMessagesReceivedCount>
     <CCRIMessagesSentCount>0</CCRIMessagesSentCount>
     <CCRIMessagesTimeoutCount>0</CCRIMessagesTimeoutCount>
     <CCRUMessagesReceivedCount>0</CCRUMessagesReceivedCount>
     <CCRUMessagesSentCount>0</CCRUMessagesSentCount>
     <CCRUMessagesTimeoutCount>0</CCRUMessagesTimeoutCount>
     <CCRTMessagesReceivedCount>0</CCRTMessagesReceivedCount>
     <CCRTMessagesSentCount>0</CCRTMessagesSentCount>
     <CCRTMessagesTimeoutCount>0</CCRTMessagesTimeoutCount>
     <CCAISuccessMessagesReceivedCount>0</CCAISuccessMessagesReceivedCount>
     <CCAISuccessMessagesSentCount>0</CCAISuccessMessagesSentCount>
     <CCAIFailureMessagesReceivedCount>0</CCAIFailureMessagesReceivedCount>
     <CCAIFailureMessagesSentCount>0</CCAIFailureMessagesSentCount>
     <CCAUSuccessMessagesReceivedCount>0</CCAUSuccessMessagesReceivedCount>
     <CCAUSuccessMessagesSentCount>0</CCAUSuccessMessagesSentCount>
     <CCAUFailureMessagesReceivedCount>0</CCAUFailureMessagesReceivedCount>
     <CCAUFailureMessagesSentCount>0</CCAUFailureMessagesSentCount>
     <CCATSuccessMessagesReceivedCount>0</CCATSuccessMessagesReceivedCount>
     <CCATSuccessMessagesSentCount>0</CCATSuccessMessagesSentCount>
     <CCATFailureMessagesReceivedCount>0</CCATFailureMessagesReceivedCount>
     <CCATFailureMessagesSentCount>0</CCATFailureMessagesSentCount>
     <ActiveSessionsCount>0</ActiveSessionsCount>
     <MaximumActiveSessionsCount>0</MaximumActiveSessionsCount>
     <PeerOkayCount>1</PeerOkayCount>
```

```
     <PeerDownCount>2</PeerDownCount>
     <PeerSuspectCount>0</PeerSuspectCount>
     <PeerReopenCount>0</PeerReopenCount>
     </Sample>
   </DiameterTdfStats>
</Statistics>
```

The MRA response follows the DiameterTdfPeerStats tag defined in the Statistics section in the XSD files.

The following is an example of a response for a single policy server:

```
<Statistics>
  <DiameterTdfPeerStats>
    <Sample>
      <StartTime>2012-05-28T09:15:00Z</StartTime>
      <EndTime>2012-05-28T09:30:00Z</EndTime>
      <PolicyServer>kli-63-mpe</PolicyServer>
      <IsComplete>true</IsComplete>
      <Name>kli-66-mra2</Name>
      <NeId/>
      <NetworkElementType/>
      <NetworkElementSubType/>
      <ConnectTime>Thu May 24 01:23:51 EDT 2012</ConnectTime>
      <DisconnectTime>Fri May 25 04:18:11 EDT 2012</DisconnectTime>
      <ConnectAddress>10.60.25.67:57455,10.60.25.68:57455</ConnectAddress>
      <ConnectPort>0</ConnectPort>
      <ConnectType>SCTP</ ConnectType>
      <MessagesInCount>0</MessagesInCount>
      <MessagesOutCount>0</MessagesOutCount>
      <MessagesErrorInCount>0</MessagesErrorInCount>
      <MessagesErrorOutCount>0</MessagesErrorOutCount>
      <TSRMessagesReceivedCount>0</TSRMessagesReceivedCount>
      <TSRMessagesSentCount>0</TSRMessagesSentCount>
      <TSRMessagesTimeoutCount>0</TSRMessagesTimeoutCount>
      <TSASuccessMessagesReceivedCount>0</TSASuccessMessagesReceivedCount>
      <TSASuccessMessagesSentCount>0</TSASuccessMessagesSentCount>
      <TSAFailureMessagesReceivedCount>0</TSAFailureMessagesReceivedCount>
      <TSAFailureMessagesSentCount>0</TSAFailureMessagesSentCount>
      <RARMessagesReceivedCount>0</RARMessagesReceivedCount>
      <RARMessagesSentCount>0</RARMessagesSentCount>
      <RARMessagesTimeoutCount>0</RARMessagesTimeoutCount>
      <RAASuccessMessagesReceivedCount>0</RAASuccessMessagesReceivedCount>
      <RAASuccessMessagesSentCount>0</RAASuccessMessagesSentCount>
      <RAAFailureMessagesReceivedCount>0</RAAFailureMessagesReceivedCount>
      <RAAFailureMessagesSentCount>0</RAAFailureMessagesSentCount>
      <CCRMessagesReceivedCount>0</CCRMessagesReceivedCount>
      <CCRMessagesSentCount>0</CCRMessagesSentCount>
      <CCRMessagesTimeoutCount>0</CCRMessagesTimeoutCount>
      <CCASuccessMessagesReceivedCount>0</CCASuccessMessagesReceivedCount>
      <CCASuccessMessagesSentCount>0</CCASuccessMessagesSentCount>
      <CCAFailureMessagesReceivedCount>0</CCAFailureMessagesReceivedCount>
      <CCAFailureMessagesSentCount>0</CCAFailureMessagesSentCount>
      <CCRIMessagesReceivedCount>0</CCRIMessagesReceivedCount>
      <CCRIMessagesSentCount>0</CCRIMessagesSentCount>
      <CCRIMessagesTimeoutCount>0</CCRIMessagesTimeoutCount>
      <CCRUMessagesReceivedCount>0</CCRUMessagesReceivedCount>
      <CCRUMessagesSentCount>0</CCRUMessagesSentCount>
      <CCRUMessagesTimeoutCount>0</CCRUMessagesTimeoutCount>
      <CCRTMessagesReceivedCount>0</CCRTMessagesReceivedCount>
      <CCRTMessagesSentCount>0</CCRTMessagesSentCount>
      <CCRTMessagesTimeoutCount>0</CCRTMessagesTimeoutCount>
```

```
      <CCAISuccessMessagesReceivedCount>0</CCAISuccessMessagesReceivedCount>
      <CCAISuccessMessagesSentCount>0</CCAISuccessMessagesSentCount>
      <CCAIFailureMessagesReceivedCount>0</CCAIFailureMessagesReceivedCount>
      <CCAIFailureMessagesSentCount>0</CCAIFailureMessagesSentCount>
      <CCAUSuccessMessagesReceivedCount>0</CCAUSuccessMessagesReceivedCount>
      <CCAUSuccessMessagesSentCount>0</CCAUSuccessMessagesSentCount>
      <CCAUFailureMessagesReceivedCount>0</CCAUFailureMessagesReceivedCount>
      <CCAUFailureMessagesSentCount>0</CCAUFailureMessagesSentCount>
      <CCATSuccessMessagesReceivedCount>0</CCATSuccessMessagesReceivedCount>
      <CCATSuccessMessagesSentCount>0</CCATSuccessMessagesSentCount>
      <CCATFailureMessagesReceivedCount>0</CCATFailureMessagesReceivedCount>
      <CCATFailureMessagesSentCount>0</CCATFailureMessagesSentCount>
      <ActiveSessionsCount>0</ActiveSessionsCount>
      <MaximumActiveSessionsCount>0</MaximumActiveSessionsCount>
    </Sample>
  </DiameterTdfPeerStats>
</Statistics>
```

The following is an example of a response for an MPE:

```
<Statistics>
   <DiameterTdfPeerStats>
      <Sample>
      <StartTime>2012-05-28T09:15:00Z</StartTime>
      <EndTime>2012-05-28T09:30:00Z</EndTime>
      <PolicyServer>kli-63-mpe</PolicyServer>
      <IsComplete>true</IsComplete>
      <Name>kli-66-mra2</Name>
      <NeId />
      <NetworkElementType />
      <NetworkElementSubType />
      <ConnectTime>Thu May 24 01:23:51 EDT 2012</ConnectTime>
      <DisconnectTime>Fri May 25 04:18:11 EDT 2012</DisconnectTime>
      <ConnectAddress>10.60.25.67:57455,10.60.25.68:57455</ConnectAddress>
      <ConnectPort>0</ConnectPort>
      <ConnectType />
      <MessagesInCount>0</MessagesInCount>
      <MessagesOutCount>0</MessagesOutCount>
      <MessagesErrorInCount>0</MessagesErrorInCount>
      <MessagesErrorOutCount>0</MessagesErrorOutCount>
      <TSRMessagesReceivedCount>0</TSRMessagesReceivedCount>
      <TSRMessagesSentCount>0</TSRMessagesSentCount>
      <TSRMessagesTimeoutCount>0</TSRMessagesTimeoutCount>
      <TSASuccessMessagesReceivedCount>0</TSASuccessMessagesReceivedCount>
      <TSASuccessMessagesSentCount>0</TSASuccessMessagesSentCount>
      <TSAFailureMessagesReceivedCount>0</TSAFailureMessagesReceivedCount>
      <TSAFailureMessagesSentCount>0</TSAFailureMessagesSentCount>
      <RARMessagesReceivedCount>0</RARMessagesReceivedCount>
      <RARMessagesSentCount>0</RARMessagesSentCount>
      <RARMessagesTimeoutCount>0</RARMessagesTimeoutCount>
      <RAASuccessMessagesReceivedCount>0</RAASuccessMessagesReceivedCount>
      <RAASuccessMessagesSentCount>0</RAASuccessMessagesSentCount>
      <RAAFailureMessagesReceivedCount>0</RAAFailureMessagesReceivedCount>
      <RAAFailureMessagesSentCount>0</RAAFailureMessagesSentCount>
      <CCRMessagesReceivedCount>0</CCRMessagesReceivedCount>
      <CCRMessagesSentCount>0</CCRMessagesSentCount>
      <CCRMessagesTimeoutCount>0</CCRMessagesTimeoutCount>
      <CCASuccessMessagesReceivedCount>0</CCASuccessMessagesReceivedCount>
      <CCASuccessMessagesSentCount>0</CCASuccessMessagesSentCount>
      <CCAFailureMessagesReceivedCount>0</CCAFailureMessagesReceivedCount>
      <CCAFailureMessagesSentCount>0</CCAFailureMessagesSentCount>
      <CCRIMessagesReceivedCount>0</CCRIMessagesReceivedCount>
```

```
      <CCRIMessagesSentCount>0</CCRIMessagesSentCount>
      <CCRIMessagesTimeoutCount>0</CCRIMessagesTimeoutCount>
      <CCRUMessagesReceivedCount>0</CCRUMessagesReceivedCount>
      <CCRUMessagesSentCount>0</CCRUMessagesSentCount>
      <CCRUMessagesTimeoutCount>0</CCRUMessagesTimeoutCount>
      <CCRTMessagesReceivedCount>0</CCRTMessagesReceivedCount>
      <CCRTMessagesSentCount>0</CCRTMessagesSentCount>
      <CCRTMessagesTimeoutCount>0</CCRTMessagesTimeoutCount>
      <CCAISuccessMessagesReceivedCount>0</CCAISuccessMessagesReceivedCount>
      <CCAISuccessMessagesSentCount>0</CCAISuccessMessagesSentCount>
      <CCAIFailureMessagesReceivedCount>0</CCAIFailureMessagesReceivedCount>
      <CCAIFailureMessagesSentCount>0</CCAIFailureMessagesSentCount>
      <CCAUSuccessMessagesReceivedCount>0</CCAUSuccessMessagesReceivedCount>
      <CCAUSuccessMessagesSentCount>0</CCAUSuccessMessagesSentCount>
      <CCAUFailureMessagesReceivedCount>0</CCAUFailureMessagesReceivedCount>
      <CCAUFailureMessagesSentCount>0</CCAUFailureMessagesSentCount>
      <CCATSuccessMessagesReceivedCount>0</CCATSuccessMessagesReceivedCount>
      <CCATSuccessMessagesSentCount>0</CCATSuccessMessagesSentCount>
      <CCATFailureMessagesReceivedCount>0</CCATFailureMessagesReceivedCount>
      <CCATFailureMessagesSentCount>0</CCATFailureMessagesSentCount>
      <ActiveSessionsCount>0</ActiveSessionsCount>
      <MaximumActiveSessionsCount>0</MaximumActiveSessionsCount>
      </Sample>
  </DiameterTdfPeerStats>
</Statistics>
```

The MRA response follows the DiameterShPeerStats tag defined in the Statistics section in the XSD files.

The following is an example of a response for a single policy server:

```
<Statistics>
 <DiameterShPeerStats>
   <Sample>
      <StartTime>2001-12-31T12:00:00</StartTime>
      <EndTime>2001-12-31T12:15:00</EndTime>
      <PolicyServer>PolicyServer</PolicyServer>
      <Name>NetworkElementName</Name>
      <NeId>NeId</NeId>
      <NetworkElementType>NetworkElementType</NetworkElementType>
      <NetworkElementSubType>NetworkElementSubType</NetworkElementSubType>
      ...
      <UDRMessagesReceivedCount>0</UDRMessagesReceivedCount>
      <UDRMessagesSentCount>0</UDRMessagesSentCount>
      <UDRMessagesTimeoutCount>0</UDRMessagesTimeoutCount>
      ...
      <PURMessagesReceivedCount>0</PURMessagesReceivedCount>
      <PURMessagesSentCount>0</PURMessagesSentCount>
      <PURMessagesTimeoutCount>0</PURMessagesTimeoutCount>
      ...
      <SNRMessagesReceivedCount>0</SNRMessagesReceivedCount>
      <SNRMessagesSentCount>0</SNRMessagesSentCount>
      <SNRMessagesTimeoutCount>0</SNRMessagesTimeoutCount>
      ...
      <MaximumActiveSessionsCount>0</MaximumActiveSessionsCount>
   </Sample>
  </DiameterShPeerStats>
</Statistics>
```

The MRA response follows the DiameterMraDrmaStats tag defined in the Statistics section in the XSD files.

- DBR Timeout

  The numeric count of Diameter Binding Request messages sent and Diameter Binding Answer messages not received in a set amount of time.

- RUR Timeout

  The numeric count of Diameter Routing Update Request messages sent and Diameter Routing Update messages not received in a set amount of time.

- LNR Timeout

  The numeric count of Diameter Load Notify Request messages sent and Diameter Load Notify Answer messages not received in a set amount of time.

- LSR Timeout

  The numeric count of Diameter Load Subscription Request messages sent and Diameter Load Subscription Answer messages not received in a set amount of time.

The following is an example of a response for a single policy server:

```
<Statistics>
   <Sample>
      <StartTime>2001-12-31T12:00:00</StartTime>
      <EndTime>2001-12-31T12:15:00</EndTime>
      <MRA>MRA</MRA>
      <CurrentConnectionsCount>0</CurrentConnectionsCount>
      <MessagesInCount>0</MessagesInCount>
      <MessagesOutCount>0</MessagesOutCount>
      <DBRMessagesReceivedCount>0</DBRMessagesReceivedCount>
      <DBRMessageSentCount>0</DBRMessagesSentCount>
      <DBRMessageTimeoutCount>0</DBRMessagesTimeoutCount>
      ...
      <RURMessagesReceivedCount>0</RURMessagesReceivedCount>
      <RURMessagesSentCount>0</RURMessagesSentCount>
      <RURMessagesTimeoutCount>0</RURMessagesTimeoutCount>
      ...
      <LNRMessagesReceivedCount>0</LNRMessagesReceivedCount>
      <LNRMessagesSentCount>0</LNRMessagesSentCount>
      <LNRMessagesTimeoutCount>0</LNRMessagesTimeoutCount>
      ...
      <LSRMessagesReceivedCount>0</LSRMessagesReceivedCount>
      <LSRMessagesSentCount>0</LSRMessagesSentCount>
      <LSRMessagesTimeoutCount>0</LSRMessagesTimeoutCount>
      <SQRMessagesReceivedCount>0</SQRMessagesReceivedCount>
      < SQRMessagesSentCount>0</SQRMessagesSentCount>
      < SQRMessagesTimeoutCount>0</SQRMessagesTimeoutCount>
      ...
      <PeerReopenCount>0</PeerReopenCount>
    </Sample>
  </DiameterMraDrmaStats>
</Statistics>
```

The MRA response follows the DiameterMraDrmaPeerStats tag defined in the Statistics section in the XSD files.

The following is an example of a response for a single policy server:

```
<Statistics>
```

```
 <DiameterMraDrmaPeerStats>
   <Sample>
      <StartTime>2001-12-31T12:00:00</StartTime>
      <EndTime>2001-12-31T12:15:00</EndTime>
      <MRA>MRA</MRA>
      <Name>NetworkElementName</Name>
      <ConnectTime>2001-11-31T12:00:00</ConnectTime>
      <DisconnectTime>2001-12-31T12:00:00</DisconnectTime>
      <ConnectAddress>10.15.25.110</ConnectAddress>
      <ConnectPort>3868</ConnectPort>
      <MessagesInCount>0</MessagesInCount>
      <MessagesOutCount>0</MessagesOutCount>
      <MessagesErrorInCount>0</MessagesErrorInCount>
      <MessagesErrorOutCount>0</MessagesErrorOutCount>
      <DBRMessagesReceivedCount>0</DBRMessagesReceivedCount>
      <DBRMessagesSentCount>0</DBRMessagesSentCount>
      <DBRMessagesTimeoutCount>0</DBRMessagesTimeoutCount>
      ...
      <RURMessagesReceivedCount>0</RURMessagesReceivedCount>
      <RURMessagesSentCount>0</RURMessagesSentCount>
      <RURMessagesTimeoutCount>0</RURMessagesTimeoutCount>
      ...
      <LNRMessagesReceivedCount>0</LNRMessagesReceivedCount>
      <LNRMessagesSentCount>0</LNRMessagesSentCount>
      <LNRMessagesTimeoutCount>0</LNRMessagesTimeoutCount>
      <LSRMessagesReceivedCount>0</LSRMessagesReceivedCount>
      <LSRMessagesSentCount>0</LSRMessagesSentCount>
      <LSRMessagesTimeoutCount>0</LSRMessagesTimeoutCount>
      <SQRMessagesReceivedCount>0</SQRMessagesReceivedCount>
      < SQRMessagesSentCount>0</SQRMessagesSentCount>
      < SQRMessagesTimeoutCount>0</SQRMessagesTimeoutCount
      ...
      <AllPcrfsDownRecvCount>0</AllPcrfsDownRecvCount>
    </Sample>
  </DiameterMraDrmaPeerStats>
</Statistics>
```

Topology Update Statistics

The following examples show the request and response that are defined in the XSD files for the TopologyUpdateStats tag.

Request

This request follows the TopologyUpdateStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00Z</StartTime>
<EndTime>2016-04-21T14:30:00Z</EndTime>
<TopologyUpdateStats />
</QueryOmStats>
```

Response

The response to this request follows the TopologyUpdateStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<TopologyUpdateStats>
<Sample>
<StartTime>2016-05-17T00:00:00Z</StartTime>
<EndTime>2016-05-17T00:15:00Z</EndTime>
<TopologyUpdateCount>114</TopologyUpdateCount>
<TopologyUpdateFailCount>0</TopologyUpdateFailCount>
</Sample>
<Sample>
<StartTime>2016-05-17T00:15:00Z</StartTime>
<EndTime>2016-05-17T00:30:00Z</EndTime>
<TopologyUpdateCount>114</TopologyUpdateCount>
<TopologyUpdateFailCount>0</TopologyUpdateFailCount>
</Sample>
</TopologyUpdateStats>
</Statistics>
```

Individual Statistics

Individual statistics for this tag are:

- TopologyUpdateCount

  The number of topology changes made in the CMP system that resulted in changes to an MPE. Topology data includes Network Elements, Paths, Interfaces, and Links. Changes to this data can occur through either the CMP GUI or XML interface. The counter increments for each MPE that updates as a result of the change. For example, when a user updates a Network Element, the topology update counter increments for each MPE that the Network Element is associated with.

  Batch changes are treated as a single update to an MPE. An OSSI XML interface update may be made across multiple elements but all of those changes are pushed at one time to the MPE. This is treated as a single topology change with regard to the counter.

- TopologyUpdateFailCount

  The number of topology changes made in the CMP that fail to update an associated MPE. For example, if an MPE is offline while a Network Element is changed, the fail counter will increment once for that failed MPE update.

Traffic Profile Statistics

The following examples show the request and response that are defined in the XSD files for the TrafficProfileStats tag.

Request

This request follows the TrafficProfileStats tag defined in the QueryOmStats section in the XSD files.

```
<?xml version="1.0" encoding="UTF-8"?>
<QueryOmStats>
```

```
<StartTime>2016-04-21T:15:00Z</StartTime>
<EndTime>2016-04-21T14:30:00Z</EndTime>
<TrafficProfileStats>
<PolicyServer>MPE-Cluster</PolicyServer>
<!-- Name is optional. -->
<Name>mra-82.example.com</Name>
<Name>mra-35.example.com</Name>
</TrafficProfileStats>
</QueryOmStats>
```

Response

The response to this request follows the TrafficProfileStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<TrafficProfileStats>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<Name/>
<NumberOfTimesInstalledAttemps/>
<NumberOfTimesRemovedByPCRF/>
<NumberOfTimesFailedOrRemovedByGateway/>
<NumberOfTimesTotalRetryAttempts/>
<NumberOfTimesRetryCycles/>
<NumberOfTimesFailedAfterMaxRetryCycles/>
</Sample>
</TrafficProfileStats>
</Statistics>
```

Individual Statistics

Individual statistics defined for this tag are:

- Install Attempt:

  COUNTER which tracks the number of times the PCRF attempts to install a specific Traffic Profile.

- Removed by PCRF

  COUNTER which tracks the number of times the PCRF initiates the removal of a specific Traffic Profile.

- Failed or Removed by Gateway

  COUNTER which tracks the number of times specific Traffic Profiles fail to install on the gateway, and the number of times the gateway removes a rule without PCRF approval.

- NumberOfTimesTotalRetryAttempts

  The total number of retry attempts taken to successfully install the rule.

- NumberOfTimesRetryCycles

  The number of Retry Cycles taken to successfully install the PCC/ADC rule for which retry mechanism was started.

- NumberOfTimesFailedAfterMaxRetryCycles

  The number of times a PCC/ADC rule failed to be installed after trying for max number of retries.

Wireline Network Element Statistics

The following examples show the request and response that are defined in the XSD files for the WirelineNetworkElementStats tag.

Request

This request follows the tag defined in the QueryOmStats section in the WirelineNetworkElementStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<WirelineNetworkElementStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
<!-- Name is optional. -->
<Name>mra-82.example.com</Name>
<Name>mra-35.example.com</Name>
<!-- NeId is optional. -->
<NeId />
</WirelineNetworkElementStats>
</QueryOmStats>
```

Response

The response to this request follows the WirelineNetworkElementStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<WirelineNetworkElementStats>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<Name>mra-35.example.com</Name>
<Description/>
<NeId/>
<NetworkElementType/>
<NeSubType/>
<NeGroupName/>
<SessionCount>0</SessionCount>
<SessionSuccessCount>0</SessionSuccessCount>
<SessionFailCount>0</SessionFailCount>
<HDSessionCount>0</HDSessionCount>
<SDSessionCount>0</SDSessionCount>
<AbnormalDisconnectCount>0</AbnormalDisconnectCount>
<Capacity>0</Capacity>
<BandwidthUpstream>0</BandwidthUpstream>
<BandwidthDownstream>0</BandwidthDownstream>
<MaxBandwidthUpstream>0</MaxBandwidthUpstream>
```

```
<MaxBandwidthDownstream>0</MaxBandwidthDownstream>
<Interface>
<InterfaceName/>
<Description/>
<SessionCount>0</SessionCount>
<SessionSuccessCount>0</SessionSuccessCount>
<SessionFailCount>0</SessionFailCount>
<HDSessionCount>0</HDSessionCount>
<SDSessionCount>0</SDSessionCount>
<AbnormalDisconnectCount>0</AbnormalDisconnectCount>
<Capacity>0</Capacity>
<BandwidthUpstream>0</BandwidthUpstream>
<BandwidthDownstream>0</BandwidthDownstream>
<MaxBandwidthUpstream>0</MaxBandwidthUpstream>
<MaxBandwidthDownstream>0</MaxBandwidthDownstream>
</Interface>
</Sample>
</WirelineNetworkElementStats>
</Statistics>
```

Part IV

Cable Mode

Topics:

This section is dedicated to the using the OSSI XML interface specifically for the cable mode.

The interface itself is divided into the following areas:

- Topology interface: enables cable users to manage and query network elements in the system.
- Subscriber interface: enables cable users to manage and query subscriber accounts and tiers.
- Operational Measurements (OM) interface: enables cable users to retrieve statistical data from the system.

These interfaces are described in detail in later chapters in this part of the document.

Chapter 1

Topology Interface for Cable Mode

Topics:

The Topology interface enables you to manage and query network elements in the system.

Network Elements

A network element represents a node in the network (cable or wireless), such as a router, CMTS, PDSN, B-RAS, and so on. The network elements can be organized into logical groups that subdivide the network space. network elements have the following attributes that can be requested:

- SctpEnabled

  Whether the network element supports Diameter over SCTP.

- Capacity

  The capacity of the network.

- InitiateDirectConnection

  The Diameter connection port of the TDF element network.

- TdfPort

  The Diameter connection port of the TDF element network.

- ReconnectDelay

  The delay period, in seconds, after a Diameter connection fails.

- WatchDogInterval

  The time interval of the watchdog monitor.

- ResponseTimeout

  The time period before the connection response times out.

Note: Depending on your system configuration, not all attributes may be present.

Note: The same attributes are also used in the Update Network Element operation.

The following sections describe the available network tags.

Add a Network Element in Cable Mode

The following examples show the request and response that are defined in the XSD files for the AddNetworkElement tag.

Note: See *Network Elements* for a complete description of Network Elements and Network Element Groups.

Request

This request follows the AddNetworkElement tag defined in the XSD files.

The following example creates a new Network Element to represent a router in the network. It also creates a group and puts the router in that group.

The router contains the following attributes:

- Name (unique identifier) is Router23

- Description is Core router for the north east
- HostName (IP address or DNS hostname) is 12.1.x.x
- NeID (another unique identifier) is 112222
- Capacity (aggregate capacity in bps) is 456000

The group contains the following attributes:

- Name is NE Group 1
- Description is All core routers

```
<XmlInterfaceRequest>
 <AddNetworkElement>
    <NetworkElement>
        <Name>Router 23</Name>
        <Description>Core router for the north east</Description>
        <HostName>12.1.x.x</HostName>
        <NeId>112222</NeId>
        <NetworkElementType>Router</NetworkElementType>
        <NeSubType></NeSubType>
        <Capacity>456000</Capacity>
    </NetworkElement>
    <NetworkElementGroup>
        <Name>NE Group 1</Name>
        <Description>All core routers</Description>
        <RootGroup>true</RootGroup>
        <ElementRef>
        <Name>Router23</Name>
        <SubGroup>false</SubGroup>
        </ElementRef>
    </NetworkElementGroup>
 </AddNetworkElement>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

The example XML response that follows represents a successful operation that creates a new network element and/or groups:

```
<Response>
    <Result>0</Result>
    <Command type="XmlInterfaceResponse">
        <Success count="2">Successfully imported 1 network elements.
        Successfully imported 1 group.</Success>
        <Failure count="0"></Failure>
    </Command>
</Response>
```

The example XML response that follows represents an operation that includes both a success and a failure (for example, an attempt to update a group's description field (success), and add an unknown network element router 24 to the group NE Group 1 (failed)).

```
<Response>
    <Result>0</Result>
    <Command type="XmlInterfaceResponse">
        <Success count="1">Successfully updated 1 groups.</Success>
```

```
        <Failure count="1">Failed to update 1 groups.  Network Element Group
update returned an error attempting to add the following: router 24
Group NE Group 1</Failure>
    </Command>
</Response>
```

Update a Network Element in Cable Mode

The following examples show the request and response that are defined in the XSD files for the UpdateNetworkElement tag.

Note: See *Network Elements* for a complete description of Network Elements and Network Element Groups.

Note: For a list of all the attributes that can be associated with a network element, see *Topology Interface for Wireless Mode*.

Request

The following example changes the Capacity attribute of the network element named Router23 to the new value 4567000.

```
<XmlInterfaceRequest>
   <UpdateNetworkElement>
       <NetworkElement>
           <Name>Router23</Name>
           <Capacity>4567000</Capacity>
       </NetworkElement>
   </UpdateNetworkElement>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
    <Result>0</Result>
    <Command type="XmlInterfaceResponse">
        <Success count="1">Successfully updated 1 network elements.</Success>
        <Failure count="0"></Failure>
    </Command>
</Response>
```

Delete Request for Update Network Element in Cable

The following examples show the delete request and response that are defined in the XSD files for the UpdateNetworkElement tag.

Note: See *Network Elements* for a complete description of Network Elements and Network Element Groups.

Request

The following example is a request for the ManualSubnet operation to delete a network element.

```
<XmlInterfaceRequest>
   <UpdateNetworkElement>
       <NetworkElement>
           <Name>cmts17o</Name>
            <Description></Description>
            <HostName>10.60.25.170</HostName>
            <BackupHostName></BackupHostName>
            <NetworkElementType>CMTS</NetworkElementType>
            <NeSubType>None</NeSubType>
            <Managed>true</Managed>
            <PcmmPort>3918</PcmmPort>
            <DqosPort>0</DqosPort>
            <ReadCommunity></ReadCommunity>
            <Capacity>0</Capacity>
            <X>0</X>
            <Y>0</Y>
            <ManualSubnet operation=”delete”>
                <IpAddress>1.1.1.0</IpAddress>
                <Mask>24</Mask>
       </NetworkElement>
   </UpdateNetworkElement>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
    <Result>0</Result>
    <Command type="XmlInterfaceResponse">
        <Success count="1">Successfully updated 1 network elements.</Success>
        <Failure count="0"></Failure>
    </Command>
</Response>
```

Add Network Element to Group

Note: This query is not available to Policy servers in NW-CMP mode.

The following example shows the request and response that are defined in the XSD files for the AddNetworkElementToGroup tag.

Request

This request follows the AddNetworkElementToGroup tag defined in the XSD files.

The following example shows the XML command to add three network elements (Router 2, Router 34, and Router 131) to a group (Group 1).

```
<XmlInterfaceRequest>
   <AddNetworkElementToGroup>
```

```
       <GroupName>Group 1</GroupName>
       <Name>Router 2</Name>
       <Name>Router 34</Name>
       <Name>Router 131</Name>
   </AddNetworkElementToGroup>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
    <Result>0</Result>
    <Command type="XmlInterfaceResponse">
        <Success count="3">Added 3 elements to a group.</Success>
        <Failure count="0"></Failure>
    </Command>
</Response>
```

Remove Network Element from Group

Note: This query is not available to Policy servers in NW-CMP mode.

The following example shows the request and response that are defined in the XSD files for the RemoveNetworkElementFromGroup tag.

Request

This request follows the RemoveNetworkElementFromGroup tag defined in the XSD files.

The following example shows the XML command to remove two network elements (Router 34 and Router 131) from a group (Group 1).

```
<XmlInterfaceRequest>
   <RemoveNetworkElementFromGroup>
       <GroupName>Group 1</GroupName>
       <Name>Router 34</Name>
       <Name>Router 131</Name>
   </RemoveNetworkElementFromGroup>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
    <Result>0</Result>
    <Command type="XmlInterfaceResponse">
        <Success count="2">Removed 2 elements from group.</Success>
        <Failure count="0"></Failure>
    </Command>
</Response>
```

Delete Network Element

Note: This query is not available to Policy servers in NW-CMP mode.

The following example shows the request and response that are defined in the XSD files for the DeleteNetworkElement tag.

Request

This request follows the DeleteNetworkElement tag defined in the XSD files.

The following example shows the XML command to delete two network elements (Node 1 and Node 2).

```
<XmlInterfaceRequest>
   <DeleteNetworkElement>
      <Name>Node 1</Name>
      <Name>Node 2</Name>
   </DeleteNetworkElement>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
    <Result>0</Result>
    <Command type="XmlInterfaceResponse">
        <Success count="2">Deleted 2 elements.</Success>
        <Failure count="0"></Failure>
    </Command>
</Response>
```

Delete Network Element Group

Note: This query is not available to Policy servers in NW-CMP mode.

The following example shows the request and response that are defined in the XSD files for the DeleteNetworkElementGroup tag.

Request

This request follows the DeleteNetworkElementGroup tag defined in the XSD files.

The following example shows the XML command to delete two network element groups (Group 1 and Group 2).

```
<?xml version="1.0" encoding="UTF-8" ?>
<XmlInterfaceRequest>
<DeleteNetworkElementGroup>
    <Name>Group 1</Name>
    <Name>Group 2</Name>
```

```
</DeleteNetworkElementGroup>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
    <Result>0</Result>
    <Command type="XmlInterfaceResponse">
        <Success count="2">Deleted 2 network element groups.</Success>
        <Failure count="0"></Failure>
    </Command>
</Response>
```

Query Network Elements

Note: This query is not available to Policy servers in S-CMP mode.

The following examples show the requests and responses that are defined in the XSD files for the QueryNetworkElement tag.

Example 1 Request

This request follows the QueryNetworkElement tag defined in the XSD files.

XML for querying multiple network elements by name.

```
<?xml version="1.0" encoding="UTF-8" ?>
<XmlInterfaceRequest>
    <QueryNetworkElement>
        <Name>NE A</Name>
        <Name>NE B</Name>
</QueryNetworkElement>
</XmlInterfaceRequest>
```

Example 2 Request

This request follows the QueryNetworkElement tag defined in the XSD files.

XML for querying all network elements and groups.

```
<?xml version="1.0" encoding="UTF-8" ?>
<XmlInterfaceRequest>
    <QueryNetworkElement>
    </QueryNetworkElement>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<ConfigurationData version="2.1.6">
    <NetworkElement>
        <Name>vod-1</Name>
        <Description/>
        <HostName/>
        <BackupHostName/>
        <NeId>vod-1</NeId>
        <NetworkElementType>Server</NetworkElementType>
        <NeSubType>None</NeSubType>
        <Capacity>0</Capacity>
        <X>0</X>
        <Y>0</Y>
        <ManualSubnet>
           <IpAddress>88.0.0.0</IpAddress>
           <Mask>8</Mask>
        </ManualSubnet>
    </NetworkElement>
    <NetworkElement>
        <Name>erx-1</Name>
        <Description/>
        <HostName/>
        <BackupHostName/>
        <NeId>erx-1</NeId>
        <NetworkElementType>B-RAS</NetworkElementType>
        <NeSubType>ERX</NeSubType>
        <Capacity>0</Capacity>
        <X>0</X>
        <Y>0</Y>
        <ManualSubnet>
           <IpAddress>1.0.0.0</IpAddress>
           <Mask>8</Mask>
        </ManualSubnet>
        <NEInterface>
           <Name>8/0</Name>
           <Description/>
           <Capacity>0</Capacity>
        </NEInterface>
        </NetworkElement>
        <NetworkElement>
           <Name>router-1</Name>
           <Description/>
           <HostName/>
           <BackupHostName/>
           <NeId>router-1</NeId>
           <NetworkElementType>Router</NetworkElementType>
           <NeSubType>None</NeSubType>
           <Capacity>0</Capacity>
           <X>0</X>
           <Y>0</Y>
         </NetworkElement>
         <NetworkElement>
           <Name>router-2</Name>
           <Description/>
           <HostName/>
           <BackupHostName/>
           <NeId>router-2</NeId>
           <NetworkElementType>Router</NetworkElementType>
           <NeSubType>None</NeSubType>
           <Capacity>0</Capacity>
```

```
            <X>0</X>
            <Y>0</Y>
          </NetworkElement>
          <NetworkElement>
            <Name>mx-1</Name>
            <Description/>
            <HostName>10.60.100.101</HostName>
            <BackupHostName/>
            <NeId/>
            <NetworkElementType>Wireline Gateway</NetworkElementType>
            <NeSubType>MX Series</NeSubType>
            <Capacity>0</Capacity>
            <X>0</X>
            <Y>0</Y>
            <DiameterRealm>jupiter.com</DiameterRealm>
            <ManualSubnet>
               <IpAddress>11.0.0.0</IpAddress>
               <Mask>8</Mask>
            </ManualSubnet>
            <Nediameterid>
            <NediameteridStr>mx.jupiter.com</NediameteridStr>
           </Nediameterid>
        </NetworkElement>
</ConfigurationData>
```

Chapter 2

Subscriber Interface for Cable Mode

Topics:

The Subscriber interface enables you to manage and query the subscriber accounts and tiers.

About the Subscriber Interface

The Subscriber Interface consists of the following requests:

- Accounts — An account represents a billable entity that contains the individual users.
  - *Add Account*: Enables you to add and update subscriber accounts within their system. If an account already exists with the given identifier (Account ID), this is considered an update, and the new account replaces the existing one. All relationships between that account and other objects in the system (for example, tiers) are maintained.
  - *Update Account*: Enables you to update accounts in their system. If no object exists with the given identifier (Account ID), then this is a failure condition, and the object is not saved.
  - *Delete Account*: Enables you to delete an account.
  - *Query Account*: Enables you to query a specific account or list of accounts, returning their configured attributes.
- Tiers — A tier represents a class of service or a logical grouping of subscriber accounts.
  - *Add Tier*: Enables you to add new tiers to their system. If a tier already exists with the given identifier (Name), this is considered an update, and the new tier replaces the existing one. All relationships between that tier and other objects in the system (for example, accounts) are maintained.
  - *Update Tier*: Enables you to update tiers within their system. If no object exists with the given identifier (Name), this is a failure condition, and the object is not saved.
  - *Delete Tier*: Enables you to delete a tier.
  - *Query Tier*: Enables you to query a specific tier or list of tiers, returning their configured attributes.

About Accounts

An account represents a billable entity that contains the individual users.

The Subscriber interface consists of the following account management requests:

- *Add Account*

  Enables you to add and update subscriber accounts within their system. If an account already exists with the given identifier (Account ID), this is considered an update and the new account replaces the existing one. All relationships between that account, and other objects in the system (for example, tiers) are maintained.

- *Update Account*

  Enables you to update accounts in their system. If no object exists with the given identifier (Account ID), this is a failure condition, and the object is not saved.

- *Delete Account*: Enables you to delete an account.
- *Query Account*

  Enables you to query a specific account or list of accounts, returning their configured attributes.

Add Account

The following examples show the request and response that are defined in the XSD files for the AddAccount tag.

Request

The following example creates an account with the following attributes:

- Account ID

  000123

- Association

  Represents the association to a network element named: Node1

- One user in this account, with the following attributes:
  - User ID: john_smith@company.com
- One cable modem in this account, with the following attributes:
  - MAC address

    10:10:10:10:10:11

  - IP address

    30.0.xx.xx

  - Two CPEs behind this cable modem

    10.0.xx.xx, 20.0.xx.xx

- Association to a tier named: Premium

```
<XmlInterfaceRequest>
<AddAccount>
    <Account>
        <AccountId>000123</AccountId>
        <NetworkElementName>Node1</NetworkElementName>
        <EndUser>
         <EndUserId>john_smith@company.com</EndUserId>
        </EndUser>
        <CableModem>
            <CmMacAddr>10:10:10:10:10:11</CmMacAddr>
            <CmIpAddr>30.0.xx.xx</CmIpAddr>
            <Cpe>
                <CpeIpAddr>10.0.xx.xx</CpeIpAddr>
            </Cpe>
            <Cpe>
                <CpeIpAddr>20.0.xx.xx</CpeIpAddr>
            </Cpe>
        </CableModem>
        <TierRef>
            <Name>Premium</Name>
        </TierRef>
    </Account>
```

```
</AddAccount>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
    <Result>0</Result>
    <Command type="XmlInterfaceResponse" >
        <Success count="1">Successfully imported 1 accounts.</Success>
        <Failure count="0"></Failure>
    </Command>
</Response>
```

Update Account

The following examples show the request and response that are defined in the XSD files for the UpdateAccount tag.

Request

The following example updates the account identified by ID 000123 to add a new user with ID jane_doe@company.com.

```
<?xml version="1.0" encoding="UTF-8" ?>
<XmlInterfaceRequest>
<UpdateAccount>
    <Account>
        <AccountId>000123</AccountId>
        <EndUser operator="add">
        <EndUserId>jane_doe@company.com</EndUserId>
        </EndUser>
    </Account>
</UpdateAccount>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
    <Result>0</Result>
    <Command type="XmlInterfaceResponse">
        <Success count="1">Successfully updated 1 accounts.</Success>
        <Failure count="0"></Failure>
    </Command>
</Response>
```

Delete Account

The following examples show the request and response that are defined in the XSD files for the DeleteAccount tag.

Request

The following example deletes two accounts: Account1 and Account2.

```
<XmlInterfaceRequest>
<DeleteAccount>
    <AccountId>Account1</AccountId>
    <AccountId>Account2</AccountId>
</DeleteAccount>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
    <Result>0</Result>
    <Command type="XmlInterfaceResponse">
        <Success count="2">Deleted 2 accounts.</Success>
        <Failure count="0"></Failure>
    </Command>
</Response>
```

Query Account

The following examples show the request and response that are defined in the XSD files for the QueryAccount tag.

Request

The following example queries account ID 000123.

```
<XmlInterfaceRequest>
    <QueryAccount>
        <AccountId>000123</AccountId>
</QueryAccount>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<ConfigurationData version="">
    <Account>
        <AccountId>000123</AccountId>
        <NetworkElementName>Node1</NetworkElementName>
        <EndUser>
```

```
         <EndUserId>john_smith@company.com</EndUserId>
        </EndUser>
        <CableModem>
            <CmMacAddr>10:10:10:10:10:11</CmMacAddr>
            <CmIpAddr>30.0.0.3</CmIpAddr>
            <UpServerIndex>0</UpServerIndex>
            <UpChannelIndex>0</UpChannelIndex>
            <DownServerIndex>0</DownServerIndex>
            <DownChannelIndex>0</DownChannelIndex>
            <DocsisVersion>0</DocsisVersion>
            <MaxFlows>0</MaxFlows>
            <MaxClassifiers>0</MaxClassifiers>
            <Cpe>
             <CpeMacAddr>00:00:00:00:00:00</CpeMacAddr>
             <CpeIpAddr>10.0.0.3</CpeIpAddr>
            </Cpe>
            <Cpe>
             <CpeMacAddr>00:00:00:00:00:00</CpeMacAddr>
             <CpeIpAddr>20.0.0.3</CpeIpAddr>
            </Cpe>
        </CableModem>
        <TierRef>
            <Name>Premium</Name>
        </TierRef>
    </Account>
</ConfigurationData>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<ConfigurationData version="">
    <Account>
        <AccountId>000123</AccountId>
        <NetworkElementName>Node1</NetworkElementName>
        <EndUser>
         <EndUserId>john_smith@company.com</EndUserId>
        </EndUser>
        <CableModem>
            <CmMacAddr>10:10:10:10:10:11</CmMacAddr>
            <CmIpAddr>30.0.0.3</CmIpAddr>
            <UpServerIndex>0</UpServerIndex>
            <UpChannelIndex>0</UpChannelIndex>
            <DownServerIndex>0</DownServerIndex>
            <DownChannelIndex>0</DownChannelIndex>
            <DocsisVersion>0</DocsisVersion>
            <MaxFlows>0</MaxFlows>
            <MaxClassifiers>0</MaxClassifiers>
            <Cpe>
             <CpeMacAddr>00:00:00:00:00:00</CpeMacAddr>
             <CpeIpAddr>10.0.0.3</CpeIpAddr>
            </Cpe>
            <Cpe>
             <CpeMacAddr>00:00:00:00:00:00</CpeMacAddr>
             <CpeIpAddr>20.0.0.3</CpeIpAddr>
            </Cpe>
        </CableModem>
        <TierRef>
            <Name>Premium</Name>
        </TierRef>
```

```
    </Account>
</ConfigurationData>
```

Add Account

The following examples show the request and response that are defined in the XSD files for the AddAccount tag.

Request

The following example creates an account with the following attributes:

- Account ID

  000123

- Association

  Represents the association to a network element named: Node1

- One user in this account, with the following attributes:
  - User ID: john_smith@company.com
- One cable modem in this account, with the following attributes:
  - MAC address

    10:10:10:10:10:11

  - IP address

    30.0.xx.xx

  - Two CPEs behind this cable modem

    10.0.xx.xx, 20.0.xx.xx

- Association to a tier named: Premium

```
<XmlInterfaceRequest>
<AddAccount>
    <Account>
        <AccountId>000123</AccountId>
        <NetworkElementName>Node1</NetworkElementName>
        <EndUser>
         <EndUserId>john_smith@company.com</EndUserId>
        </EndUser>
        <CableModem>
            <CmMacAddr>10:10:10:10:10:11</CmMacAddr>
            <CmIpAddr>30.0.xx.xx</CmIpAddr>
            <Cpe>
                <CpeIpAddr>10.0.xx.xx</CpeIpAddr>
            </Cpe>
            <Cpe>
                <CpeIpAddr>20.0.xx.xx</CpeIpAddr>
            </Cpe>
        </CableModem>
        <TierRef>
```

```
            <Name>Premium</Name>
        </TierRef>
    </Account>
</AddAccount>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
    <Result>0</Result>
    <Command type="XmlInterfaceResponse" >
        <Success count="1">Successfully imported 1 accounts.</Success>
        <Failure count="0"></Failure>
    </Command>
</Response>
```

About Tiers

A tier represents a class of service or a logical grouping of subscriber accounts.

The Subscriber Interface consists of the following Tiers management requests:

- *Add Tier*: Allows users to add new tiers to their system. If a tier already exists with the given identifier (Name), this is considered an update, and the new tier replaces the existing one. All relationships between that tier and other objects in the system (for example, accounts) are maintained.
- *Update Tier*: Allows users to update tiers within their system. If no object exists with the given identifier (Name), this is a failure condition, and the object is not saved.
- *Delete Tier*: Allows users to delete a tier.
- *Query Tier*: Allows users to query a specific tier or list of tiers, returning their configured attributes.

Add Tier

The following examples show the request and response that are defined in the XSD files for the AddTier tag.

Request

The following example creates two tiers:

- Tier1: Upstream bandwidth limit: 1 Mbps
- Tier2: Upstream bandwidth limit: 2 Mbps

```
<XmlInterfaceRequest>
<AddTier>
    <Tier>
        <Name>Tier1</Name>
        <Description/>
        <ResourceLimit>
            <ResourceType>0</ResourceType>
```

```
            <Direction>1</Direction>
            <LimitValue>1000000</LimitValue>
        </ResourceLimit>
    </Tier>
    <Tier>
        <Name>Tier2</Name>
        <Description/>
        <ResourceLimit>
            <ResourceType>0</ResourceType>
            <Direction>1</Direction>
            <LimitValue>2000000</LimitValue>
        </ResourceLimit>
    </Tier>
</AddTier>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
    <Result>0</Result>
    <Command type="XmlInterfaceResponse">
        <Success count="2">Successfully imported 2 tiers.</Success>
        <Failure count="0"></Failure>
    </Command>
</Response>
```

Update Tier

The following examples show the request and response that are defined in the XSD files for the UpdateTier tag.

Request

The following example updates the tier named Tier1 to change the upstream bandwidth limit to 555000 bps.

```
<?xml version="1.0" encoding="UTF-8" ?>
<XmlInterfaceRequest>
    <UpdateTier>
        <Tier>
            <Name>Tier1</Name>
            <ResourceLimit>
                <ResourceType>0</ResourceType>
                <Direction>1</Direction>
                <LimitValue>555000</LimitValue>
            </ResourceLimit>
        </Tier>
    </UpdateTier>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
    <Result>0</Result>
    <Command type="XmlInterfaceResponse">
        <Success count="1">Successfully updated 1 tier.</Success>
        <Failure count="0"></Failure>
    </Command>
</Response>
```

Delete Tier

The following examples show the request and response that are defined in the XSD files for the DeleteTier tag.

Request

```
<XmlInterfaceRequest>
    <DeleteTier>
        <Name>Tier1</Name>
        <Name>Tier2</Name>
    </DeleteTier>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<Response>
    <Result>0</Result>
    <Command type="XmlInterfaceResponse">
        <Success count="2">Deleted 2 Tiers.</Success>
        <Failure count="0"></Failure>
    </Command>
</Response>
```

Query Tier

The following examples show the request and response that are defined in the XSD files for the QueryTier tag.

Request

```
<?xml version="1.0" encoding="UTF-8" ?>
<XmlInterfaceRequest>
  <QueryTier>
     <Name>Tier Gold</Name>
     <Name>Tier Bronze</Name>
  </QueryTier>
</XmlInterfaceRequest>
```

Response

The response to this request follows the generic Response tag defined in the XSD files.

```
<ConfigurationData version="3.0.0">
    <Tier>
        <Name>Tier Gold</Name>
        <Description/>
        <ResourceLimit>
            <ResourceType>0</ResourceType>
            <Direction>1</Direction>
            <LimitValue>9000000</LimitValue>
        </ResourceLimit>
    </Tier>
    <Tier>
        <Name>Tier Bronze</Name>
        <Description/>
        <ResourceLimit>
            <ResourceType>0</ResourceType>
            <Direction>1</Direction>
            <LimitValue>1000000</LimitValue>
        </ResourceLimit>
    </Tier>
</ConfigurationData>
```

Chapter 3

Operational Measurement Interface for Cable Mode

Topics:

This chapter defines the various operational measurements (OM) groups and the individual OM statistics. For several of the more generic statistics, the instrumentation on the Multimedia Policy Engine (MPE) and the Bandwidth on Demand (BoD) can differ by protocol, and therefore specific statistics may increment differently across those protocols.

About Operational Measurements Requests for Cable Mode

The OM interface consists of the following requests and their responses:

- Protocol statistics
  - BoD operational statistics: retrieves statistics used in Bandwidth on Demand application.
  - CMTS rediscovery: retrieves statistics used in CMTS rediscovery.
- Connection Error Statistics
  - Connection error statistics: retrieves statistics from the Application Manager.
  - Connection error statistics for PCMM AMID: retrieves statistics from the Application Manager.
- Diameter statistics for cable mode: retrieves statistics used in Diameter.
  - Diameter application function statistics
  - Diameter application function peer statistics
- Latency statistics: retrieves latency statistics information for incoming and outgoing messages tracked per network element, MPE.
  - Diameter application function latency statistics
  - Diameter application function peer latency statistics
  - PCMM CMTS latency statistics
  - PCMM CMTS peer latency statistics
  - PCMM AM latency statistics
  - PCMM AM peer latency statistics
  - PCMM DPS latency statistics
  - PCMM DPS peer latency statistics
- PCMM, BoD, and CMTS operational statistics: retrieves statistics for these three protocols.
  - PCCM BoD statistics
  - PCMM BoD Error statistics
  - PCMM BoD Session Statistics
  - PCMM AM gate statistics
  - PCMM BoD AM gate statistics
  - PCMM CTMS statistics
  - PCMM CTMS gate statistics
- Error Statistics
  - Protocol error statistics
  - SGW failure statistics
- DQos operational requests: retrieves statistics on DQos and DQos Network statistics.
  - DQos CMTS statistics
  - DQos network element statistics
- Miscellaneous statistics

- Mgpi statistics:
- Gate statistics: : retrieves statistics on gate functioning.
- Replication statistics:
- Policy statistics: retrieves statistics on policy servers, execution frequency, and duration.
- Policy server statistics: retrieves statistics on policy servers, execution frequency, and duration.
- Reserve commit statistics: retrieves statistics on reserve and commit requests specific to the SPC DQoS protocol.
- Subscriber update statistics: retrieves statistics for quota profiles, conventions and field-mapping profiles.
- Topology update statistics: retrieves statistics for network elements, paths, and other topology-related objects.
- Traffic profile statistics:

About Protocol Statistics

This section defines the Protocol statistics listed in the Cable KPI dashboard.

BoD Interface Operational Measurements

This section shows the requests and responses for:

- *HTTP BoD Statistics*
- *SOAP BoD Statistics*

HTTP BoD Statistics

The following examples show the request and response that are defined in the XSD files for the HttpBodStats tag.

Request

This request follows the HttpBodStats tag defined in the QueryOmStats section of the XSD files.

Note: The name of the Bandwidth on Demand (BoD) server is optional. If the name is not specified, it returns the counters from all the BoD servers.

```
<QueryOmStats>
<StartTime>2017-04-21T14:15:00Z</StartTime>
<EndTime>2017-04-21T14:30:00Z</EndTime>
<HttpBodStats>
<!-- BodServer is optional. -->
<BodServer>BOD</BodServer>
<BodServer>BOD-1</BodServer>
</HttpBodStats>
</QueryOmStats>
```

Response

The response to this request follows the HttpBodStats tag defined in the Statistics section of the XSD files.

```
<Statistics>
<HttpBodStats>
<Sample>
<StartTime>2017-05-16T07:45:01Z</StartTime>
<EndTime>2017-05-16T08:00:01Z</EndTime>
<BodServer>BOD</BodServer>
<IsComplete>true</IsComplete>
<TotalCreateSessionRequest>0</TotalCreateSessionRequest>
<TotalModifySessionRequest>0</TotalModifySessionRequest>
<TotalDeleteSessionRequest>0</TotalDeleteSessionRequest>
<TotalAddClassifierRequest>0</TotalAddClassifierRequest>
<TotalDeleteClassifierRequest>0</TotalDeleteClassifierRequest>
<TotalCreateSessionSuccessResponse>0</TotalCreateSessionSuccessResponse>
<TotalModifySessionSuccessResponse>0</TotalModifySessionSuccessResponse>
<TotalDeleteSessionSuccessResponse>0</TotalDeleteSessionSuccessResponse>
<TotalAddClassifierSuccessResponse>0</TotalAddClassifierSuccessResponse>
<TotalDeleteClassifierSuccessResponse>0</TotalDeleteClassifierSuccessResponse>
<TotalCreateSessionFailureResponse>0</TotalCreateSessionFailureResponse>
<TotalModifySessionFailureResponse>0</TotalModifySessionFailureResponse>
<TotalDeleteSessionFailureResponse>0</TotalDeleteSessionFailureResponse>
<TotalAddClassifierFailureResponse>0</TotalAddClassifierFailureResponse>
<TotalDeleteClassifierFailureResponse>0</TotalDeleteClassifierFailureResponse>
<TotalSuccessResponse>0</TotalSuccessResponse>
<TotalFailureResponse>0</TotalFailureResponse>
<TotalRequest>0</TotalRequest>
<TotalResponse>0</TotalResponse>
<TotalQuerySession>0</TotalQuerySession>
</Sample>

</HttpBodStats>
</Statistics>
```

Individual Statistics

Individual statistics defined for this tag are:

- BodServer

  The name of BoD server.

- IsComplete

  True if current stats period is complete. False if current stats period is incomplete (shorter than configured stats period) due to some reason such as failover.

- TotalCreateSessionRequest

  Number of create session request messages received.

- TotalModifySessionRequest

  Number of modify session request messages received.

- TotalDeleteSessionRequest

  Number of delete session request messages received.

- TotalAddClassifierRequest

  Number of add classifier request messages received.
- TotalModifyClassifierRequest

  Number of modify classifier request messages received.
- TotalDeleteClassifierRequest

  Number of delete classifier request messages received.
- TotalCreateSessionSuccessResponse

  Number of success responses for create session request.
- TotalModifySessionSuccessResponse

  Number of success responses for modify session request.
- TotalDeleteSessionSuccessResponse

  Number of success responses for delete session request.
- TotalAddClassifierSuccessResponse

  Number of success responses for add classifier request.
- TotalModifyClassifierSuccessResponse

  Number of success responses for modify classifier request.
- TotalDeleteClassifierSuccessResponse

  Number of success responses for delete classifier request.
- TotalCreateSessionFailureResponse

  Number of failure responses for create session request.
- TotalModifySessionFailureResponse

  Number of failure responses for modify session request.
- TotalDeleteSessionFailureResponse

  Number of failure responses for delete session request.
- TotalAddClassifierFailureResponse

  Number of failure responses for add classifier request.
- TotalModifyClassifierFailureResponse

  Number of failure responses for modify classifier request.
- TotalDeleteClassifierFailureResponse

  Number of failure responses for delete classifier request.
- TotalSuccessResponse

  Number of success response sent.
- TotalFailureResponse

Number of failure response sent.

- TotalResponse

  Number of response sent.

- TotalQuerySession

  Number of query session requests received.

SOAP BoD Statistics

The following examples show the request and response that are defined in the XSD files for the SoapBodStats tag.

Request

This request follows the SoapBodStats tag defined in the QueryOmStats section in the XSD files..

Note: The name of the BoD is optional. If the name is not specified, it will return the counters from all the BoD servers.

```
<QueryOmStats>
<StartTime>2017-04-21T14:15:00Z</StartTime>
<EndTime>2017-04-21T14:30:00Z</EndTime>
<SoapBodStats>
<!-- BodServer is optional. -->
<BodServer>BOD</BodServer>
<BodServer>BOD-1</BodServer>
</SoapBodStats>
</QueryOmStats>
```

Response

The response to this request follows the SoapBodStats tag defined in the Statistics section in the XSD files..

```
<Statistics>
<SoapBodStats>
<Sample>
<StartTime>2017-05-16T07:45:01Z</StartTime>
<EndTime>2017-05-16T08:00:01Z</EndTime>
<BodServer>BOD</BodServer>
<IsComplete>true</IsComplete>
<TotalCreateSessionRequest>0</TotalCreateSessionRequest>
<TotalModifySessionRequest>0</TotalModifySessionRequest>
<TotalDeleteSessionRequest>0</TotalDeleteSessionRequest>
<TotalAddClassifierRequest>0</TotalAddClassifierRequest>
<TotalDeleteClassifierRequest>0</TotalDeleteClassifierRequest>
<TotalCreateSessionSuccessResponse>0</TotalCreateSessionSuccessResponse>
<TotalModifySessionSuccessResponse>0</TotalModifySessionSuccessResponse>
<TotalDeleteSessionSuccessResponse>0</TotalDeleteSessionSuccessResponse>
<TotalAddClassifierSuccessResponse>0</TotalAddClassifierSuccessResponse>
<TotalDeleteClassifierSuccessResponse>0</TotalDeleteClassifierSuccessResponse>
<TotalCreateSessionFailureResponse>0</TotalCreateSessionFailureResponse>
<TotalModifySessionFailureResponse>0</TotalModifySessionFailureResponse>
<TotalDeleteSessionFailureResponse>0</TotalDeleteSessionFailureResponse>
```

```
<TotalAddClassifierFailureResponse>0</TotalAddClassifierFailureResponse>
<TotalDeleteClassifierFailureResponse>0</TotalDeleteClassifierFailureResponse>
<TotalSuccessResponse>0</TotalSuccessResponse>
<TotalFailureResponse>0</TotalFailureResponse>
<TotalRequest>0</TotalRequest>
<TotalResponse>0</TotalResponse>
</Sample>
</SoapBodStats>
</Statistics>
```

Individual Statistics

Individual statistics defined for this tag are:

- BodServer—The name of BoD server.
- IsComplete—True if current stats period is complete. False if current stats period is incomplete (shorter than configured stats period) due to some reason such as failover.
- TotalCreateSessionRequest—Number of create session request messages received.
- TotalModifySessionRequest—Number of modify session request messages received.
- TotalDeleteSessionRequest—Number of delete session request messages received.
- TotalAddClassifierRequest—Number of add classifier request messages received.
- TotalModifyClassifierRequest—Number of modify classifier request messages received.
- TotalDeleteClassifierRequest—Number of delete classifier request messages received.
- TotalCreateSessionSuccessResponse—Number of success responses for create session request.
- TotalModifySessionSuccessResponse—Number of success responses for modify session request.
- TotalDeleteSessionSuccessResponse—Number of success responses for delete session request.
- TotalAddClassifierSuccessResponse—Number of success responses for add classifier request.
- TotalModifyClassifierSuccessResponse—Number of success responses for modify classifier request.
- TotalDeleteClassifierSuccessResponse—Number of success responses for delete classifier request.
- TotalCreateSessionFailureResponse—Number of failure responses for create session request.
- TotalModifySessionFailureResponse—Number of failure responses for modify session request.
- TotalDeleteSessionFailureResponse—Number of failure responses for delete session request.
- TotalAddClassifierFailureResponse—Number of failure responses for add classifier request.
- TotalModifyClassifierFailureResponse—Number of failure responses for modify classifier request.
- TotalDeleteClassifierFailureResponse—Number of failure responses for delete classifier request.
- TotalSuccessResponse—Number of success response sent.
- TotalFailureResponse—Number of failure response sent.
- TotalResponse—Number of response sent.
- TotalQuerySession—Number of query session requests received.

CMTS Rediscovery Operational Measurement Requests

This section shows requests and responses for:

- *CMTS Rediscovery Query Network Element*
- *CMTS Rediscovery Add Network Element Interface*
- *CMTS Rediscovery Update Network Element Interface*

CMTS Rediscovery Query Network Element

The following examples show the request and response that are defined in the XSD files for the QueryNetworkElement tag.

Request

This request follows the QueryNetworkElement tag defined in the XSD files.

```
<XmlInterfaceRequest>
      <QueryNetworkElement Rediscovery="yes" DistributeImmediately=”yes”>
        <Name>CMTS-27-1</Name>
        <Name>CMTS-27-2</Name>
        <Name>CMTS-27-3</Name>
      </QueryNetworkElement>
</XmlInterfaceRequest>
```

Response

The response to this request follows the QueryNetworkElement tag defined in the ConfigurationData section in the XSD files.

```
<ConfigurationData version="12.3.0.0.0">
   <NetworkElement>
      <Name>CMTS-27-1</Name>
      <Description/>
      <HostName>10.16.xx.xx</HostName>
      <BackupHostName/>
      <NetworkElementType>CMTS</NetworkElementType>
      <NeSubType>None</NeSubType>
      <Managed>true</Managed>
      <PcmmPort>3919</PcmmPort>
      <DqosPort>0</DqosPort>
      <ReadCommunity>public</ReadCommunity>
      <Capacity>0</Capacity>
      <X>0</X>
      <Y>0</Y>
      <ManualSubnet>
         <IpAddress>27.1.xx.xx</IpAddress>
         <Mask>24</Mask>
      </ManualSubnet>
      <LearnedSubnet>
         <IpAddress>27.1.xx.xx</IpAddress>
         <Mask>24</Mask>
      </LearnedSubnet>
      <LearnedSubnet>
         <IpAddress>27.1.3.0</IpAddress>
         <Mask>24</Mask>
      </LearnedSubnet>
      <LearnedSubnet>
         <IpAddress>27.1.xx.xx</Ipxx.xxAddress>
         <Mask>24</Mask>
      </LearnedSubnet>
      <LearnedSubnet>
         <IpAddress>27.1.xx.xx</IpAddress>
         <Mask>24</Mask>
      </LearnedSubnet>
      <LearnedSubnet>
```

```
         <IpAddress>27.1.xx.xx</IpAddress>
         <Mask>24</Mask>
      </LearnedSubnet>
      <LearnedSubnet>
         <IpAddress>27.1.xx.xx</IpAddress>
         <Mask>24</Mask>
      </LearnedSubnet>
   </NetworkElementGroup>
</ConfigurationData>
```

CMTS Rediscovery Add Network Element Interface

The following examples show the request and response that are defined in the XSD files for the AddNetworkElement tag.

Request

The following is an example of a request for the AddNetworkElement tag.

```
<XmlInterfaceRequest>
    <AddNetworkElement Rediscovery="yes" DistributeImmediately="yes">
        <NetworkElement>
            <Name>CMTS_public</Name>
            <Description></Description>
            <HostName>10.60.xx.xx</HostName>
            <BackupHostName></BackupHostName>
            <NetworkElementType>CMTS</NetworkElementType>
            <NeSubType>None</NeSubType>
            <Managed>true</Managed>
            <PcmmPort>3918</PcmmPort>
            <DqosPort>0</DqosPort>
            <ReadCommunity>public</ReadCommunity>
            <Capacity>0</Capacity>
            <X>0</X>
            <Y>0</Y>
         </NetworkElement>
    </AddNetworkElement>
</XmlInterfaceRequest>
```

Response

The response to this request follows the NetworkElement tag defined in the Command section of the XSD files.

```
<Response>
        <Result>0</Result>
        <Command type="XmlInterfaceResponse">
                <Success count="2">Successfully imported 1 network element(s).

                 Successfully to rediscover 1 CMTS(s).</Success>
                <Failure count="0"></Failure>
        </Command>
</Response>
```

CMTS Rediscovery Update Network Element Interface

The following examples show the request and response that are defined in the XSD files for the UpdateNetworkElement tag.

Request

The following is an example of a request for the UpdateNetworkElement tag.

```
<XmlInterfaceRequest>
    <UpdateNetworkElement Rediscovery="yes" DistributeImmediately="yes">
        <NetworkElement>
            <Name>CMTS_public</Name>
            <Description></Description>
            <HostName>10.60.xx.xx</HostName>
            <BackupHostName></BackupHostName>
            <NetworkElementType>CMTS</NetworkElementType>
            <NeSubType>None</NeSubType>
            <Managed>true</Managed>
            <PcmmPort>3918</PcmmPort>
            <DqosPort>0</DqosPort>
            <ReadCommunity>public1</ReadCommunity>
            <Capacity>0</Capacity>
            <X>0</X>
            <Y>0</Y>
         </NetworkElement>
    </UpdateNetworkElement>
</XmlInterfaceRequest>
```

Response

The response to this request follows the UpdateNetworkElement tag defined in the Command section in the XSD files.

```
<Response>
    <Result>0</Result>
    <Command type="XmlInterfaceResponse">
        <Success count="1">Successfully updated 1 network element(s).</Success>

        <Failure count="1">Failed to rediscover 1 CMTS(s).</Failure>
    </Command>
</Response>
```

About Connection Error Statistics

This section defines the Connection error statistics listed in the Cable KPI dashboard.

Connection Error Statistics

The following examples show the request and response that are defined in the XSD files for the ConnectionErrorStats tag.

Request

This request follows the ConnectionErrorStats tag defined in the QueryOmStats section in the XSD files.

```
<XmlInterfaceRequest>
  <QueryOmStats>
    <StartTime>2017-07-01T00:01:00</StartTime>
    <EndTime>2017-07-30T23:59:00</EndTime>
    <ConnectionErrorStats>
        <PolicyServer>MPE-S1</PolicyServer>
        <Name>1</Name>
   </ConnectionErrorStats>
  </QueryOmStats>
</XmlInterfaceRequest>
```

Response

The response to this request follows the ConnectionErrorStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
   <ConnectionErrorStats>
      <Sample>
         <StartTime>2017-07-06T04:30:00Z</StartTime>
         <EndTime>2017-07-06T04:45:00Z</EndTime>
         <PolicyServer>MPE-S1</PolicyServer>
         <IsComplete>true</IsComplete>
         <Name>1</Name>
         <NeId>1</NeId>
         <S1-2-pcmmOtherReceived>0</S1-2-pcmmOtherReceived>
         <S1-2-pcmmOtherSent>0</S1-2-pcmmOtherSent>
         <PcmmOtherReceived>0</PcmmOtherReceived>
         <PcmmOtherSent>50</PcmmOtherSent>
         <PcmmTransporterrorReceived>0</PcmmTransporterrorReceived>
         <PcmmTransporterrorSent>0</PcmmTransporterrorSent>
         <DiameterUnableToComplyReceived>0</DiameterUnableToComplyReceived>
         <DiameterUnableToComplySent>0</DiameterUnableToComplySent>
         <DiameterUnableToDeliverReceived>0</DiameterUnableToDeliverReceived>
         <DiameterUnableToDeliverSent>0</DiameterUnableToDeliverSent>
        <Ip-canSessionNotAvailableReceived>0</Ip-canSessionNotAvailableReceived>

         <Ip-canSessionNotAvailableSent>0</Ip-canSessionNotAvailableSent>
         <DiameterTooBusyReceived>0</DiameterTooBusyReceived>
         <DiameterTooBusySent>0</DiameterTooBusySent>
         <S2-92-pcmmOtherReceived>0</S2-92-pcmmOtherReceived>
         <S2-92-pcmmOtherSent>0</S2-92-pcmmOtherSent>
         <S1-1-pcmmOtherReceived>0</S1-1-pcmmOtherReceived>
         <S1-1-pcmmOtherSent>0</S1-1-pcmmOtherSent>
         <PcmmMissingobjectReceived>0</PcmmMissingobjectReceived>
         <PcmmMissingobjectSent>0</PcmmMissingobjectSent>
         <S5-l5-pcmmOtherReceived>0</S5-l5-pcmmOtherReceived>
         <S5-l5-pcmmOtherSent>0</S5-l5-pcmmOtherSent>
         <PcmmInvalidsubscriberReceived>0</PcmmInvalidsubscriberReceived>
         <PcmmInvalidsubscriberSent>0</PcmmInvalidsubscriberSent>
         <S2-94-pcmmOtherReceived>0</S2-94-pcmmOtherReceived>
         <S2-94-pcmmOtherSent>0</S2-94-pcmmOtherSent>
      </Sample>
```

Individual Statistics

Individual statistics defined for this tag are:

- DiameterCommandUnsupported

  The request contained a command code that the receiver did not recognize or support.

- DiameterUnableToDeliver

  This error is given when the diameter node cannot deliver the message to the destination, either because no host within the realm that supports the required application was available to process the request, or because Destination-Host AVP was given without the associated Destination-Realm AVP.

- DiameterRealmNotServed

  The intended realm of the request is not recognized.

- DiameterTooBusy

  The diameter node has too much traffic. When returned, a diameter node attempts to send the message to an alternate peer.

- DiameterLoopDetected

  An agent detected a loop while trying to get the message to the intended recipient. The message may be sent to an alternate peer if available.

- DiameterRedirectIndication

  A redirect agent has determined that the request could not be satisfied locally and the initiator of the request should direct the request directly to the server, whose contact information has been added to the response. When set, the Redirect-Host AVP must be present.

- DiameterApplicationUnsupported

  A request was sent for an application that is not supported.

- DiameterInvalidHdrBits

  A request was received whose bits in the diameter header were either set to an invalid combination, or to a value that is inconsistent with the command code's definition.

- DiameterInvalidAvpBits

  A request was received that included an AVP whose flag bits are set to an unrecognized value, or that is inconsistent with the definition for the AVP.

- DiameterUnknownPeer

  A CER was received from an unknown peer.

- DiameterAuthenticationRejected

  The authentication process for the user failed, most likely due to an invalid password used by the user. The user is then prompted for a new password.

- DiameterOutOfSpace

  A diameter node received the accounting request but was unable to commit it to stable storage due to a temporary lack of space.

- ElectionLost

  The peer has lost the election process and has disconnected the transport connection.

- DiameterEndUserServiceDenied

  The credit-control server denied the service request due to service restrictions. If the CCR contained used-service-units, they are deducted, if possible.

- DiameterCreditControlNotApplicable

  The credit-control server determined that the service can be granted to the end user, but that no further credit control is needed for the service (for example, the service is free of charge).

- DiameterCreditLimitReached

  The credit-control server denied the service request because the user account could not cover the requested service. If the CCR contained used-service-units, they are deducted, if possible.

- DiameterAvpUnsupported

  The peer received a message that contained an AVP that is not recognized or supported and was marked with the Mandatory bit.

- DiameterUnknownSessionId

  The request contained an unknown Session-ID.

- DiameterAuthorizationRejected

  A request was received for which the user could not be authorized. This error could occur if the requested service is not permitted to the user.

- DiameterInvalidAvpValue

  The request contained an AVP with an invalid value in its data portion.

- DiameterMissingAvp

  The request did not contain an AVP that is required by the command code definition. If this value is sent in the Result-Code AVP, a Failed-AVP AVP is included in the message.

- DiameterResourcesExceeded

  A request was received that cannot be authorized because the user has already expended its allowed resources.

- DiameterContradictingAvps

  The Home Diameter server has detected AVPs in the request that contradict each other, and is not willing to provide service to the user.

- DiameterAvpNotAllowed

  A message was received with an AVP that cannot be present.

- DiameterAvpOccursTooManyTimes

  A message was received that included an AVP that appeared more often than permitted.

- DiameterNoCommonApplication

This error is returned when a CER message is received, and there are no common applications supported between the peers.

- DiameterUnsupportedVersion

  This error is returned when a request was received with an unsupported version number.

- DiameterUnableToComply

  This error is returned when a request is rejected for unspecified reasons.

- DiameterInvalidBitInHeader

  This error is returned when an unrecognized bit in the diameter header is set to one (1).

- DiameterInvalidAvpLength

  The request contained an AVP with an invalid length.

- DiameterInvalidMessageLength

  This error is returned when a request is received with an invalid message length.

- DiameterInvalidAvpBitCombo

  The request contained an AVP with an invalid AVP Flags value.

- DiameterNoCommonSecurity

  This error is returned when a CER message is received, but there are no common security mechanisms supported between the peers.

- DiameterUserUnknown

  The specified end user is unknown in the credit-control server.

- DiameterRatingFailed

  This error code is used to inform the credit-control client that the credit-control server cannot rate the service request due to insufficient rating input, an incorrect AVP combination, or an AVP or AVP value that is not recognized or supported in the rating.

- DiameterErrorInitialParameters

  The initial parameters contain an error.

- RadiusSessionContyextRemoved

  The residual session context has been removed.

- RadiusInvalidEapPacket

  An invalid EAP Packet was detected.

- RadiusUnsupportedAttribute

  The request contained an unsupported attribute.

- RadiusMissingAttribute

  A request was missing a required attribute.

- RadiusNasIdMismatch

  The system was unable to match the received NAS to the stored information.

- RadiusInvalidRequest

  The system has received an invalid request.
- RadiusUnsupportedService

  The requested service is not supported.
- RadiusUnsupportedExtension

  The requested extension is not supported.
- RadiusInvalidAttributeValue

  The request contains an invalid attribute value.
- RadiusAdministrativelyProhibited

  The request is administratively prohibited.
- RadiusRequestNotRoutable

  The request cannot be routed.
- RadiusSessionNotFound

  The session context cannot be found.
- RadiusSessionNotRemoveable

  The session context cannot be removed.
- RadiusProxyProcessingError

  An unknown proxy processing error has occurred.
- RadiusResourcesUnavailable

  The necessary resources are unavailable.
- RadiusRequestInitiated

  A request has been initiated.
- RadiusMultiSessionSelectionUnsupported

  The requested multiple-session selection is not supported.
- RadiusLocationInfoRequired

  The location information is missing.

Connection Error Statistics for PCMM AMID

The following examples show the request and response that are defined in the XSD files for the ConnectionErrorStats tag.

Request

This request follows the ConnectionErrorStats tag defined in the QueryOmStats section in the XSD files.

```
<?xml version="1.0" encoding="UTF-8"?>
<XmlInterfaceRequest>
  <QueryOmStats  DeltaCount="false">
    <StartTime>2015-07-29T00:01:00</StartTime>
    <EndTime>2015-07-30T23:59:00</EndTime>
    <ConnectionErrorStats>
      <Name>1</Name>
    </ConnectionErrorStats>
  </QueryOmStats>
</XmlInterfaceRequest>
```

Response

The response to this request follows the ConnectionErrorStats tag defined in the Statistics section in the XSD files.

```
<?xml version="1.0" ?>  section in the XSD files
<Statistics>
  <ConnectionErrorStats>
    <Sample>
      <StartTime>2015-07-30T07:45:00Z</StartTime>
         <EndTime>2015-07-30T08:00:00Z</EndTime>
         <PolicyServer>mpe</PolicyServer>
         <IsComplete>true</IsComplete>
         <Name>1</Name>
         <NeId>1</NeId>
         <PcmmInvalidsubscriberReceived>0</PcmmInvalidsubscriberReceived>
         <PcmmInvalidsubscriberSent>0</PcmmInvalidsubscriberSent>
    </Sample>
  </ConnectionErrorStats>
</Statistics>
```

Protocol Error Statistics

The following examples show the request and response that are defined in the XSD files for the ProtocolErrorStats tag.

Request

This request follows the ProtocolErrorStats tag defined in the QueryOmStats section of the XSD files.

```
<?xml version="1.0" encoding="UTF-8"?>
<QueryOmStats>
<StartTime>2016-04-21T14:15:00Z</StartTime>
<EndTime>2016-04-21T14:30:00Z</EndTime>
<ProtocolErrorStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
```

```
</ProtocolErrorStats>
</QueryOmStats>
```

Response

The response to this request follows the ProtocolErrorStats tag defined in the Statistics section of the XSD files.

```
<?xml version='1.0' ?>
<Statistics>
 <ProtocolErrorStats>
   <Sample>
     <StartTime>2016-04-21T03:45:11Z</StartTime>
     <EndTime>2016-04-21T03:45:33Z</EndTime>
     <PolicyServer>MPE-Cluster</PolicyServer>
     <PolicyServer>MPE-173</PolicyServer>
     <DiameterCommandUnsupportedReceived>0</DiameterCommandUnsupportedReceived>

     <DiameterCommandUnsupportedSent>0</DiameterCommandUnsupportedSent>
     <DiameterUnableToDeliverReceived>0</DiameterUnableToDeliverReceived>
     <DiameterUnableToDeliverSent>0</DiameterUnableToDeliverSent>
     <DiameterRealmNotServedReceived>0</DiameterRealmNotServedReceived>
     <DiameterRealmNotServedSent>0</DiameterRealmNotServedSent>
     <DiameterTooBusyReceived>0</DiameterTooBusyReceived>
     <DiameterTooBusySent>0</DiameterTooBusySent>
     <DiameterLoopDetectedReceived>0</DiameterLoopDetectedReceived>
     <DiameterLoopDetectedSent>0</DiameterLoopDetectedSent>
     <DiameterRedirectIndicationReceived>0</DiameterRedirectIndicationReceived>

     <DiameterRedirectIndicationSent>0</DiameterRedirectIndicationSent>

<DiameterApplicationUnsupportedReceived>0</DiameterApplicationUnsupportedReceived>

     <DiameterApplicationUnsupportedSent>0</DiameterApplicationUnsupportedSent>

     <DiameterInvalidHdrBitsReceived>0</DiameterInvalidHdrBitsReceived>
     <DiameterInvalidHdrBitsSent>0</DiameterInvalidHdrBitsSent>
     <DiameterInvalidAvpBitsReceived>0</DiameterInvalidAvpBitsReceived>
     <DiameterInvalidAvpBitsSent>0</DiameterInvalidAvpBitsSent>
     <DiameterUnknownPeerReceived>0</DiameterUnknownPeerReceived>
     <DiameterUnknownPeerSent>0</DiameterUnknownPeerSent>

<DiameterAuthenticationRejectedReceived>0</DiameterAuthenticationRejectedReceived>

     <DiameterAuthenticationRejectedSent>0</DiameterAuthenticationRejectedSent>

     <DiameterOutOfSpaceReceived>0</DiameterOutOfSpaceReceived>
     <DiameterOutOfSpaceSent>0</DiameterOutOfSpaceSent>
     <ElectionLostReceived>0</ElectionLostReceived>
     <ElectionLostSent>0</ElectionLostSent>

<DiameterEndUserServiceDeniedReceived>0</DiameterEndUserServiceDeniedReceived>
     <DiameterEndUserServiceDeniedSent>0</DiameterEndUserServiceDeniedSent>

<DiameterCreditControlNotApplicableReceived>0</DiameterCreditControlNotApplicableReceived>


<DiameterCreditControlNotApplicableSent>0</DiameterCreditControlNotApplicableSent>

     <DiameterCreditLimitReachedReceived>0</DiameterCreditLimitReachedReceived>
```

```
     <DiameterCreditLimitReachedSent>0</DiameterCreditLimitReachedSent>
     <DiameterAvpUnsupportedReceived>0</DiameterAvpUnsupportedReceived>
     <DiameterAvpUnsupportedSent>0</DiameterAvpUnsupportedSent>
     <DiameterUnknownSessionIdReceived>0</DiameterUnknownSessionIdReceived>
     <DiameterUnknownSessionIdSent>0</DiameterUnknownSessionIdSent>

<DiameterAuthorizationRejectedReceived>0</DiameterAuthorizationRejectedReceived>

     <DiameterAuthorizationRejectedSent>0</DiameterAuthorizationRejectedSent>
     <DiameterInvalidAvpValueReceived>0</DiameterInvalidAvpValueReceived>
     <DiameterInvalidAvpValueSent>0</DiameterInvalidAvpValueSent>
     <DiameterMissingAvpReceived>0</DiameterMissingAvpReceived>
     <DiameterMissingAvpSent>0</DiameterMissingAvpSent>
     <DiameterResourcesExceededReceived>0</DiameterResourcesExceededReceived>

     <DiameterResourcesExceededSent>0</DiameterResourcesExceededSent>
     <DiameterContradictingAvpsReceived>0</DiameterContradictingAvpsReceived>
     <DiameterContradictingAvpsSent>0</DiameterContradictingAvpsSent>
     <DiameterAvpNotAllowedReceived>0</DiameterAvpNotAllowedReceived>
     <DiameterAvpNotAllowedSent>0</DiameterAvpNotAllowedSent>

<DiameterAvpOccursTooManyTimesReceived>0</DiameterAvpOccursTooManyTimesReceived>

     <DiameterAvpOccursTooManyTimesSent>0</DiameterAvpOccursTooManyTimesSent>
    <DiameterNoCommonApplicationReceived>0</DiameterNoCommonApplicationReceived>

     <DiameterNoCommonApplicationSent>0</DiameterNoCommonApplicationSent>
     <DiameterUnsupportedVersionReceived>0</DiameterUnsupportedVersionReceived>

     <DiameterUnsupportedVersionSent>0</DiameterUnsupportedVersionSent>
     <DiameterUnableToComplyReceived>0</DiameterUnableToComplyReceived>
     <DiameterUnableToComplySent>0</DiameterUnableToComplySent>
     <DiameterInvalidBitInHeaderReceived>0</DiameterInvalidBitInHeaderReceived>

     <DiameterInvalidBitInHeaderSent>0</DiameterInvalidBitInHeaderSent>
     <DiameterInvalidAvpLengthReceived>0</DiameterInvalidAvpLengthReceived>
     <DiameterInvalidAvpLengthSent>0</DiameterInvalidAvpLengthSent>

<DiameterInvalidMessageLengthReceived>0</DiameterInvalidMessageLengthReceived>
     <DiameterInvalidMessageLengthSent>0</DiameterInvalidMessageLengthSent>
     <DiameterInvalidAvpBitComboReceived>0</DiameterInvalidAvpBitComboReceived>

     <DiameterInvalidAvpBitComboSent>0</DiameterInvalidAvpBitComboSent>
     <DiameterNoCommonSecurityReceived>0</DiameterNoCommonSecurityReceived>
     <DiameterNoCommonSecuritySent>0</DiameterNoCommonSecuritySent>
     <DiameterUserUnknownReceived>0</DiameterUserUnknownReceived>
     <DiameterUserUnknownSent>0</DiameterUserUnknownSent>
     <DiameterRatingFailedReceived>0</DiameterRatingFailedReceived>
     <DiameterRatingFailedSent>0</DiameterRatingFailedSent>

<DiameterErrorInitialParametersReceived>0</DiameterErrorInitialParametersReceived>

     <DiameterErrorInitialParametersSent>2</DiameterErrorInitialParametersSent>


<RadiusSessionContyextRemovedReceived>0</RadiusSessionContyextRemovedReceived>
     <RadiusSessionContyextRemovedSent>0</RadiusSessionContyextRemovedSent>
     <RadiusInvalidEapPacketReceived>0</RadiusInvalidEapPacketReceived>
     <RadiusInvalidEapPacketSent>0</RadiusInvalidEapPacketSent>
     <RadiusUnsupportedAttributeReceived>0</RadiusUnsupportedAttributeReceived>

     <RadiusUnsupportedAttributeSent>0</RadiusUnsupportedAttributeSent>
     <RadiusMissingAttributeReceived>0</RadiusMissingAttributeReceived>
     <RadiusMissingAttributeSent>0</RadiusMissingAttributeSent>
```

```
     <RadiusNasIdMismatchReceived>0</RadiusNasIdMismatchReceived>
     <RadiusNasIdMismatchSent>0</RadiusNasIdMismatchSent>
     <RadiusInvalidRequestReceived>0</RadiusInvalidRequestReceived>
     <RadiusInvalidRequestSent>0</RadiusInvalidRequestSent>
     <RadiusUnsupportedServiceReceived>0</RadiusUnsupportedServiceReceived>
     <RadiusUnsupportedServiceSent>0</RadiusUnsupportedServiceSent>
     <RadiusUnsupportedExtensionReceived>0</RadiusUnsupportedExtensionReceived>

     <RadiusUnsupportedExtensionSent>0</RadiusUnsupportedExtensionSent>
    <RadiusInvalidAttributeValueReceived>0</RadiusInvalidAttributeValueReceived>

     <RadiusInvalidAttributeValueSent>0</RadiusInvalidAttributeValueSent>

<RadiusAdministrativelyProhibitedReceived>0</RadiusAdministrativelyProhibitedReceived>


<RadiusAdministrativelyProhibitedSent>0</RadiusAdministrativelyProhibitedSent>
     <RadiusRequestNotRoutableReceived>0</RadiusRequestNotRoutableReceived>

     <RadiusRequestNotRoutableSent>0</RadiusRequestNotRoutableSent>
     <RadiusSessionNotFoundReceived>0</RadiusSessionNotFoundReceived>
     <RadiusSessionNotFoundSent>0</RadiusSessionNotFoundSent>
     <RadiusSessionNotRemoveableReceived>0</RadiusSessionNotRemoveableReceived>

     <RadiusSessionNotRemoveableSent>0</RadiusSessionNotRemoveableSent>
     <RadiusProxyProcessingErrorReceived>0</RadiusProxyProcessingErrorReceived>

     <RadiusProxyProcessingErrorSent>0</RadiusProxyProcessingErrorSent>
     <RadiusResourcesUnavailableReceived>0</RadiusResourcesUnavailableReceived>

     <RadiusResourcesUnavailableSent>0</RadiusResourcesUnavailableSent>
     <RadiusRequestInitiatedReceived>0</RadiusRequestInitiatedReceived>
     <RadiusRequestInitiatedSent>0</RadiusRequestInitiatedSent>

<RadiusMultiSessionSelectionUnsupportedReceived>0</RadiusMultiSessionSelectionUnsupportedReceived>


<RadiusMultiSessionSelectionUnsupportedSent>0</RadiusMultiSessionSelectionUnsupportedSent>

     <RadiusLocationInfoRequiredReceived>0</RadiusLocationInfoRequiredReceived>

     <RadiusLocationInfoRequiredSent>0</RadiusLocationInfoRequiredSent>
    </Sample>
  </ProtocolErrorStats>
</Statistics>
```

Individual Statistics

Individual statistics defined for this tag are:

- DiameterCommandUnsupported

  The request contained a command code that the receiver did not recognize or support.

- DiameterUnableToDeliver

  This error is given when the diameter node cannot deliver the message to the destination, either because a host within the realm that supports the required application is not available to process the request, or because Destination-Host AVP is given without the associated Destination-Realm AVP.

- DiameterRealmNotServed

The intended realm of the request is not recognized.

- DiameterTooBusy

  The diameter node has too much traffic. When returned, a diameter node attempts to send the message to an alternate peer.

- DiameterLoopDetected

  An agent detected a loop while trying to get the message to the intended recipient. The message may be sent to an alternate peer if available.

- DiameterRedirectIndication

  A redirect agent has determined that the request could not be satisfied locally and the initiator of the request should direct the request directly to the server, whose contact information has been added to the response. When set, the Redirect-Host AVP must be present.

- DiameterApplicationUnsupported

  A request was sent for an application that is not supported.

- DiameterInvalidHdrBits

  A request was received whose bits in the diameter header were either set to an invalid combination, or to a value that is inconsistent with the definition of the command code.

- DiameterInvalidAvpBits

  A request was received that included an AVP whose flag bits are set to an unrecognized value, or that is inconsistent with the definition of the AVP.

- DiameterUnknownPeer

  A CER was received from an unknown peer.

- DiameterAuthenticationRejected

  The authentication process for the user failed, most likely due to an invalid password used by the user. The user is then prompted for a new password.

- DiameterOutOfSpace

  A diameter node received the accounting request but was unable to commit it to stable storage due to a temporary lack of space.

- ElectionLost

  The peer has lost the election process and has disconnected the transport connection.

- DiameterEndUserServiceDenied

  The credit-control server denied the service request due to service restrictions. If the CCR contained used-service-units, they are deducted, if possible.

- DiameterCreditControlNotApplicable

  The credit-control server determined that the service can be granted to the end user, but that no further credit control is needed for the service (for example, the service is free of charge).

- DiameterCreditLimitReached

The credit-control server denied the service request because the account for the end user could not cover the requested service. If the CCR contained used-service-units, they are deducted, if possible.

- DiameterAvpUnsupported

  The peer received a message that contained an AVP that is not recognized or supported and was marked with the Mandatory bit.

- DiameterUnknownSessionId

  The request contained an unknown Session-ID.

- DiameterAuthorizationRejected

  A request was received for which the user could not be authorized. This error could occur if the requested service is not permitted to the user.

- DiameterInvalidAvpValue

  The request contained an AVP with an invalid value in its data portion.

- DiameterMissingAvp

  The request did not contain an AVP that is required by the command code definition. If this value is sent in the Result-Code AVP, a Failed-AVP AVP is included in the message.

- DiameterResourcesExceeded

  A request was received that cannot be authorized because the user has already expended its allowed resources.

- DiameterContradictingAvps

  The Home Diameter server has detected AVPs in the request that contradict each other, and is not willing to provide service to the user.

- DiameterAvpNotAllowed

  A message was received with an AVP that cannot be present.

- DiameterAvpOccursTooManyTimes

  A message was received that included an AVP that appeared more often than permitted.

- DiameterNoCommonApplication

  This error is returned when a CER message is received, and there are no common applications supported between the peers.

- DiameterUnsupportedVersion

  This error is returned when a request was received with an unsupported version number.

- DiameterUnableToComply

  This error is returned when a request is rejected for unspecified reasons.

- DiameterInvalidBitInHeader

  This error is returned when an unrecognized bit in the diameter header is set to one (1).

- DiameterInvalidAvpLength

  The request contained an AVP with an invalid length.

- DiameterInvalidMessageLength

  This error is returned when a request is received with an invalid message length.

- DiameterInvalidAvpBitCombo

  The request contained an AVP with an invalid AVP Flags value.

- DiameterNoCommonSecurity

  This error is returned when a CER message is received, but there are no common security mechanisms supported between the peers.

- DiameterUserUnknown

  The specified end user is unknown in the credit-control server.

- DiameterRatingFailed

  This error code is used to inform the credit-control client that the credit-control server cannot rate the service request due to insufficient rating input, an incorrect AVP combination, or an AVP or AVP value that is not recognized or supported in the rating.

- DiameterErrorInitialParameters

  The initial parameters contain an error.

- RadiusSessionContyextRemoved

  The residual session context has been removed.

- RadiusInvalidEapPacket

  An invalid EAP Packet was detected.

- RadiusUnsupportedAttribute

  The request contained an unsupported attribute.

- RadiusMissingAttribute

  A request was missing a required attribute.

- RadiusNasIdMismatch

  The system was unable to match the received NAS to the stored information.

- RadiusInvalidRequest

  The system has received an invalid request.

- RadiusUnsupportedService

  The requested service is not supported.

- RadiusUnsupportedExtension

  The requested extension is not supported.

- RadiusInvalidAttributeValue

  The request contains an invalid attribute value.

- RadiusAdministrativelyProhibited

The request is administratively prohibited.

- RadiusRequestNotRoutable

  The request cannot be routed.

- RadiusSessionNotFound

  The session context cannot be found.

- RadiusSessionNotRemoveable

  The session context cannot be removed.

- RadiusProxyProcessingError

  An unknown proxy processing error has occurred.

- RadiusResourcesUnavailable

  The necessary resources are unavailable.

- RadiusRequestInitiated

  A request has been initiated.

- RadiusMultiSessionSelectionUnsupported

  The requested multiple-session selection is not supported.

- RadiusLocationInfoRequired

  The location information is missing.

About Diameter Statistics for Cable Mode

This section defines the Diameter statistics listed in the Cable KPI dashboard.

Diameter Application Function Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterAfStats tag.

Request

This request follows the DiameterAfStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00Z</StartTime>
<EndTime>2016-04-21T14:30:00Z</EndTime>
<DiameterAfStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
```

```
</DiameterAfStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterAfStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterAfStats>
<Sample>
<StartTime>2016-05-16T23:45:01Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<IsComplete>true</IsComplete>
<PendingConnectionsCount>0</PendingConnectionsCount>
<CurrentConnectionsCount>1</CurrentConnectionsCount>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<ASRMessagesReceivedCount>0</ASRMessagesReceivedCount>
<ASRMessagesSentCount>0</ASRMessagesSentCount>
<ASRMessagesTimeoutCount>0</ASRMessagesTimeoutCount>
<ASASuccessMessagesReceivedCount>0</ASASuccessMessagesReceivedCount>
<ASASuccessMessagesSentCount>0</ASASuccessMessagesSentCount>
<ASAFailureMessagesReceivedCount>0</ASAFailureMessagesReceivedCount>
<ASAFailureMessagesSentCount>0</ASAFailureMessagesSentCount>
<RARMessagesReceivedCount>0</RARMessagesReceivedCount>
<RARMessagesSentCount>0</RARMessagesSentCount>
<RARMessagesTimeoutCount>0</RARMessagesTimeoutCount>
<RAASuccessMessagesReceivedCount>0</RAASuccessMessagesReceivedCount>
<RAASuccessMessagesSentCount>0</RAASuccessMessagesSentCount>
<RAAFailureMessagesReceivedCount>0</RAAFailureMessagesReceivedCount>
<RAAFailureMessagesSentCount>0</RAAFailureMessagesSentCount>
<STRMessagesReceivedCount>0</STRMessagesReceivedCount>
<STRMessagesSentCount>0</STRMessagesSentCount>
<STRMessagesTimeoutCount>0</STRMessagesTimeoutCount>
<STASuccessMessagesReceivedCount>0</STASuccessMessagesReceivedCount>
<STASuccessMessagesSentCount>0</STASuccessMessagesSentCount>
<STAFailureMessagesReceivedCount>0</STAFailureMessagesReceivedCount>
<STAFailureMessagesSentCount>0</STAFailureMessagesSentCount>
<AARMessagesReceivedCount>0</AARMessagesReceivedCount>
<AARMessagesSentCount>0</AARMessagesSentCount>
<AARMessagesTimeoutCount>0</AARMessagesTimeoutCount>
<AARInitialMessagesReceivedCount>0</AARInitialMessagesReceivedCount>
<AARInitialMessagesSentCount>0</AARInitialMessagesSentCount>
<AARModificationMessagesReceivedCount>0</AARModificationMessagesReceivedCount>
<AARModificationMessagesSentCount>0</AARModificationMessagesSentCount>
<AAASuccessMessagesReceivedCount>0</AAASuccessMessagesReceivedCount>
<AAASuccessMessagesSentCount>0</AAASuccessMessagesSentCount>
<AAAFailureMessagesReceivedCount>0</AAAFailureMessagesReceivedCount>
<AAAFailureMessagesSentCount>0</AAAFailureMessagesSentCount>
<S9RxAARInitialRecvCount>0</S9RxAARInitialRecvCount>
<S9RxAARInitialSendCount>0</S9RxAARInitialSendCount>
<S9RxAARRecvCount>0</S9RxAARRecvCount>
<S9RxAARSendCount>0</S9RxAARSendCount>
<S9RxAARModificationRecvCount>0</S9RxAARModificationRecvCount>
<S9RxAARModificationSendCount>0</S9RxAARModificationSendCount>
<S9RxAARTimeoutCount>0</S9RxAARTimeoutCount>
<S9RxAAARecvSuccessCount>0</S9RxAAARecvSuccessCount>
<S9RxAAASendSuccessCount>0</S9RxAAASendSuccessCount>
<S9RxAAARecvFailureCount>0</S9RxAAARecvFailureCount>
```

```
<S9RxAAASendFailureCount>0</S9RxAAASendFailureCount>
<S9RxASROtherRecvCount>0</S9RxASROtherRecvCount>
<S9RxASROtherSendCount>0</S9RxASROtherSendCount>
<S9RxASRRecvCount>0</S9RxASRRecvCount>
<S9RxASRSendCount>0</S9RxASRSendCount>
<S9RxCleanupASRSendCount>0</S9RxCleanupASRSendCount>
<S9RxASROtherTimeoutCount>0</S9RxASROtherTimeoutCount>
<S9RxASRTimeoutCount>0</S9RxASRTimeoutCount>
<S9RxASARecvSuccessCount>0</S9RxASARecvSuccessCount>
<S9RxASASendSuccessCount>0</S9RxASASendSuccessCount>
<S9RxASARecvFailureCount>0</S9RxASARecvFailureCount>
<S9RxASASendFailureCount>0</S9RxASASendFailureCount>
<S9RxCleanupASARecvCount>0</S9RxCleanupASARecvCount>
<S9RxRARHORecvCount>0</S9RxRARHORecvCount>
<S9RxRARHOSendCount>0</S9RxRARHOSendCount>
<S9RxRAROtherRecvCount>0</S9RxRAROtherRecvCount>
<S9RxRAROtherSendCount>0</S9RxRAROtherSendCount>
<S9RxRARRecvCount>0</S9RxRARRecvCount>
<S9RxRARSendCount>0</S9RxRARSendCount>
<S9RxRARHOTimeoutCount>0</S9RxRARHOTimeoutCount>
<S9RxRAROtherTimeoutCount>0</S9RxRAROtherTimeoutCount>
<S9RxRARTimeoutCount>0</S9RxRARTimeoutCount>
<S9RxRAARecvSuccessCount>0</S9RxRAARecvSuccessCount>
<S9RxRAASendSuccessCount>0</S9RxRAASendSuccessCount>
<S9RxRAARecvFailureCount>0</S9RxRAARecvFailureCount>
<S9RxRAASendFailureCount>0</S9RxRAASendFailureCount>
<S9RxRAARecvCount>0</S9RxRAARecvCount>
<S9RxRAASendCount>0</S9RxRAASendCount>
<S9RxSTRRecvCount>0</S9RxSTRRecvCount>
<S9RxSTRSendCount>0</S9RxSTRSendCount>
<S9RxSTRTimeoutCount>0</S9RxSTRTimeoutCount>
<S9RxSTARecvSuccessCount>0</S9RxSTARecvSuccessCount>
<S9RxSTASendSuccessCount>0</S9RxSTASendSuccessCount>
<S9RxSTARecvFailureCount>0</S9RxSTARecvFailureCount>
<S9RxSTASendFailureCount>0</S9RxSTASendFailureCount>
<RxPcmmMessagesTimeoutCount>0</RxPcmmMessagesTimeoutCount>
<ActiveSessionsCount>0</ActiveSessionsCount>
<MaximumActiveSessionsCount>0</MaximumActiveSessionsCount>
<PeerOkayCount>1</PeerOkayCount>
<PeerDownCount>0</PeerDownCount>
<PeerSuspectCount>0</PeerSuspectCount>
<PeerReopenCount>0</PeerReopenCount>
<AAAInitialSendSuccessCount>0</AAAInitialSendSuccessCount>
<AAAInitialRecvSuccessCount>0</AAAInitialRecvSuccessCount>
<AAAInitialSendFailureCount>0</AAAInitialSendFailureCount>
<AAAInitialRecvFailureCount>0</AAAInitialRecvFailureCount>
<AAAModificationSendSuccessCount>0</AAAModificationSendSuccessCount>
<AAAModificationRecvSuccessCount>0</AAAModificationRecvSuccessCount>
<AAAModificationSendFailureCount>0</AAAModificationSendFailureCount>
<AAAModificationRecvFailureCount>0</AAAModificationRecvFailureCount>
<CurrSponsoredSessionCount>0</CurrSponsoredSessionCount>
<MaxSponsoredSessionCount>0</MaxSponsoredSessionCount>
<CurrSponsorCount>0</CurrSponsorCount>
<MaxSponsorCount>0</MaxSponsorCount>
<CurrServiceProviderCount>0</CurrServiceProviderCount>
<MaxServiceProviderCount>0</MaxServiceProviderCount>
<CurrEmergencySessionCount>0</CurrEmergencySessionCount>
<MaxActiveEmergencySessionCount>0</MaxActiveEmergencySessionCount>
<ASRHoSendCount>0</ASRHoSendCount>
<ASRHoReceivedCount>0</ASRHoReceivedCount>
<ASRHoTimeoutCount>0</ASRHoTimeoutCount>
<RARHoSendCount>0</RARHoSendCount>
<RARHoReceivedCount>0</RARHoReceivedCount>
<RARHoTimeoutCount>0</RARHoTimeoutCount>
```

```
<RARRerouteSendCount>0</RARRerouteSendCount>
<RARRerouteTimeoutCount>0</RARRerouteTimeoutCount>
<RAARerouteRecvSuccessCount>0</RAARerouteRecvSuccessCount>
<RAARerouteRecvFailureCount>0</RAARerouteRecvFailureCount>
<ASRRerouteSendCount>0</ASRRerouteSendCount>
<ASRRerouteTimeoutCount>0</ASRRerouteTimeoutCount>
<ASARerouteRecvSuccessCount>0</ASARerouteRecvSuccessCount>
<ASARerouteRecvFailureCount>0</ASARerouteRecvFailureCount>
</Sample>
</DiameterAfStats>
</Statistics>
```

EmergencyAPN-MPE Support

The following examples show the request and response that are defined in the XSD files for the DiameterAfStats tag utilizing support for Emergency APNs.

EmergencyAPN-MPE Support Request

This request follows the DiameterAfStats tag defined in the QueryOmStats section in the XSD files.

The following is an example of a request for all policy servers within the system utilizing support for emergency APNs:

```
<?xml version="1.0" encoding="UTF-8" ?>
<QueryOmStats>
     <StartTime>2015-05-04T01:30:00Z</StartTime>
     <EndTime>2015-05-04T01:45:00Z</EndTime>
     <DiameterAfStats>
     <PolicyServer>EmergencyAPN-MPE</PolicyServer>
     </DiameterAfStats>
</QueryOmStats>
```

EmergencyAPN-MPE Support Response

The response to this request follows the DiameterAfStats tag defined in the Statistics section in the XSD files utilizing support for emergency APNs.

The following is an example XML response to a DiameterAfStats tag request for EmergencyAPN-MPE:

```
<Statistics>
  <DiameterAfStats>
   <Sample>
        <StartTime>2015-05-04T01:30:00Z</StartTime>
     <EndTime>2015-05-04T01:45:00Z</EndTime>
     <PolicyServer>EmergencyAPN-MPE</PolicyServer>
     <IsComplete>true</IsComplete>
     <PendingConnectionsCount>0</PendingConnectionsCount>
     <CurrentConnectionsCount>1</CurrentConnectionsCount>
     <MessagesInCount>0</MessagesInCount>
     <MessagesOutCount>0</MessagesOutCount>
     <ASRMessagesReceivedCount>0</ASRMessagesReceivedCount>
     <ASRMessagesSentCount>0</ASRMessagesSentCount>
     <ASRMessagesTimeoutCount>0</ASRMessagesTimeoutCount>
     <ASASuccessMessagesReceivedCount>0</ASASuccessMessagesReceivedCount>
     <ASASuccessMessagesSentCount>0</ASASuccessMessagesSentCount>
     <ASAFailureMessagesReceivedCount>0</ASAFailureMessagesReceivedCount>
```

```
     <ASAFailureMessagesSentCount>0</ASAFailureMessagesSentCount>
     <RARMessagesReceivedCount>0</RARMessagesReceivedCount>
     <RARMessagesSentCount>0</RARMessagesSentCount>
     <RARMessagesTimeoutCount>0</RARMessagesTimeoutCount>
     <RAASuccessMessagesReceivedCount>0</RAASuccessMessagesReceivedCount>
     <RAASuccessMessagesSentCount>0</RAASuccessMessagesSentCount>
     <RAAFailureMessagesReceivedCount>0</RAAFailureMessagesReceivedCount>
     <RAAFailureMessagesSentCount>0</RAAFailureMessagesSentCount>
     <STRMessagesReceivedCount>0</STRMessagesReceivedCount>
     <STRMessagesSentCount>0</STRMessagesSentCount>
     <STRMessagesTimeoutCount>0</STRMessagesTimeoutCount>
     <STASuccessMessagesReceivedCount>0</STASuccessMessagesReceivedCount>
     <STASuccessMessagesSentCount>0</STASuccessMessagesSentCount>
     <STAFailureMessagesReceivedCount>0</STAFailureMessagesReceivedCount>
     <STAFailureMessagesSentCount>0</STAFailureMessagesSentCount>
     <AARMessagesReceivedCount>0</AARMessagesReceivedCount>
     <AARMessagesSentCount>0</AARMessagesSentCount>
     <AARMessagesTimeoutCount>0</AARMessagesTimeoutCount>
     <AARInitialMessagesReceivedCount>0</AARInitialMessagesReceivedCount>
     <AARInitialMessagesSentCount>0</AARInitialMessagesSentCount>

<AARModificationMessagesReceivedCount>0</AARModificationMessagesReceivedCount>
     <AARModificationMessagesSentCount>0</AARModificationMessagesSentCount>
     <AAASuccessMessagesReceivedCount>0</AAASuccessMessagesReceivedCount>
     <AAASuccessMessagesSentCount>0</AAASuccessMessagesSentCount>
     <AAAFailureMessagesReceivedCount>0</AAAFailureMessagesReceivedCount>
     <AAAFailureMessagesSentCount>0</AAAFailureMessagesSentCount>
     <RxPcmmMessagesTimeoutCount>0</RxPcmmMessagesTimeoutCount>
     <ActiveSessionsCount>0</ActiveSessionsCount>
     <MaximumActiveSessionsCount>0</MaximumActiveSessionsCount>
     <PeerOkayCount>1</PeerOkayCount>
     <PeerDownCount>0</PeerDownCount>
     <PeerSuspectCount>0</PeerSuspectCount>
     <PeerReopenCount>0</PeerReopenCount>
     <CurrSponsoredSessionCount>0</CurrSponsoredSessionCount>
     <MaxSponsoredSessionCount>0</MaxSponsoredSessionCount>
     <CurrSponsorCount>0</CurrSponsorCount>
     <MaxSponsorCount>0</MaxSponsorCount>
     <CurrServiceProviderCount>0</CurrServiceProviderCount>
     <MaxServiceProviderCount>0</MaxServiceProviderCount>
     <CurrEmergencySessionCount>0</CurrEmergencySessionCount>
     <MaxActiveEmergencySessionCount>0</MaxActiveEmergencySessionCount>
     <ASRHoSendCount>0</ASRHoSendCount>
     <ASRHoReceivedCount>0</ASRHoReceivedCount>
     <ASRHoTimeoutCount>0</ASRHoTimeoutCount>
     <RARHoSendCount>0</RARHoSendCount>
     <RARHoReceivedCount>0</RARHoReceivedCount>
     <RARHoTimeoutCount>0</RARHoTimeoutCount>
    </Sample>
  </DiameterAfStats>
</Statistics>
```

Diameter Application Function Peer Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterAfPeerStats tag.

Request

This request follows the DiameterAfPeerStats tag defined in the QueryOmStats section in the XSD files.

```
<?xml version="1.0" encoding="UTF-8"?>
<QueryOmStats>
    <StartTime>2016-04-21T14:15:00</StartTime>
    <EndTime>2016-04-21T14:30:00</EndTime>
    <DiameterAfPeerStats>
       <!-- Name is optional. -->
      <Name>mra-82.example.com</Name>
      <Name>mra-35.example.com</Name>
      <!-- NeId is optional. -->
      <NeId />
    </DiameterAfPeerStats>
</QueryOmStats>
```

Response

Both the Name and NeId are returned, along with the statistics and actual recorded times for those statistics. Samples are ordered by policy server, network element, and then by time.

The response to this request follows the DiameterAfPeertStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<DiameterAfPeerStats>
<Sample>
<StartTime>2016-05-16T23:45:01Z</StartTime>
<EndTime>2016-05-17T00:00:01Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<IsComplete>true</IsComplete>
<Name>mra-35.example.com</Name>
<NeId/>
<NetworkElementType/>
<NetworkElementSubType/>
<ConnectTime>Mon May 16 13:40:28 EDT 2016</ConnectTime>
<DisconnectTime>Mon May 16 14:04:47 EDT 2016</DisconnectTime>
<ConnectAddress>10.196.143.176</ConnectAddress>
<ConnectPort>34283</ConnectPort>
<ConnectType>TCP</ConnectType>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<MessagesErrorInCount>0</MessagesErrorInCount>
<MessagesErrorOutCount>0</MessagesErrorOutCount>
<ASRMessagesReceivedCount>0</ASRMessagesReceivedCount>
<ASRMessagesSentCount>0</ASRMessagesSentCount>
<ASRMessagesTimeoutCount>0</ASRMessagesTimeoutCount>
<ASASuccessMessagesReceivedCount>0</ASASuccessMessagesReceivedCount>
<ASASuccessMessagesSentCount>0</ASASuccessMessagesSentCount>
<ASAFailureMessagesReceivedCount>0</ASAFailureMessagesReceivedCount>
<ASAFailureMessagesSentCount>0</ASAFailureMessagesSentCount>
<RARMessagesReceivedCount>0</RARMessagesReceivedCount>
<RARMessagesSentCount>0</RARMessagesSentCount>
<RARMessagesTimeoutCount>0</RARMessagesTimeoutCount>
<RAASuccessMessagesReceivedCount>0</RAASuccessMessagesReceivedCount>
<RAASuccessMessagesSentCount>0</RAASuccessMessagesSentCount>
<RAAFailureMessagesReceivedCount>0</RAAFailureMessagesReceivedCount>
```

```
<RAAFailureMessagesSentCount>0</RAAFailureMessagesSentCount>
<STRMessagesReceivedCount>0</STRMessagesReceivedCount>
<STRMessagesSentCount>0</STRMessagesSentCount>
<STRMessagesTimeoutCount>0</STRMessagesTimeoutCount>
<STASuccessMessagesReceivedCount>0</STASuccessMessagesReceivedCount>
<STASuccessMessagesSentCount>0</STASuccessMessagesSentCount>
<STAFailureMessagesReceivedCount>0</STAFailureMessagesReceivedCount>
<STAFailureMessagesSentCount>0</STAFailureMessagesSentCount>
<AARMessagesReceivedCount>0</AARMessagesReceivedCount>
<AARMessagesSentCount>0</AARMessagesSentCount>
<AARMessagesTimeoutCount>0</AARMessagesTimeoutCount>
<AARInitialMessagesReceivedCount>0</AARInitialMessagesReceivedCount>
<AARInitialMessagesSentCount>0</AARInitialMessagesSentCount>
<AARModificationMessagesReceivedCount>0</AARModificationMessagesReceivedCount>
<AARModificationMessagesSentCount>0</AARModificationMessagesSentCount>
<AAASuccessMessagesReceivedCount>0</AAASuccessMessagesReceivedCount>
<AAASuccessMessagesSentCount>0</AAASuccessMessagesSentCount>
<AAAFailureMessagesReceivedCount>0</AAAFailureMessagesReceivedCount>
<AAAFailureMessagesSentCount>0</AAAFailureMessagesSentCount>
<RxPcmmMessagesTimeoutCount>0</RxPcmmMessagesTimeoutCount>
<S9RxAARInitialRecvCount>0</S9RxAARInitialRecvCount>
<S9RxAARInitialSendCount>0</S9RxAARInitialSendCount>
<S9RxAARRecvCount>0</S9RxAARRecvCount>
<S9RxAARSendCount>0</S9RxAARSendCount>
<S9RxAARModificationRecvCount>0</S9RxAARModificationRecvCount>
<S9RxAARModificationSendCount>0</S9RxAARModificationSendCount>
<S9RxAARTimeoutCount>0</S9RxAARTimeoutCount>
<S9RxAAARecvSuccessCount>0</S9RxAAARecvSuccessCount>
<S9RxAAASendSuccessCount>0</S9RxAAASendSuccessCount>
<S9RxAAARecvFailureCount>0</S9RxAAARecvFailureCount>
<S9RxAAASendFailureCount>0</S9RxAAASendFailureCount>
<S9RxASROtherRecvCount>0</S9RxASROtherRecvCount>
<S9RxASROtherSendCount>0</S9RxASROtherSendCount>
<S9RxASRRecvCount>0</S9RxASRRecvCount>
<S9RxASRSendCount>0</S9RxASRSendCount>
<S9RxCleanupASRSendCount>0</S9RxCleanupASRSendCount>
<S9RxASROtherTimeoutCount>0</S9RxASROtherTimeoutCount>
<S9RxASRTimeoutCount>0</S9RxASRTimeoutCount>
<S9RxASARecvSuccessCount>0</S9RxASARecvSuccessCount>
<S9RxASASendSuccessCount>0</S9RxASASendSuccessCount>
<S9RxASARecvFailureCount>0</S9RxASARecvFailureCount>
<S9RxASASendFailureCount>0</S9RxASASendFailureCount>
<S9RxCleanupASARecvCount>0</S9RxCleanupASARecvCount>
<S9RxRARHORecvCount>0</S9RxRARHORecvCount>
<S9RxRARHOSendCount>0</S9RxRARHOSendCount>
<S9RxRAROtherRecvCount>0</S9RxRAROtherRecvCount>
<S9RxRAROtherSendCount>0</S9RxRAROtherSendCount>
<S9RxRARRecvCount>0</S9RxRARRecvCount>
<S9RxRARSendCount>0</S9RxRARSendCount>
<S9RxRARHOTimeoutCount>0</S9RxRARHOTimeoutCount>
<S9RxRAROtherTimeoutCount>0</S9RxRAROtherTimeoutCount>
<S9RxRARTimeoutCount>0</S9RxRARTimeoutCount>
<S9RxRAARecvSuccessCount>0</S9RxRAARecvSuccessCount>
<S9RxRAASendSuccessCount>0</S9RxRAASendSuccessCount>
<S9RxRAARecvFailureCount>0</S9RxRAARecvFailureCount>
<S9RxRAASendFailureCount>0</S9RxRAASendFailureCount>
<S9RxRAARecvCount>0</S9RxRAARecvCount>
<S9RxRAASendCount>0</S9RxRAASendCount>
<S9RxSTRRecvCount>0</S9RxSTRRecvCount>
<S9RxSTRSendCount>0</S9RxSTRSendCount>
<S9RxSTRTimeoutCount>0</S9RxSTRTimeoutCount>
<S9RxSTARecvSuccessCount>0</S9RxSTARecvSuccessCount>
<S9RxSTASendSuccessCount>0</S9RxSTASendSuccessCount>
<S9RxSTARecvFailureCount>0</S9RxSTARecvFailureCount>
```

```
<S9RxSTASendFailureCount>0</S9RxSTASendFailureCount>
<ASRHoSendCount>0</ASRHoSendCount>
<ASRHoReceivedCount>0</ASRHoReceivedCount>
<ASRHoTimeoutCount>0</ASRHoTimeoutCount>
<RARHoSendCount>0</RARHoSendCount>
<RARHoReceivedCount>0</RARHoReceivedCount>
<RARHoTimeoutCount>0</RARHoTimeoutCount>
<AAAInitialSendSuccessCount>0</AAAInitialSendSuccessCount>
<AAAInitialRecvSuccessCount>0</AAAInitialRecvSuccessCount>
<AAAInitialSendFailureCount>0</AAAInitialSendFailureCount>
<AAAInitialRecvFailureCount>0</AAAInitialRecvFailureCount>
<AAAModificationSendSuccessCount>0</AAAModificationSendSuccessCount>
<AAAModificationRecvSuccessCount>0</AAAModificationRecvSuccessCount>
<AAAModificationSendFailureCount>0</AAAModificationSendFailureCount>
<AAAModificationRecvFailureCount>0</AAAModificationRecvFailureCount>
<RARRerouteSendCount>0</RARRerouteSendCount>
<RARRerouteTimeoutCount>0</RARRerouteTimeoutCount>
<RAARerouteRecvSuccessCount>0</RAARerouteRecvSuccessCount>
<RAARerouteRecvFailureCount>0</RAARerouteRecvFailureCount>
<ASRRerouteSendCount>0</ASRRerouteSendCount>
<ASRRerouteTimeoutCount>0</ASRRerouteTimeoutCount>
<ASARerouteRecvSuccessCount>0</ASARerouteRecvSuccessCount>
<ASARerouteRecvFailureCount>0</ASARerouteRecvFailureCount>
</Sample>
</DiameterAfPeerStats>
</Statistics>
```

About Latency Statistics for Cable Mode

This section defines the Diameter Statistics listed in the Cable KPI dashboard.

Latency Statistics

The following examples show the request and response that are defined in the XSD files for the DiameterAfLatencyStats tag.

Request

This request follows the DiameterAfLatencyStats tag defined in the QueryOmStats section of the XSD files.

```
<?xml version="1.0" encoding="UTF-8"?>
<QueryOmStats>
    <StartTime>2016-04-21T14:15:00Z</StartTime>
    <EndTime>2016-04-21T14:30:00Z</EndTime>
    <DiameterAfLatencyStats>
       <!-- PolicyServer is optional. -->
       <PolicyServer>MPE-Cluster</PolicyServer>
       <PolicyServer>MPE-173</PolicyServer>
    </DiameterAfLatencyStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterAfLatencyStats tag defined in the Statistics section of the XSD files.

```
<?xml version="1.0" encoding="UTF-8"?>
<Statistics>
  <DiameterAfLatencyStats>
   <Sample>
      <StartTime>2016-05-16T23:45:01Z</StartTime>
      <EndTime>2016-05-17T00:00:01Z</EndTime>
      <PolicyServer>MPE-173</PolicyServer>
      <IsComplete>true</IsComplete>
      <CurrentConnectionsCount>0</CurrentConnectionsCount>
      <MaxTransactionInProcessingTime>0</MaxTransactionInProcessingTime>
     <AverageTransactionInProcessingTime>0</AverageTransactionInProcessingTime>

      <MaxTransactionOutProcessingTime>0</MaxTransactionOutProcessingTime>
     <AverageTransactionOutProcessingTime>0</AverageTransactionOutProcessingTime>

      <TransactionTime_In_0_20_Count>0</TransactionTime_In_0_20_Count>
      <TransactionTime_In_20_40_Count>0</TransactionTime_In_20_40_Count>
      <TransactionTime_In_40_60_Count>0</TransactionTime_In_40_60_Count>
      <TransactionTime_In_60_80_Count>0</TransactionTime_In_60_80_Count>
      <TransactionTime_In_80_100_Count>0</TransactionTime_In_80_100_Count>
      <TransactionTime_In_100_120_Count>0</TransactionTime_In_100_120_Count>
      <TransactionTime_In_120_140_Count>0</TransactionTime_In_120_140_Count>
      <TransactionTime_In_140_160_Count>0</TransactionTime_In_140_160_Count>
      <TransactionTime_In_160_180_Count>0</TransactionTime_In_160_180_Count>
      <TransactionTime_In_180_200_Count>0</TransactionTime_In_180_200_Count>
      <TransactionTime_In_gt_200_Count>0</TransactionTime_In_gt_200_Count>
      <TransactionTime_Out_20_40_Count>0</TransactionTime_Out_20_40_Count>
      <TransactionTime_Out_40_60_Count>0</TransactionTime_Out_40_60_Count>
      <TransactionTime_Out_60_80_Count>0</TransactionTime_Out_60_80_Count>
      <TransactionTime_Out_80_100_Count>0</TransactionTime_Out_80_100_Count>
      <TransactionTime_Out_100_120_Count>0</TransactionTime_Out_100_120_Count>

      <TransactionTime_Out_120_140_Count>0</TransactionTime_Out_120_140_Count>

      <TransactionTime_Out_140_160_Count>0</TransactionTime_Out_140_160_Count>

      <TransactionTime_Out_160_180_Count>0</TransactionTime_Out_160_180_Count>

      <TransactionTime_Out_180_200_Count>0</TransactionTime_Out_180_200_Count>

      <TransactionTime_Out_gt_200_Count>0</TransactionTime_Out_gt_200_Count>
   </Sample>
 </DiameterAfLatencyStats>
</Statistics>
```

Request

This request follows the DiameterAfPeerLatencyStats tag defined in the QueryOmStats section of the XSD files.

The following is an example of a request for a single policy server:

```
<QueryOmStats>
        <StartTime>2016-04-21T14:15:00Z</StartTime>
        <EndTime>2016-04-21T14:30:00Z</EndTime>
```

```
        <DiameterAfPeerLatencyStats>
       <!-- PolicyServer is optional. -->
       <PolicyServer>MPE-Cluster</PolicyServer>
       <PolicyServer>MPE-173</PolicyServer>
        <!-- Name is optional. -->
       <Name>mra-82.example.com</Name>
       <Name>mra-35.example.com</Name>
       <!-- NeId is optional. -->
       <NeId />
    </DiameterAfPeerLatencyStats>
</QueryOmStats>
```

Response

The response to this request follows the DiameterAfPeerfLatencyStats tag defined in the Statistics section of the XSD files.

The following is an example of a response for a single policy server:

```
<Statistics>
  <DiameterAfPeerfLatencyStats>
   <Sample>
      <StartTime>2001-12-31T12:00:00</StartTime>
      <EndTime>2001-12-31T12:15:00</EndTime>
      <PolicyServer>PolicyServer</PolicyServer>
      <IsComplete>true</IsComplete>
      <Name>ApplicationName</Name>
      <NeId>NeId</NeId>
      <NetworkElementType>NetworkElementType</NetworkElementType>
      <NetworkElementSubType>NetworkElementSubType</NetworkElementSubType>
      <ConnectAddress>10.60.4.56</ConnectAddress>
      <ConnectPort>3868</ConnectPort>
      <ConnectType>TCP</ConnectType>
      <MaxTransactionInProcessingTime>0</MaxTransactionInProcessingTime>
     <AverageTransactionInProcessingTime>0</AverageTransactionInProcessingTime>

      <MaxTransactionOutProcessingTime>0</MaxTransactionOutProcessingTime>
     <AverageTransactionOutProcessingTime>0</AverageTransactionOutProcessingTime>

      <TransactionTime_In_0_20_Count>0</TransactionTime_In_0_20_Count>
      <TransactionTime_In_20_40_Count>0</TransactionTime_In_20_40_Count>
      <TransactionTime_In_40_60_Count>0</TransactionTime_In_40_60_Count>
      <TransactionTime_In_60_80_Count>0</TransactionTime_In_60_80_Count>
      <TransactionTime_In_80_100_Count>0</TransactionTime_In_80_100_Count>
      <TransactionTime_In_100_120_Count>0</TransactionTime_In_100_120_Count>
      <TransactionTime_In_120_140_Count>0</TransactionTime_In_120_140_Count>
      <TransactionTime_In_140_160_Count>0</TransactionTime_In_140_160_Count>
      <TransactionTime_In_160_180_Count>0</TransactionTime_In_160_180_Count>
      <TransactionTime_In_180_200_Count>0</TransactionTime_In_180_200_Count>
      <TransactionTime_In_gt_200_Count>0</TransactionTime_In_gt_200_Count>
      <TransactionTime_Out_0_20_Count>0</TransactionTime_Out_0_20_Count>
      <TransactionTime_Out_20_40_Count>0</TransactionTime_Out_20_40_Count>
      <TransactionTime_Out_40_60_Count>0</TransactionTime_Out_40_60_Count>
      <TransactionTime_Out_60_80_Count>0</TransactionTime_Out_60_80_Count>
      <TransactionTime_Out_80_100_Count>0</TransactionTime_Out_80_100_Count>
      <TransactionTime_Out_100_120_Count>0</TransactionTime_Out_100_120_Count>

      <TransactionTime_Out_120_140_Count>0</TransactionTime_Out_120_140_Count>

      <TransactionTime_Out_140_160_Count>0</TransactionTime_Out_140_160_Count>
```

```
      <TransactionTime_Out_160_180_Count>0</TransactionTime_Out_160_180_Count>

      <TransactionTime_Out_180_200_Count>0</TransactionTime_Out_180_200_Count>

      <TransactionTime_Out_gt_200_Count>0</TransactionTime_Out_gt_200_Count>
    </Sample>
  </DiameterAfPeerfLatencyStats>
</Statistics>
```

Request

This request follows the PcmmCmtsLatencyStats tag defined in the QueryOmStats section of the XSD files.

The following is an example of a request for a single policy server:

```
<XmlInterfaceRequest>
   <QueryOmStats>
      <StartTime>2001-12-31T12:00:00</StartTime>
      <EndTime>2001-12-31T12:15:00</EndTime>
      <PcmmCmtsLatencyStats>
        <PolicyServer>PolicyServer</PolicyServer>
      </PcmmCmtsLatencyStats>
   </QueryOmStats>
</XmlInterfaceRequest>
```

Response

The response to this request follows the PcmmCmtsLatencyStats tag defined in the Statistics section of the XSD files.

The following is an example of a response for a single policy server:

```
<Statistics>
  <PcmmCmtsLatencyStats>
   <Sample>
      <StartTime>2001-12-31T12:00:00</StartTime>
      <EndTime>2001-12-31T12:15:00</EndTime>
      <PolicyServer>PolicyServer</PolicyServer>
      <IsComplete>true</IsComplete>
      <CurrentConnectionsCount>0</CurrentConnectionsCount>
      <MaxTransactionInProcessingTime>0</MaxTransactionInProcessingTime>
     <AverageTransactionInProcessingTime>0</AverageTransactionInProcessingTime>

      <MaxTransactionOutProcessingTime>0</MaxTransactionOutProcessingTime>
     <AverageTransactionOutProcessingTime>0</AverageTransactionOutProcessingTime>

      <TransactionTime_In_0_20_Count>0</TransactionTime_In_0_20_Count>
      <TransactionTime_In_20_40_Count>0</TransactionTime_In_20_40_Count>
      <TransactionTime_In_40_60_Count>0</TransactionTime_In_40_60_Count>
      <TransactionTime_In_60_80_Count>0</TransactionTime_In_60_80_Count>
      <TransactionTime_In_80_100_Count>0</TransactionTime_In_80_100_Count>
      <TransactionTime_In_100_120_Count>0</TransactionTime_In_100_120_Count>
      <TransactionTime_In_120_140_Count>0</TransactionTime_In_120_140_Count>
      <TransactionTime_In_140_160_Count>0</TransactionTime_In_140_160_Count>
      <TransactionTime_In_160_180_Count>0</TransactionTime_In_160_180_Count>
      <TransactionTime_In_180_200_Count>0</TransactionTime_In_180_200_Count>
      <TransactionTime_In_gt_200_Count>0</TransactionTime_In_gt_200_Count>
      <TransactionTime_Out_0_20_Count>0</TransactionTime_Out_0_20_Count>
```

```
      <TransactionTime_Out_20_40_Count>0</TransactionTime_Out_20_40_Count>
      <TransactionTime_Out_40_60_Count>0</TransactionTime_Out_40_60_Count>
      <TransactionTime_Out_60_80_Count>0</TransactionTime_Out_60_80_Count>
      <TransactionTime_Out_80_100_Count>0</TransactionTime_Out_80_100_Count>
      <TransactionTime_Out_100_120_Count>0</TransactionTime_Out_100_120_Count>

      <TransactionTime_Out_120_140_Count>0</TransactionTime_Out_120_140_Count>

      <TransactionTime_Out_140_160_Count>0</TransactionTime_Out_140_160_Count>

      <TransactionTime_Out_160_180_Count>0</TransactionTime_Out_160_180_Count>

      <TransactionTime_Out_180_200_Count>0</TransactionTime_Out_180_200_Count>

      <TransactionTime_Out_gt_200_Count>0</TransactionTime_Out_gt_200_Count>
    </Sample>
  </PcmmCmtsLatencyStats>
</Statistics>
```

Request

This request follows the PcmmCmtsPeerLatencyStats tag defined in the QueryOmStats section of the XSD files.

The following is an example of a request for a single policy server:

```
<?xml version="1.0" encoding="UTF-8"?>
 <XmlInterfaceRequest>
   <QueryOmStats>
      <StartTime>2001-12-31T12:00:00</StartTime>
      <EndTime>2001-12-31T12:15:00</EndTime>
      <PcmmCmtsPeerLatencyStats>
        <Name>NetworkElementName</Name>
      </PcmmCmtsPeerLatencyStats>
   </QueryOmStats>
 </XmlInterfaceRequest>
```

Response

The response to this request follows the PcmmCmtsPeerLatencyStats tag defined in the Statistics section of the XSD files.

The following is an example of a response for a single policy server:

```
<?xml version="1.0" encoding="UTF-8"?>
<Statistics>
  <PcmmCmtsPeerLatencyStats>
   <Sample>
      <StartTime>2001-12-31T12:00:00</StartTime>
      <EndTime>2001-12-31T12:15:00</EndTime>
      <PolicyServer>PolicyServer</PolicyServer>
      <IsComplete>true</IsComplete>
      <Name>NetworkElementName</Name>
      <NeId>NeId</NeId>
      <NetworkElementType>NetworkElementType</NetworkElementType>
      <NetworkElementSubType>NetworkElementSubType</NetworkElementSubType>
      <ConnectAddress>10.60.4.56</ConnectAddress>
      <ConnectPort>3868</ConnectPort>
      <ConnectType>TCP</ConnectType>
```

```
      <MaxTransactionInProcessingTime>0</MaxTransactionInProcessingTime>
     <AverageTransactionInProcessingTime>0</AverageTransactionInProcessingTime>

      <MaxTransactionOutProcessingTime>0</MaxTransactionOutProcessingTime>
     <AverageTransactionOutProcessingTime>0</AverageTransactionOutProcessingTime>

      <TransactionTime_In_0_20_Count>0</TransactionTime_In_0_20_Count>
      <TransactionTime_In_20_40_Count>0</TransactionTime_In_20_40_Count>
      <TransactionTime_In_40_60_Count>0</TransactionTime_In_40_60_Count>
      <TransactionTime_In_60_80_Count>0</TransactionTime_In_60_80_Count>
      <TransactionTime_In_80_100_Count>0</TransactionTime_In_80_100_Count>
      <TransactionTime_In_100_120_Count>0</TransactionTime_In_100_120_Count>
      <TransactionTime_In_120_140_Count>0</TransactionTime_In_120_140_Count>
      <TransactionTime_In_140_160_Count>0</TransactionTime_In_140_160_Count>
      <TransactionTime_In_160_180_Count>0</TransactionTime_In_160_180_Count>
      <TransactionTime_In_180_200_Count>0</TransactionTime_In_180_200_Count>
      <TransactionTime_In_gt_200_Count>0</TransactionTime_In_gt_200_Count>
      <TransactionTime_Out_0_20_Count>0</TransactionTime_Out_0_20_Count>
      <TransactionTime_Out_20_40_Count>0</TransactionTime_Out_20_40_Count>
      <TransactionTime_Out_40_60_Count>0</TransactionTime_Out_40_60_Count>
      <TransactionTime_Out_60_80_Count>0</TransactionTime_Out_60_80_Count>
      <TransactionTime_Out_80_100_Count>0</TransactionTime_Out_80_100_Count>
      <TransactionTime_Out_100_120_Count>0</TransactionTime_Out_100_120_Count>

      <TransactionTime_Out_120_140_Count>0</TransactionTime_Out_120_140_Count>

      <TransactionTime_Out_140_160_Count>0</TransactionTime_Out_140_160_Count>

      <TransactionTime_Out_160_180_Count>0</TransactionTime_Out_160_180_Count>

      <TransactionTime_Out_180_200_Count>0</TransactionTime_Out_180_200_Count>

      <TransactionTime_Out_gt_200_Count>0</TransactionTime_Out_gt_200_Count>
    </Sample>
  </PcmmCmtsPeerLatencyStats>
</Statistics>
```

Request

This request follows the PcmmAmLatencyStats tag defined in the QueryOmStats section of the XSD files.

The following is an example of a request for a single policy server:

```
<?xml version="1.0" encoding="UTF-8"?>
<XmlInterfaceRequest>
   <QueryOmStats>
      <StartTime>2001-12-31T12:00:00</StartTime>
      <EndTime>2001-12-31T12:15:00</EndTime>
      <PcmmAmLatencyStats>
        <PolicyServer>PolicyServer</PolicyServer>
      </PcmmAmLatencyStats>
   </QueryOmStats>
</XmlInterfaceRequest>
```

Response

The response to this request follows the PcmmAmLatencyStats tag defined in the Statistics section of the XSD files.

The following is an example of a response for a single policy server:

```
<Statistics>
  <PcmmAmLatencyStats>
   <Sample>
      <StartTime>2001-12-31T12:00:00</StartTime>
      <EndTime>2001-12-31T12:15:00</EndTime>
      <PolicyServer>PolicyServer</PolicyServer>
      <IsComplete>true</IsComplete>
      <CurrentConnectionsCount>0</CurrentConnectionsCount>
      <MaxTransactionInProcessingTime>0</MaxTransactionInProcessingTime>
     <AverageTransactionInProcessingTime>0</AverageTransactionInProcessingTime>

      <MaxTransactionOutProcessingTime>0</MaxTransactionOutProcessingTime>
     <AverageTransactionOutProcessingTime>0</AverageTransactionOutProcessingTime>

      <TransactionTime_In_0_20_Count>0</TransactionTime_In_0_20_Count>
      <TransactionTime_In_20_40_Count>0</TransactionTime_In_20_40_Count>
      <TransactionTime_In_40_60_Count>0</TransactionTime_In_40_60_Count>
      <TransactionTime_In_60_80_Count>0</TransactionTime_In_60_80_Count>
      <TransactionTime_In_80_100_Count>0</TransactionTime_In_80_100_Count>
      <TransactionTime_In_100_120_Count>0</TransactionTime_In_100_120_Count>
      <TransactionTime_In_120_140_Count>0</TransactionTime_In_120_140_Count>
      <TransactionTime_In_140_160_Count>0</TransactionTime_In_140_160_Count>
      <TransactionTime_In_160_180_Count>0</TransactionTime_In_160_180_Count>
      <TransactionTime_In_180_200_Count>0</TransactionTime_In_180_200_Count>
      <TransactionTime_In_gt_200_Count>0</TransactionTime_In_gt_200_Count>
      <TransactionTime_Out_0_20_Count>0</TransactionTime_Out_0_20_Count>
      <TransactionTime_Out_20_40_Count>0</TransactionTime_Out_20_40_Count>
      <TransactionTime_Out_40_60_Count>0</TransactionTime_Out_40_60_Count>
      <TransactionTime_Out_60_80_Count>0</TransactionTime_Out_60_80_Count>
      <TransactionTime_Out_80_100_Count>0</TransactionTime_Out_80_100_Count>
      <TransactionTime_Out_100_120_Count>0</TransactionTime_Out_100_120_Count>

      <TransactionTime_Out_120_140_Count>0</TransactionTime_Out_120_140_Count>

      <TransactionTime_Out_140_160_Count>0</TransactionTime_Out_140_160_Count>

      <TransactionTime_Out_160_180_Count>0</TransactionTime_Out_160_180_Count>

      <TransactionTime_Out_180_200_Count>0</TransactionTime_Out_180_200_Count>

      <TransactionTime_Out_gt_200_Count>0</TransactionTime_Out_gt_200_Count>
    </Sample>
  </PcmmAmLatencyStats>
</Statistics>
```

Request

This request follows the PcmmAmPeerLatencyStats tag defined in the QueryOmStats section of the XSD files.

The following is an example of a request for a single policy server:

```
<XmlInterfaceRequest>
   <QueryOmStats>
      <StartTime>2001-12-31T12:00:00</StartTime>
      <EndTime>2001-12-31T12:15:00</EndTime>
      <PcmmAmPeerLatencyStats>
        <Name>ApplicationName</Name>
```

```
      </PcmmAmPeerLatencyStats>
   </QueryOmStats>
</XmlInterfaceRequest>
```

Response

The response to this request follows the PcmmAmPeerLatencyStats tag defined in the Statistics section of the XSD files.

The following is an example of a response for a single policy server:

```
<Statistics>
  <PcmmAmPeerLatencyStats>
   <Sample>
      <StartTime>2013-04-12T01:45:00Z</StartTime>
      <EndTime>2013-04-12T01:00:00Z</EndTime>
      <PolicyServer>policyserver</PolicyServer>
      <IsComplete>true</IsComplete>
      <Name>ApplicationName</Name>
      <AmId>AmId</AmId>
      <ConnectAddress>10.60.56.60</ConnectAddress>
      <MaxTransactionInProcessingTime>863</MaxTransactionInProcessingTime>
     <AverageTransactionInProcessingTime>178</AverageTransactionInProcessingTime>

      <MaxTransactionOutProcessingTime>0</MaxTransactionOutProcessingTime>
     <AverageTransactionOutProcessingTime>0</AverageTransactionOutProcessingTime>

      <TransactionTime_In_0_20_Count>0</TransactionTime_In_0_20_Count>
      <TransactionTime_In_20_40_Count>0</TransactionTime_In_20_40_Count>
      <TransactionTime_In_40_60_Count>0</TransactionTime_In_40_60_Count>
      <TransactionTime_In_60_80_Count>0</TransactionTime_In_60_80_Count>
      <TransactionTime_In_80_100_Count>0</TransactionTime_In_80_100_Count>
      <TransactionTime_In_100_120_Count>0</TransactionTime_In_100_120_Count>
      <TransactionTime_In_120_140_Count>0</TransactionTime_In_120_140_Count>
      <TransactionTime_In_140_160_Count>0</TransactionTime_In_140_160_Count>
      <TransactionTime_In_160_180_Count>0</TransactionTime_In_160_180_Count>
      <TransactionTime_In_180_200_Count>0</TransactionTime_In_180_200_Count>
      <TransactionTime_In_gt_200_Count>0</TransactionTime_In_gt_200_Count>
      <TransactionTime_Out_0_20_Count>0</TransactionTime_Out_0_20_Count>
      <TransactionTime_Out_20_40_Count>0</TransactionTime_Out_20_40_Count>
      <TransactionTime_Out_40_60_Count>0</TransactionTime_Out_40_60_Count>
      <TransactionTime_Out_60_80_Count>0</TransactionTime_Out_60_80_Count>
      <TransactionTime_Out_80_100_Count>0</TransactionTime_Out_80_100_Count>
      <TransactionTime_Out_100_120_Count>0</TransactionTime_Out_100_120_Count>

      <TransactionTime_Out_120_140_Count>0</TransactionTime_Out_120_140_Count>

      <TransactionTime_Out_140_160_Count>0</TransactionTime_Out_140_160_Count>

      <TransactionTime_Out_160_180_Count>0</TransactionTime_Out_160_180_Count>

      <TransactionTime_Out_180_200_Count>0</TransactionTime_Out_180_200_Count>

      <TransactionTime_Out_gt_200_Count>0</TransactionTime_Out_gt_200_Count>
    </Sample>
  </PcmmAmPeerLatencyStats>
</Statistics>
```

Request

This request follows the PcmmDpsLatencyStats tag defined in the QueryOmStats section of the XSD files.

The following is an example of a request for a single policy server:

```
<XmlInterfaceRequest>
   <QueryOmStats>
      <StartTime>2001-12-31T12:00:00</StartTime>
      <EndTime>2001-12-31T12:15:00</EndTime>
      <PcmmDpsLatencyStats>
        <PolicyServer>PolicyServer>
      </PcmmDpsLatencyStats>
   </QueryOmStats>
</XmlInterfaceRequest>
```

Response

The response to this request follows the PcmmDpsLatencyStats tag defined in the Statistics section of the XSD files.

The following is an example of a response for a single policy server:

```
<Statistics>
  <PcmmDpsLatencyStats>
   <Sample>
      <StartTime>2001-12-31T12:00:00</StartTime>
      <EndTime>2001-12-31T12:15:00</EndTime>
      <PolicyServer>PolicyServer</PolicyServer>
      <IsComplete>true</IsComplete>
      <CurrentConnectionsCount>0</CurrentConnectionsCount>
      <MaxTransactionInProcessingTime>0</MaxTransactionInProcessingTime>
     <AverageTransactionInProcessingTime>0</AverageTransactionInProcessingTime>

      <MaxTransactionOutProcessingTime>0</MaxTransactionOutProcessingTime>
     <AverageTransactionOutProcessingTime>0</AverageTransactionOutProcessingTime>

      <TransactionTime_In_0_20_Count>0</TransactionTime_In_0_20_Count>
      <TransactionTime_In_20_40_Count>0</TransactionTime_In_20_40_Count>
      <TransactionTime_In_40_60_Count>0</TransactionTime_In_40_60_Count>
      <TransactionTime_In_60_80_Count>0</TransactionTime_In_60_80_Count>
      <TransactionTime_In_80_100_Count>0</TransactionTime_In_80_100_Count>
      <TransactionTime_In_100_120_Count>0</TransactionTime_In_100_120_Count>
      <TransactionTime_In_120_140_Count>0</TransactionTime_In_120_140_Count>
      <TransactionTime_In_140_160_Count>0</TransactionTime_In_140_160_Count>
      <TransactionTime_In_160_180_Count>0</TransactionTime_In_160_180_Count>
      <TransactionTime_In_180_200_Count>0</TransactionTime_In_180_200_Count>
      <TransactionTime_In_gt_200_Count>0</TransactionTime_In_gt_200_Count>
      <TransactionTime_Out_0_20_Count>0</TransactionTime_Out_0_20_Count>
      <TransactionTime_Out_20_40_Count>0</TransactionTime_Out_20_40_Count>
      <TransactionTime_Out_40_60_Count>0</TransactionTime_Out_40_60_Count>
      <TransactionTime_Out_60_80_Count>0</TransactionTime_Out_60_80_Count>
      <TransactionTime_Out_80_100_Count>0</TransactionTime_Out_80_100_Count>
      <TransactionTime_Out_100_120_Count>0</TransactionTime_Out_100_120_Count>

      <TransactionTime_Out_120_140_Count>0</TransactionTime_Out_120_140_Count>

      <TransactionTime_Out_140_160_Count>0</TransactionTime_Out_140_160_Count>
```

```
      <TransactionTime_Out_160_180_Count>0</TransactionTime_Out_160_180_Count>

      <TransactionTime_Out_180_200_Count>0</TransactionTime_Out_180_200_Count>

      <TransactionTime_Out_gt_200_Count>0</TransactionTime_Out_gt_200_Count>
    </Sample>
  </PcmmDpsLatencyStats>
</Statistics>
```

Request

This request follows the PcmmDpsPeerLatencyStats tag defined in the QueryOmStats section of the XSD files.

The following is an example of a request for a single policy server:

```
<XmlInterfaceRequest>
   <QueryOmStats>
      <StartTime>2001-12-31T12:00:00</StartTime>
      <EndTime>2001-12-31T12:15:00</EndTime>
      <PcmmDpsPeerLatencyStats>
        <Name>DpsName</Name>
      </PcmmDpsPeerLatencyStats>
   </QueryOmStats>
</XmlInterfaceRequest>
```

Response

The response to this request follows the PcmmDpsPeerLatencyStats tag defined in the Statistics section of the XSD files.

The following is an example of a response for a single policy server:

```
<Statistics>
  <PcmmDpsPeerLatencyStats>
      <Sample>
      <StartTime>2012-06-07T01:00:00Z</StartTime>
      <EndTime>2012-06-07T01:15:00Z</EndTime>
      <PolicyServer>PolicyServer</PolicyServer>
      <IsComplete>true</IsComplete>
      <Name>DpsName</Name>
      <DpsId>NeId</DpsId>
      <ConnectAddress>10.60.4.56</ConnectAddress>
      <MaxTransactionInProcessingTime>0</MaxTransactionInProcessingTime>
     <AverageTransactionInProcessingTime>0</AverageTransactionInProcessingTime>

      <MaxTransactionOutProcessingTime>0</MaxTransactionOutProcessingTime>
     <AverageTransactionOutProcessingTime>0</AverageTransactionOutProcessingTime>

      <TransactionTime_In_0_20_Count>0</TransactionTime_In_0_20_Count>
      <TransactionTime_In_20_40_Count>0</TransactionTime_In_20_40_Count>
      <TransactionTime_In_40_60_Count>0</TransactionTime_In_40_60_Count>
      <TransactionTime_In_60_80_Count>0</TransactionTime_In_60_80_Count>
      <TransactionTime_In_80_100_Count>0</TransactionTime_In_80_100_Count>
      <TransactionTime_In_100_120_Count>0</TransactionTime_In_100_120_Count>
      <TransactionTime_In_120_140_Count>0</TransactionTime_In_120_140_Count>
      <TransactionTime_In_140_160_Count>0</TransactionTime_In_140_160_Count>
      <TransactionTime_In_160_180_Count>0</TransactionTime_In_160_180_Count>
      <TransactionTime_In_180_200_Count>0</TransactionTime_In_180_200_Count>
```

```
      <TransactionTime_In_gt_200_Count>0</TransactionTime_In_gt_200_Count>
      <TransactionTime_Out_0_20_Count>0</TransactionTime_Out_0_20_Count>
      <TransactionTime_Out_20_40_Count>0</TransactionTime_Out_20_40_Count>
      <TransactionTime_Out_40_60_Count>0</TransactionTime_Out_40_60_Count>
      <TransactionTime_Out_60_80_Count>0</TransactionTime_Out_60_80_Count>
      <TransactionTime_Out_80_100_Count>0</TransactionTime_Out_80_100_Count>
      <TransactionTime_Out_100_120_Count>0</TransactionTime_Out_100_120_Count>

      <TransactionTime_Out_120_140_Count>0</TransactionTime_Out_120_140_Count>

      <TransactionTime_Out_140_160_Count>0</TransactionTime_Out_140_160_Count>

      <TransactionTime_Out_160_180_Count>0</TransactionTime_Out_160_180_Count>

      <TransactionTime_Out_180_200_Count>0</TransactionTime_Out_180_200_Count>

      <TransactionTime_Out_gt_200_Count>0</TransactionTime_Out_gt_200_Count>
      </Sample>
    </PcmmDpsPeerLatencyStats>
 </Statistics>
```

PCMM BoD and CMTS Operational Measurements

This section shows the requests and responses for:

- *PCMM BoD Statistics*
- *PCMM BoD Error Statistics*
- *PCMM BoD Gate Report Statistics*
- *PCMM BoD Session Statistics*
- *PCMM BOD AM Statistics*
- *PCMM AM Gate Statistics*
- *PCMM CMTS Statistics*
- *PCMM CMTS Gate Statistics*
- *PCMM Network Element Statistics*

PCMM BoD Statistics

The following examples show the request and response that are defined in the XSD files for the PcmmBodStats tag.

Request

This request follows the PcmmBodStats tag defined in the QueryOmStats section in the XSD files.

Note: The BodServer statistic is optional. The name of the BoD, if not specified, will return the counters from all BoDsystems.

```
<QueryOmStats>
<StartTime>2017-04-21T14:15:00Z</StartTime>
<EndTime>2017-04-21T14:30:00Z</EndTime>
<PcmmBodStats>
<!-- BodServer is optional. -->
<BodServer>BOD</BodServer>
<BodServer>BOD-1</BodServer>
```

```
</PcmmBodStats>
</QueryOmStats>
```

Response

The response to this request follows the PcmmBodStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<PcmmBodStats>
<Sample>
<StartTime>2017-05-16T07:45:01Z</StartTime>
<EndTime>2017-05-16T08:00:01Z</EndTime>
<BodServer>BOD</BodServer>
<IsComplete>true</IsComplete>
<Type>BOD PCMM SOAP</Type>
<TotalGateCreate>0</TotalGateCreate>
<TotalGateModify>0</TotalGateModify>
<TotalGateDelete>0</TotalGateDelete>
<TotalGateInfo>0</TotalGateInfo>
<TotalSuccessGateCreate>0</TotalSuccessGateCreate>
<TotalSuccessGateModify>0</TotalSuccessGateModify>
<TotalSuccessGateDelete>0</TotalSuccessGateDelete>
<TotalSuccessGateInfo>0</TotalSuccessGateInfo>
<TotalFailureGateCreate>0</TotalFailureGateCreate>
<TotalFailureGateModify>0</TotalFailureGateModify>
<TotalFailureGateDelete>0</TotalFailureGateDelete>
<TotalFailureGateInfo>0</TotalFailureGateInfo>
<TotalTimeoutGateCreate>0</TotalTimeoutGateCreate>
<TotalTimeoutGateModify>0</TotalTimeoutGateModify>
<TotalTimeoutGateDelete>0</TotalTimeoutGateDelete>
<TotalTimeoutGateInfo>0</TotalTimeoutGateInfo>
<TotalOutPcmmMessages>0</TotalOutPcmmMessages>
<TotalInPcmmMessages>0</TotalInPcmmMessages>
<TotalSessions>0</TotalSessions>
</Sample>
</PcmmBodStats>
</Statistics>
```

Individual Statistics

Individual statistics defined for this tag are:

- BodServer

  The name of BoD server.

- IsComplete

  True if current stats period is complete. False if current stats period is incomplete (shorter than configured stats period) due to some reason such as failover.

- TotalGateCreate

  Number of Gate Set messages processed to create session.

- TotalGateModify

  Number of Gate Set messages processed to modify session.

- TotalGateDelete

  Number of Gate Set messages processed to delete session.
- TotalGateInfo

  Number of Gate Status messages processed.
- TotalGateReport

  Number of Gate Status messages processed.
- TotalSuccessGateCreate

  Number of Gate Set Success messages of session created.
- TotalSuccessGateModify

  Number of Gate Set Success messages of session modified.
- TotalSuccessGateDelete

  Number of Gate Set Success messages of session deleted.
- TotalSuccessGateInfo

  Number of Gate Status Success messages processed.
- TotalSuccessGateReport

  Number of Gate Status Success messages processed.
- TotalFailureGateCreate

  Number of Gate Set Error messages of session create failure.
- TotalFailureGateModify

  Number of Gate Set Error messages of session modify failure.
- TotalFailureGateDelete

  Number of Gate Set Error messages of session delete failure.
- TotalFailureGateInfo

  Number of Gate Status Error messages processed.
- TotalFailureGateReport

  Number of Gate Status Error messages processed.
- TotalTimeoutGateCreate

  Number of Gate Set timeout messages to create session.
- TotalTimeoutGateModify

  Number of Gate Set timeout messages to modify session.
- TotalTimeoutGateDelete

  Number of Gate Set timeout messages to delete session.
- TotalTimeoutGateInfo

Number of Gate Status timeout messages processed.

- TotalPcmmMessages

  Number of Gate messages sent or received.

- TotalInPcmmMessages

  Number of Gate message received.

- TotalInPcmmMessages

  Number of Gate message received.

- TotalSessions

  Number of total sessions.

PCMM BoD Error Statistics

The following examples show the request and response that are defined in the XSD files for the PcmmBodErrorStats tag.

Request

This request follows the PcmmBodErrorStats tag defined in the QueryOmStats section in the XSD files.

Note: The name of the BoD is optional. If it is not specified, it will return the counters from all the BoD servers.

```
<QueryOmStats>
     <StartTime>2015-08-03T00:01:00Z</StartTime>
     <EndTime>2015-08-08T23:59:00Z</EndTime>
        < PcmmBodErrorStats >
        <BodServer>BoD1</BodServer>
     </ PcmmBodErrorStats>
</QueryOmStats>
```

Response

The response to this request follows the PcmmBodErrorStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
    <PcmmBodErrorStats>
        <Sample>
          <StartTime>2007-10-26T14:30:22Z</StartTime>
          <EndTime>2007-10-26T14:35:11Z</EndTime>
          <BodServer> BoD1</BodServer>
          <IsComplete>true</IsComplete>
          <Name>1</Name>
         <ErrorCode> DEPLOYFAIL_GATESETERR_INSUFFICIENTRESOURCE (1) </ErrorCode>

          <ErrorInCount>2<ErrorInCount>
          <ErrorOutCount>0</ErrorOutCount>
        </Sample>
```

```
    </PcmmBodStats>
</Statistics>
```

Individual Statistics

Individual statistics defined for this tag are:

- BodServer

  The name of BoD server.

- IsComplete

  True if current stats period is complete. False if current stats period is incomplete (shorter than configured stats period) due to some reason such as failover.

- Name

  The identity of AM.

- ErrorCode

  The error name and the error code if has.

- ErrorInCount

  The number of error messages received that cause the session to fail.

- ErrorOutCount

  The number of error messages sent, reserved field which is always 0 in this statistic.

PCMM BoD Gate Report Statistics

The following examples show the request and response that are defined in the XSD files for the PcmmBodGateReportStats tag.

Request

This request follows the PcmmBodGateReportStats tag defined in the QueryOmStats section in the XSD files.

Note: The name of the BoD is optional. If it is not specified, it returns the counters from all the BoD servers.

```
<QueryOmStats>
<StartTime>2017-04-21T14:15:00Z</StartTime>
<EndTime>2017-04-21T14:30:00Z</EndTime>
<PcmmBodGateReportStats>
<!-- BodServer is optional. -->
<BodServer>BOD</BodServer>
<BodServer>BOD-1</BodServer>
</PcmmBodGateReportStats>
</QueryOmStats>
```

Response

The response to this request follows the PcmmBodGateReportStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<PcmmBodGateReportStats>
<Sample>
<StartTime>2017-05-16T23:45:00Z</StartTime>
<EndTime>2017-05-17T00:00:00Z</EndTime>
<BodServer>BOD</BodServer>
<IsComplete>true</IsComplete>
<TotalGateReport/>
<UnmatchedGateReport/>
<IgnoredGateReport/>
<ProcessedGateReport/>
</Sample>
</PcmmBodGateReportStats>
</Statistics>
```

Individual Statistics

Individual statistics defined for this tag are:

- BodServer: The name of BoD server.
- ActiveSessionCount: Number of active session in BoD server.
- CreatedSessionCount: Number of session created before including terminated session, failure session and expired session.
- FailedSessionCount: Number of session terminated by PCMM error.

PCMM BoD Session Statistics

The following examples show the request and response that are defined in the XSD files for the PcmmBodSessionStats tag.

Request

This request follows the PcmmBodSessionStats tag defined in the QueryOmStats section in the XSD files.

Note: The name of the BoD is optional. If it is not specified, it returns the counters from all the BoD servers.

```
<QueryOmStats>
<StartTime>2017-04-21T14:15:00Z</StartTime>
<EndTime>2017-04-21T14:30:00Z</EndTime>
<PcmmBodSessionStats>
<!-- BodServer is optional. -->
<BodServer>BOD</BodServer>
<BodServer>BOD-1</BodServer>
</PcmmBodSessionStats>
</QueryOmStats>
```

Response

The response to this request follows the PcmmBodSessionStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<PcmmBodSessionStats>
<Sample>
<StartTime>2017-05-16T23:45:00Z</StartTime>
<EndTime>2017-05-17T00:00:00Z</EndTime>
<BodServer>BOD</BodServer>
<IsComplete>true</IsComplete>
<Name>am</Name>
<ActiveSessionCount/>
<CreatedSessionCount/>
<FailedSessionCount/>
</Sample>
</PcmmBodSessionStats>
</Statistics>
```

Individual Statistics

Individual statistics defined for this tag are:

- BodServer—The name of BoD server.
- ActiveSessionCount—Number of active session in BoD server.
- CreatedSessionCount—Number of session created before including terminated session, failure session and expired session.
- FailedSessionCount—Number of session terminated by PCMM error.

PCMM BOD AM Statistics

The following examples show the request and response that are defined in the XSD files for the PcmmBodAmStats tag.

Request

This request follows the PcmmBodAmStats tag defined in the QueryOmStats section of the XSD files.

Note: The name of BoD, if not specified, it will return the counters from all the BoD servers.

```
<QueryOmStats>
<StartTime>2016-04-21 14:15:00Z</StartTime>
<EndTime>2016-04-21 14:30:00Z</EndTime>
<PcmmBodAmStats>
<!-- BodServer is optional. -->
<BodServer>BOD</BodServer>
<BodServer>BOD-1</BodServer>
<!-- Name is optional. -->
<Name>3472</Name>
<Name>3472</Name>
</PcmmBodAmStats>
</QueryOmStats>
```

Response

The response to this request follows the PcmmBodAmGateStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<PcmmBodAmStats>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:00Z</EndTime>
<BodServer>BOD</BodServer>
<IsComplete>true</IsComplete>
<Name>am</Name>
<MessagesInCount/>
<MessagesOutCount/>
<GateSetCount/>
<GateInfoCount/>
<GateDeleteCount/>
<GateSetSuccessCount/>
<GateInfoSuccessCount/>
<GateDeleteSuccessCount/>
<GateSetErrorCount/>
<GateInfoErrorCount/>
<GateDeleteErrorCount/>
<ReportCount/>
<DropCount/>
<ActiveGateCount/>
<MaxActiveGateCount/>
</Sample>
</PcmmBodAmStats>
</Statistics>
```

Individual Statistics

Individual statistics defined this tag are:

- BodServer

  The name of the BoD server.

- Name

  The identity of the AM.

- IsComplete

  True if current stats period is complete. False if current stats period is incomplete (shorter than configured stats period) due to some reason such as failover.

- MessagesInCount

  Number of Gate messages received.

- MessagesOutCount

  Number of Gate message sent.

- GateSetCount

  Number of Gate Set messages sent.

- GateInfoCount

Number of Gate Info messages sent.

- GateDeleteCount

  Number of Gate Delete messages sent.

- GateSetSuccessCount

  Number of Gate Set Success acknowledge messages processed.

- GateInfoSuccessCount

  Number of Gate Info Success acknowledge messages processed.

- GateDeleteSuccessCount

  Number of Gate Delete Success acknowledge messages processed.

- GateSetErrorCount

  Number of Gate Set Error acknowledge messages processed.

- GateInfoErrorCount

  Number of Gate Info Error acknowledge messages processed.

- GateDeleteErrorCount

  Number of Gate Delete Error acknowledge messages processed.

- ReportCount

  Number of Gate Report messages processed.

- DropCount

  Number of Gate Report messages ignore.

- ActiveGateCount

  Number of currently active gates.

- MaxActiveGateCount

  Highest number of active gates seen so far.

PCMM AM Gate Statistics

The following examples show the request and response that are defined in the XSD files for the PcmmAmGateStats tag.

Request

This request follows the PcmmAmGateStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00Z</StartTime>
<EndTime>2016-04-21T14:30:00Z</EndTime>
<PcmmAmGateStats>
<!-- PolicyServer is optional. -->
```

```
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
<!-- Name is optional. -->
<Name>3472</Name>
<Name>3472</Name>
</PcmmAmGateStats>
</QueryOmStats>
```

Response

The response to this request follows the PcmmAmGateStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<PcmmAmGateStats>
<Sample>
<StartTime>2016-05-16T07:45:01Z</StartTime>
<EndTime>2016-05-16T08:00:01Z</EndTime>
<PolicyServer>MPE-S1</PolicyServer>
<IsComplete>true</IsComplete>
<Name>3472</Name>
<ConnectAddress>0.0.0.0</ConnectAddress>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<MessagesErrorInCount>0</MessagesErrorInCount>
<MessagesErrorOutCount>0</MessagesErrorOutCount>
<GateSetCount>0</GateSetCount>
<GateSetSuccessCount>0</GateSetSuccessCount>
<GateSetErrorCount>0</GateSetErrorCount>
<GateInfoCount>0</GateInfoCount>
<GateInfoSuccessCount>0</GateInfoSuccessCount>
<GateInfoErrorCount>0</GateInfoErrorCount>
<GateDeleteCount>0</GateDeleteCount>
<GateDeleteSuccessCount>0</GateDeleteSuccessCount>
<GateDeleteErrorCount>0</GateDeleteErrorCount>
<ReportCount>0</ReportCount>
<DropCount>0</DropCount>
<ActiveGateCount>0</ActiveGateCount>
<MaxActiveGateCount>0</MaxActiveGateCount>
</Sample>
<Sample>
<StartTime>2016-05-16T08:00:01Z</StartTime>
<EndTime>2016-05-16T08:15:01Z</EndTime>
<PolicyServer>MPE-S1</PolicyServer>
<IsComplete>true</IsComplete>
<Name>3472</Name>
<ConnectAddress>0.0.0.0</ConnectAddress>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<MessagesErrorInCount>0</MessagesErrorInCount>
<MessagesErrorOutCount>0</MessagesErrorOutCount>
<GateSetCount>0</GateSetCount>
<GateSetSuccessCount>0</GateSetSuccessCount>
<GateSetErrorCount>0</GateSetErrorCount>
<GateInfoCount>0</GateInfoCount>
<GateInfoSuccessCount>0</GateInfoSuccessCount>
<GateInfoErrorCount>0</GateInfoErrorCount>
<GateDeleteCount>0</GateDeleteCount>
<GateDeleteSuccessCount>0</GateDeleteSuccessCount>
<GateDeleteErrorCount>0</GateDeleteErrorCount>
<ReportCount>0</ReportCount>
```

```
<DropCount>0</DropCount>
<ActiveGateCount>0</ActiveGateCount>
<MaxActiveGateCount>0</MaxActiveGateCount>
</Sample>
</PcmmAmGateStats>
</Statistics>
```

Individual Statistics

Individual statistics are defined for this tag are:

- PolicyServer

  The name of MPE server.

- Name

  The identity of the AM.

- IsComplete:

  True if current stats period is complete. False if current stats period is incomplete (shorter than configured stats period) due to some reason such as failover.

- MessagesInCount

  Number of Gate messages received.

- MessagesOutCount

  Number of Gate messages sent.

- GateSetCount

  Number of Gate Set messages received.

- GateInfoCount

  Number of Gate Info messages received.

- GateDeleteCount

  Number of Gate Delete messages received.

- GateSetSuccessCount

  Number of Gate Set Success acknowledge messages processed.

- GateInfoSuccessCount

  Number of Gate Info Success acknowledge messages processed.

- GateDeleteSuccessCount

  Number of Gate Delete Success acknowledge messages processed.

- GateSetErrorCount

  Number of Gate Set Error acknowledge messages processed.

- GateInfoErrorCount

  Number of Gate Info Error acknowledge messages processed.

- GateDeleteErrorCount

  Number of Gate Delete Error acknowledge messages processed.

- ReportCount

  Number of Gate Report messages processed.

- DropCount

  Number of Gate Report messages ignored.

- ActiveGateCount

  Number of currently active gates.

- MaxActiveGateCount

  Highest number of active gates seen so far.

PCMM CMTS Statistics

The following examples show the request and response that are defined in the XSD files for the PcmmCmtsStats tag.

Request

This request follows the PcmmCmtsStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00Z</StartTime>
<EndTime>2016-04-21T14:30:00Z</EndTime>
<PcmmCmtsStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
</PcmmCmtsStats>
</QueryOmStats>
```

Response

The response to this request follows the PcmmCmtsStats tag defined in the Statistics section in the XSD files.

```
<?xml version='1.0' ?>
<Statistics>
<PcmmCmtsStats>
<Sample>
<StartTime>2016-05-16T07:45:00Z</StartTime>
<EndTime>2016-05-16T08:00:00Z</EndTime>
<PolicyServer>MPE-R3</PolicyServer>
<SessionCount>0</SessionCount>
<SessionSuccessCount>0</SessionSuccessCount>
<SessionFailCount>0</SessionFailCount>
<SessionProtocolFailCount>0</SessionProtocolFailCount>
<SessionPolicyFailCount>0</SessionPolicyFailCount>
</Sample>
```

```
<Sample>
<StartTime>2016-05-16T08:00:00Z</StartTime>
<EndTime>2016-05-16T08:15:00Z</EndTime>
<PolicyServer>MPE-R3</PolicyServer>
<SessionCount>0</SessionCount>
<SessionSuccessCount>0</SessionSuccessCount>
<SessionFailCount>0</SessionFailCount>
<SessionProtocolFailCount>0</SessionProtocolFailCount>
<SessionPolicyFailCount>0</SessionPolicyFailCount>
</Sample>
<Sample>
<StartTime>2016-05-16T08:15:00Z</StartTime>
<EndTime>2016-05-16T08:30:00Z</EndTime>
<PolicyServer>MPE-R3</PolicyServer>
<SessionCount>0</SessionCount>
<SessionSuccessCount>0</SessionSuccessCount>
<SessionFailCount>0</SessionFailCount>
<SessionProtocolFailCount>0</SessionProtocolFailCount>
<SessionPolicyFailCount>0</SessionPolicyFailCount>
</Sample>
<Sample>
<StartTime>2016-05-16T07:45:00Z</StartTime>
<EndTime>2016-05-16T08:00:00Z</EndTime>
<PolicyServer>MPE-S3</PolicyServer>
<SessionCount>0</SessionCount>
<SessionSuccessCount>0</SessionSuccessCount>
<SessionFailCount>0</SessionFailCount>
<SessionProtocolFailCount>0</SessionProtocolFailCount>
<SessionPolicyFailCount>0</SessionPolicyFailCount>
</Sample>
<Sample>
<StartTime>2016-05-16T08:00:00Z</StartTime>
<EndTime>2016-05-16T08:15:00Z</EndTime>
<PolicyServer>MPE-S3</PolicyServer>
<SessionCount>0</SessionCount>
<SessionSuccessCount>0</SessionSuccessCount>
<SessionFailCount>0</SessionFailCount>
<SessionProtocolFailCount>0</SessionProtocolFailCount>
<SessionPolicyFailCount>0</SessionPolicyFailCount>
</Sample>
<Sample>
<StartTime>2016-05-16T08:15:00Z</StartTime>
<EndTime>2016-05-16T08:30:00Z</EndTime>
<PolicyServer>MPE-S3</PolicyServer>
<SessionCount>0</SessionCount>
<SessionSuccessCount>0</SessionSuccessCount>
<SessionFailCount>0</SessionFailCount>
<SessionProtocolFailCount>0</SessionProtocolFailCount>
<SessionPolicyFailCount>0</SessionPolicyFailCount>
</Sample>
<Sample>
<StartTime>2016-05-16T07:45:01Z</StartTime>
<EndTime>2016-05-16T08:00:01Z</EndTime>
<PolicyServer>MPE-R1</PolicyServer>
<SessionCount>0</SessionCount>
<SessionSuccessCount>0</SessionSuccessCount>
<SessionFailCount>0</SessionFailCount>
<SessionProtocolFailCount>0</SessionProtocolFailCount>
<SessionPolicyFailCount>0</SessionPolicyFailCount>
</Sample>
<Sample>
<StartTime>2016-05-16T08:00:01Z</StartTime>
<EndTime>2016-05-16T08:15:01Z</EndTime>
<PolicyServer>MPE-R1</PolicyServer>
```

```
<SessionCount>0</SessionCount>
<SessionSuccessCount>0</SessionSuccessCount>
<SessionFailCount>0</SessionFailCount>
<SessionProtocolFailCount>0</SessionProtocolFailCount>
<SessionPolicyFailCount>0</SessionPolicyFailCount>
</Sample>
<Sample>
<StartTime>2016-05-16T07:45:01Z</StartTime>
<EndTime>2016-05-16T08:00:01Z</EndTime>
<PolicyServer>MPE-R2</PolicyServer>
<SessionCount>0</SessionCount>
<SessionSuccessCount>0</SessionSuccessCount>
<SessionFailCount>0</SessionFailCount>
<SessionProtocolFailCount>0</SessionProtocolFailCount>
<SessionPolicyFailCount>0</SessionPolicyFailCount>
</Sample>
<Sample>
<StartTime>2016-05-16T08:00:01Z</StartTime>
<EndTime>2016-05-16T08:15:01Z</EndTime>
<PolicyServer>MPE-R2</PolicyServer>
<SessionCount>0</SessionCount>
<SessionSuccessCount>0</SessionSuccessCount>
<SessionFailCount>0</SessionFailCount>
<SessionProtocolFailCount>0</SessionProtocolFailCount>
<SessionPolicyFailCount>0</SessionPolicyFailCount>
</Sample>
<Sample>
<StartTime>2016-05-16T07:45:01Z</StartTime>
<EndTime>2016-05-16T08:00:01Z</EndTime>
<PolicyServer>MPE-S1</PolicyServer>
<SessionCount>0</SessionCount>
<SessionSuccessCount>0</SessionSuccessCount>
<SessionFailCount>0</SessionFailCount>
<SessionProtocolFailCount>0</SessionProtocolFailCount>
<SessionPolicyFailCount>0</SessionPolicyFailCount>
</Sample>
<Sample>
<StartTime>2016-05-16T08:00:01Z</StartTime>
<EndTime>2016-05-16T08:15:01Z</EndTime>
<PolicyServer>MPE-S1</PolicyServer>
<SessionCount>0</SessionCount>
<SessionSuccessCount>0</SessionSuccessCount>
<SessionFailCount>0</SessionFailCount>
<SessionProtocolFailCount>0</SessionProtocolFailCount>
<SessionPolicyFailCount>0</SessionPolicyFailCount>
</Sample>
<Sample>
<StartTime>2016-05-16T07:45:00Z</StartTime>
<EndTime>2016-05-16T08:00:00Z</EndTime>
<PolicyServer>MPE-S2</PolicyServer>
<SessionCount>0</SessionCount>
<SessionSuccessCount>0</SessionSuccessCount>
<SessionFailCount>0</SessionFailCount>
<SessionProtocolFailCount>0</SessionProtocolFailCount>
<SessionPolicyFailCount>0</SessionPolicyFailCount>
</Sample>
<Sample>
<StartTime>2016-05-16T08:00:00Z</StartTime>
<EndTime>2016-05-16T08:15:00Z</EndTime>
<PolicyServer>MPE-S2</PolicyServer>
<SessionCount>0</SessionCount>
<SessionSuccessCount>0</SessionSuccessCount>
<SessionFailCount>0</SessionFailCount>
<SessionProtocolFailCount>0</SessionProtocolFailCount>
```

```
<SessionPolicyFailCount>0</SessionPolicyFailCount>
</Sample>
<Sample>
<StartTime>2016-05-16T07:45:01Z</StartTime>
<EndTime>2016-05-16T08:00:01Z</EndTime>
<PolicyServer>MPE-S45</PolicyServer>
<SessionCount>0</SessionCount>
<SessionSuccessCount>0</SessionSuccessCount>
<SessionFailCount>0</SessionFailCount>
<SessionProtocolFailCount>0</SessionProtocolFailCount>
<SessionPolicyFailCount>0</SessionPolicyFailCount>
</Sample>
<Sample>
<StartTime>2016-05-16T08:00:01Z</StartTime>
<EndTime>2016-05-16T08:15:01Z</EndTime>
<PolicyServer>MPE-S45</PolicyServer>
<SessionCount>0</SessionCount>
<SessionSuccessCount>0</SessionSuccessCount>
<SessionFailCount>0</SessionFailCount>
<SessionProtocolFailCount>0</SessionProtocolFailCount>
<SessionPolicyFailCount>0</SessionPolicyFailCount>
</Sample>
</PcmmCmtsStats>
</Statistics>
```

Individual Statistics

Individual statistics defined for this tag are:

- PolicyServer

  The name of MPE server

  .
- Name

  The identity of the AM.
- MessagesInCount

  Number of Gate messages received.
- IsComplete

  True if current stats period is complete. False if current stats period is incomplete (shorter than configured stats period) due to some reason such as failover.
- MessagesOutCount

  Number of Gate messages sent.
- GateSetCount

  Number of Gate Set messages received.
- GateInfoCount

  Number of Gate Info messages received.
- GateDeleteCount

  Number of Gate Delete messages received.

- GateSetSuccessCount

  Number of Gate Set Success acknowledge messages processed.

- GateInfoSuccessCount

  Number of Gate Info Success acknowledge messages processed.

- GateDeleteSuccessCount

  Number of Gate Delete Success acknowledge messages processed.

- GateSetErrorCount

  Number of Gate Set Error acknowledge messages processed.

- GateInfoErrorCount

  Number of Gate Info Error acknowledge messages processed.

- GateDeleteErrorCount

  Number of Gate Delete Error acknowledge messages processed.

- ReportCount

  Number of Gate Report messages processed.

- DropCount

  Number of Gate Report messages ignored.

- ActiveGateCount

  Number of currently active gates.

- MaxActiveGateCount

  Highest number of active gates seen so far.

PCMM CMTS Gate Statistics

The following examples show the request and response that are defined in the XSD files for the PcmmCmtsGateStats tag.

Request

This request follows the PcmmCmtsGateStats tag defined in the QueryOmStats section in the XSD files.

Note: If both the BodServer and Name parameter values are specified together, OSSI will return statistic counters from the MPE and application identity specified only.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00Z</StartTime>
<EndTime>2016-04-21T14:30:00Z</EndTime>
<PcmmCmtsGateStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
```

```
<!-- Name is optional. -->
<Name>mra-82.example.com</Name>
<Name>mra-35.example.com</Name>
</PcmmCmtsGateStats>
</QueryOmStats>
```

Response

The response to this request follows the PcmmCmtsGateStats tag defined in the Statistics section in the XSD files..

```
<Statistics>
<PcmmCmtsGateStats>
<Sample>
<StartTime>2016-05-16T07:45:00Z</StartTime>
<EndTime>2016-05-16T08:00:00Z</EndTime>
<PolicyServer>MPE-S3</PolicyServer>
<IsComplete>true</IsComplete>
<Name>realCMTS-83-106</Name>
<ConnectTime>N/A</ConnectTime>
<DisconnectTime>N/A</DisconnectTime>
<ConnectAddress>0.0.0.0</ConnectAddress>
<ConnectCount>0</ConnectCount>
<MessagesInCount>0</MessagesInCount>
<MessagesOutCount>0</MessagesOutCount>
<MessagesErrorInCount>0</MessagesErrorInCount>
<MessagesErrorOutCount>0</MessagesErrorOutCount>
<GateSetCount>0</GateSetCount>
<GateSetSuccessCount>0</GateSetSuccessCount>
<GateSetErrorCount>0</GateSetErrorCount>
<GateInfoCount>0</GateInfoCount>
<GateInfoSuccessCount>0</GateInfoSuccessCount>
<GateInfoErrorCount>0</GateInfoErrorCount>
<GateDeleteCount>0</GateDeleteCount>
<GateDeleteSuccessCount>0</GateDeleteSuccessCount>
<GateDeleteErrorCount>0</GateDeleteErrorCount>
<ReportCount>0</ReportCount>
<DropCount>0</DropCount>
<ActiveGateCount>0</ActiveGateCount>
<MaxActiveGateCount>0</MaxActiveGateCount>
</Sample>
</PcmmCmtsGateStats>
</Statistics>
```

Individual Statistics

Individual statistics defined for this tag are:

- PolicyServer—The name of MPE server.
- Name—The identity of the AM.
- MessagesInCount—Number of Gate messages received.
- IsComplete—True if current stats period is complete. False if current stats period is incomplete (shorter than configured stats period) due to some reason such as failover.
- MessagesOutCount—Number of Gate messages sent.
- GateSetCount—Number of Gate Set messages received.
- GateInfoCount—Number of Gate Info messages received.
- GateDeleteCount—Number of Gate Delete messages received.

- GateSetSuccessCount—Number of Gate Set Success acknowledge messages processed.
- GateInfoSuccessCount—Number of Gate Info Success acknowledge messages processed.
- GateDeleteSuccessCount—Number of Gate Delete Success acknowledge messages processed.
- GateSetErrorCount—Number of Gate Set Error acknowledge messages processed.
- GateInfoErrorCount—Number of Gate Info Error acknowledge messages processed.
- GateDeleteErrorCount—Number of Gate Delete Error acknowledge messages processed.
- ReportCount— Number of Gate Report messages processed.
- DropCount—Number of Gate Report messages ignored.
- ActiveGateCount—Number of currently active gates.
- MaxActiveGateCount—Highest number of active gates seen so far.

PCMM Network Element Statistics

The following examples show the request and response that are defined in the XSD files for the PcmmNetworkElementStats tag.

Request

This request follows the PcmmNetworkElementStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00Z</StartTime>
<EndTime>2016-04-21T14:30:00Z</EndTime>
<PcmmNetworkElementStats>
<!-- Name is optional. -->
<Name>mra-82.example.com</Name>
<Name>mra-35.example.com</Name>
<!-- NeId is optional. -->
<NeId />
</PcmmNetworkElementStats>
</QueryOmStats>
```

The following is an example of a request for multiple PCMM network elements using the Name and NeId parameters. This example returns statistics for three different network elements:

```
<QueryOmStats>
    <StartTime>2006-10-12T11:15:00Z</StartTime>
    <EndTime>2006-10-12T11:25:00Z</EndTime>
    <PcmmNetworkElementStats>
        <Name>Router1</Name>
        <Name>Router2</Name>
        <Name>Router3</Name>
    </PcmmNetworkElementStats>
</QueryOmStats>
```

The following is an example of a request for all PCMM network elements in the system. This example returns statistics for each PCMM network element:

```
<QueryOmStats>
    <StartTime>2006-10-12T11:15:00Z</StartTime>
    <EndTime>2006-10-12T11:25:00Z</EndTime>
```

```
    <PcmmNetworkElementStats></PcmmNetworkElementStats>
</QueryOmStats>
```

Response

The response to this request follows the PcmmNetworkElementStats tag defined in the Statistics section in the XSD files. The following is an example XML response to this tag request.

Both Name and NeId are returned along with the statistics and actual recorded times for those statistics. Sample groups are ordered by policy server, network element, available interface, and then by time.

```
<Statistics>
<PcmmNetworkElementStats>
<Sample>
<StartTime>2016-05-16T07:45:00Z</StartTime>
<EndTime>2016-05-16T08:00:00Z</EndTime>
<PolicyServer>MPE-S3</PolicyServer>
<Name>realCMTS-83-106</Name>
<NeId/>
<SessionCount>0</SessionCount>
<SessionSuccessCount>0</SessionSuccessCount>
<SessionFailCount>0</SessionFailCount>
<Capacity>0</Capacity>
</Sample>
<Sample>
<StartTime>2016-05-16T08:00:00Z</StartTime>
<EndTime>2016-05-16T08:15:00Z</EndTime>
<PolicyServer>MPE-S3</PolicyServer>
<Name>realCMTS-83-106</Name>
<NeId/>
<SessionCount>0</SessionCount>
<SessionSuccessCount>0</SessionSuccessCount>
<SessionFailCount>0</SessionFailCount>
<Capacity>0</Capacity>
</Sample>
</PcmmNetworkElementStats>
</Statistics>
```

Individual Statistics

Individual statistics defined for this tag are:

- Name:

  Unique name identifying the network element for the following statistics.

  - NeId

    Optional identifier field for the network element.

  - InterfaceName

    Identifying field for the network element's Interface.

  - SessionCount

    Current active sessions for that network element or Interface. This is a non-cumulative value and is displayed as an absolute.

  - SessionSuccessCount

Successful sessions.

- SessionFailCount

  Session failures.

- Capacity

  The currently defined, maximum capacity for this network element or Interface. This is a static absolute value defined in the CMP for that object.

About Miscellaneous Statistics

This chapter contains miscellaneous statistics obtained through xml requests and responses. They are in alphabetical order.

About Diameter Statistics for Cable Mode

This chapter contains the Diameter Statistics listed in the Cable KPI Dashboard screen.

SGW Failure Statistics

The following examples show the request and response that are defined in the XSD files for the SgwFailureStats tag.

Request

This request follows the SgwFailureStats tag defined in the QueryOmStats section in the XSD files.

```
<?xml version="1.0" encoding="UTF-8"?>
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<SgwFailureStats />
</QueryOmStats>
```

Response

The response to this request follows the SgwFailureStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<SgwFailureStats>
<Sample>
<StartTime>2016-05-16T07:45:00Z</StartTime>
<EndTime>2016-05-16T08:00:00Z</EndTime>
<Name>sgw</Name>
<SgwIp/>
<SgwLastFailureTime/>
```

```
<SgwStatus/>
</Sample>
</SgwFailureStats>
</Statistics>
```

MGPI Statistics

The following examples show the request and response that are defined in the XSD files for the MgpiStats tag.

Request

This request follows the MgpiStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00</StartTime>
<EndTime>2016-04-21T14:30:00</EndTime>
<MgpiStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
</MgpiStats>
</QueryOmStats>
```

Response

The response to this request follows the MgpiStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<MgpiStats>
<Sample>
<StartTime>2016-05-16T07:45:00Z</StartTime>
<EndTime>2016-05-16T08:00:00Z</EndTime>
<PolicyServer>MPE-R3</PolicyServer>
<IsComplete>true</IsComplete>
<TotalFlowsCount>0</TotalFlowsCount>
<ActualGatesCount>0</ActualGatesCount>
<MultiFlowGatesCount>0</MultiFlowGatesCount>
<EffectiveGatesCount>0</EffectiveGatesCount>
</Sample>
</MgpiStats>
</Statistics>
```

Individual Statistics

Individual statistics defined for this tag are:

- TotalFlowsCount

  The number of active upstream diameter session flows in memory.

- ActualGatesCount

  The number of actual upstream gates in memory.

- MultiFlowGatesCount

  The number of gates in memory that have been aggregated, (for example, possessing multiple diameter session flows on this gate).

- EffectiveGatesCount

  A calculation using the formula Effective Gates = (Active Gate Count - Actual Gate Count) + Total Flow Count.

  Note: Active gate count is the number of active gates, including the upstream gates and downstream gates.

Example

An MPE Upstream Service Flow Limit for Triggering MGPI = 2, Maximum Number of Grants per Interval = 2 and MGPI = yes.

Send 3 same AAR requests to MPE, Active Gate Count = 5, Actual Gate Count = 2, Total Flow Count = 3.

The Effective Gate Count = (5-2) + 3 = 6

DQoS Operational Measurements Requests

This section shows the requests and responses for:

- *DQoS CMTS Statistics*
- *DQoS Network Element Statistics*

DQoS CMTS Statistics

The following examples show the request and response that are defined in the XSD files for the DqosCmtsStats tag.

Request

This request follows the DqosCmtsStats tag defined in the QueryOmStats section of the XSD files.

The following is an example of a request for all policy servers in the system.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00Z</StartTime>
<EndTime>2016-04-21T14:30:00Z</EndTime>
<DqosCmtsStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
</DqosCmtsStats>
</QueryOmStats>
```

Response

The response to this request follows the DqosCmtsStats tag defined in the Statistics section of the XSD files.

- SessionCount:

  The number of session requests received.

- SessionSuccessCount:

  The number of session requests successfully created.

- SessionFailCount:

  The number of session request failures. For example, this could be due to a policy denying a request.

- SessionProtocolFailCount:

  The number of session failures due to an invalid message or parameter. This count is incremented whenever the MPE determines that an incoming message from the AM has an invalid message and as a result, the message has to be dropped by the MPE.

- SessionPolicyFailCount:

  The number of session requests that trigger a policy. This count is maintained in the MPE, one per policy. When the condition of a policy triggers, the count for that policy is incremented. The value displayed is a total trigger count, (that is, the sum of this value for all the policies). For example, if the definition of a policy is defined as, when the device usage is greater than 80% of capacity, reject message. When the MPE executes this policy in response to a request, if the policy triggers (that is, if the MPE determines that the device usage is greater than 80%), the trigger count for that policy is incremented.

The following is an example XML response to a DqosCmtsStats tag request:

```
<Statistics>
<DqosCmtsStats>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<SessionCount/>
<SessionSuccessCount/>
<SessionFailCount/>
<SessionProtocolFailCount/>
<SessionPolicyFailCount/>
</Sample>
</DqosCmtsStats>
</Statistics>
```

DQoS Network Element Statistics

The following examples show the request and response that are defined in the XSD files for the DqosNetworkElementStats tag.

Request

This request follows the DqosNetworkElementStats tag defined in the QueryOmStats section of the XSD files.

```
<QueryOmStats>
```

```
<StartTime>2016-04-21T14:15:00Z</StartTime>
<EndTime>2016-04-21T14:30:00Z</EndTime>
<DqosNetworkElementStats>
<!-- Name is optional. -->
<Name>mra-82.example.com</Name>
<Name>mra-35.example.com</Name>
<!-- NeId is optional. -->
<NeId />
</DqosNetworkElementStats>
</QueryOmStats>
```

The following is an example of a request for all DQoS network elements in the system. This example returns statistics for each DQoQ network element:

```
<Statistics>
<DqosNetworkElementStats>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<Name/>
<NeId/>
<SessionCount>0</SessionCount>
<SessionSuccessCount>0</SessionSuccessCount>
<SessionFailCount>0</SessionFailCount>
<Capacity>0</Capacity>
<Interface>
<InterfaceName/>
<SessionCount>0</SessionCount>
<SessionSuccessCount>0</SessionSuccessCount>
<SessionFailCount>0</SessionFailCount>
<Capacity>0</Capacity>
</Interface>
</Sample>
</DqosNetworkElementStats>
</Statistics>
```

Response

The response to this request follows the DqosNetworkElementStats tag defined in the Statistics section of the XSD files.

Both Name and NeId are returned along with the statistics and actual recorded times for those statistics. Sample groups are ordered by policy server, network element, available interface, and then by time.

- Name

  Unique name identifying the network element for the following statistics.

  - NeId

    Optional identifier field for the network element.

  - InterfaceName

    Identifying field for the network element's Interface.

  - SessionCount

    Current active sessions for that network element or Interface. This is a non-cumulative value and is displayed as an absolute.

- SessionSuccessCount

  Successful sessions.

- SessionFailCount

  Session failures.

- Capacity

  The currently defined, maximum capacity for this network element or Interface. This is a static absolute value defined in the CMP for that object.

The following is an example XML response to a multiple network element request:

```
<Statistics>
    <DqosNetworkElementStats>
        <Sample>
            <StartTime>2006-10-12T11:18:30Z</StartTime>
            <EndTime>2006-10-12T11:19:20Z</EndTime>
            <PolicyServer>Atlanta105</PolicyServer>
            <Name>Router1</Name>
            <NeId>12345</NeId>
            <SessionCount>3</SessionCount>
            <SessionSuccessCount>3</SessionSuccessCount>
            <SessionFailCount>0</SessionFailCount>
            <Capacity>50000000</Capacity>
        </Sample>
        <Sample>
            <StartTime>2006-10-12T11:19:20Z</StartTime>
            <EndTime>2006-10-12T11:20:10Z</EndTime>
            <PolicyServer>Atlanta105</PolicyServer>
            <Name>Router1</Name>
            <NeId>12345</NeId>
            <SessionCount>0</SessionCount>
            <SessionSuccessCount>0</SessionSuccessCount>
            <SessionFailCount>0</SessionFailCount>
            <Capacity>50000000</Capacity>
        </Sample>
    </DqosNetworkElementStats>
</Statistics>
```

Gate Statistics

The following examples show the request and response that are defined in the XSD files for the GateStats tag.

Request

This request follows the GateStats tag defined in the QueryOmStats section of the XSD files.

```
<?xml version="1.0" encoding="UTF-8"?>
<QueryOmStats>
<StartTime>2016-04-21T14:15:00Z</StartTime>
<EndTime>2016-04-21T14:30:00Z</EndTime>
<GateStats>
<!-- PolicyServer is optional. -->
```

```
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
</GateStats>
</QueryOmStats>
```

Response

The response to this request follows the GateStats tag defined in the Statistics section of the XSD files.

```
<Statistics>
<GateStats>
<Sample>
<StartTime>2016-05-16T07:45:00Z</StartTime>
<EndTime>2016-05-16T08:00:00Z</EndTime>
<PolicyServer>MPE-R3</PolicyServer>
<IsComplete>true</IsComplete>
<GateSetCount>0</GateSetCount>
<GateSetSuccessCount>0</GateSetSuccessCount>
<GateSetErrorCount>0</GateSetErrorCount>
<GateStatusCount>0</GateStatusCount>
<GateStatusSuccessCount>0</GateStatusSuccessCount>
<GateStatusErrorCount>0</GateStatusErrorCount>
<GateDeleteCount>0</GateDeleteCount>
<GateDeleteSuccessCount>0</GateDeleteSuccessCount>
<GateDeleteErrorCount>0</GateDeleteErrorCount>
</Sample>
<Sample>
<StartTime>2016-05-16T08:00:00Z</StartTime>
<EndTime>2016-05-16T08:15:00Z</EndTime>
<PolicyServer>MPE-R3</PolicyServer>
<IsComplete>true</IsComplete>
<GateSetCount>0</GateSetCount>
<GateSetSuccessCount>0</GateSetSuccessCount>
<GateSetErrorCount>0</GateSetErrorCount>
<GateStatusCount>0</GateStatusCount>
<GateStatusSuccessCount>0</GateStatusSuccessCount>
<GateStatusErrorCount>0</GateStatusErrorCount>
<GateDeleteCount>0</GateDeleteCount>
<GateDeleteSuccessCount>0</GateDeleteSuccessCount>
<GateDeleteErrorCount>0</GateDeleteErrorCount>
</Sample>
<Sample>
<StartTime>2016-05-16T08:15:00Z</StartTime>
<EndTime>2016-05-16T08:30:00Z</EndTime>
<PolicyServer>MPE-R3</PolicyServer>
<IsComplete>true</IsComplete>
<GateSetCount>0</GateSetCount>
<GateSetSuccessCount>0</GateSetSuccessCount>
<GateSetErrorCount>0</GateSetErrorCount>
<GateStatusCount>0</GateStatusCount>
<GateStatusSuccessCount>0</GateStatusSuccessCount>
<GateStatusErrorCount>0</GateStatusErrorCount>
<GateDeleteCount>0</GateDeleteCount>
<GateDeleteSuccessCount>0</GateDeleteSuccessCount>
<GateDeleteErrorCount>0</GateDeleteErrorCount>
</Sample>
<Sample>
<StartTime>2016-05-16T07:45:00Z</StartTime>
<EndTime>2016-05-16T08:00:00Z</EndTime>
<PolicyServer>MPE-S3</PolicyServer>
<IsComplete>true</IsComplete>
```

```
<GateSetCount>0</GateSetCount>
<GateSetSuccessCount>0</GateSetSuccessCount>
<GateSetErrorCount>0</GateSetErrorCount>
<GateStatusCount>0</GateStatusCount>
<GateStatusSuccessCount>0</GateStatusSuccessCount>
<GateStatusErrorCount>0</GateStatusErrorCount>
<GateDeleteCount>0</GateDeleteCount>
<GateDeleteSuccessCount>0</GateDeleteSuccessCount>
<GateDeleteErrorCount>0</GateDeleteErrorCount>
</Sample>
<Sample>
<StartTime>2016-05-16T08:00:00Z</StartTime>
<EndTime>2016-05-16T08:15:00Z</EndTime>
<PolicyServer>MPE-S3</PolicyServer>
<IsComplete>true</IsComplete>
<GateSetCount>0</GateSetCount>
<GateSetSuccessCount>0</GateSetSuccessCount>
<GateSetErrorCount>0</GateSetErrorCount>
<GateStatusCount>0</GateStatusCount>
<GateStatusSuccessCount>0</GateStatusSuccessCount>
<GateStatusErrorCount>0</GateStatusErrorCount>
<GateDeleteCount>0</GateDeleteCount>
<GateDeleteSuccessCount>0</GateDeleteSuccessCount>
<GateDeleteErrorCount>0</GateDeleteErrorCount>
</Sample>
<Sample>
<StartTime>2016-05-16T08:15:00Z</StartTime>
<EndTime>2016-05-16T08:30:00Z</EndTime>
<PolicyServer>MPE-S3</PolicyServer>
<IsComplete>true</IsComplete>
<GateSetCount>0</GateSetCount>
<GateSetSuccessCount>0</GateSetSuccessCount>
<GateSetErrorCount>0</GateSetErrorCount>
<GateStatusCount>0</GateStatusCount>
<GateStatusSuccessCount>0</GateStatusSuccessCount>
<GateStatusErrorCount>0</GateStatusErrorCount>
<GateDeleteCount>0</GateDeleteCount>
<GateDeleteSuccessCount>0</GateDeleteSuccessCount>
<GateDeleteErrorCount>0</GateDeleteErrorCount>
</Sample>
<Sample>
<StartTime>2016-05-16T07:45:01Z</StartTime>
<EndTime>2016-05-16T08:00:01Z</EndTime>
<PolicyServer>MPE-R1</PolicyServer>
<IsComplete>true</IsComplete>
<GateSetCount>0</GateSetCount>
<GateSetSuccessCount>0</GateSetSuccessCount>
<GateSetErrorCount>0</GateSetErrorCount>
<GateStatusCount>0</GateStatusCount>
<GateStatusSuccessCount>0</GateStatusSuccessCount>
<GateStatusErrorCount>0</GateStatusErrorCount>
<GateDeleteCount>0</GateDeleteCount>
<GateDeleteSuccessCount>0</GateDeleteSuccessCount>
<GateDeleteErrorCount>0</GateDeleteErrorCount>
</Sample>
<Sample>
<StartTime>2016-05-16T08:00:01Z</StartTime>
<EndTime>2016-05-16T08:15:01Z</EndTime>
<PolicyServer>MPE-R1</PolicyServer>
<IsComplete>true</IsComplete>
<GateSetCount>0</GateSetCount>
<GateSetSuccessCount>0</GateSetSuccessCount>
<GateSetErrorCount>0</GateSetErrorCount>
<GateStatusCount>0</GateStatusCount>
```

```
<GateStatusSuccessCount>0</GateStatusSuccessCount>
<GateStatusErrorCount>0</GateStatusErrorCount>
<GateDeleteCount>0</GateDeleteCount>
<GateDeleteSuccessCount>0</GateDeleteSuccessCount>
<GateDeleteErrorCount>0</GateDeleteErrorCount>
</Sample>
<Sample>
<StartTime>2016-05-16T07:45:01Z</StartTime>
<EndTime>2016-05-16T08:00:01Z</EndTime>
<PolicyServer>MPE-R2</PolicyServer>
<IsComplete>true</IsComplete>
<GateSetCount>0</GateSetCount>
<GateSetSuccessCount>0</GateSetSuccessCount>
<GateSetErrorCount>0</GateSetErrorCount>
<GateStatusCount>0</GateStatusCount>
<GateStatusSuccessCount>0</GateStatusSuccessCount>
<GateStatusErrorCount>0</GateStatusErrorCount>
<GateDeleteCount>0</GateDeleteCount>
<GateDeleteSuccessCount>0</GateDeleteSuccessCount>
<GateDeleteErrorCount>0</GateDeleteErrorCount>
</Sample>
<Sample>
<StartTime>2016-05-16T08:00:01Z</StartTime>
<EndTime>2016-05-16T08:15:01Z</EndTime>
<PolicyServer>MPE-R2</PolicyServer>
<IsComplete>true</IsComplete>
<GateSetCount>0</GateSetCount>
<GateSetSuccessCount>0</GateSetSuccessCount>
<GateSetErrorCount>0</GateSetErrorCount>
<GateStatusCount>0</GateStatusCount>
<GateStatusSuccessCount>0</GateStatusSuccessCount>
<GateStatusErrorCount>0</GateStatusErrorCount>
<GateDeleteCount>0</GateDeleteCount>
<GateDeleteSuccessCount>0</GateDeleteSuccessCount>
<GateDeleteErrorCount>0</GateDeleteErrorCount>
</Sample>
<Sample>
<StartTime>2016-05-16T07:45:01Z</StartTime>
<EndTime>2016-05-16T08:00:01Z</EndTime>
<PolicyServer>MPE-S1</PolicyServer>
<IsComplete>true</IsComplete>
<GateSetCount>0</GateSetCount>
<GateSetSuccessCount>0</GateSetSuccessCount>
<GateSetErrorCount>0</GateSetErrorCount>
<GateStatusCount>0</GateStatusCount>
<GateStatusSuccessCount>0</GateStatusSuccessCount>
<GateStatusErrorCount>0</GateStatusErrorCount>
<GateDeleteCount>0</GateDeleteCount>
<GateDeleteSuccessCount>0</GateDeleteSuccessCount>
<GateDeleteErrorCount>0</GateDeleteErrorCount>
</Sample>
<Sample>
<StartTime>2016-05-16T08:00:01Z</StartTime>
<EndTime>2016-05-16T08:15:01Z</EndTime>
<PolicyServer>MPE-S1</PolicyServer>
<IsComplete>true</IsComplete>
<GateSetCount>0</GateSetCount>
<GateSetSuccessCount>0</GateSetSuccessCount>
<GateSetErrorCount>0</GateSetErrorCount>
<GateStatusCount>0</GateStatusCount>
<GateStatusSuccessCount>0</GateStatusSuccessCount>
<GateStatusErrorCount>0</GateStatusErrorCount>
<GateDeleteCount>0</GateDeleteCount>
<GateDeleteSuccessCount>0</GateDeleteSuccessCount>
```

```
<GateDeleteErrorCount>0</GateDeleteErrorCount>
</Sample>
<Sample>
<StartTime>2016-05-16T07:45:00Z</StartTime>
<EndTime>2016-05-16T08:00:00Z</EndTime>
<PolicyServer>MPE-S2</PolicyServer>
<IsComplete>true</IsComplete>
<GateSetCount>0</GateSetCount>
<GateSetSuccessCount>0</GateSetSuccessCount>
<GateSetErrorCount>0</GateSetErrorCount>
<GateStatusCount>0</GateStatusCount>
<GateStatusSuccessCount>0</GateStatusSuccessCount>
<GateStatusErrorCount>0</GateStatusErrorCount>
<GateDeleteCount>0</GateDeleteCount>
<GateDeleteSuccessCount>0</GateDeleteSuccessCount>
<GateDeleteErrorCount>0</GateDeleteErrorCount>
</Sample>
<Sample>
<StartTime>2016-05-16T08:00:00Z</StartTime>
<EndTime>2016-05-16T08:15:00Z</EndTime>
<PolicyServer>MPE-S2</PolicyServer>
<IsComplete>true</IsComplete>
<GateSetCount>0</GateSetCount>
<GateSetSuccessCount>0</GateSetSuccessCount>
<GateSetErrorCount>0</GateSetErrorCount>
<GateStatusCount>0</GateStatusCount>
<GateStatusSuccessCount>0</GateStatusSuccessCount>
<GateStatusErrorCount>0</GateStatusErrorCount>
<GateDeleteCount>0</GateDeleteCount>
<GateDeleteSuccessCount>0</GateDeleteSuccessCount>
<GateDeleteErrorCount>0</GateDeleteErrorCount>
</Sample>
<Sample>
<StartTime>2016-05-16T07:45:01Z</StartTime>
<EndTime>2016-05-16T08:00:01Z</EndTime>
<PolicyServer>MPE-S45</PolicyServer>
<IsComplete>true</IsComplete>
<GateSetCount>0</GateSetCount>
<GateSetSuccessCount>0</GateSetSuccessCount>
<GateSetErrorCount>0</GateSetErrorCount>
<GateStatusCount>0</GateStatusCount>
<GateStatusSuccessCount>0</GateStatusSuccessCount>
<GateStatusErrorCount>0</GateStatusErrorCount>
<GateDeleteCount>0</GateDeleteCount>
<GateDeleteSuccessCount>0</GateDeleteSuccessCount>
<GateDeleteErrorCount>0</GateDeleteErrorCount>
</Sample>
<Sample>
<StartTime>2016-05-16T08:00:01Z</StartTime>
<EndTime>2016-05-16T08:15:01Z</EndTime>
<PolicyServer>MPE-S45</PolicyServer>
<IsComplete>true</IsComplete>
<GateSetCount>0</GateSetCount>
<GateSetSuccessCount>0</GateSetSuccessCount>
<GateSetErrorCount>0</GateSetErrorCount>
<GateStatusCount>0</GateStatusCount>
<GateStatusSuccessCount>0</GateStatusSuccessCount>
<GateStatusErrorCount>0</GateStatusErrorCount>
<GateDeleteCount>0</GateDeleteCount>
<GateDeleteSuccessCount>0</GateDeleteSuccessCount>
<GateDeleteErrorCount>0</GateDeleteErrorCount>
</Sample>
</GateStats>
</Statistics>
```

Individual Statistics

Individual statistics defined for this tag are:

- GateSetCount

  Number of Gate Set messages processed.

- GateSetSuccessCount

  Number of Gate Set Success messages processed.

- GateSetErrorCount

  Number of Gate Set Error messages processed.

- GateStatusCount

  Number of Gate Status messages processed.

- GateStatusSuccessCount

  Number of Gate Status Success messages processed.

- GateStatusErrorCount

  Number of Gate Status Error messages processed.

- GateDeleteCount

  Number of Gate Delete messages processed.

- GateDeleteSuccessCount

  Number of Gate Delete Success messages processed.

- GateDeleteErrorCount

  Number of Gate Delete Error messages processed.

Replication Statistics

The following examples show the request and response that are defined in the XSD files for the ReplicationStats tag.

Request

This request follows the ReplicationStats tag defined in the QueryOmStats section in the XSD files.

Note: The request must contain the BoD or MPE name configured in the CMP.

```
<QueryOmStats>
<StartTime>2017-04-21T14:15:00Z</StartTime>
<EndTime>2017-04-21T14:30:00Z</EndTime>
<ReplicationStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
<!-- BodServer is optional. -->
<BodServer>BOD</BodServer>
```

```
<BodServer>BOD-1</BodServer>
</ReplicationStats>
</QueryOmStats>
```

Response

The response to this request follows the RepicationStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<ReplicationStats>
<Sample>
<StartTime>2017-05-17T00:00:00Z</StartTime>
<EndTime>2017-05-17T00:15:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<BladeHostName>CE-MPE-174</BladeHostName>
<PeerHostName>CE-MPE-84</PeerHostName>
<TotalSentKB>34</TotalSentKB>
<PeakSentKB>1</PeakSentKB>
<AvgSentKB>0</AvgSentKB>
<TotalRecvKB>15</TotalRecvKB>
<PeakRecvKB>0</PeakRecvKB>
<AvgRecvKB>0</AvgRecvKB>
</Sample>
<Sample>
<StartTime>2017-05-17T00:00:00Z</StartTime>
<EndTime>2017-05-17T00:15:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<BladeHostName>CE-MPE-84</BladeHostName>
<PeerHostName>CE-MPE-174</PeerHostName>
<TotalSentKB>15</TotalSentKB>
<PeakSentKB>0</PeakSentKB>
<AvgSentKB>0</AvgSentKB>
<TotalRecvKB>34</TotalRecvKB>
<PeakRecvKB>1</PeakRecvKB>
<AvgRecvKB>0</AvgRecvKB>
</Sample>
<Sample>
<StartTime>2017-05-17T00:15:00Z</StartTime>
<EndTime>2017-05-17T00:30:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<BladeHostName>CE-MPE-174</BladeHostName>
<PeerHostName>CE-MPE-84</PeerHostName>
<TotalSentKB>34</TotalSentKB>
<PeakSentKB>1</PeakSentKB>
<AvgSentKB>0</AvgSentKB>
<TotalRecvKB>15</TotalRecvKB>
<PeakRecvKB>0</PeakRecvKB>
<AvgRecvKB>0</AvgRecvKB>
</Sample>
<Sample>
<StartTime>2017-05-17T00:15:00Z</StartTime>
<EndTime>2017-05-17T00:30:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<BladeHostName>CE-MPE-84</BladeHostName>
<PeerHostName>CE-MPE-174</PeerHostName>
<TotalSentKB>15</TotalSentKB>
<PeakSentKB>0</PeakSentKB>
<AvgSentKB>0</AvgSentKB>
<TotalRecvKB>34</TotalRecvKB>
<PeakRecvKB>1</PeakRecvKB>
```

```
<AvgRecvKB>0</AvgRecvKB>
</Sample>
<Sample>
<StartTime>2017-05-17T00:00:00Z</StartTime>
<EndTime>2017-05-17T00:15:00Z</EndTime>
<MRA>MRA-Cluster</MRA>
<BladeHostName>CE-MRA-52</BladeHostName>
<PeerHostName>CE-MRA-82</PeerHostName>
<TotalSentKB>34</TotalSentKB>
<PeakSentKB>1</PeakSentKB>
<AvgSentKB>0</AvgSentKB>
<TotalRecvKB>15</TotalRecvKB>
<PeakRecvKB>0</PeakRecvKB>
<AvgRecvKB>0</AvgRecvKB>
</Sample>
<Sample>
<StartTime>2017-05-17T00:00:00Z</StartTime>
<EndTime>2017-05-17T00:15:00Z</EndTime>
<MRA>MRA-Cluster</MRA>
<BladeHostName>CE-MRA-82</BladeHostName>
<PeerHostName>CE-MRA-52</PeerHostName>
<TotalSentKB>15</TotalSentKB>
<PeakSentKB>0</PeakSentKB>
<AvgSentKB>0</AvgSentKB>
<TotalRecvKB>34</TotalRecvKB>
<PeakRecvKB>1</PeakRecvKB>
<AvgRecvKB>0</AvgRecvKB>
</Sample>
<Sample>
<StartTime>2017-05-17T00:15:00Z</StartTime>
<EndTime>2017-05-17T00:30:00Z</EndTime>
<MRA>MRA-Cluster</MRA>
<BladeHostName>CE-MRA-52</BladeHostName>
<PeerHostName>CE-MRA-82</PeerHostName>
<TotalSentKB>34</TotalSentKB>
<PeakSentKB>1</PeakSentKB>
<AvgSentKB>0</AvgSentKB>
<TotalRecvKB>15</TotalRecvKB>
<PeakRecvKB>0</PeakRecvKB>
<AvgRecvKB>0</AvgRecvKB>
</Sample>
<Sample>
<StartTime>2017-05-17T00:15:00Z</StartTime>
<EndTime>2017-05-17T00:30:00Z</EndTime>
<MRA>MRA-Cluster</MRA>
<BladeHostName>CE-MRA-82</BladeHostName>
<PeerHostName>CE-MRA-52</PeerHostName>
<TotalSentKB>15</TotalSentKB>
<PeakSentKB>0</PeakSentKB>
<AvgSentKB>0</AvgSentKB>
<TotalRecvKB>34</TotalRecvKB>
<PeakRecvKB>1</PeakRecvKB>
<AvgRecvKB>0</AvgRecvKB>
</Sample>
</ReplicationStats>
</Statistics>
```

Individual Statistics

Individual statistics defined for this tag are:

- BoD Server

The name of the BoD server.

- Blade Host Name

  The name of the blade on the host server.

- Peer Host Name

  Name of the server delegated as a peer.

- Total Sent KB

  The total number of packets sent measured in kilobytes.

- Average Sent KB

  The average number of packets sent measured in kilobytes.

- Peak Sent KB

  The peak number of packets sent measured in kilobytes.

- Total Received KB

  The total number of packets received measured in kilobytes.

- Average Received KB

  The average number of packets received measured in kilobytes.

- Peak Received KB

  The peak number of packets received measured in kilobytes.

Policy Statistics

The following examples show the request and response that are defined in the XSD files for the PolicyStats tag.

Request

This request follows the PolicyStats tag defined in the QueryOmStats section in the XSD files.

```
<?xml version="1.0" encoding="UTF-8"?>
<QueryOmStats>
<StartTime>2016-04-21T14:15:00Z</StartTime>
<EndTime>2016-04-21T14:30:00Z</EndTime>
<PolicyStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
<!-- Name is optional. -->
<Name>mra-82.example.com</Name>
<Name>mra-35.example.com</Name>
</PolicyStats>
</QueryOmStats>
```

Response

The response to this request follows the PolicyStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<PolicyStats>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<Name>Accounting Start-Sanity</Name>
<EvalCount>0</EvalCount>
<TriggerCount>0</TriggerCount>
<FailCondCount>0</FailCondCount>
<FailNACount>0</FailNACount>
<FailExcCount>0</FailExcCount>
<TotalExecTime>0</TotalExecTime>
<AvgExecTime>0</AvgExecTime>
<MaxExecTime>0</MaxExecTime>
<HistExecTime_000_020>0</HistExecTime_000_020>
<HistExecTime_020_040>0</HistExecTime_020_040>
<HistExecTime_040_060>0</HistExecTime_040_060>
<HistExecTime_060_080>0</HistExecTime_060_080>
<HistExecTime_080_100>0</HistExecTime_080_100>
<HistExecTime_100_150>0</HistExecTime_100_150>
<HistExecTime_150_200>0</HistExecTime_150_200>
<HistExecTime_200_250>0</HistExecTime_200_250>
<HistExecTimePlus_250>0</HistExecTimePlus_250>
</Sample>
<Sample>
<StartTime>2016-05-17T00:00:00Z</StartTime>
<EndTime>2016-05-17T00:15:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<Name>Accounting Start-Sanity</Name>
<EvalCount>0</EvalCount>
<TriggerCount>0</TriggerCount>
<FailCondCount>0</FailCondCount>
<FailNACount>0</FailNACount>
<FailExcCount>0</FailExcCount>
<TotalExecTime>0</TotalExecTime>
<AvgExecTime>0</AvgExecTime>
<MaxExecTime>0</MaxExecTime>
<HistExecTime_000_020>0</HistExecTime_000_020>
<HistExecTime_020_040>0</HistExecTime_020_040>
<HistExecTime_040_060>0</HistExecTime_040_060>
<HistExecTime_060_080>0</HistExecTime_060_080>
<HistExecTime_080_100>0</HistExecTime_080_100>
<HistExecTime_100_150>0</HistExecTime_100_150>
<HistExecTime_150_200>0</HistExecTime_150_200>
<HistExecTime_200_250>0</HistExecTime_200_250>
<HistExecTimePlus_250>0</HistExecTimePlus_250>
</Sample>
<Sample>
<StartTime>2016-05-17T00:15:00Z</StartTime>
<EndTime>2016-05-17T00:30:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<Name>Accounting Start-Sanity</Name>
<EvalCount>0</EvalCount>
```

```
<TriggerCount>0</TriggerCount>
<FailCondCount>0</FailCondCount>
<FailNACount>0</FailNACount>
<FailExcCount>0</FailExcCount>
<TotalExecTime>0</TotalExecTime>
<AvgExecTime>0</AvgExecTime>
<MaxExecTime>0</MaxExecTime>
<HistExecTime_000_020>0</HistExecTime_000_020>
<HistExecTime_020_040>0</HistExecTime_020_040>
<HistExecTime_040_060>0</HistExecTime_040_060>
<HistExecTime_060_080>0</HistExecTime_060_080>
<HistExecTime_080_100>0</HistExecTime_080_100>
<HistExecTime_100_150>0</HistExecTime_100_150>
<HistExecTime_150_200>0</HistExecTime_150_200>
<HistExecTime_200_250>0</HistExecTime_200_250>
<HistExecTimePlus_250>0</HistExecTimePlus_250>
</Sample>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<Name>CAM-9005060</Name>
<EvalCount>0</EvalCount>
<TriggerCount>0</TriggerCount>
<FailCondCount>0</FailCondCount>
<FailNACount>0</FailNACount>
<FailExcCount>0</FailExcCount>
<TotalExecTime>0</TotalExecTime>
<AvgExecTime>0</AvgExecTime>
<MaxExecTime>0</MaxExecTime>
<HistExecTime_000_020>0</HistExecTime_000_020>
<HistExecTime_020_040>0</HistExecTime_020_040>
<HistExecTime_040_060>0</HistExecTime_040_060>
<HistExecTime_060_080>0</HistExecTime_060_080>
<HistExecTime_080_100>0</HistExecTime_080_100>
<HistExecTime_100_150>0</HistExecTime_100_150>
<HistExecTime_150_200>0</HistExecTime_150_200>
<HistExecTime_200_250>0</HistExecTime_200_250>
<HistExecTimePlus_250>0</HistExecTimePlus_250>
</Sample>
<Sample>
<StartTime>2016-05-17T00:00:00Z</StartTime>
<EndTime>2016-05-17T00:15:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<Name>CAM-9005060</Name>
<EvalCount>0</EvalCount>
<TriggerCount>0</TriggerCount>
<FailCondCount>0</FailCondCount>
<FailNACount>0</FailNACount>
<FailExcCount>0</FailExcCount>
<TotalExecTime>0</TotalExecTime>
<AvgExecTime>0</AvgExecTime>
<MaxExecTime>0</MaxExecTime>
<HistExecTime_000_020>0</HistExecTime_000_020>
<HistExecTime_020_040>0</HistExecTime_020_040>
<HistExecTime_040_060>0</HistExecTime_040_060>
<HistExecTime_060_080>0</HistExecTime_060_080>
<HistExecTime_080_100>0</HistExecTime_080_100>
<HistExecTime_100_150>0</HistExecTime_100_150>
<HistExecTime_150_200>0</HistExecTime_150_200>
<HistExecTime_200_250>0</HistExecTime_200_250>
<HistExecTimePlus_250>0</HistExecTimePlus_250>
```

```
</Sample>
<Sample>
<StartTime>2016-05-17T00:15:00Z</StartTime>
<EndTime>2016-05-17T00:30:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<Name>CAM-9005060</Name>
<EvalCount>0</EvalCount>
<TriggerCount>0</TriggerCount>
<FailCondCount>0</FailCondCount>
<FailNACount>0</FailNACount>
<FailExcCount>0</FailExcCount>
<TotalExecTime>0</TotalExecTime>
<AvgExecTime>0</AvgExecTime>
<MaxExecTime>0</MaxExecTime>
<HistExecTime_000_020>0</HistExecTime_000_020>
<HistExecTime_020_040>0</HistExecTime_020_040>
<HistExecTime_040_060>0</HistExecTime_040_060>
<HistExecTime_060_080>0</HistExecTime_060_080>
<HistExecTime_080_100>0</HistExecTime_080_100>
<HistExecTime_100_150>0</HistExecTime_100_150>
<HistExecTime_150_200>0</HistExecTime_150_200>
<HistExecTime_200_250>0</HistExecTime_200_250>
<HistExecTimePlus_250>0</HistExecTimePlus_250>
</Sample>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<Name>CAM-9005061</Name>
<EvalCount>0</EvalCount>
<TriggerCount>0</TriggerCount>
<FailCondCount>0</FailCondCount>
<FailNACount>0</FailNACount>
<FailExcCount>0</FailExcCount>
<TotalExecTime>0</TotalExecTime>
<AvgExecTime>0</AvgExecTime>
<MaxExecTime>0</MaxExecTime>
<HistExecTime_000_020>0</HistExecTime_000_020>
<HistExecTime_020_040>0</HistExecTime_020_040>
<HistExecTime_040_060>0</HistExecTime_040_060>
<HistExecTime_060_080>0</HistExecTime_060_080>
<HistExecTime_080_100>0</HistExecTime_080_100>
<HistExecTime_100_150>0</HistExecTime_100_150>
<HistExecTime_150_200>0</HistExecTime_150_200>
<HistExecTime_200_250>0</HistExecTime_200_250>
<HistExecTimePlus_250>0</HistExecTimePlus_250>
</Sample>
<Sample>
<StartTime>2016-05-17T00:00:00Z</StartTime>
<EndTime>2016-05-17T00:15:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<Name>CAM-9005061</Name>
<EvalCount>0</EvalCount>
<TriggerCount>0</TriggerCount>
<FailCondCount>0</FailCondCount>
<FailNACount>0</FailNACount>
<FailExcCount>0</FailExcCount>
<TotalExecTime>0</TotalExecTime>
<AvgExecTime>0</AvgExecTime>
<MaxExecTime>0</MaxExecTime>
<HistExecTime_000_020>0</HistExecTime_000_020>
```

```
<HistExecTime_020_040>0</HistExecTime_020_040>
<HistExecTime_040_060>0</HistExecTime_040_060>
<HistExecTime_060_080>0</HistExecTime_060_080>
<HistExecTime_080_100>0</HistExecTime_080_100>
<HistExecTime_100_150>0</HistExecTime_100_150>
<HistExecTime_150_200>0</HistExecTime_150_200>
<HistExecTime_200_250>0</HistExecTime_200_250>
<HistExecTimePlus_250>0</HistExecTimePlus_250>
</Sample>
<Sample>
<StartTime>2016-05-17T00:15:00Z</StartTime>
<EndTime>2016-05-17T00:30:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<Name>CAM-9005061</Name>
<EvalCount>0</EvalCount>
<TriggerCount>0</TriggerCount>
<FailCondCount>0</FailCondCount>
<FailNACount>0</FailNACount>
<FailExcCount>0</FailExcCount>
<TotalExecTime>0</TotalExecTime>
<AvgExecTime>0</AvgExecTime>
<MaxExecTime>0</MaxExecTime>
<HistExecTime_000_020>0</HistExecTime_000_020>
<HistExecTime_020_040>0</HistExecTime_020_040>
<HistExecTime_040_060>0</HistExecTime_040_060>
<HistExecTime_060_080>0</HistExecTime_060_080>
<HistExecTime_080_100>0</HistExecTime_080_100>
<HistExecTime_100_150>0</HistExecTime_100_150>
<HistExecTime_150_200>0</HistExecTime_150_200>
<HistExecTime_200_250>0</HistExecTime_200_250>
<HistExecTimePlus_250>0</HistExecTimePlus_250>
</Sample>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<Name>CAM-9005062</Name>
<EvalCount>0</EvalCount>
<TriggerCount>0</TriggerCount>
<FailCondCount>0</FailCondCount>
<FailNACount>0</FailNACount>
<FailExcCount>0</FailExcCount>
<TotalExecTime>0</TotalExecTime>
<AvgExecTime>0</AvgExecTime>
<MaxExecTime>0</MaxExecTime>
<HistExecTime_000_020>0</HistExecTime_000_020>
<HistExecTime_020_040>0</HistExecTime_020_040>
<HistExecTime_040_060>0</HistExecTime_040_060>
<HistExecTime_060_080>0</HistExecTime_060_080>
<HistExecTime_080_100>0</HistExecTime_080_100>
<HistExecTime_100_150>0</HistExecTime_100_150>
<HistExecTime_150_200>0</HistExecTime_150_200>
<HistExecTime_200_250>0</HistExecTime_200_250>
<HistExecTimePlus_250>0</HistExecTimePlus_250>
</Sample>
<Sample>
<StartTime>2016-05-17T00:00:00Z</StartTime>
<EndTime>2016-05-17T00:15:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<Name>CAM-9005062</Name>
<EvalCount>0</EvalCount>
```

```
<TriggerCount>0</TriggerCount>
<FailCondCount>0</FailCondCount>
<FailNACount>0</FailNACount>
<FailExcCount>0</FailExcCount>
<TotalExecTime>0</TotalExecTime>
<AvgExecTime>0</AvgExecTime>
<MaxExecTime>0</MaxExecTime>
<HistExecTime_000_020>0</HistExecTime_000_020>
<HistExecTime_020_040>0</HistExecTime_020_040>
<HistExecTime_040_060>0</HistExecTime_040_060>
<HistExecTime_060_080>0</HistExecTime_060_080>
<HistExecTime_080_100>0</HistExecTime_080_100>
<HistExecTime_100_150>0</HistExecTime_100_150>
<HistExecTime_150_200>0</HistExecTime_150_200>
<HistExecTime_200_250>0</HistExecTime_200_250>
<HistExecTimePlus_250>0</HistExecTimePlus_250>
</Sample>
<Sample>
<StartTime>2016-05-17T00:15:00Z</StartTime>
<EndTime>2016-05-17T00:30:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<Name>CAM-9005062</Name>
<EvalCount>0</EvalCount>
<TriggerCount>0</TriggerCount>
<FailCondCount>0</FailCondCount>
<FailNACount>0</FailNACount>
<FailExcCount>0</FailExcCount>
<TotalExecTime>0</TotalExecTime>
<AvgExecTime>0</AvgExecTime>
<MaxExecTime>0</MaxExecTime>
<HistExecTime_000_020>0</HistExecTime_000_020>
<HistExecTime_020_040>0</HistExecTime_020_040>
<HistExecTime_040_060>0</HistExecTime_040_060>
<HistExecTime_060_080>0</HistExecTime_060_080>
<HistExecTime_080_100>0</HistExecTime_080_100>
<HistExecTime_100_150>0</HistExecTime_100_150>
<HistExecTime_150_200>0</HistExecTime_150_200>
<HistExecTime_200_250>0</HistExecTime_200_250>
<HistExecTimePlus_250>0</HistExecTimePlus_250>
</Sample>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<Name>CAM-9005064</Name>
<EvalCount>0</EvalCount>
<TriggerCount>0</TriggerCount>
<FailCondCount>0</FailCondCount>
<FailNACount>0</FailNACount>
<FailExcCount>0</FailExcCount>
<TotalExecTime>0</TotalExecTime>
<AvgExecTime>0</AvgExecTime>
<MaxExecTime>0</MaxExecTime>
<HistExecTime_000_020>0</HistExecTime_000_020>
<HistExecTime_020_040>0</HistExecTime_020_040>
<HistExecTime_040_060>0</HistExecTime_040_060>
<HistExecTime_060_080>0</HistExecTime_060_080>
<HistExecTime_080_100>0</HistExecTime_080_100>
<HistExecTime_100_150>0</HistExecTime_100_150>
<HistExecTime_150_200>0</HistExecTime_150_200>
<HistExecTime_200_250>0</HistExecTime_200_250>
<HistExecTimePlus_250>0</HistExecTimePlus_250>
```

```
</Sample>
<Sample>
<StartTime>2016-05-17T00:00:00Z</StartTime>
<EndTime>2016-05-17T00:15:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<Name>CAM-9005064</Name>
<EvalCount>0</EvalCount>
<TriggerCount>0</TriggerCount>
<FailCondCount>0</FailCondCount>
<FailNACount>0</FailNACount>
<FailExcCount>0</FailExcCount>
<TotalExecTime>0</TotalExecTime>
<AvgExecTime>0</AvgExecTime>
<MaxExecTime>0</MaxExecTime>
<HistExecTime_000_020>0</HistExecTime_000_020>
<HistExecTime_020_040>0</HistExecTime_020_040>
<HistExecTime_040_060>0</HistExecTime_040_060>
<HistExecTime_060_080>0</HistExecTime_060_080>
<HistExecTime_080_100>0</HistExecTime_080_100>
<HistExecTime_100_150>0</HistExecTime_100_150>
<HistExecTime_150_200>0</HistExecTime_150_200>
<HistExecTime_200_250>0</HistExecTime_200_250>
<HistExecTimePlus_250>0</HistExecTimePlus_250>
</Sample>
<Sample>
<StartTime>2016-05-17T00:15:00Z</StartTime>
<EndTime>2016-05-17T00:30:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<Name>CAM-9005064</Name>
<EvalCount>0</EvalCount>
<TriggerCount>0</TriggerCount>
<FailCondCount>0</FailCondCount>
<FailNACount>0</FailNACount>
<FailExcCount>0</FailExcCount>
<TotalExecTime>0</TotalExecTime>
<AvgExecTime>0</AvgExecTime>
<MaxExecTime>0</MaxExecTime>
<HistExecTime_000_020>0</HistExecTime_000_020>
<HistExecTime_020_040>0</HistExecTime_020_040>
<HistExecTime_040_060>0</HistExecTime_040_060>
<HistExecTime_060_080>0</HistExecTime_060_080>
<HistExecTime_080_100>0</HistExecTime_080_100>
<HistExecTime_100_150>0</HistExecTime_100_150>
<HistExecTime_150_200>0</HistExecTime_150_200>
<HistExecTime_200_250>0</HistExecTime_200_250>
<HistExecTimePlus_250>0</HistExecTimePlus_250>
</Sample>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<Name>Interim Update-Sanity</Name>
<EvalCount>0</EvalCount>
<TriggerCount>0</TriggerCount>
<FailCondCount>0</FailCondCount>
<FailNACount>0</FailNACount>
<FailExcCount>0</FailExcCount>
<TotalExecTime>0</TotalExecTime>
<AvgExecTime>0</AvgExecTime>
<MaxExecTime>0</MaxExecTime>
<HistExecTime_000_020>0</HistExecTime_000_020>
```

```
<HistExecTime_020_040>0</HistExecTime_020_040>
<HistExecTime_040_060>0</HistExecTime_040_060>
<HistExecTime_060_080>0</HistExecTime_060_080>
<HistExecTime_080_100>0</HistExecTime_080_100>
<HistExecTime_100_150>0</HistExecTime_100_150>
<HistExecTime_150_200>0</HistExecTime_150_200>
<HistExecTime_200_250>0</HistExecTime_200_250>
<HistExecTimePlus_250>0</HistExecTimePlus_250>
</Sample>
<Sample>
<StartTime>2016-05-17T00:00:00Z</StartTime>
<EndTime>2016-05-17T00:15:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<Name>Interim Update-Sanity</Name>
<EvalCount>0</EvalCount>
<TriggerCount>0</TriggerCount>
<FailCondCount>0</FailCondCount>
<FailNACount>0</FailNACount>
<FailExcCount>0</FailExcCount>
<TotalExecTime>0</TotalExecTime>
<AvgExecTime>0</AvgExecTime>
<MaxExecTime>0</MaxExecTime>
<HistExecTime_000_020>0</HistExecTime_000_020>
<HistExecTime_020_040>0</HistExecTime_020_040>
<HistExecTime_040_060>0</HistExecTime_040_060>
<HistExecTime_060_080>0</HistExecTime_060_080>
<HistExecTime_080_100>0</HistExecTime_080_100>
<HistExecTime_100_150>0</HistExecTime_100_150>
<HistExecTime_150_200>0</HistExecTime_150_200>
<HistExecTime_200_250>0</HistExecTime_200_250>
<HistExecTimePlus_250>0</HistExecTimePlus_250>
</Sample>
<Sample>
<StartTime>2016-05-17T00:15:00Z</StartTime>
<EndTime>2016-05-17T00:30:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<Name>Interim Update-Sanity</Name>
<EvalCount>0</EvalCount>
<TriggerCount>0</TriggerCount>
<FailCondCount>0</FailCondCount>
<FailNACount>0</FailNACount>
<FailExcCount>0</FailExcCount>
<TotalExecTime>0</TotalExecTime>
<AvgExecTime>0</AvgExecTime>
<MaxExecTime>0</MaxExecTime>
<HistExecTime_000_020>0</HistExecTime_000_020>
<HistExecTime_020_040>0</HistExecTime_020_040>
<HistExecTime_040_060>0</HistExecTime_040_060>
<HistExecTime_060_080>0</HistExecTime_060_080>
<HistExecTime_080_100>0</HistExecTime_080_100>
<HistExecTime_100_150>0</HistExecTime_100_150>
<HistExecTime_150_200>0</HistExecTime_150_200>
<HistExecTime_200_250>0</HistExecTime_200_250>
<HistExecTimePlus_250>0</HistExecTimePlus_250>
</Sample>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<Name>Sanity-GrantGy</Name>
<EvalCount>0</EvalCount>
```

```
<TriggerCount>0</TriggerCount>
<FailCondCount>0</FailCondCount>
<FailNACount>0</FailNACount>
<FailExcCount>0</FailExcCount>
<TotalExecTime>0</TotalExecTime>
<AvgExecTime>0</AvgExecTime>
<MaxExecTime>0</MaxExecTime>
<HistExecTime_000_020>0</HistExecTime_000_020>
<HistExecTime_020_040>0</HistExecTime_020_040>
<HistExecTime_040_060>0</HistExecTime_040_060>
<HistExecTime_060_080>0</HistExecTime_060_080>
<HistExecTime_080_100>0</HistExecTime_080_100>
<HistExecTime_100_150>0</HistExecTime_100_150>
<HistExecTime_150_200>0</HistExecTime_150_200>
<HistExecTime_200_250>0</HistExecTime_200_250>
<HistExecTimePlus_250>0</HistExecTimePlus_250>
</Sample>
<Sample>
<StartTime>2016-05-17T00:00:00Z</StartTime>
<EndTime>2016-05-17T00:15:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<Name>Sanity-GrantGy</Name>
<EvalCount>0</EvalCount>
<TriggerCount>0</TriggerCount>
<FailCondCount>0</FailCondCount>
<FailNACount>0</FailNACount>
<FailExcCount>0</FailExcCount>
<TotalExecTime>0</TotalExecTime>
<AvgExecTime>0</AvgExecTime>
<MaxExecTime>0</MaxExecTime>
<HistExecTime_000_020>0</HistExecTime_000_020>
<HistExecTime_020_040>0</HistExecTime_020_040>
<HistExecTime_040_060>0</HistExecTime_040_060>
<HistExecTime_060_080>0</HistExecTime_060_080>
<HistExecTime_080_100>0</HistExecTime_080_100>
<HistExecTime_100_150>0</HistExecTime_100_150>
<HistExecTime_150_200>0</HistExecTime_150_200>
<HistExecTime_200_250>0</HistExecTime_200_250>
<HistExecTimePlus_250>0</HistExecTimePlus_250>
</Sample>
<Sample>
<StartTime>2016-05-17T00:15:00Z</StartTime>
<EndTime>2016-05-17T00:30:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<Name>Sanity-GrantGy</Name>
<EvalCount>0</EvalCount>
<TriggerCount>0</TriggerCount>
<FailCondCount>0</FailCondCount>
<FailNACount>0</FailNACount>
<FailExcCount>0</FailExcCount>
<TotalExecTime>0</TotalExecTime>
<AvgExecTime>0</AvgExecTime>
<MaxExecTime>0</MaxExecTime>
<HistExecTime_000_020>0</HistExecTime_000_020>
<HistExecTime_020_040>0</HistExecTime_020_040>
<HistExecTime_040_060>0</HistExecTime_040_060>
<HistExecTime_060_080>0</HistExecTime_060_080>
<HistExecTime_080_100>0</HistExecTime_080_100>
<HistExecTime_100_150>0</HistExecTime_100_150>
<HistExecTime_150_200>0</HistExecTime_150_200>
<HistExecTime_200_250>0</HistExecTime_200_250>
<HistExecTimePlus_250>0</HistExecTimePlus_250>
```

```
</Sample>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<Name>Sanity-QuotaGx</Name>
<EvalCount>0</EvalCount>
<TriggerCount>0</TriggerCount>
<FailCondCount>0</FailCondCount>
<FailNACount>0</FailNACount>
<FailExcCount>0</FailExcCount>
<TotalExecTime>0</TotalExecTime>
<AvgExecTime>0</AvgExecTime>
<MaxExecTime>0</MaxExecTime>
<HistExecTime_000_020>0</HistExecTime_000_020>
<HistExecTime_020_040>0</HistExecTime_020_040>
<HistExecTime_040_060>0</HistExecTime_040_060>
<HistExecTime_060_080>0</HistExecTime_060_080>
<HistExecTime_080_100>0</HistExecTime_080_100>
<HistExecTime_100_150>0</HistExecTime_100_150>
<HistExecTime_150_200>0</HistExecTime_150_200>
<HistExecTime_200_250>0</HistExecTime_200_250>
<HistExecTimePlus_250>0</HistExecTimePlus_250>
</Sample>
<Sample>
<StartTime>2016-05-17T00:00:00Z</StartTime>
<EndTime>2016-05-17T00:15:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<Name>Sanity-QuotaGx</Name>
<EvalCount>0</EvalCount>
<TriggerCount>0</TriggerCount>
<FailCondCount>0</FailCondCount>
<FailNACount>0</FailNACount>
<FailExcCount>0</FailExcCount>
<TotalExecTime>0</TotalExecTime>
<AvgExecTime>0</AvgExecTime>
<MaxExecTime>0</MaxExecTime>
<HistExecTime_000_020>0</HistExecTime_000_020>
<HistExecTime_020_040>0</HistExecTime_020_040>
<HistExecTime_040_060>0</HistExecTime_040_060>
<HistExecTime_060_080>0</HistExecTime_060_080>
<HistExecTime_080_100>0</HistExecTime_080_100>
<HistExecTime_100_150>0</HistExecTime_100_150>
<HistExecTime_150_200>0</HistExecTime_150_200>
<HistExecTime_200_250>0</HistExecTime_200_250>
<HistExecTimePlus_250>0</HistExecTimePlus_250>
</Sample>
<Sample>
<StartTime>2016-05-17T00:15:00Z</StartTime>
<EndTime>2016-05-17T00:30:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<Name>Sanity-QuotaGx</Name>
<EvalCount>0</EvalCount>
<TriggerCount>0</TriggerCount>
<FailCondCount>0</FailCondCount>
<FailNACount>0</FailNACount>
<FailExcCount>0</FailExcCount>
<TotalExecTime>0</TotalExecTime>
<AvgExecTime>0</AvgExecTime>
<MaxExecTime>0</MaxExecTime>
<HistExecTime_000_020>0</HistExecTime_000_020>
```

```
<HistExecTime_020_040>0</HistExecTime_020_040>
<HistExecTime_040_060>0</HistExecTime_040_060>
<HistExecTime_060_080>0</HistExecTime_060_080>
<HistExecTime_080_100>0</HistExecTime_080_100>
<HistExecTime_100_150>0</HistExecTime_100_150>
<HistExecTime_150_200>0</HistExecTime_150_200>
<HistExecTime_200_250>0</HistExecTime_200_250>
<HistExecTimePlus_250>0</HistExecTimePlus_250>
</Sample>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<Name>Sanity-TDFsession</Name>
<EvalCount>0</EvalCount>
<TriggerCount>0</TriggerCount>
<FailCondCount>0</FailCondCount>
<FailNACount>0</FailNACount>
<FailExcCount>0</FailExcCount>
<TotalExecTime>0</TotalExecTime>
<AvgExecTime>0</AvgExecTime>
<MaxExecTime>0</MaxExecTime>
<HistExecTime_000_020>0</HistExecTime_000_020>
<HistExecTime_020_040>0</HistExecTime_020_040>
<HistExecTime_040_060>0</HistExecTime_040_060>
<HistExecTime_060_080>0</HistExecTime_060_080>
<HistExecTime_080_100>0</HistExecTime_080_100>
<HistExecTime_100_150>0</HistExecTime_100_150>
<HistExecTime_150_200>0</HistExecTime_150_200>
<HistExecTime_200_250>0</HistExecTime_200_250>
<HistExecTimePlus_250>0</HistExecTimePlus_250>
</Sample>
<Sample>
<StartTime>2016-05-17T00:00:00Z</StartTime>
<EndTime>2016-05-17T00:15:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<Name>Sanity-TDFsession</Name>
<EvalCount>0</EvalCount>
<TriggerCount>0</TriggerCount>
<FailCondCount>0</FailCondCount>
<FailNACount>0</FailNACount>
<FailExcCount>0</FailExcCount>
<TotalExecTime>0</TotalExecTime>
<AvgExecTime>0</AvgExecTime>
<MaxExecTime>0</MaxExecTime>
<HistExecTime_000_020>0</HistExecTime_000_020>
<HistExecTime_020_040>0</HistExecTime_020_040>
<HistExecTime_040_060>0</HistExecTime_040_060>
<HistExecTime_060_080>0</HistExecTime_060_080>
<HistExecTime_080_100>0</HistExecTime_080_100>
<HistExecTime_100_150>0</HistExecTime_100_150>
<HistExecTime_150_200>0</HistExecTime_150_200>
<HistExecTime_200_250>0</HistExecTime_200_250>
<HistExecTimePlus_250>0</HistExecTimePlus_250>
</Sample>
<Sample>
<StartTime>2016-05-17T00:15:00Z</StartTime>
<EndTime>2016-05-17T00:30:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<Name>Sanity-TDFsession</Name>
<EvalCount>0</EvalCount>
```

```
<TriggerCount>0</TriggerCount>
<FailCondCount>0</FailCondCount>
<FailNACount>0</FailNACount>
<FailExcCount>0</FailExcCount>
<TotalExecTime>0</TotalExecTime>
<AvgExecTime>0</AvgExecTime>
<MaxExecTime>0</MaxExecTime>
<HistExecTime_000_020>0</HistExecTime_000_020>
<HistExecTime_020_040>0</HistExecTime_020_040>
<HistExecTime_040_060>0</HistExecTime_040_060>
<HistExecTime_060_080>0</HistExecTime_060_080>
<HistExecTime_080_100>0</HistExecTime_080_100>
<HistExecTime_100_150>0</HistExecTime_100_150>
<HistExecTime_150_200>0</HistExecTime_150_200>
<HistExecTime_200_250>0</HistExecTime_200_250>
<HistExecTimePlus_250>0</HistExecTimePlus_250>
</Sample>
</PolicyStats>
</Statistics>
```

Individual Statistics

Individual statistics defined for this tag are:

- TotalExecTime

  The summary of all execution durations, where execution duration is measured starting the beginning of the policy conditions evaluation until the execution finishing.

- MaxExecTime

  The longest execution duration of the policy.

- AvgExecTime

  The arithmetic average off all execution durations of the policy.

- TriggerCount

  Number of policies triggered.

- FailCondCount

  Number of policies that failed because of conditions.

- FailNACount

  Number of policies that failed because of data not available/applicable.

- FailExcCount

  Number of policies that failed because of exceptions.

Policy Server Statistics

The following examples show the request and response that are defined in the XSD files for the PolicyServerStats tag.

Request

This request follows the PolicyServerStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00Z</StartTime>
<EndTime>2016-04-21T14:30:00Z</EndTime>
<PolicyServerStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
</PolicyServerStats>
</QueryOmStats>
```

Response

The response to this request follows the PolicyServerStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<PolicyServerStats>
<Sample>
<StartTime>2016-05-17T00:00:00Z</StartTime>
<EndTime>2016-05-17T00:15:00Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<TotalNetworkElementCount>0</TotalNetworkElementCount>
<TotalSubscriberCount>0</TotalSubscriberCount>
</Sample>
<Sample>
<StartTime>2016-05-17T00:15:00Z</StartTime>
<EndTime>2016-05-17T00:30:00Z</EndTime>
<PolicyServer>MPE-173</PolicyServer>
<TotalNetworkElementCount>0</TotalNetworkElementCount>
<TotalSubscriberCount>0</TotalSubscriberCount>
</Sample>
<Sample>
<StartTime>2016-05-17T00:00:00Z</StartTime>
<EndTime>2016-05-17T00:15:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<TotalNetworkElementCount>3</TotalNetworkElementCount>
<TotalSubscriberCount>0</TotalSubscriberCount>
</Sample>
<Sample>
<StartTime>2016-05-17T00:15:00Z</StartTime>
<EndTime>2016-05-17T00:30:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<TotalNetworkElementCount>3</TotalNetworkElementCount>
<TotalSubscriberCount>0</TotalSubscriberCount>
</Sample>
</PolicyServerStats>
</Statistics>
```

Individual Statistics

Individual statistics defined for this tag are:

- TotalNetworkElementCount

The total (absolute) number of network elements associated with that MPE. The absolute value is the value taken at the EndTime of the reported sample.

- TotalSubscriberCount

  The total (absolute) number of accounts associated with that MPE.

Reserve Commit Statistics

The following examples show the request and response that are defined in the XSD files for the ReserveCommitStats tag.

Request

This request follows the ReserveCommitStats tag defined in the QueryOmStats section in the XSD files.

```
<?xml version="1.0" encoding="UTF-8"?>
<QueryOmStats>
<StartTime>2016-04-21T14:15:00Z</StartTime>
<EndTime>2016-04-21T14:30:00Z</EndTime>
<ReserveCommitStats>
<!-- PolicyServer is optional. -->
<PolicyServer>MPE-Cluster</PolicyServer>
<PolicyServer>MPE-173</PolicyServer>
</ReserveCommitStats>
</QueryOmStats>
```

Response

The response to this request follows the ReserveCommitStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<ReserveCommitStats>
<Sample>
<StartTime>2016-05-17T00:00:00Z</StartTime>
<EndTime>2016-05-17T00:15:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<ReserveCount>0</ReserveCount>
<ReserveSuccessCount>0</ReserveSuccessCount>
<ReserveFailCount>0</ReserveFailCount>
<ReserveErrorCount>0</ReserveErrorCount>
<CommitCount>0</CommitCount>
<CommitSuccessCount>0</CommitSuccessCount>
<CommitFailCount>0</CommitFailCount>
<CommitErrorCount>0</CommitErrorCount>
<ReserveCommitCount>0</ReserveCommitCount>
<ReserveCommitSuccessCount>0</ReserveCommitSuccessCount>
<ReserveCommitFailCount>0</ReserveCommitFailCount>
<ReserveCommitErrorCount>0</ReserveCommitErrorCount>
</Sample>
</ReserveCommitStats>
</Statistics>
```

Individual Statistics

Individual statistics defined for this tag are:

- ReserveCount: Number of GateSet Reserve messages received.
- ReserveSuccessCount: Number of GateSet Reserve messages acknowledged.
- ReserveFailCount: Number of GateSet Reserve messages failed.
- ReserveErrorCount: Number of GateSet Reserve messages that were errors.
- CommitCount: Number of GateSet Commit messages received.
- CommitSuccessCount: Number of GateSet Commit messages acknowledged.
- CommitFailCount: Number of GateSet Commit messages failed.
- CommitErrorCount: Number of GateSet Commit messages that were errors.
- ReserveCommitCount: Number of GateSet Reserve+Commit messages received.
- ReserveCommitSuccessCount: Number of GateSet Reserve+Commit messages acknowledged.
- ReserveCommitFailCount: Number of GateSet Reserve+Commit messages failed.
- ReserveCommitErrorCount: Number of GateSet Reserve+Commit messages that were errors.

Subscriber Update Statistics

The following examples show the request and response that are defined in the XSD files for the SubscriberUpdateStats tag.

Request

This request follows the SubscriberUpdateStats tag defined in the QueryOmStats section in the XSD files.

```
<?xml version="1.0" encoding="UTF-8"?>
<QueryOmStats>
<StartTime>2016-04-21T14:15:00Z</StartTime>
<EndTime>2016-04-21T14:30:00Z</EndTime>
<SubscriberUpdateStats />
</QueryOmStats>
```

Response

The response to this request follows the SubscriberUpdateStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<SubscriberUpdateStats>
<Sample>
<StartTime>2016-05-17T00:00:00Z</StartTime>
<EndTime>2016-05-17T00:15:00Z</EndTime>
<SubscriberUpdateCount>53</SubscriberUpdateCount>
<SubscriberUpdateFailCount>0</SubscriberUpdateFailCount>
</Sample>
<Sample>
<StartTime>2016-05-17T00:15:00Z</StartTime>
<EndTime>2016-05-17T00:30:00Z</EndTime>
<SubscriberUpdateCount>53</SubscriberUpdateCount>
<SubscriberUpdateFailCount>0</SubscriberUpdateFailCount>
```

```
</Sample>
</SubscriberUpdateStats>
</Statistics>
```

Individual Statistics

Individual statistics defined for this tag are:

- SubscriberUpdateCount:

  The number of subscriber changes made in the CMP that resulted in changes to an MPE. Subscriber data includes accounts and tiers. Changes to this data can occur through either the CMP GUI or the XML Interface. The counter is incremented for each MPE that updates as a result of the change. For example, when a user updates an account, the subscriber update counter increments for each MPE that the account is associated with.

  Batch changes are treated as a single update to an MPE. An OSSI XML interface update may be made across multiple accounts but all of those changes are pushed at one time to the MPE. This is treated as a single subscriber change with regard to the counter.

- SubscriberUpdateFailCount:

  The number of subscriber changes made in the CMP that fail to update an associated MPE. For example, if an MPE is offline while an account is changed, the fail counter will increment once for that failed MPE update.

Topology Update Statistics

The following examples show the request and response that are defined in the XSD files for the TopologyUpdateStats tag.

Request

This request follows the TopologyUpdateStats tag defined in the QueryOmStats section in the XSD files.

```
<QueryOmStats>
<StartTime>2016-04-21T14:15:00Z</StartTime>
<EndTime>2016-04-21T14:30:00Z</EndTime>
<TopologyUpdateStats />
</QueryOmStats>
```

Response

The response to this request follows the TopologyUpdateStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<TopologyUpdateStats>
<Sample>
<StartTime>2016-05-17T00:00:00Z</StartTime>
<EndTime>2016-05-17T00:15:00Z</EndTime>
<TopologyUpdateCount>114</TopologyUpdateCount>
```

```
<TopologyUpdateFailCount>0</TopologyUpdateFailCount>
</Sample>
<Sample>
<StartTime>2016-05-17T00:15:00Z</StartTime>
<EndTime>2016-05-17T00:30:00Z</EndTime>
<TopologyUpdateCount>114</TopologyUpdateCount>
<TopologyUpdateFailCount>0</TopologyUpdateFailCount>
</Sample>
</TopologyUpdateStats>
</Statistics>
```

Individual Statistics

Individual statistics for this tag are:

- TopologyUpdateCount

  The number of topology changes made in the CMP system that resulted in changes to an MPE. Topology data includes Network Elements, Paths, Interfaces, and Links. Changes to this data can occur through either the CMP GUI or XML interface. The counter increments for each MPE that updates as a result of the change. For example, when a user updates a Network Element, the topology update counter increments for each MPE that the Network Element is associated with.

  Batch changes are treated as a single update to an MPE. An OSSI XML interface update may be made across multiple elements but all of those changes are pushed at one time to the MPE. This is treated as a single topology change with regard to the counter.

- TopologyUpdateFailCount

  The number of topology changes made in the CMP that fail to update an associated MPE. For example, if an MPE is offline while a Network Element is changed, the fail counter will increment once for that failed MPE update.

Traffic Profile Statistics

The following examples show the request and response that are defined in the XSD files for the TrafficProfileStats tag.

Request

This request follows the TrafficProfileStats tag defined in the QueryOmStats section in the XSD files.

```
<?xml version="1.0" encoding="UTF-8"?>
<QueryOmStats>
<StartTime>2016-04-21T:15:00Z</StartTime>
<EndTime>2016-04-21T14:30:00Z</EndTime>
<TrafficProfileStats>
<PolicyServer>MPE-Cluster</PolicyServer>
<!-- Name is optional. -->
<Name>mra-82.example.com</Name>
<Name>mra-35.example.com</Name>
</TrafficProfileStats>
</QueryOmStats>
```

Response

The response to this request follows the TrafficProfileStats tag defined in the Statistics section in the XSD files.

```
<Statistics>
<TrafficProfileStats>
<Sample>
<StartTime>2016-05-16T23:45:00Z</StartTime>
<EndTime>2016-05-17T00:00:00Z</EndTime>
<PolicyServer>MPE-Cluster</PolicyServer>
<IsComplete>true</IsComplete>
<Name/>
<NumberOfTimesInstalledAttemps/>
<NumberOfTimesRemovedByPCRF/>
<NumberOfTimesFailedOrRemovedByGateway/>
<NumberOfTimesTotalRetryAttempts/>
<NumberOfTimesRetryCycles/>
<NumberOfTimesFailedAfterMaxRetryCycles/>
</Sample>
</TrafficProfileStats>
</Statistics>
```

Individual Statistics

Individual statistics defined for this tag are:

- Install Attempt:

  COUNTER which tracks the number of times the PCRF attempts to install a specific Traffic Profile.

- Removed by PCRF

  COUNTER which tracks the number of times the PCRF initiates the removal of a specific Traffic Profile.

- Failed or Removed by Gateway

  COUNTER which tracks the number of times specific Traffic Profiles fail to install on the gateway, and the number of times the gateway removes a rule without PCRF approval.

- NumberOfTimesTotalRetryAttempts

  The total number of retry attempts taken to successfully install the rule.

- NumberOfTimesRetryCycles

  The number of Retry Cycles taken to successfully install the PCC/ADC rule for which retry mechanism was started.

- NumberOfTimesFailedAfterMaxRetryCycles

  The number of times a PCC/ADC rule failed to be installed after trying for max number of retries.