

**Oracle® Communications Session Element
Manager**
SOAP API Guide
Release 8.0

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About This Guide

This document and other product-related documents are described in the Related Documentation table.

Related Documentation

Table 1: Oracle Communications Session Delivery Plugin Documentation Library

| Document Name | Description |
|--|--|
| Session Element Manager User Guide | Provides information for managing and optimizing network infrastructure elements and their functions with comprehensive tools and applications used to provision fault, configuration, accounting, performance, and security (FCAPS) support for managed network functions and their associated devices in Oracle Communications Session Delivery Manager (SDM). |
| Report Manager User Guide | Provides information about configuring Report Manager to interoperate with Oracle BI Publisher as well as creating reports on Session Delivery product network devices. |
| Report Manager Installation Guide | Provides information for installing Oracle Communications Report Manager product as an addition to SDM including the Oracle database and BI Publisher components. The Oracle session delivery product plugin must be added to Oracle Communications Session Delivery Manager before performing the Report Manager installation. |
| Route Manager User Guide | Provides information for updating local route table (LRT) data on a single device or multiple devices. |
| Session Element Manager SOAP API Guide | <p>With the introduction of Oracle Communications Session Delivery Manager, Release 8.0, the SOAP API client is deprecated and is provided for backwards compatibility only. Please use the REST API for Oracle Communications Session Delivery Manager, Release 8.0.</p> <p>The SOAP API guide provides information for the SOAP and XML provisioning Application Programming Interface (API) client and server programming model that enables users to write client applications that automate the provisioning of devices. The web service consists of operations that can be performed on devices managed by the SDM server and data structures that are used as input and output parameters for these operations.</p> |

Table 2: Oracle Communications Session Delivery Manager Documentation Library

| Document Name | Document Description |
|----------------------|--|
| Administration Guide | <p>Provides the following administration information:</p> <ul style="list-style-type: none"> • Implement SDM on your network as a standalone server or high availability (HA) server. • Login to the SDM application, access GUI menus including help, customize the SDM application, and change your password. • Access the product plugin service through the GUI to manage product plugin tasks, including how product plugins are uploaded and installed. • Manage security, faults, and transport layer security certificates for east-west peer SDM server communication, and southbound communication with network function (NF) devices. • Configure northbound interface (destination) fault trap receivers and configure the heartbeat trap for northbound systems. • Monitor SDM server health to detect heartbeat messages and display the server status to prevent health problems, or view server disk utilization information and server directory statistics. • Maintain SDM server operations, which includes database backup and database restoration and performing server cluster operations. • Use available SDM server scripts, the contents of fault trap notifications, and a list of northbound notification traps generated by the SDM server. |
| Installation Guide | <p>Provides the following installation information:</p> <ul style="list-style-type: none"> • Do pre-installation tasks, which include reviewing system requirements, adjusting linux and firewall settings, completing SDM server settings and configuring your NNCentral account for security reasons. • Do the typical installation to perform the minimal configuration required to run the SDM server. • Do the custom installation to perform more advanced configurations including the mail server, cluster management, Route Manager, transport layer security (TLS), and Oracle database configuration. |
| Release Notes | <p>Contains information about the administration and software configuration of the SDM feature support new to this release.</p> |

| Document Name | Document Description |
|--|---|
| Security Guide | <p>Provides the following security guidelines:</p> <ul style="list-style-type: none"> • Use guidelines to perform a secure installation of SDM on your server, which includes methods for securing the server, firewall settings, system support for encryption and random number generators (RNG), using HTTPS, and password guidelines. • Review Security Manager features that are used to configure groups, users, operations, privileges, and manage access to the system. • Follow a checklist to securely deploy SDM on your network and maintain security updates. |
| REST API for Oracle Communications Session Delivery Manager, Release 8.0 | <p>Provides information for the supported REST APIs and how to use the REST API interface. The REST API interface allows a northbound client application, such as a network service orchestrator (NSO), to interact with SDM and its supported product plugins.</p> |

Revision History

| Date | Description |
|-------------|-----------------|
| August 2017 | Initial release |

Overview

The Oracle Communications Session Element Manager SOAP API Guide is a SOAP and XML provisioning Application Programming Interface (API) client and server programming model that enables users to write client applications that automate the provisioning of devices. The web service consists of operations that can be performed on devices managed by the Oracle Communications Session Delivery Manager server and data structures that are used as input and output parameters for these operations.

The Oracle Communications Session Delivery Manager server accepts and responds to requests from clients that are coded to use the API. The server responds to requests to read and update configuration data in the Oracle Communications Session Element Manager SOAP API Guide database or apply configurations to devices in the same way in which it responds to requests from the GUI client application. These messages that are exchanged between SOAP and XML clients and the server are encapsulated in the standard Simple Object Access Protocol (SOAP) format, as defined by the World Wide Web Consortium (W3C).

The provisioning API has the following components:

- Active configuration—The read-only configuration on the device.
- Session ID—Identifies the connection that is established between a SOAP client application instance and the Oracle Communications Session Delivery Manager server. The session ID (SID) is used by the server to distinguish between multiple clients currently logged in, and is a required parameter for almost all operations supported by the API.
- Managed device—The API supports all managed objects (configuration elements) and sub-objects (sub-elements) available on the device.



Note: This guide covers the basic configuration parameters for session delivery product devices. See your session delivery product device documentation, such as its ACLI guide, for more configuration information that is beyond the scope of this guide and may be specific to the release of the your devices.

Using the Apache CXF Client on the Session Delivery Manager Server

The Oracle Communications Session Delivery Manager server incorporates Apache CXF technology to handle the processing of the SOAP messages received from the client. Apache CXF is a full-featured, open-source SOAP web services framework. See the W3.org for more information on [SOAP](#).

The Apache CXF client is used by a user to integrate automated provisioning into an existing OSS infrastructure. The CXF client application is custom-built to use the published API to read and set

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parameters in the configurations in the server database, modify configuration data for device groups associated with an offline configuration, and to apply those settings to devices being managed by the server. The CXF client application is written in any language that supports SOAP/XML-based Web Services and examples are provided for clients written in Java in the software distribution.

The server supports simultaneous connections from multiple SOAP clients and graphical user interface (GUI) clients. User profiles defined in the Oracle Communications Session Element Manager SOAP API Guide database are used to validate login requests from either type of client, but profiles can be defined only through the GUI interface. Audit trail entries are generated for operations performed by all clients, whether they are GUI or SOAP-based. For more information about SOAP-based Web Service and examples of client code, see the [CXF User's Guide](#).

Configure and Run the CXF Client

You must perform all the steps below before executing the run script.

Sample client code is available at {CXFClient_HOME}/sampleSource folder.


1. Unzip the CXFClient.zip to a folder on the client system. This folder provides the {CXFClient_HOME}.
2. Go to the following directory:

```
{CXFClient_HOME}/bin
```

3. Edit the **run.sh** bash file that allows you to run the sample client code by changing the JAVA_HOME path variable to match the JDK installation path.

 **Note:** The CXF Client uses JDK 1.8.


4. Edit the **build.sh** bash file to build an executable image by making the same change to the JAVA_HOME path variable.
5. The following substeps enable the Web Service interface to run over HTTPS.

 **Note:** These steps can be safely ignored if client/server transactions occur over unsecured HTTP.

- a) Use FTP to move a copy of the Oracle Communications Session Delivery Manager server public certificate to the ssl folder.
- b) Use the Java keytool utility to import the public certificate into a specified Java keystore. For example, the following command imports the **OCSDM.cert** certificate file into a keystore named **trustedCerts**:

```
keytool -import -keystore trustedCerts -alias ocsdm-cert -file OCSDM.cert
```

This keystore file is referenced by the ocsdm-cert alias.

 **Note:** You will be prompted for the keystore password before the import operation is initiated.


- c) Edit the **run.sh** bash file by changing the TRUST_STORE variable to match the location of the Java keystore that contains the public certificates of associated Oracle Communications Session Delivery Manager servers:

```
TRUST_STORE=../ssl/trustedCerts
```

- d) Edit the **run.sh** bash file by changing the TRUST_STORE_PASSWORD to match the password required to access the Java keystore that contains the Oracle Communications Session Delivery Manager server certificates.
- e) Use the Java keytool utility to confirm the presence of the key in the keystore. For example:

```
keytool -list -v -keystore trustedCerts
```

This command provides a verbose display of the contents of the target Java keystore, which in this case is trustedCerts.

 **Note:** You will be prompted for the keystore password before the keystore contents are displayed.

- f) Repeat the previous sub steps for each additional Oracle Communication Session Delivery Manager server associated with the client.
6. Optionally edit {CXFClient_HOME}/conf/client.properties by changing the value of the session_timeout_ms property to specify a non-default session timeout value, expressed in milliseconds.
7. Edit the **run.sh** bash file by changing the SERVER_NAME variable to point to NNC server machine name.
8. Edit the **run.sh** bash file by changing the SERVER_PORT variable to point to NNC server machine port.
9. Use build.bat to compile the client application.
10. Use run.bat to run the client application.

Web Services Definition Language Data Structures

Web Services Definition Language (WSDL) files contain data structures that are used in the API. These files are included in the Oracle Communications Session Delivery Manager software distribution by entering the following URL in your browser for the Oracle Communications Session Delivery Manager server:

```
http://<ip address>:8080/ACMEWS/services
```

The <ip-address> is the IP address of your Oracle Communications Session Delivery Manager server. Use the links on the right side of the screen to display the following WSDL files that contain WSDL definitions for data structures:

- AdminMgmtIFService.wsdl
- ConfigMgmtIFService.wsdl
- DeviceMgmtIFService.wsdl

DeviceInfoObject

DeviceInfoObject is a data structure that contains the information necessary to add a device to NNC system.

- ArrayList<String> deviceIPList
- String username
- String Password
- String communityName
- int snmpPort
- String deviceGroupName, which will be the full path of device group, if we have a device group (groupAA1) under group1/groupAA, the client need to pass group1/groupAA/groupAA1
- WebServicesProtocolEnum, which is an enumeration contains (HTTP or HTTPS), this piece information is only used by 2600 series device.
- WebServicesProtocolEnum webServicesProtocol, this piece information is only used by 2600 series device.

IntegrityCheckResult

IntegrityCheckResult contains top-level element count information as follows.

- String elementName; the name of the target element
- int ElementCount; the number of element instances

NNCDetails

NNCDetails contains product version information as follows.

- String version; The product version, for example, NNC7.0.0

NNCServerIPInfo

NNCServer contains NNC-Server-specific data as follows.

- String serverIPAddress;
- String serverName;
- String serverStatus;
- long inactivityCount;
- int heartBeatFailureMeter;
- int maxHeartBeatFailureMeter;
- long missedHBCCount;
- long heartBeatCount;
- String lastHeartBeatTime;
- String downTime;
- String upTime;
- int resetCount;

SaveDeviceTaskMessage

SaveDeviceTaskMessage contains the result of save and/or activate operation as follows.

- String operation, operation type, Save or SaveAndActivate, Activate
- String tasked, which is task id which will be populated on devicetaskDetails schema once save or save \activate is fully done on server side.
- String username, which contains the user name who is going to perform save or activate operation
- String deviceName, device name the operation is performed.
- String isLockSuccess, specifies SBC Lock status
- isValidationSuccess, does the validation pass for the configuration elements integrity check
- String isEraseCacheSuccess, which is not applicable for granular save
- String isCreateSuccess specifies success or failure
- String isIntegrityCheckSuccess, if EMS count match to the SBC count
- String isRestoreConfigSuccess if Integrity check fail, we need to restore original SBC configuration data.
- String isSaveConfigSuccess, specifies success or failure of Save command
- isActivateConfigSuccess, specifies success or failure of Activate command
- isUnlockSuccess, specifies SBC Unlock status

SBCDetails

SBCDetails contains information describing the SBC configuration as follows.

- String deviceName, device name
- String targetName, target name
- String domainName, which is device group path
- String SBCVersion, SBC version, such as SC620
- String snmpCommunityName, snmp community name
- int snmpPort, snmp port
- String primaryIP, primary IP address
- String secondaryIP, secondary IP address
- String hardwareVersion, hard ware version, such as NN4500, NN4200

WSBatch

WSBatch contains information describing a SOAP batch operation as follows.

- ArrayList < WSBatchOperation > operationsToApply, Arraylist of WSBatchOperations, described in the following section.

WSBatchOperation

WSBatchOperation contains information describing SOAP batch operation content.

- String operation, operation can be ADD, UPDATE, DELETE
- WConfigElement configElement, which is a data structure described before.

WConfigAttribute

WConfigAttribute contains configuration attribute information as follows.

- String name: the name of the attribute
- String value: the value of the attribute

WConfigAttributeMetaData

WConfigAttributeMetaData contains attribute-specific meta data as follows.

- String name; The name of the attribute
- String acliName The ACLI name for the attribute
- AttributeValueTypeInfo valueTypeInfo; The type information of attribute.
- String delimiter; null if the value of this attribute is not delimited string.
- boolean isRequired; true, if this attribute is a required to configure the parent element
- String defaultValue; The default value
- String referred_Element_Type_Name; If this attribute is referring to another element, that element's type name.
- List<String> suggested_Values; A list of suggested values for this attribute.
- List<WSNumericRange> valid_Numeric_Range; The valid range of numeric values for this attribute. Applicable only if valueTypeInfo is NUMERIC
- List<String> enumerated_values; A list of valid enumeration for this attribute

WConfigAttributeMetaData. AttributeValueTypeInfo

WConfigAttributeMetaData.AttributeValueTypeInfo contains Enumerations of valid attribute types as follows.

- This is an enumeration of valid types of an attribute.
- numeric
- string
- delimited_string
- ipaddress
- boolean
- date
- enumerated_value,
- reference_to_another_element
- ipaddress_and_portnumber

WConfigElement

WConfigElement is the generic data structure for all configuration elements. This data structure is used by add/update/delete/get functions to describe a new or modified configuration element. It contains the following data:

- String type: identifies the target configuration element. Top-level configuration elements are identified by their Acme Control Protocol (ACP) element names, for example sipManipulation.

Overview

- `ArrayList<WSConfigAttribute> attributeList`: an Arraylist of `WSConfigAttributes`
- `ArrayList <WSConfigElement> children`: `ArrayList` of `WSConfigElements`. that provides information on sub-elements.

Sub-elements type (children) are identified by a path expression rooted in an ACP element, for example, `sipManipulation/headerRule/elementRule` specifies an Element Rule
- `String elementTypePath`: which is used internally to specify the path expression (for example `sipManipulation/headerRule/elementRule`). Because this tag is generated internally, the client does not need to set this data.

WSConfigElementMetaData

`WSConfigElementMetaData` contains element-specific meta data as follows.

- `private String type`; The type name of the element
- `private boolean isSingleInstance`; true, if this element is a single instance
- `private String elementTypePath`; The full path of the element starting from the root configuration
- `private List<String> subElementTypeNames`; A list of sublement type names of this element
- `private List<WSConfigAttributeMetaData> attributeMetaDataList`; A list of attribute metadata for this element

WSConfigResult

`WSConfigResult` contains the result of an operation as follows.

- `Boolean resultFlag`; status of the operation
- `String objectId`; `objectId` value
- `ArrayList` of validation message string

WSDeviceResult

`WSDeviceResult` contains the result of network level (device) operation as follows.

- `Boolean resultFlag`; status of the operation
- `ArrayList<String> validationMessage` , the success or fail message

Exceptions Faults

The following exceptions may be generated by the server in attempting to process requests from a SOAP/XML interface client.

AcmeWSFault

`AcmeWSFault` is the base exception class for the web service interface.

AcmeAdminWSFault

`AcmeAdminWSFault` is the exception class for managing administrative level (`AdminMgmtIF`) APIs (`login` and `logOut`). In the event of an access error, `AdminMgmtIF` throws this exception.

AcmeConfigWSFault

`AcmeConfigWSFault` is the exception class for managing configuration level (`DeviceConfigIF`) APIs. In the event of a configuration error, `AdminConfigIF` throws this exception.

AcmeDeviceWSFault

AcmeDeviceWSFault is the exception class for managing device level (DeviceMgmtIF) APIs. In the event of a device-level error, AdminDeviceIF throws this exception.

Sample Work Flow

The following procedure illustrates the creation of a WsConfigElement that defines a specific network interface, and associated keep-alive mechanisms. Refer to [WsConfigElement](#) for details.

1. Use the login administrative API to access a Oracle Communications Session Element Manager SOAP API Guide server
2. Use the newConfigElement API to create a template (actually a WsConfigElement data structure with default attribute values) of the networkInterface Type.
3. Construct an ArrayList of WsConfigAttribute data structures to assign local attribute values to the default networkInterface template returned by newConfigElement. Refer to [WsConfigAttribute](#) for details.
4. Add this attribute ArrayList to the networkInterface WsConfigElement data structure. This step completes configuration of the top-level networkInterface.
5. Use the newConfigElement API to create a second-level (child) template of the networkInterface/GWHeartbeat Type.
6. Construct an ArrayList of WsConfigAttribute data structures to assign local attribute values to the default networkInterface/GWHeartbeat template returned by newConfigElement.
7. Add the attribute ArrayList to the child template. This step completes configuration of the second-level child.
8. Construct an ArrayList of child WsConfigElements; in this case the array contains only a single element.
9. Append this child ArrayList to the WsConfigElement data structure.
10. Use the addConfigElement API to commit the WsConfigElement to the configuration database.
11. Logout, using the logOut API

Administration Level

UsingExternalAAA

The UsingExternalAAA object displays the RADIUS server domain for external user authentication.

Input Parameters

None

Output Parameters

- Boolean values are true if external authentication is used or false if it is not.

Throws

com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault

login

login is used by the CXF client to login to the CXF Web service.

```
public java.lang.String login(java.lang.String username,  
java.lang.String password)  
throws com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault
```

Input Parameters

- username: username information
- password: password information

Output Parameters

- String sessionId

Throws

com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault

logOut

logOut ends the current user session.

```
public com.acmepacket.ems.ws.service.userobjects.WSDeviceResult logOut()  
throws com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault
```

Throws

```
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault
```

Input Parameters

None

Output Parameters

- WSDeviceResult data structure

Throws

```
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault
```

getUserInfo

Retrieves the values for the following parameters for a user:

- Account Never Expires
- Account Expires
- Password Never Expires
- Password Expires (Days)

```
Public UserInfo getUserInfo(String userName) throws AcmeAdminWSFault
```

Input Parameters

- userName- - user name

Output Parameters

UserInfo

- Boolean accountExpire
- String accountExpirationDate
- Boolean passwordExpire
- String passwordExpirationDate
- String userName

Throws

```
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault
```

getAllUserInfo

Retrieves the values for the following parameters for all users added to the system:

- Account Never Expires

- Account Expires
- Password Never Expires
- Password Expires (Days)

Public UserInfo getUserInfo(String userName) throws AcmeAdminWSFault

Input Parameters

None

Output Parameters

UserInfo

- Boolean accountExpire
- String accountExpirationDate
- Boolean passwordExpire
- String passwordExpirationDate
- String userName

Throws

com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault

getAccountManagementInfo

Retrieves the values for the following parameters:

- Password Reuse Count
- Inactivity Time for admin user
- Inactivity Time for non-admin user

```
Public AccountManagementInfo getAccountManagementInfo() throws  
AcmeAdminWSFault
```

Input Parameters

None

Output Parameters

AccountManagementInfo

- Int passwordResuseCount
- Int adminUserInactivityTimeout
- Int nonAdminUserInactivityTimeout

Throws

com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault

getLoginBanner

Retrieves the the login banner.

```
Public String getLoginBanner() throws AcmeAdminWSFault
```

Administration Level

Input Parameters

None

Output Parameters

- String loginBanner

Throws

com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault

getTrapReceivers

Retrieves the trap receiver information.

```
Public String getLoginBanner() throws AcmeAdminWSFault
```

Input Parameters

None

Output Parameters

TrapReceiver

- String ipAddress
- Int udpPort
- String communityName

Throws

com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault

NorthboundalarmSync

The NorthboundalarmSync API forwards traps stored in Oracle Communications Session Delivery Manager system to the network management system.

The following trap receiver states are used to identify the status of northbound alarm synchronization:

- Enabled
- Disabled
- Suspended
- Syncing
- SyncSucceed
- SyncFailed

Once you add the trap receiver to Oracle Communications Session Delivery Manager, the initial trap receiver state is set to **Enabled**. Following the Enabled state, the NorthboundalarmSync request is sent to the Oracle Communications Session Delivery Manager server. If unsuccessful, the AcmeWSAdminFault Exception is thrown.

Input Parameters

- destTrapReceiverIP: Destination trap receiver IP address
- startTime - Start sync time in MM/dd/yyyy HH:mm:ss (OCSDM server local time)

- endTime - End sync time in MM/dd/yyyy HH:mm:ss (OCSDM server local time)

Output Parameters

A WSAAlarmSyncResult data structure.

The detail of this data structure is as follows:

1. Boolean resultFlag: either true or false
2. ArrayList<String > validationMessage: Validation message
3. Int numOfTrapsTobeSync: The number of the Alarms to be sync if successful

Throws

```
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault
```

NorthboundActiveAlarmSync

The NorthboundActiveAlarmSync API forwards traps stored in the Alarm table in the Oracle Communications Session Delivery Manager database to the destination trap receiver within a specified time period.

The following trap parameters are used to identify the destination trap receiver, the minimum alarm severity state to synchronize, and the time interval for northbound active alarm synchronization:


- trapReceiverIP—The destination trap receiver IP address.
- minimumSeverity—The minimum alarm severity it is a severity String, the possible value can be Clear, Warning, Minor, Major, Critical, the API will forward the user specified severity alarms plus all the way up severity Alarms to the desired network. For example, if the user specifies Minor, It will forward all of Alarms which has severity from Minor, Major, Critical and Emergency to the target trap receiver.
- startSyncTime—The local start time (mm/dd/yyyy hh:mm:ss) for when traps are forwarded from the NNC server. If the user enters a null value, the startSyncTime is not used for a query.
- endSyncTime—The local end time (mm/dd/yyyy hh:mm:ss) for when traps are forwarded from the NNC server. If the user enters a null value, the endSyncTime is not used for a query.

The WSAAlarmSyncResult object is returned. If the execution of the API is unsuccessful, the AcmeWSAdminFault exception is thrown.

Device Management

addDevice

The addDevice API adds device details to the configuration database.

-  **Note:** When you add a device through the addDevice API, you can only create a network function (NF) with the name of the target device only.

```
public com.acmepacket.ems.ws.service.userobjects.WSDeviceResult
addDevice(com.acmepacket.ems.ws.service.userobjects.DeviceInfoObject deviceInfoObject) throws
com.acmepacket.ems.ws.service.fault.AcmeDeviceWSFault,
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault
```

Input Parameters

- deviceInfoObject - - DeviceInfoObject data structure

Output Parameters

WSDeviceResult

Throws

```
com.acmepacket.ems.ws.service.fault.AcmeConfigWSFault
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault
com.acmepacket.ems.ws.service.fault.AcmeDeviceWSFault
```

loadDevice

loadDevice adds a new managed device to the configuration database.

```
public com.acmepacket.ems.ws.service.userobjects.WSDeviceResult
loadDevice(java.lang.String targetName) throws
com.acmepacket.ems.ws.service.fault.AcmeDeviceWSFault,
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault
```

Input Parameters

- targetName: target name information

Output Parameters

WSDeviceResult

Throws

com.acmepacket.ems.ws.service.fault.AcmeDeviceWSFault

com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault

deleteDevice

deleteDevice deletes configuration data from database, including device detail and configuration document information.

public com.acmepacket.ems.ws.service.userobjects.WSDeviceResult
deleteDevice(java.lang.String targetName) throws
com.acmepacket.ems.ws.service.fault.AcmeDeviceWSFault,
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault

Input Parameters

- targetName---target name information

Output Parameters

WSConfigResult

Throws

com.acmepacket.ems.ws.service.fault.AcmeDeviceWSFault

com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault

saveConfig

saveConfig pushes configuration dataset changes to the SBC.

public com.acmepacket.ems.common.SaveDeviceTaskMessage
saveConfig(java.lang.String targetName) throws
com.acmepacket.ems.ws.service.fault.AcmeDeviceWSFault,
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault

Input Parameters

- targetName - - target name information (for example, sd80_sd8)

Output Parameters

SaveDeviceTaskMessage, a data structure described as before.

Throws

com.acmepacket.ems.ws.service.fault.AcmeDeviceWSFault

com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault

activateConfig

activateConfig promotes a specified configuration to the running configuration area.

```
public com.acmepacket.ems.common.SaveDeviceTaskMessage
activateConfig(java.lang.String targetName)throws
com.acmepacket.ems.ws.service.fault.AcmeDeviceWSFault,
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault
```

Input Parameters

- targetName - - target name information

Output Parameters

SaveDeviceTaskMessage, a data structure described as before.

Throws

com.acmepacket.ems.ws.service.fault.AcmeDeviceWSFault - - throws exception while error occurs
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault

saveAndActivateConfig



Note: If there is a validation failure when using this API in Oracle Communication Session Delivery Manager Release 8.0 or later, the status flags in the message returned to the SOAP client appear differently than they did in Release 7.5M3. For example, in Release 7.5M3, the **isLockSuccess** and **isUnlockSuccess** flags in the SOAP response are listed as **UNKNOWN** after a validation failure. In Release 8.0, these flags change to **SUCCESS** after a validation failure because the device is locked before validation starts, while in the previous release, the device is locked after completing validation.

saveAndActivateConfig first runs saveConfig, and then activateConfig.

```
public com.acmepacket.ems.common. SaveDeviceTaskMessage
saveAndActivateConfig(java.lang.String targetname)throws
com.acmepacket.ems.ws.service.fault.AcmeDeviceWSFault,
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault
```

Input Parameters

- targetName- - name of the target device

Output Parameters

SaveDeviceTaskMessage, a data structure described as before

Throws

com.acmepacket.ems.ws.service.fault.AcmeDeviceWSFault
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault

getAllManagedDevicesNames

getAllManagedDevicesNames returns a list of all managed device names present in the configuration database.

Device Management

```
public java.util.ArrayList<java.lang.String> getAllManagedDevicesNames()throws  
com.acmepacket.ems.ws.service.fault.AcmeDeviceWSFault,  
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault
```

Input Parameters

None

Output Parameters

an ArrayList of Managed device target name, such as 172.30.80.81, 172.30.80.150-172.30.80.131

Throws

```
com.acmepacket.ems.ws.service.fault.AcmeDeviceWSFault  
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault
```

getAllManagedDevicesbyDeviceGroup

getAllManagedDevicesByDeviceGroup returns a membership list for a specified device group.

```
public java.util.ArrayList<com.acmepacket.ems.ws.service.userobjects.SBCDetails>  
getAllManagedDevicesByDeviceGroup(java.lang.String devicetGroupPath) throws  
com.acmepacket.ems.ws.service.fault.AcmeDeviceWSFault,  
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault
```

Input Parameters

- devicetGroupPath - -- device group full path, for example,group2/groupAC/groupAC1

Output Parameters

ArrayList of SBCDetails object

Throws

```
com.acmepacket.ems.ws.service.fault.AcmeDeviceWSFault  
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault  
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault  
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault
```

getSBCDetails

getSBCDetails returns information of a specified SBC.

```
public com.acmepacket.ems.ws.service.userobjects.SBCDetails  
getSBCDetails(java.lang.String targetName)throws  
com.acmepacket.ems.ws.service.fault.AcmeDeviceWSFault,  
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault
```

Input Parameters

- targetName, - the target name

Output Parameters

SBCDetails object

Throws

com.acmepacket.ems.ws.service.fault.AcmeConfigWSFault
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault

getDevicePollingInterval

Retrieves the the polling interval set to poll SBCs.

Public int getDevicePollingInterval() throws AcmeAdminWSFault, AcmeDeviceWSFault

Input Parameters

None

Output Parameters

Device Polling Interval (seconds)

Throws

com.acmepacket.ems.ws.service.fault.AcmeDeviceWSFault
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault

lockDevice

lockDevice reserves a specified SBC.

```
public com.acmepacket.ems.ws.service.userobjects.WSDeviceResult
lockDevice(java.lang.String targetName) throws
com.acmepacket.ems.ws.service.fault.AcmeDeviceWSFault,
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault
```

Input Parameters

- targetName, - the target name

Output Parameters

WSDeviceResult, a data structure described as before

Throws

com.acmepacket.ems.ws.service.fault.AcmeConfigWSFault
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault

unlockDevice

unlockDevice release a previously reserved SBC.

```
public com.acmepacket.ems.ws.service.userobjects.WSDeviceResult
unlockDevice(java.lang.String targetName) throws
com.acmepacket.ems.ws.service.fault.AcmeDeviceWSFault,
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault
```

Input Parameters

- targetName, - the target name

Output Parameters

WSDeviceResult, a data structure described as before

Throws

com.acmepacket.ems.ws.service.fault.AcmeConfigWSFault
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault

getAllDeviceGroupList

getAllDeviceGroupList returns an array containing the names of all Device Groups.

```
public java.util.ArrayList<java.lang.String> getAllDeviceGroupList () throws  
com.acmepacket.ems.ws.service.fault.AcmeDeviceWSFault,  
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault
```

Output Parameters

ArrayList of devicegroup name

Throws

com.acmepacket.ems.ws.service.fault.AcmeConfigWSFault
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault

addDeviceGroup

addDeviceGroup adds a specified Device Group to the Configuration Database.

```
public boolean addDeviceGroup(java.lang.String deviceGroupPath)throws  
com.acmepacket.ems.ws.service.fault.AcmeDeviceWSFault,  
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault
```

it will try to add the device group

Input Parameters

- deviceGroupPath: - device group path name(for example,group2/groupAC/groupAC1), which means that we are going to add groupAC1 to the device group group2/groupAC

Output Parameters

True or False

Throws

com.acmepacket.ems.ws.service.fault.AcmeConfigWSFault
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault

deleteDeviceGroup

deleteDeviceGroup deletes a specified Device Group from the Configuration Database.


```
public boolean deleteDeviceGroup(java.lang.String deviceGroupPath)throws
com.acmepacket.ems.ws.service.fault.AcmeDeviceWSFault,
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault
```

Input Parameters

- deviceGroupPath: - device group path name

Output Parameters

True or False

Throws

```
com.acmepacket.ems.ws.service.fault.AcmeConfigWSFault
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault
```

getLCVContentSaveSessionReport

getLCVContentSaveSessionReport returns a list if WSConfigElements created or modified by a specified user.

```
public java.util.ArrayList<com.acmepacket.ems.ws.service.userobjects.WSConfigElement>
getLCVContentSaveSessionReport(java.lang.String targetame, java.lang.String userName) throws
com.acmepacket.ems.ws.service.fault.AcmeDeviceWSFault,
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault
```

Specified by

getLCVContentSaveSessionReport java.lang.String in DeviceMgmtIF interface

Input Parameters

- targetName - -targetname
- userName - -user name

Output Parameters

A list of WSConfigElements

Throws

```
com.acmepacket.ems.ws.service.fault.AcmeConfigWSFault
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault
com.acmepacket.ems.ws.service.fault.AcmeDeviceWSFault
```

getAllManagedDevices

getAllManagedDevices returns a list of SBCDetails for all managed devices.

```
public ArrayList<SBCDetails> getAllManagedDevices() throws AcmeDeviceWSFault,
AcmeAdminWSFault;
```

Specified by

getAllManagedDevices in DeviceMgmt interface

Input Parameters

None

Output Parameters

ArrayList<SBCDetails>: a List of SBCDetails object

Throws

com.acmepacket.ems.ws.service.fault.AcmeConfigWSFault
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault

getAllManagedDeviceTargetNames

getAllManagedDeviceTargetNames returns a list of the names of all managed devices.

```
public ArrayList<String> getAllManagedDeviceTargetNames() throws AcmeDeviceWSFault,  
AcmeAdminWSFault;
```

Specified by

getAllManagedDeviceTargetNames in the DeviceMgmtIF

Input Parameters

- None

Output Parameters

ArrayList< String >: a List of String

Throws

com.acmepacket.ems.ws.service.fault.AcmeConfigWSFault
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault

getNNCDetails

getNNCDetails returns an NNCDetails data structure for the NNC server that contains software version, addressing, and cluster information.

```
public NNCDetails getNNCDetails() throws AcmeDeviceWSFault, AcmeAdminWSFault;
```

Specified by

getNNCDetails in DeviceMgmtIF interface.

Input Parameters

- None

Output Parameters

NNCDetails object

Throws

com.acmepacket.ems.ws.service.fault.AcmeConfigWSFault
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault

getTopLevelElementCount

getTopLevelElementCount returns a count of all top-level configuration elements. To obtain the element count, it sums the local configuration copy and local configuration change values.

```
public ArrayList<IntegrityCheckResult> getTopLevelElementCount(String targetName) throws  
AcmeDeviceWSFault, AcmeAdminWSFault
```

Specified By

getTopLevelElementCount in interface DeviceMgmtIF

Input Parameters

- targetName - device name

Output Parameters

An ArrayList of IntegrityCheckResult data structures


Throws

com.acmepacket.ems.ws.service.fault.AcmeConfigWSFault
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault

getAllAssociatedDevicesInEMSLicense

 **Note:** This API is deprecated. Use the getAllAssociatedDevicesInElementManager API instead, which returns an ArrayList<String> with no input parameters and throws AcmeAdminWSFault and AcmeDeviceWSFault exceptions.

addDeviceToEMSLicense

 **Note:** This API is deprecated. Use the WsConfigResult associateDeviceToElementManager(@WebParam(name = "targetName") String targetName), which throws AcmeAdminWSFault, AcmeDeviceWSFault;

removeDeviceFromEMSLicense

This API is deprecated. Use the WsConfigResult disassociateDeviceFromElementManager(@WebParam(name = "targetName") String targetName) API instead. This API throws AcmeAdminWSFault, AcmeDeviceWSFault;

Configuration Management Level

getPrimaryKeyByElementType

getPrimaryKeyByElementType returns a list of PrimaryKey information for a given element type.

```
public java.util.ArrayList<java.lang.String>
getPrimaryKeyByElementType(java.lang.String targetDevice,
java.lang.String elementType) throws
com.acmepacket.ems.ws.service.fault.AcmeConfigWSFault,
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault
```

Input Parameters

- elementType: element type information

For a sub-element, the elementType references the full path: for example, to obtain the primary key value for an elementRule, use the expression sipManipulation/headerRule/elementRule.

Output Parameters

An ArrayList of String primary key information, which will include path expression inside the string.

Throws

```
com.acmepacket.ems.ws.service.fault.AcmeConfigWSFault
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault
```

getTopLevelConfigElementTypeNames

getTopLevelConfigElementTypeNames returns a list of top-level configuration element names associated with a specific SBC

```
public java.util.ArrayList<java.lang.String>
getTopLevelConfigElementTypeNames(java.lang.String targetName) throws
com.acmepacket.ems.ws.service.fault.AcmeConfigWSFault,
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault
```

Input Parameters

- targetName: target device information, which is the target name

Output Parameters

An ArrayList of top configuration element names.

Throws

```
com.acmepacket.ems.ws.service.fault.AcmeConfigWSFault  
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault
```

getSubElementTypesByElementType

getSubElementTypesByElementTypes returns a list of sub element types for the given elementType.

```
public ArrayList<String> getSubElementTypesByElementType(String targetName,  
String elementType) throws AcmeConfigWSFault, AcmeAdminWSFault
```

Input Parameters

- targetName: target device information, which is the target name
- elementType: element type. For example, sipInterface

Output Parameters

A list of String (sub element types) for the given element type.

Throws

```
com.acmepacket.ems.ws.service.fault.AcmeConfigWSFault  
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault
```

getRequiredSubElementTypesByElementType

getRequiredSubElementTypesByElementType returns a list of required sub element types for the given elementType.

```
public ArrayList<String> getSubElementTypesByElementType(String targetName,  
String elementType) throws AcmeConfigWSFault, AcmeAdminWSFault
```

Input Parameters

- targetName: target device information, which is the target name
- elementType: element type. For example, sipInterface

Output Parameters

Returns a list of required sub element types for the given element type.

Throws

```
com.acmepacket.ems.ws.service.fault.AcmeConfigWSFault  
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault
```

getAllSupportedAttributeInfoByElementType

getAllSupportedAttributeInfoByElementType returns a list of WsConfigAttributeMetaData information for the given elementType.

```
public ArrayList<WSConfigAttributeMetaData>
getAllSupportedAttributeInfoByElementType(String targetName, String
elementType) throws AcmeConfigWSFault, AcmeAdminWSFault
```

Input Parameters

- targetName: target device information, which is the target name
- elementType: element type. For example, sipInterface

Output Parameters

Returns a list of WSConfigAttribute information for the given elementType.

Throws

```
com.acmepacket.ems.ws.service.fault.AcmeConfigWSFault
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault
```

deleteConfigElement

deleteConfigElement deletes a specified configuration element; any existing child elements of the element are also deleted.

```
public com.acmepacket.ems.ws.service.userobjects.WSConfigResult
deleteConfigElement(java.lang.String targetDevice,
com.acmepacket.ems.ws.service.userobjects.WSConfigElement wsConfigElement)throws
AcmeConfigWSFault, AcmeAdminWSFault
```

Input Parameters

- targetName: target device information, which is the target name
- wsConfigElement: wsConfigElement information

Output Parameters

WSConfigResult

Throws

```
com.acmepacket.ems.ws.service.fault.AcmeConfigWSFault
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault
```

updateConfigElement

updateConfigElement performs an incremental update of a single specified top-level WSConfigElement, or a single, specified sub-element. The user application does not need to provide a complete WSConfigElement; it needs to provide only the primaryKeys required to identify the target configuration element instance, and the attribute/value pairs that require update.

This Oracle Communications Session Element Manager SOAP API Guide release does not provide an API to update sub-elements; as a result, updateConfigElement is used to update both top-level and sub-elements. However, users cannot use updateConfigElement to add or delete sub-elements from an existing configuration element. Use addSubElement to add a sub-element, and deleteSubElement to delete a sub-element.

When updating a sub-element, users must provide an unambiguous path to the single target sub-element that requires update. The path consists of the ACP top-level identifier, followed by one or more sub-

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element types. At each path level, primaryKeys (such as ACLI object names) must be supplied to ensure unambiguous element identification. For example, the following path

```
sipManipulation(primaryKeys)/headerRule(primaryKeys)/elementRule(name="rule1")
```

identifies a SIP element rule to be updated.

```
public com.acmepacket.ems.ws.service.userobjects.WSConfigResult  
updateConfigElement(java.lang.String targetDevice,  
com.acmepacket.ems.ws.service.userobjects.WSConfigElement wsConfigElement) throws  
com.acmepacket.ems.ws.service.fault.AcmeConfigWSFault,  
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault
```

Input Parameters

- targetDevice - - the target name
- wsConfigElement - - contains primarykey attributes to identify the target Configuration Element, and additional attributes which require update to new values

Output Parameters

WSConfigResult

Throws

com.acmepacket.ems.ws.service.fault.AcmeConfigWSFault
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault

getConfigElement

getConfigElement gets a specified configuration element from the configuration database.

```
public com.acmepacket.ems.ws.service.userobjects.WSConfigElement  
getConfigElement(java.lang.String targetDevice,  
com.acmepacket.ems.ws.service.userobjects.WSConfigElement wsConfigElement) throws  
com.acmepacket.ems.ws.service.fault.AcmeConfigWSFault,  
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault
```

Input Parameters

- targetDevice - - target name information
- wsConfigElement- - WSConfigElement you need to supply only the primary key attributes on this wsConfigElement.

Output Parameters

WSConfigElement data structure describing the requested configuration element

Throws

com.acmepacket.ems.ws.service.fault.AcmeConfigWSFault
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault

getAllConfigElements

getAllConfigElements gets a arrayList of all configuration elements from the configuration database.


```
public ArrayList<WSConfigElement> getAllConfigElement(String targetName, String elementType)
throws com.acmepacket.ems.ws.service.fault.AcmeConfigWSFault,
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault
```

Input Parameters

- targetDevice - - target device information, which is the target name
- elementType - - element type information, such as sipInterface.

Output Parameters

a list of WSConfigElements

Throws

```
com.acmepacket.ems.ws.service.fault.AcmeConfigWSFault
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault
```

applyBatch

applyBatch initiates a database batch operation; each individual requested operation is described by a wsBatch data structure.

```
public com.acmepacket.ems.ws.service.userobjects.WSConfigResult
applyBatch(java.lang.String targetDevice,
com.acmepacket.ems.ws.service.userobjects.WSBatch wsBatch) throws
com.acmepacket.ems.ws.service.fault.AcmeConfigWSFault,
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault
```

Input Parameters

- targetDevice - - target device information
- wsBatch - - wsBatch data structure

Output Parameters

WSConfigResult

Throws

```
com.acmepacket.ems.ws.service.fault.AcmeConfigWSFault
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault
```

addConfigElement

addConfigElement adds a specified configuration element to the configuration database; sub-elements, if present, are also added to the database.

```
public com.acmepacket.ems.ws.service.userobjects.WSConfigResult
addConfigElement(java.lang.String targetDevice,
com.acmepacket.ems.ws.service.userobjects.WSConfigElement wsConfigElement) throws
com.acmepacket.ems.ws.service.fault.AcmeConfigWSFault,
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault
```

Input Parameters

- targetDevice - - target name information

Configuration Management Level

- wsConfigElement - - configuration element to be added to database

Output Parameters

WSConfigResult

Throws

com.acmepacket.ems.ws.service.fault.AcmeConfigWSFault
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault

replace

replace replaces an existing configuration element in the configuration database; the user must define the replacement configuration element in its entirety, to include sub-elements if any exist.

```
public com.acmepacket.ems.ws.service.userobjects.WSConfigResult replace(java.lang.String targetDevice,
com.acmepacket.ems.ws.service.userobjects.WSConfigElement wsConfigElement) throws
com.acmepacket.ems.ws.service.fault.AcmeConfigWSFault,
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault
```

Input Parameters

- targetDevice - - target name information
- wsConfigElement - - configuration element to be replaced

Output Parameters

WSConfigResult

Throws

com.acmepacket.ems.ws.service.fault.AcmeConfigWSFault
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault

addSubElement

addSubElement adds a new sub-element to a specified top-level configuration element.

When adding a sub-element, users must provide an unambiguous path to the target sub-element to be added. The path consists of the ACP top-level identifier, followed by one or more followed by one or more sub-element types. At each path level, primaryKeys (such as ACLI object names) must be supplied to ensure unambiguous element identification. For example, the following path

```
sipManipulation(primaryKeys)/headerRule(primaryKeys)/elementRule(name="rule2")
```

identifies a SIP element rule to be added.

```
public WSConfigResult addSubElement(String targetName, WSConfigElement parent, WSConfigElement
child) throws AcmeConfigWSFault, AcmeAdminWSFault
```

Input Parameters

- targetDevice - - target name information
- parent - - the parent configuration element
- child - - the child sub-element to be added

Output Parameters

WSConfigResult

Throws

com.acmepacket.ems.ws.service.fault.AcmeConfigWSFault
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault

deleteSubElement

deleteSubElement deletes an existing sub-element from a specified top-level configuration element.

When deleting a sub-element, users must provide an unambiguous path to the target sub-element to be deleted. The path consists of the ACP top-level identifier, followed by one or more followed by one or more sub-element types. At each path level, primaryKeys (such as ACLI object names) must be supplied to ensure unambiguous element identification. For example, the following path

sipManipulation(primaryKeys)/headerRule(primaryKeys)/elementRule(name="rule2")

identifies a SIP element rule to be deleted.

public WSConfigResult addSubElement(String targetName, WSConfigElement parent, WSConfigElement child) throws AcmeConfigWSFault, AcmeAdminWSFault;

Input Parameters

- targetDevice - - target name information
- parent - - the parent configuration element
- child - - the child sub-element to be deleted

Output Parameters

WSConfigResult

Throws

com.acmepacket.ems.ws.service.fault.AcmeConfigWSFault
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault

getConfigElementMetaData

getConfigElementMetaData returns a configuration element's metadata to include its attributes.

public WSConfigElementMetaData getConfigElementMetaData(String targetName, String elementType)
throws AcmeConfigWSFault, AcmeAdminWSFault

Input Parameters

- targetName - - target device information
- elementType - The type of the element for which the metadata to be returned

Output Parameters

WSConfigElementMetaData

Throws

com.acmepacket.ems.ws.service.fault.AcmeConfigWSFault
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault

getConfigAttributeMetaData

getConfigAttributeMetaData returns metadata. for a specified attribute of a specified configuration element.

public WConfigAttributeMetaData getConfigAttributeMetaData(String targetName, String elementType, String attributeName) throws AcmeConfigWSFault, AcmeAdminWSFault

Input Parameters

- targetName: target device information
- elementType: type of the element for which the metadata to be returned
- attributeName: name of the attribute

Output Parameters

WConfigElementMetaData

Throws

com.acmepacket.ems.ws.service.fault.AcmeConfigWSFault
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault

getValuesForReferenceAttribute

getValuesForReferenceAttribute returns the values for a specified reference attribute.

public ArrayList<String> getValuesForReferenceAttribute(String targetName, String elementType, String attributeName) throws AcmeAdminWSFault, AcmeConfigWSFault

Input Parameters

- targetName: target device information
- elementType: type of the element for which the metadata to be returned
- attributeName: The name of the attribute

Output Parameters

ArrayList<String>

Throws

com.acmepacket.ems.ws.service.fault.AcmeConfigWSFault
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault

newConfigElement

newConfigElement creates a new default instance of a specified configuration element.

public WConfigElement newConfigElement(String targetName, String elementType) throws AcmeConfigWSFault, AcmeAdminWSFault

Input Parameters

- targetName - - target name information
- elementType - The type of the element to be returned

Output Parameters

WSConfigElement

Throws

com.acmepacket.ems.ws.service.fault.AcmeConfigWSFault
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault

encryptedPassword

encryptedPassword encrypts a specified user password.

public String encryptedPassword(string configurationPasswordInfo, String inputPassword) throws
AcmeConfigWSFault, AcmeAdminWSFault

Input Parameters

- configurationPasswordInfo - - an SBC constant
- inputPassword - the plaintext password to be encrypted

Output Parameters

a string containing the encrypted inputPassword

Throws

com.acmepacket.ems.ws.service.fault.AcmeConfigWSFault
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault

deleteUserChanges

The deleteUserChanges API is used to delete any changes that a logged-in user made to a managed device.

Input Parameters

- targetName—The target name of the device on which the logged-in user made changes.

Output Parameters

- WSDeviceResult—The name of the result of deleting changes that a logged-in user made to a managed device.

Throws

com.acmepacket.ems.ws.service.fault.AcmeDeviceWSFault
com.acmepacket.ems.ws.service.fault.AcmeAdminWSFault

ACLI to ACP Mappings

Retrieve Element Metadata and Attributes

You can use the SOAP API to get element metadata and attribute information.

1. Add the device in Device Manager and load the device in Configuration Manager.
2. Use the ACP element type: **ConfigMgmtif.getConfigElementMetaData** with the string *targetName* and *elementType* to return all available metadata and attributes for the element type you choose.




Note: The **generate-certificate-request** and **import-certificate** commands are not supported by the SOAP API.

Retrieving the ACLI to ACP Mapping

The ACLI to ACP mapping varies between models. To dynamically generate the ACLI to ACP mapping for your SBC version, use the `getACLItoACPMapping` API call.

The SBCs must already be added in Device Manager and loaded in Configuration Manager. If an SBC is not added in Device Manager, or added in Device Manager but not loaded in Configuration Manager, this procedure returns the error message:

```
The target device names added to OC SDM are: [null]
```

1. Unzip the `CXFClientNNCMain.zip` included as part of the Oracle Session Delivery Manager download.
2. In the `CXFClientNNCMain\bin\build.bat` file, set the following variable:
 - `JAVA_HOME`—The path to your local JDK installation
3. In the `CXFClientNNCMain\bin\run.bat` file, set the following variables:
 - `JAVA_HOME`—The path to your local JDK installation
 - `SERVER_NAME`—The host name of your Oracle Session Delivery Manager server.
4. Also in the `CXFClientNNCMain\bin\run.bat` file, change `sampleSource.GenericClient` to `sampleSource.ClientExample`.
 - If using `https`, change the `sampleSource.GenericClient` in line 15.
 -  **Note:** If using `https`, set values for the `TRUST_STORE` and `TRUST_STORE_PASSWORD` variables.
 - If using `http`, change the `sampleSource.GenericClient` in line 20.

ACLI to ACP Mappings

```
:http
"%JAVA_HOME%\bin\java" -classpath .;%CLASSPATH% -DServerName=%SERVER_NAME
% -DServerPort=%SERVER_PORT% sampleSource.ClientExample
```

- In the CXFClientNNCMain\sampleSource\ClientExample.java file, under the Class Variables section, set the following private static variables:

- serverName—The host name or IP address of your Oracle Session Delivery Manager server.
- serverPort—The port of your Oracle Session Delivery Manager server
- soapUser—The administrator's user name.
- soapUserPwd—The administrator's password.
- targetDevice.—The target name of the SBC.



Note: To find the target name from within the Oracle Session Delivery Manager GUI, click **Configuration Manager > Devices > Expand All**. The Target Name column contains the value for the targetDevice variable.

For example:

```
private static String serverName="1.2.3.4";
private static String serverPort="8080";
private static String soapUser="admin_user";
private static String soapUserPwd="admin_password";
private static String targetDevice = "sbc720";
```

- In the runScenarios() function, uncomment the getACLtoACPMMapping API call.



Note: Because the getACLtoACPMMapping call needs to know the devices managed by the Oracle Session Delivery Manager, the runScenario2 call must also be uncommented.

```
private void runScenarios() {
    try {
        //runScenario1();           // Summary view SOAP user
        runScenario2();           // Get managed devices
        //runScenario3();         // Get top level element names
        //runScenario4();         // Create Top level element
        getACLtoACPMMapping();    // Return a list of ACLI to ACP name
                                   mapping for Top-level Elements
    }
}
```

- From the Command Prompt, re-build and run the SOAP client.

```
C:\CXFClientNNCMain\bin>build.bat
Note: ..\sampleSource\ClientExample.java uses unchecked or unsafe
operations.
Note: Recompile with -Xlint:unchecked for details.

C:\CXFClientNNCMain\bin>run.bat
```

The ACLI to ACP mapping is displayed.

```
The target device names added to NNC are : [sbc720]
[
Name : media-manager->codec-policy Value : codecPolicy,
Name : media-manager->dns-config Value : dnsConfig,
Name : media-manager->dnsalg-constraints Value : dnsAlgConstraints,
Name : media-manager->ext-policy-server Value : extBwManager,
. . .
```

Physical Interface

The following table lists SOAP attributes and sub-elements for the physical interface.

| SOAP Attributes/Sub-elements | ACLI | Default Values | Valid Values | SBC Version |
|------------------------------|-----------------------|----------------|--------------|-------------|
| | system->phy-interface | | | |

| | | | | |
|--------------------|---------------------|----------|----------------------------|-----------------|
| acliObjectName *# | name | enabled | 24 characters | 4.0.0 and above |
| admin | admin-state | 50 | enabled/disabled | |
| operationType # | operation-type | | maintenance or media | |
| port # | port | | 0-3 | |
| slot # | slot | | 0-1 | |
| ae_en | auto-negotiation | | enabled/disabled | |
| duplex | duplex-mode | | full or half | |
| speed | speed | | 100 or 10 | |
| virtualMac | virtual-mac | | empty or hh:hh:hh:hh:hh:hh | |
| wancomHealthScore | wancom-health-score | | 0-100 | |
| overloadProtection | overload-protection | disabled | enabled, disabled | 6.2.0 and above |
| AlarmThreshold | alarm-threshold | minor | minor, major, critical | |
| severity*# | severity | 0 | 0-100 | |
| value | value | | | |

Network Interface

The following table lists SOAP attributes and sub-elements for the network interface.

| SOAP Attributes/Sub-elements | ACLI | Default Values | Valid Values | SBC Version |
|------------------------------|---------------------------|----------------|------------------|-----------------|
| | system->network-interface | | | |
| acliObjectName * | name | <phy> | <phy> | 4.0.0 and above |
| subPortId *# | sub-port-id | disabled | 0-4095 | |
| hostname | hostname | 0 | 0-255 chars | |
| ipAddress | ip-address | 0 | Ipv4 | |
| utilityAddress | pri-utility-addr | 1 | Ipv4 | |
| secondUtilityAddress | sec-utility-addr | 0 | Ipv4 | |
| netmask | netmask | | Ipv4 | |
| gateway | gateway | | Ipv4 | |
| gatewaySec | sec-gateway | | Ipv4 | |
| NetworkInterfaceGWHeartbeat | gw-heartbeat | | enabled/disabled | |
| state # | state | | 0-65535 | |
| heartbeat | heartbeat | | 0-65535 | |
| timeout | retry-count | | 1-65535 | |
| retrycount | retry-timeout | | 0-100 | |
| retryTimeout | health-score | | Ipv4 | |

ACLI to ACP Mappings

| | | | | |
|----------------------|------------------|----|---|---------------------------|
| healthDec | dns-ip-primary | | Ipv4 | |
| domNameServer | dns-ip-backup1 | | Ipv4 | |
| domNameServerB1 | dns-ip-backup2 | | list of IPs | |
| domNameServerB2 | dns-domain | | ipv4 | |
| defDomainName | hip-ip-list | | empty or combo of (ftp, icmp, snmp, telnet) | |
| HipIpList | ftp-address | | ftp HIP | |
| ip *# | icmp-address | | icmp HIP | |
| protocolParameters | snmp-address | | snmp HIP | |
| ftpAddress | telnet-address | | telnet HIP | |
| icmpAddress | | | | |
| snmpAddress | | | | |
| telnetAddress | | | | |
| dnsTimeout | dns-timeout | 11 | 0-4294967295 | |
| description | description | | 255 chars | 5.0.0 and above |
| IcmpipList | icmp-address | | HIP | 4.1.4; 5.1.0 and above |
| ip *# | | | | |
| hostname | hostname | | 0-255 chars, ipv4, ipv6 | CX6.2.0 and above |
| ipAddress | ip-address | | Ipv4, ipv6, ipv6/prefix | |
| utilityAddress | pri-utility-addr | | Ipv4, ipv6 | |
| secondUtilityAddress | sec-utility-addr | | Ipv4, ipv6 | |
| netmask | netmask | | Ipv4, not allowed for ipv6 | |
| gateway | gateway | | Ipv4, ipv6 | |
| gatewaySec | sec-gateway | | Ipv4, ipv6 | |
| domNameServer | dns-ip-primary | | Ipv4, ipv6 | |
| domNameServerB1 | dns-ip-backup1 | | Ipv4, ipv6 | |
| domNameServerB2 | dns-ip-backup2 | | Ipv4, ipv6 | |
| HipIpList | hip-ip-list | | list of IPs | |
| ip *# | icmp-address | | ipv4, ipv6 | |
| protocolParameters | | | empty or combo of (ftp, icmp, snmp, telnet) | |
| IcmpIpList | | | list of ipv4, ipv6 | |
| ip *# | | | | |

Realm

The following table lists SOAP attributes and sub-elements for the realm.

| SOAP Attributes/Sub-elements | ACLI | Default Values | Valid Values | SBC Version |
|------------------------------|-----------------------------|----------------|---|-----------------|
| | media-manager->realm-config | | | |
| id *# | identifier | 0.0.0.0 | 24 characters | 4.0.0 and above |
| addrPrefix | addr-prefix | 0 | 0.0.0.0 or ipv4 or ipv4/mask | |
| parent | parent-realm | disabled | empty or <realm> | |
| acliObjectName *# | max-bandwidth | enabled | 0-999999999 | |
| subPortId *# | mm-in-realm | disabled | enabled/disabled | |
| maxBandwidth | mm-in-network | disabled | enabled/disabled | |
| mrInRealm | msm-release | none | enabled/disabled | |
| mrInNetwork | qos-enable | 0 | enabled/disabled | |
| isMSMRelease | media-policy | 0 | enabled/disabled | |
| qosEnable | in-translationid | 0 | empty or <QoS marking profile> | |
| mediaPolicy | outtranslationId | 30 | empty or <trans-profile> | |
| intranslationid | dns-realm | | empty or <realm> | |
| outtranslationid | class-profile | | empty or <cls-profile> | |
| dnsRealm | access-control-trust-level | | none, low, medium, high | |
| classProfile | average-rate-limit | | 0-999999999 | |
| trustLevel | invalid-signal-threshold | | 0-999999999 | |
| rateLimit | maximum-signal-threshold | | 0-999999999 | |
| errMsgThreshold | maximum-signal-threshold | | 0-999999999 | |
| maxMsgThreshold | deny-period | | | |
| denyTimer | | | | |
| RealmNetworkInterfaceId | network-interfaces | | <phy:port-id> <ip_version> or lo0:0:4 | Before 6.4.0 |
| RealmNetworkInterfaceId | network-interfaces | | <phy:port-id>, <ip_version>, lo0:0:4, or lo0:0:6 | 6.4.0 or later |
| symmetricLatching | symmetric-latching | disabled | enabled/disabled | |
| paiStrip | pai-strip | disabled | enabled/disabled | |
| trunkContext | trunk-context | 0 | empty or <pol-server> | |
| bwManager | ext-policy-svr | | empty or <sip-manipulation> | |
| inManipulationId | in-manipulationid | | list of options separated by comma | |
| outManipulationId | out-manipulationid | | 0-999999999 | |
| options | options | | | |
| maxMsgThresholdUntrusted | untrusted-signal-threshold | | | |
| mmInSystem | mm-in-system | enabled | enabled/disabled | 4.0.1 and above |

ACLI to ACP Mappings

| | | | | |
|--|---|--|---|------------------------|
| restrictedLatching restrictionMask | restricted-latching restriction-mask | none 32 | none, sdp, peer-ip 1-32 | |
| mmSameIp earlyMediaAllow RealmAdditionalPrefixes prefix *# | mm-same-ip early-media-allow additional-prefixes | enabled | enabled/disabled empty, none, reverse, or both list of ipv4/mask ipv4/mask | |
| acctEnable | accounting-enable | enabled | enabled, disabled | 4.1.0 and above |
| netMgmtCtrl userCacMode userCacBandwidth userCacSessions delayedMediaUpdate nonMmBwCAC codecPolicy codePolicyInRealm | net-management-control user-cac-mode user-cac-bandwidth user-cac-sessions delay-media-update bw-cac-non-mm codec-policy codec-manio-in-realm | disabled none 0 0 disabled disabled disabled | enabled or disabled none, aor, ip 0-999999999 0-999999999 enabled/disabled enabled/disabled empty or <codec-policy> enabled/disabled | 4.1.1 and above |
| generateUDPCksum enforcementProfile | generate-udp-checksum enforcement-profile | disabled | empty or disabled empty or <enforcement-profile> | 4.1.4; 5.1.0 and above |
| monthlyMinutes constraintName | monthly-minutes constraint-name | 0 | 0-71582788 empty or <session-constraint> | 4.1.4 and 5.1.1 |
| referCallTransfer description | refer-call-transfer description | disabled | enabled, disabled | 5.1.1 and above |
| callRecordingServerId | call-recording-server-id | | empty, defined call recording server | 6.0.0 and above |
| hmrString maxPriorityBandwidth fallbackBandwidth icmpDetectMultipl icmpAdvInterval icmpTargetIp MatchMediaProfile acliObjectName *# | manipulation-string max-priority-bandwidth fallback-bandwidth icmp-detect-multiplier icmp-advertisement-interval | 0 0 0 0 disabled 0.0.0.0 3478 | 0-999999999 0-999999999 0-999999999 0-999999999 ipv4 list of <media-profile>, <media-profile>::, <media-profile>:: <subname>, *,="" *::,="" *::<subname><="" td=""> <td>6.1.0 and above</td> </subname>,> | 6.1.0 and above |

| | | | | |
|---------------------------|--|-------------|--|-------------------|
| natTrustThreshold | icmp-target-ip | 0.0.0.0 | 0-65535 | |
| stunEnable | match-media-profiles | 3479 | enabled, disabled | |
| stunServerIp | nat-trust-threshold | | ipv4 | |
| stunServerPort | stun-enable | | 1025-65535 | |
| stunChangedIp | stun-server-ip | | ipv4 | |
| stunChangedPort | stun-server-port | | 1025-65535 | |
| qosConstraintName | stun-changed-ip stun-changed-port qos-constraint | | empty or <qos constraint> | |
| sipProfile | sip-profile | disabled | empty or <sip-profile> | 6.2.0 and above |
| sipIsupProfile | sip-isup-profile | disabled | empty or <sip-isup-profile> | |
| referCallTransfer | refer-call-transfer | 0 | disabled, enabled, dynamic | |
| dynReferTerm | dyn-refer-term | 0 | disabled, enabled, dynamic | |
| cacFailThreshold | cac-failure-threshold | | enabled, disabled | |
| untrustedCacFailThreshold | untrust-cac-failure-threshold | | 0-999999999 | |
| manipPattern | manipulation-pattern | | 0-999999999 | |
| mediaSecPolicy | media-sec-policy | xnq-unknown | empty or <media-sec-policy> | CX6.2.0 and above |
| addrPrefix | addr-prefix | | ipv4 or ipv4/mask, ipv6, ipv6/mask | |
| xnqState | xnq-state | | xnq-unknown, xnq-potential, xnq-remove | |
| hairpinId | hairpin-id | | 0-65535 | |

Realm Media Address

The following table lists SOAP attributes and sub-elements for the realm media address.ip-

| SOAP Attributes/Sub-elements | ACLI | Default Values | Valid Values | SBC Version |
|------------------------------|------------------------------|----------------|--------------------------------|-----------------|
| | media-manager->steering-pool | | | |
| ipAddress *# | ip-address | <realm> | Ipv4 | 4.0.0 and above |
| startPort *# | start-port | | 1025-65535 | |
| endPort # | end-port | | 1025-65535, | |
| realmID | realm-id | | endPort > startPort <realm> | |

ACLI to ACP Mappings

| | | | | |
|--|-------------------|--|------------------------|-------------------|
| RealmNetworkInterfaceId acliObjectName subPortId | network-interface | | empty or <phy:port-id> | |
| ipAddress *# | ip-address | | ipv4, ipv6 | CX6.2.0 and above |

Surrogate Agent

The following table lists SOAP attributes and sub-elements for the surrogate agent.

| SOAP Attributes/Sub-elements | ACLI | Default Values | Valid Values | SBC Version |
|------------------------------|---------------------------------|----------------|---------------------------------------|------------------------|
| | session-router->surrogate-agent | | | |
| registerHost *# | register-host | enabled | Ipve or hostname | 4.0.1 and above |
| registerUser *# | register-user | <realm> | enabled/disabled | |
| state | state | 600000 | <realm> | |
| realmID * | realm-id | disabled | Ipv4 or hostname | |
| description | description | enabled | SAG:<sag> or <sa> or ipv4 or hostname | |
| customerHost | customer-host | 1 | Ipv4 or hostname | |
| customerRoute # | customer-next-hop | | 0-999999999 | |
| contactHost # | register-contact-host | | enabled/disabled | |
| contactUser # | register-contact-user | | enabled/disabled | |
| password | password | | 0-999999999 | |
| expires | register-expires | | list of comma separated options | |
| replaceContact | replace-contact | | | |
| routeToRegistrar | route-to-registrar | | | |
| count | aor-count | | | |
| authUser | auth-user | | | |
| options | options | | | |
| maxRegisterAttempts | max-register-attempts | 3 | 0-10 | 4.1.4; 5.1.0 and above |
| registerRetryTime | register-retry-time | 300 | 30-3600 | |
| countStart | count-start | 1 | 0-999999999 | |

SIP Interface

The following table lists SOAP attributes and sub-elements for the SIP interface.

| SOAP Attributes/Sub-elements | ACLI | Default Values | Valid Values | SBC Version |
|------------------------------|-------------------------------|----------------|--------------|-------------|
| | session-router->sip-interface | | | |

| | | | | |
|--------------------------|-------------------------|----------|---|-----------------|
| state | state | enabled | enabled/disabled | 4.0.0 and above |
| RealmID * | realm-id | <realm> | <realm> | |
| trustMode | trust-mode | all | all, agents-only, relam-prefix, registered | |
| SIPConfigurationSIPPort | sip-port | 5060 | ipv4 | |
| address *# | address | UDP | 1025-65535 | |
| port *# | port | all | UDP or TCP | |
| transProtocol *# | transport-protocol | none | all, agents-only, realm-prefix, registered, register-prefix | |
| anonMode | allow-anonymous | disabled | empty, proxy, redirect, record-route, stateless | |
| proxyMode | proxy-mode | none | empty, proxy, recurse | |
| redirectAct | redirect-action | 30 | none, maddr, strict, loose | |
| contactSip | contact-mode | 300 | enabled, disabled | |
| telUri | teluri-scheme | 3600 | none, always, rport | |
| fqdnDomain | uri-fqdn-domain | disabled | 0-999999999 | |
| natTraversal | nat-traversal | disabled | 1-999999999 | |
| natInterval | nat-interval | | 0-999999999 | |
| regMinExpire | min-reg-expire | | 0-999999999 | |
| regInterval | registration-interval | | enabled/disabled | |
| registrationCaching | registration-caching | | enabled/disabled | |
| isRouteReg | route-to-registrar | | list of carriers | |
| SIPConfigurationCarriers | carriers | | list of options seperated by comma | |
| acliObjectName *# | options | | | |
| options | | | | |
| natmaxInterval | max-nat-interval | 3600 | enabled, disabled | |
| natIntervalIncrement | nat-int-increment | 10 | | |
| natTestIncrement | nat-test-increment | 30 | | |
| sipdynamicHnt | sip-dynamic-hnt | disabled | | |
| stopRecurse | stop-recurse | 401,407 | list of response codes, 300-599 seperated by comma | |
| portMapStart | port-map-start | 0 | 0, 1025-65535 | |
| portMapEnd | port-map-end | 0 | 0, 1025-65535, end>start | |
| trustMode | trust-mode | disabled | all, agents-only, relam-prefix, registered, none | |
| extPolicyServer | ext-policy-server | None | empty or <pol-server> | |
| defaultLocationString | default-location-string | None | enable/disabled | |
| imsFeature | sip-ims-feature | pass | NONE (4.0.1), none (4.2), normal, non-urgent, urgent, emergency | |
| NetworkID | network-id | pass | none, iptel, egress-uri | |
| anonymousPriority | anonymous-priority | | | |
| termTgrpMode | term-tgrp-mode | | | |

ACLI to ACP Mappings

| | | | | |
|-------------------------|--------------------------------|-------------|--|-----------------|
| chargingVectorMode | charging-vector-mode | | none, pass, delete, insert | |
| chargingFuncAddrMode | charging-function-address-mode | | none, pass, delete, insert | |
| ecfAddress | ecf-address | | Ipv4 or hostname | |
| ccfAddress | ccf-address | | Ipv4 or hostname | |
| operatorIdentifier | operator-identifier | | empty or <sip-manipulation> | |
| inManipulationId | in-manipulationid | | | |
| outManipulationId | out-manipulationid | | | |
| implicitServiceRoute | implicit-service-route | disabled | strict, enabled, disabled | 4.0.1 and above |
| tcpNatInterval | tcp-nat-interval | 90 | 0-99999999 | 4.1.0 and above |
| isSecure | secured-network | disabled | enabled, disabled | |
| rfc2833-mode | rfc2833-mode | transparent | transparent, preferred | |
| rfc2833-payload | rfc2833-payload | 101 | 96-127 | |
| maxConnPerPeer | per-src-ip-max-incoming-conns | 0 | 0-20000 | |
| maxConn | max-incoming-conns | 0 | 0-20000 | |
| idleConnTimeout | inactive-conn-timeout | 0 | 0-999999999 | |
| SIPConfigurationSIPPort | sip-port | 0 | UDP, TCP, TLS | |
| transProtocol | transport-protocol | | <tls-profile> if TLS specified | |
| tlsProfile | tls-profile | | | |
| constraintName | constraint-name | disabled | empty or <session-constraint> | 4.0.1; |
| implicitServiceRoute | implicit-service-route | | strict, enabled, disabled | 4.1.1 and above |
| responseMap | response-map | | empty or <sip-response-map> | 4.1.1 and above |
| localresponseMap | local-response-map | | | |
| trans-expire | trans-expire | | 0-999999999 | |
| invite-expire | invite-expire | | 0-999999999 | |
| max-redirect-contacts | max-redirect-contacts | | 0-10 | |
| rfc2833-mode | rfc2833-mode | | transparent, preferred, dual | |
| untrustedConnTimeout | untrusted-conn-timeout | 0 | 0-999999999 | 5.0.0 and above |
| tcp-keepalive | tcp-keepalive | none | none, disabled, enabled | 4.1.4; |
| chargingFuncAddrMode | charging-function-address-mode | pass | none, pass, delete, insert, delete-and-respond, insert-reg-cache | 5.1.0 and above |
| enforcementProfile | enforcementProfile | | empty or <enforcement profile> | |

| | | | | |
|---|---|-----------------|--|------------------------------|
| add-sdp-invite SIPInterfaceMediaProfile | add-sdp-invite add-sdp-profile | disabled | disabled, invite, reinvoke list of media profiles | 4.1.4; 5.1.1 and above |
| referCallTransfer routeUnauthorizedCalls description | refer-call-transfer route-unauthorized- calls description | disabled | enabled, disabled empty, defined SA or SAG | 5.1.1 and above |
| implicitServiceRoute | implicit-service-route | disabled | strict, enabled, disabled, absent, replace | 6.0.0 and above |
| chargingVectorMode | charging-vector-mode | pass | none, pass, delete, insert, delete-and-respond | 6.0.0M1 and above |
| imsAkaFeature imsAkaProfile hmrString SIPConfigurationSIPPort transProtocol | ims-aka-feature ims-aka-profile manipulation-string sip-port transport-protocol | disabled UDP | enabled, disabled <ims-aka-profile> or empty UDP, TCP, TLS, SCTP | 6.1.0 and above |
| sipProfile sipIsupProfile manipPattern | sip-profile sip-isup-profile manipulation-pattern | | empty or <sip-profile> empty or <sip-isup-profile> | 6.2.0 and above |
| SIPConfigurationSIPPort address *# | sip-port address | | ipv4, ipv6 | CX6.2.0 and above |

SIP NAT

The following table lists SOAP attributes and sub-elements for the SIP NAT.

| SOAP Attributes/ Sub-elements | ACLI Session-router- >sip-nat | Default Values | Valid Values | SBC Version |
|----------------------------------|-------------------------------------|-----------------|-------------------------------------|--------------------|
| RealmID * | realm-id | <realm> | <realm> | 4.0.0 and above |
| ProxyAddress | ext-proxy-address | 5060 | <0.0.0.0> or ipv4 | |
| ProxyPort | ext-proxy-port | 0 | 1025-65535 | |
| ExternalAddress | ext-address | disabled | Ipv4 | |
| HomeAddress | home-address | disabled | Ipv4 | |
| HomeProxyAddress | home-proxy- address | -acme- ACME- | Ipv4 1025-65535 | |
| HomeProxyPort | home-proxy-port | none | enabled, disabled, forced | |
| RouteHomeProxy prefix | route-home-proxy address-prefix | | empty, *, 0.0.0.0, ipv4/ bitmask | |

ACLI to ACP Mappings

| | | | |
|------------------|-------------------|---|--|
| TunnelRedirect | tunnel-redirect | list of nat headers: Call-ID Contact f From I Join m rRecord-Route Refer-To Replaces Replay-To Route t To v Via | enabled/disabled |
| UserNATTag | user-nat-tag | | <.com> |
| HostNATTag | host-nat-tag | | none, from-to, all |
| DomainSuffix | domain-suffix | | list of nat headers: Call-ID |
| ParamMode | use-url-parameter | | Contact f From I Join m r |
| ParamName | parameter-name | | Record-Route Refer-To |
| SipNatHeaders | headers | | Replaces Replay-To Route |
| acliObjectName*# | | | t To v Via with values = NAT, fqdn-ip-ext, fqdn-ip-tgt, ip-ip-ext, ip-ip-tgt |

H.323 Stack

The following table lists SOAP attributes and sub-elements for the H.323 stack.

| SOAP Attributes/ Sub-elements | ACLI | Default Values | Valid Values | SBC Version |
|----------------------------------|----------------------------------|----------------|--|-----------------|
| | Session-router->h323->h323-stack | | | |
| acliObjectName *# | name | enabled | 24 characters | 4.0.0 and above |
| state | state | <realm> | enabled/disabled | |
| realm-id * | realm-id | 0.0.0.0 | <realm> | |
| assoc-stack | assoc-stack | 1719 | empty or <h323-stack> | |
| local-ip | local-ip | 1720 | empty or <HIP> | |
| ras-port | ras-port | 200 | 1025-65535 | |
| q931-port | q931-port | 200 | 1025-65535 | |
| H323AlternateTransport | alternate-transport | 6 | list of <ipv4:port> | |
| ipAddress *# | q931-max-calls | 0 | Ipv4:port | |
| q931-max-calls | max-calls | 0 | >0 | |
| max-calls | max-channels | 0 | >0, must > q931-max-calls | |
| max-channels | q931-start-port | 0 | >0 | |
| q931-start-port | q931-number-ports | disabled | 0-65535 | |
| q931-number-ports | dynamic-start-port | enabled | 0, 1024, 2048, 4096, 8192, 16384, 32768 | |
| dynamic-start-port | dynamic-number-ports | all | 0-65535 | |
| dynamic-number-ports | tcp-keepalive | | 0, 1024, 2048, 4096, 8192, 16384, 32768 | |
| tcp-keepalive | isgateway | | enabled/disabled | |
| isgateway | allow-anonymous | | enabled/disabled | |
| AnonMode | filename | | all, agents-only, realm-prefix | |
| filename | terminal-alias | | list of e164, url, h323-ID, email, ipAddress | |
| H323TerminalAial | prefixes | | | |

| | | | | |
|---|---|---|---|-----------------|
| e164 *# url *# ipAddress *# email *# h323-ID *# H323Prefixes e164 *# url *# ipAddress *# email *# h323-ID *# | | | list of e164, url, h323-ID, email, ipAddress for gateway only | |
| registration-ttl processRegistration proxy-mode h245-stage h245-tunneling stack-options auto-gk-discovery multicast gatekeeper gk-identifier callStartFast callStartSlow H323MediaProfile acliObjectName *# fs-in-first-msg | registration-ttl process-registration proxy-mode h245-stage h245-tunneling options auto-gk-discovery multicast gatekeeper gk-identifier call-start-fast call-start-slow media-profiles fs-in-first-msg | 120 disabled connect disabled disabled enabled disabled disabled | >0 for gateway only enabled/disabled for gatekeeper only NONE, H225, H245 CONNECT, SETUP, ALERTING, CALL PROCEEDING, DYNAMIC, FACILITY, SETUP or CONNECT, NONE enabled/disabled list of options seperated by comma enabled, disabled ipAddress=ipv4:port for gateway only ipAddress=ipv4:port enabled/disabled enabled/disabled, each time only fast or only slow enabled list of media-profiles enabled/disabled | |
| rfc2833-mode | rfc2833-mode | transparent | transparent, preferred | 4.1.0 and above |
| description | description | | | 5.1.1 and above |
| H323StackAlarmThreshold severity*# value | alarm-threshold severity value | minor 0 | minor, major, critical 0-100 | 6.2.0 and above |

MGCP Config

The following table lists SOAP attributes and sub-elements for the MGCP config.

| SOAP Attributes/Sub-elements | ACLI Session-router->mgcp- config | Default Values | Valid Values | SBC Version |
|----------------------------------|---|-------------------------------|---|---------------------------|
| realmPrivate * | private-realm | <realm> | <realm> | 4.0.0 and above |
| addressPrivate *# | private-address | 2727 | Ipv4 | |
| portPrivate | private-port | LineUnit | 1025-65535 | |
| mode | mode | 256 | Host, LineUnit, LinePrefix, FQDN, FQDN2, OnlyHost | |
| divisor | divisor | disabled | | |
| unitPrefix | unit-prefix | disabled | | |
| dnsAuthentication | dns-authentication | 0 | 256, 65536, 16777216, 4294967295enabled/ disabled | |
| dnsTranslation | dns-translation | disabled | | |
| natTraversal | nat-traversal | 0 | empty or <trans-pfl> | |
| auditInterval | audit-interval | 0.0.0.0 | enabled/disabled | |
| options | options | 2427 | list of options | |
| caRedundancy | ca-redundancy | 0<realm> | enabled/disabled | |
| caPingMethod | ca-ping-method | 0.0.0.0 | NTFY 1 ping@host | |
| caPingInterval | ca-ping-interval | 2727 | Ipv4/mask | |
| hostGWPublic | public-gw-host | | 1025-65535 | |
| addrGWPublic | public-gw-address | | 0, 1025-65535<realm> | |
| portGWPublic | public-gw-port | | Ipv4 | |
| portGWPublic2realmPublic | second-public-gw- portpublic-realm | | 1025-65535 | |
| pubCAHost | public-ca-host | | | |
| addrCAPublic | public-ca-address | | | |
| portCAPublic | public-ca-port | | | |
| portALG | alg-port | 2427 | 1025-65535 | 4.1.4; 5.1.1 and below |
| MGCPConfigIpAddresses Addr *# | ca-failover-ip- addresses | | List of ipv4 Ipv4 | 4.0.1 and above |
| rsipFailures | rsip-failures | 500-509 511-519 522-599 | 500-599 | 5.1.0 and above |
| portMapStart | port-map-start | 0 | 0 or 1025-65535 | 5.1.1 |

| | | | | |
|---------------|-----------------|---|-----------------|-----------|
| portMapEnd | port-map-end | 0 | 0 or 1025-65535 | |
| caPingRetries | ca-ping-retries | 0 | 0-4294967295 | SC6.1.0M1 |

DNS Config

The following table lists SOAP attributes and sub-elements for the DNS config.

| SOAP Attributes/Sub-elements | ACLI | Default Values | Valid Values | SBC Version |
|------------------------------|---------------------------|----------------|--------------|-----------------|
| | media-manager->dns-config | | | |
| clientrealmID *# | client-realm | <realm> | <realm> | 4.0.0 and above |
| description | description | 53 | Ipv4 | |
| ClientIpList | client-address-list | 10 | <realm> | |
| IPAddress *# | server-dns-attributes | | domain | |
| ServerDNSAttributes | serverrealmID | | ipv4 | |
| serverRealmID *# | domain-suffix | | ipv4 | |
| ServerDnsDomainSuffix | server-address-list | | 0-65535 | |
| acliObjectName * # | source-address | | 0-999999999 | |
| ServerDnsAddressList | source-port | | ipv4/mask | |
| IPAddress * # | transaction-timeout | | ipv4/mask | |
| sourceAddress *# | address-translation | | | |
| sourcePort *# | server-prefix | | | |
| transactionTimeout | client-prefix | | | |
| ServerDNSAddressTranslation | | | | |
| serverprefix *# | | | | |
| clientprefix *# | | | | |

Session Agent

The following table lists SOAP attributes and sub-elements for the session agent.

| SOAP Attributes/Sub-elements | ACLI | Default Values | Valid Values | SBC Version |
|------------------------------|-------------------------------|----------------|------------------|-----------------|
| | session-router->session-agent | | | |
| hostname *# | hostname | 5060 | FQDN or ipv4 | 4.0.0 and above |
| ipAddress # | ip-address | enabled | 0.0.0.0 or Ipv4 | |
| port | port | UDP | 0, 1025-65535 | |
| state | state | disabled | enabled/disabled | |
| appProtocol # | app-protocol | disabled | SIP or H323 | |

ACLI to ACP Mappings

| | | | | |
|--------------------------|-----------------------|---------|--|--------------------------------|
| appType | app-type | disable | H323-GK or H323-GW for H323 only | |
| transMethod | transport-method | 0 | UDP, UDP+TCP, dynamicTCP, staticTCP | |
| realmID | realm-id | 0 | empty or <realm> | |
| description | description | 0 | list of comma seperated options | |
| options | options | 0 | list of comma seperated options | |
| SessionAgentMediaProfile | media-profiles | 0 | List of <media-profiles> for H323 only | |
| acliObjectName *# | carriers | 0 | <media-profile> | |
| SessionAgentCarriers | allow-next-hop-ip | 0 | List of carriers | |
| acliObjectName *# | in-translationid | 0 | <carrier-code> | |
| allowNextHop | outtranslationId | 0 | enabled / disabled | |
| inTranslationId | constraints | 0 | empty or <translation-profile> | |
| outTranslationId | max-sessions | | enabled / disabled | |
| useConstraints | max-outbound-sessions | | 0-999999999 | |
| maxNumSessions | max-burst-rate | | 0-999999999 | |
| maxOutbSessions | max-sustain-rate | | 0-999999999 | |
| maxBurstRate | time-to-resume | | 0-999999999 | |
| maxSustainedRate | ttr-no-response | | 0-999999999 | |
| timeToResume | in-service-period | | 0-999999999 | |
| noResponseTo | burst-rate-window | | 0-999999999 | |
| inServicePeriod | sustain-rate-window | | 0-999999999 | |
| burstWindow | | | 0-999999999 | |
| sustainedWindow | | | 0-999999999 | |
| trustMe | trust-me | enable | enabled / disabled | 4.0.0 and above (for SIP only) |
| proxyMode | proxy-mode | d | empty, proxy, redirect, record-route | |
| redirectAct | redirect-action | enable | empty, proxy, recurse | |
| allocMedia | send-media-session | d | enabled / disabled | |
| responseMap | response-map | disable | empty or <sip-response-code-profile> | |
| looseRouter | loose-routing | None | enabled, disabled | |
| inclCarrierAs | req-uri-carrier-mode | 0 | None, URI-param, Prefix | |
| pingMethod | ping-method | | INFO, OPTIONS | |
| pingInterval | ping-interval | | 0-999999999 | |
| localresponseMap | local-response-map | | empty or <sip-response-code-profile> | |
| pingToUserPart | ping-to-user-part | | list of headers | |
| pingFromUserPart | ping-from-user-part | | list of response codes, 300-599 | |
| RequesturiHeader | request-uri-headers | | | |

| | | | | |
|--|---|-----------------------|--|---|
| acliObjectName *# stopRecurse | stop-recurse | | | |
| trustMeForLI | li-trust-me | disabled | enabled / disabled | |
| assertedID SessionAgentTrunkGroup acliObjectName *# inManipulationId outManipulationId maxRegisterSustainedRate | p-asserted-id trunk-group in-manipulationid out-manipulationid max-register-sustain-rate | 0 | sip:name@acme.com or tel: +1234 list of trunk groups or group:context empty or <sip-manipulation> 0-999999999 | |
| earlyMediaAllow invalidateRegistrations | early-media-allow invalidate-registrations | disabled | empty, none, reverse, both enabled / disabled | 4.0.1 and above (for SIP only) |
| minSeizure minAnswerSeizureRatio | min-seizures min-asr | 5 0 | 1-999999999 0-100 | 4.0.1 and above |
| rfc2833-mode rfc2833-payload | rfc2833-mode rfc2833-payload | none 0 | none, transparent, preferred 0, 96-127 | 4.1.0 and above for H323 |
| maxInbSessions maxInbBurstRate maxOutbBurstRate maxInbSustainedRate maxOutbSustainedRate | max-inbound-sessions max-inbounds-burst-rate max-outbound-burst-rate max-outbound-sustain-rate | 0 0 0 0 0 | 0-999999999 0-999999999 0-999999999 0-999999999 0-999999999 | 4.0.1; 4.1.1 and above |
| codecPolicy inServiceCodes outServiceCodes | codec-policy in-service-response-codes out-service-response-codes | | empty or <codec-policy> list of comma-separated response codes, 200-699 | 4.1.1 and above (for SIP only) |
| rfc2833-mode rfc2833-payload | rfc2833-mod rfc2833-payload | None 0 | none, transparent, preferred, dual 0, 96-127 | |
| reuse-connections tcp-keepalive tcp-reconn-Interval enforcementProfile | reuse-connections tcp-keepalive tcp-reconn-interval enforcement-profile | NONE none 0 | NONE, TCP none, disabled, enabled 0, 2-300 empty or <enforcement-profile> | 4.1.4; 5.1.0 and above (for SIP only) |

ACLI to ACP Mappings

| | | | | |
|---|--|------------------------|---|---|
| maxRegisterBurstRate registerBurstWindow | max-register-burst-rate register-burst-window | 0 0 | 0-999999999 0-999999999 | 4.1.4, 5.1.1 and above (for SIP only) |
| referCallTransfer pingSendMode egressRealmID | refer-call-transfer ping-send-mode egress-realm-id | disabled keep-alive | enabled, disabled keep-alive, continuous empty or <realm> | 5.1.1 and above (for SIP only) |
| SessionAgentRateConstraints method maxInBurstRate maxOutBurstRate maxInSustainedRate maxOutSustainedRate | rate-constraints method max-inbound-burst-rate max-outbound-burst-rate max-inbound-sustain-rate max-outbound-sustain-rate | | INVITE, ACK, BYE, REGISTER, CANCEL, PRACK, OPTIONS, INFO, SUBSCRIBE, NOTIFY, REFER, UPDATE, MESSAGE, PUBLISH 0-999999999 0-999999999 0-999999999 0-999999999 | 5.1.1 and above |
| hmrString transMethod reuse-connections | manipulation-string transport-method reuse-connections | UDP NONE | UDP, UDP+TCP, dynamicTCP, staticTCP, dynamicTLS, staticTLS, staticSCTP, NONE, TCP, SCTP | 6.1.0 and above (for SIP only) |
| pingAllAddresses sipProfile sipIsupProfile manipPattern referCallTransfer | ping-all-addresses sip-profile sip-isup-profile manipulation-pattern refer-call-transfer | disabled disabled | enabled, disabled empty or <sip-profile> empty or <sip-isup-profile> disabled, enabled, dynamic | 6.2.0 above (for SIP only) |
| hostname *# ipAddress | hostname ip-address | | fqdn, ipv4, ipv6 ipv4, ipv6 | CX6.2.0 and above |

Session Agent Group

The following table lists SOAP attributes and sub-elements for the session agent group.

| SOAP Attributes/Sub-elements | ACLI | Default Values | Valid Values | SBC Version |
|---|--|------------------------|--|--------------------|
| | session-router->session-agent-group | | | |
| acliObjectName *# description state protocol # | group-name description state app-protocol | enabled SIP hunt | enabled/disabled SIP or H323 hunt, roundrobin, leastbusy, propdist, lowsusrate | 4.0.0 and above |

| | | | | |
|---|-------------------------------------|----------------------|---|--------------------------------------|
| strategy SessionAgentGroupSip Dest hostname *# | strategy dest | | list of session-agents <sa name> | |
| SessionAgentGroupTrunkGroup acliObjectName *# | trunk-group | | List of trunk groups or group:context <trk> or <trk>:<contxt> | 4.0.0 and above (for SIP only) |
| sagRecurse stopRecurse | sag-recursion stop-sag-recursion | disabled 410, 407 | enabled, disabled list of comma- separated response codes, 300-599 | 4.1.1 and above (for SIP only) |

Local Policy

The following table lists SOAP attributes and sub-elements for local policy.

| SOAP Attributes/ Sub-elements | ACLI Session-router- >local-policy | Default Values | Valid Values | SBC Version |
|----------------------------------|--|-------------------|---|-----------------|
| routeName * | from-address | * | Route0, Route1..... | 4.0.0 and above |
| LocalPolicyFrom # | to-address | * | +number, number, *, fqdn, ipv4 or 0.0.0.0 | |
| addr *# | source-realm | * | same | |
| LocalPolicyTo # | activate-time | enable | * or <realm> | |
| addr *# | deactivate-time | d | | |
| LocalPolicySourceRealm # | state | none | yyyy-mm-dd-hh:mm:ss | |
| acliObjectName *# | policy-priority | enable | yyyy-mm-dd hh:mm:ss | |
| activateTime | policy-attribute | 0000 | enabled/disabled | |
| deactivateTime | state | 2400 | none, normal, non-urgent, urgent, emergency | |
| state | start-time | U-S | RP0, RP1..... | |
| anonymousPriority | end-time | 0 | enabled, disabled | |
| LocalPolicyAttribute | days-of-week | SIP | 0000-2400 | |
| policyName * | cost | enable | 0000-2400 | |
| state | media-profiles | d | M, T, W, R, F, S, U, H or any combination | |
| startTime | carrier | | | |
| endTime | next-hop | | 0-999999999 | |
| dow | realm | | list of media-profiles | |
| cost | app-protocol | | <media-profile> | |
| | replace-uri | | <carrier-code> | |

ACLI to ACP Mappings

| | | | | |
|---|--|---|--|------------------------|
| LocalPolicyMediaProfiles aclObjectName *# carrierName nextHop # destRealm # appProtocol replace | | | SAG:<sag>, <sa>, ipAddress, FQDN empty or <realm> SIP or H323 enabled/disabled | |
| LocalPolicyAttribute startTime endTime dow cost LocalPolicyMediaProfiles aclObjectName *# carrierName nextHop # destRealm # appProtocol action isTermRoute replace | policy-attribute start-time end-time days-of-week cost media-profiles carrier next-hop realm app-protocol action terminate-recursion replace-uri | 0000 0000 U-S 0 SIP none disabled | 0000-2400 0000-2400 M, T, W, R, F, S, U, H or any combination 0-999999999 List of media-profiles <media-profile> <carrier> SAG:<sag>, <sa>, enum:<name> empty or <realm> SIP or H323 none, replace-uri, redirect enabled/disabled | 4.0.1 and above |
| LocalPolicyFrom # addr *# LocalPolicyTo # addr *# | from-address to-address | | also support 12*34, **** for number (potsstar) | 4.0.1, 4.1.1 and above |
| LocalPolicyAttribute nextHop | policy-attribute next-hop | | SAG:<sag>, <sa>, enum:<name>, lrt:<name>, enum:<name>;key=<value>, lrt:<name>;key=<value>, ipAddress, FQDN | 4.1.1 and above |
| LocalPolicyAttribute nextHop | policy-attribute next-hop | | SAG:<sag>, <sa>, enum:<name>, lrt:<name>, enum:<name>;key=<value>, lrt:<name>;key=<value>, ipAddress, FQDN, ldap:<name> | 4.50 and 4.5.1 |
| description | description | | | 5.1.1 and above |
| LocalPolicyAttribute methods | policy-attribute methods | | space separated list of INVITE, REGISTER, PRACK, OPTIONS, | 6.1.0 and above |

| | | | | |
|--|---|----------------------------------|--|----------------------|
| LocalPolicyFrom # addr *# LocalPolicyTo # addr *# | from-address to-address | | INFO, SUBSCRIBE, NOTIFY, REFER, UPDATE, MESSAGE, PUBLISH also supports DS: 123#456*Ab (alpha-numeric-dtmf, a combination of A-D, a-d, 0-9, #, *) (potsstar) | |
| LocalPolicyFrom # addr *# LocalPolicyTo # addr *# LocalPolicyAttribute eLocStrLkup eLocStrMatch lookup nextKey | from-address to-address policy-attribute eloc-str-lkup eloc-str-match lookup next-key | * * disable d single | +number (e164), number(pots), num**num (potsstar), */fqdn/ ipv4/0.0.0.0 (hostname), DS:[A-D] [a-d][0-9]#*(potsstar), urn:service: [sos, sos.fire, sos.animal-control] (hostname) enabled, disabled 24 chars such as noc, lac, line-code single, multi \$TO, \$FROM, \$PAI or any string | 6.2.0 and above |
| LocalPolicyFrom # addr *# LocalPolicyTo # addr *# LocalPolicyAttribute nextHop | from-address to-address policy-attribute next-hop | * * | +number (e164), number(pots), num**num (potsstar), */fqdn/ ipv4/ipv6/0.0.0.0 (hostname), DS: [A-D][a-d][0-9]#*(potsstar), urn:service:[sos, sos.fire, sos.animal-control] (hostname) SAG:<sag>, <sa>, enum:<name>, lrt:<name>, enum:<name>;key=<cic rn value>, lrt:<name>;key=<cic rn value>, ipv4, ipv6, FQDN | CX6.2.0 and above |

Network Management Control

The following table lists SOAP attributes and sub-elements for network management control.

| SOAP Attributes/ Sub-elements | ACLI Session-router->net- management-control | Default Values | Valid Values | SBC Version |
|----------------------------------|--|-------------------|---|--------------------|
| acliObjectName *# | name | enabled | 24 characters | 4.1.1 and above |
| state | state | 0 | enabled, disabled | |
| aclitype | type | 0 | empty, gap-rate, gap-percent, priority | |
| value | value | 0 | | |
| treatment | treatment | 503 | -1, 0-100 for gap-percent, 0-2147483647 for gap-rate | |
| nextHop | next-hop | 63 | empty, reject, divert | |
| nextHopRealm | realm-next-hop | | empty, hostname:port, ipv4:port, | |
| nextHopProtocol | protocol-next-hop | | sa, SAG:sa | |

ACLI to ACP Mappings

| | | | | |
|-------------------|------------------------|--|--|-----------------|
| statusCode | status-code | | empty, <realm> | |
| causeCode | cause-code | | empty, SIP, H323 | |
| gapRateMaxCount | gap-rate-max-count | | 1-699 | |
| gapRateWindowSize | gap-rate-window-size | | 0-999999999 | |
| DestinationId | destination-identifier | | 0-999999999 | |
| destinationId *# | | | List of number(^as wildcard), prefix(^as wildcard), ipv4(^as wildcard) and fqdn | |
| rphFeature | rph-feature | | disabled or enabled | 4.1.4 |
| rphProfile | rph-profile | | empty or <rph-profile> | |
| rphPolicy | rph-policy | | empty or <rph-policy> | |
| destinationId | destination-identifier | | list of number, prefix, ipv4 or fqdn (^ as wildcard for digit), urn:service:(sos, sos.fire, sos.animal-control etc.) | 6.2.0 and above |
| destinationId *# | | | | |

SIP Header Manipulation

The following table lists SOAP attributes and sub-elements for SIP header manipulation.

| SOAP Attributes/ Subelements | ACLI session-router->sip-manipulation | Default Values | Valid Values | SBC Version |
|------------------------------|---------------------------------------|----------------|--|-----------------|
| acliObjectName *# | name | none | add, delete, manipulate, none | 4.0.0 and above |
| HeaderRule | header-rule | any | empty or <value> | |
| acliObjectName *# | name | none | any, request, reply | |
| action | action | any | empty or comma separated strings | |
| matchValue | match-value | | header-value, header-param, uri-user, uri-host, uri-port, uri-param, uri-header, uri-user-param | |
| msgType | msg-type | | | |
| methods | methods | | add, replace, delete-header, delete-element, none | |
| ElementRule | element-rule | | IP, FQDN, ANY | |
| acliObjectName *# | name | | empty or <255 characters> | |
| aclitype | type | | empty or combination of \$ORIGINAL, \$LOCAL_IP, \$REMOTE_IP, \$REMOTE_VIA_HOST, \$TRUNK_GROUP, \$TRUNK_GROUP_CONTEXT, <any string>, +, -, +^, -^ | |
| action | action | | | |
| matchValueType | match-val-type | | | |
| | match-value | | | |
| | new-value | | | |

| | | | | |
|-----------------------|-----------------|----------------|---|------------------------|
| matchValue | | | | |
| newValue | | | | |
| acliObjectName * # | name | none | 255 characters | 4.1.1 and above |
| description | description | case-sensitive | 255 characters or @ status-line | |
| HeaderRule | header-rule | any | add, delete, manipulate, store, none | |
| acliObjectName * # | name | none | case-sensitive, case-insensitive, pattern-rule | |
| headerName # | header-name | ANY | empty or <reg-expr> | |
| action | action | case-sensitive | any, request, reply | |
| cmpType | comparison-type | | empty or <reg-expr> | |
| matchValue | match-value | | empty or comma-seperated strings | |
| msgType | msg-type | | 255 characters | |
| newValue | new-value | | 255 characters | |
| methods | methods | | header-value, header-param-name, header-param, uri-display, uri-user, uri-user-param, uri-host, uri-port, uri-param-name, uri-param, uri-header-name, uri-header, status-code, reason-phrase, | |
| ElementRule | element-rule | | | |
| acliObjectName *# | name | | header-value, header-param-name, header-param, uri-display, uri-user, uri-user-param, uri-host, uri-port, uri-param-name, uri-param, uri-header-name, uri-header, status-code, reason-phrase, | |
| paramName | parameter-name | | add, replace, delete-header, delete-element, store, none | |
| aclitype | type | | IP, FQDN, ANY | |
| action | action | | case-sensitive, case-insensitive, pattern-rule | |
| matchValueType | comparison-type | | empty or <reg-expr-value> | |
| cmpType | match-value | | empty or <reg-expr-value> with predefined parameters: | |
| matchValue | new-value | | \$ORIGINAL, \$LOCAL_IP, \$REMOTE_IP, \$REMOTE_VIA_HOST, \$TRUNK_GROUP, \$TRUNK_GROUP_CONTEXT | |
| newValue | | | | |
| Header Rule | header-rule | none | add, delete, manipulate, store, none, sip-manip | 4.1.4; 5.1.1 and above |
| action | action | | case-sensitive, case-insensitive, pattern-rule, boolean, refer-case-sensitive, refer-case-insensitive | |
| cmpType | comparison-type | | empty, <reg-expr>, or <sip-manipulation> | |
| newValue | new-value | | case-sensitive, case-insensitive, pattern-rule, boolean, refer-case-sensitive, refer-case-insensitive | |
| ElementRule | element-rule | | empty, <reg-expr>, or <sip-manipulation> | |
| cmpType | comparison-type | | case-sensitive, case-insensitive, pattern-rule, boolean, refer-case-sensitive, refer-case-insensitive | |
| newValue | new-value | | empty or <reg-expr> with pre-defined parameters: | |
| action | action | | | |
| aclitype | action | | | |

ACLI to ACP Mappings

| | | | | |
|--|---|---------------------|--|-----------------|
| | type | | <p>\$ORIGINAL, \$LOCAL_IP, \$LOCAL_PORT, \$REMOTE_IP, \$REMOTE_PORT, \$REMOTE_VIA_HOST, \$TRUNK_GROUP, \$TRUNK_GROUP_CONTEXT</p> <p>add, replace, delete-header, delete-element, store, none, find-replace-all</p> <p>header-value, header-param-name, header-param, uri-display, uri-user, uri-user-param, uri-host, uri-port, uri-param-name, uri-param, uri-header-name, uri-header, status-code, reason-phrase, mime</p> | |
| HeaderRule matchValue ElementRule aclitype matchValue | header-rule match-value element-rule type match-value | | <p>empty or <regular-expr> with \$MANIP_STRING</p> <p>header-value, header-param-name, header-param, uri-display, uri-user, uri-user-param, uri-host, uri-port, uri-param-name, uri-param, uri-header-name, uri-header, status-code, reason-phrase, mime, uri-user-only, uri-phone-number-only</p> <p>empty or <regular-expr> with \$MANIP_STRING</p> | 6.1.0 and above |
| HeaderRule aclObjectName * # action msgType matchValue newValue ElementRule action matchValue newValue | header-rule name action msg-type match-value new-value element-rule action match-value new-value | none any none | <p>unique and ordered with mime-rule, mime-isup-rule</p> <p>add, delete, manipulate, store, none, sip-manip, find-replace-all, reject, log</p> <p>any, request, reply, out-of-dialog</p> <p>empty or <regular-expr> with \$MANIP_STRING, \$MANIP_PATTERN</p> <p>empty or <regular-expr> or <sip-manipulation> or ACME_NAT_TO_FROM_IP</p> <p>add, replace, delete-header, delete-element, store, none, find-replace-all, reject, log, sip-manip</p> <p>empty or <regular-expr> with \$MANIP_STRING (\$M_STRING), \$MANIP_PATTERN</p> <p>empty or <sip-manipulation> or <reg-expr> with reserved words and operators: \$ORIGINAL, \$LOCAL_IP/PORT, \$REMOTE_IP/PORT, \$REMOTE_VIA_HOST, \$TRUNK_GROUP (\$T_GROUP), \$TRUNK_GROUP_CONTEXT</p> | 6.2.0 and above |

| | | | | |
|----------------|------------------|----------------|---|-----------------|
| | | | (\$T_CONTEXT), \$REPLY_IP/PORT, \$TARGET_IP/PORT, \$TO/FROM/CONTACT/RURI/PAI/PPI/PCPID_USER/PHONE/HOST/PORT, \$TIMESTAMP_UTC, \$CALL_ID, &, , ==, ~=, !=, <=, >=, <, > | |
| MimeRules | mime-rule | none | unique and ordered with header-rule, mime-isup-rule | 6.2.0 and above |
| acliObjectName | name | case-sensitive | 255 chars such as application/SDP, @preamble, @epilogue | |
| * # | content-type | any | add, delete, manipulate, store, none, sip-manip, find-replace-all, reject, log | |
| contentType | action | ascii-string | add, delete, manipulate, store, none, sip-manip, find-replace-all, reject, log | |
| action | comparison-type | none | case-sensitive, case-insensitive, pattern-rule, boolean, refer-case-sensitive, refer-case-insensitive | |
| cmpType | msg-type | case-sensitive | any, request, reply, out-of-dialog | |
| msgType | format | | ascii-string, hex-ascii, binary-ascii | |
| format | methods | | empty or comma seperated strings | |
| methods | match-value | | 255 chars | |
| matchValue | new-value | | 255 chars such as Content-Disposition | |
| newValue | mime-header-rule | | add, replace, store, none, sip-manip, find-replace-all, reject, log | |
| MimeHeaderRule | name | | case-sensitive, case-insensitive, pattern-rule, boolean, refer-case-sensitive, refer-case-insensitive | |
| acliObjectName | mime-header-name | | | |
| *# | action | | | |
| mimeHeaderName | comparison-type | | | |
| name# | match-value | | | |
| action | new-value | | | |
| cmpType | | | | |
| matchValue | | | | |
| newValue | | | | |
| MimeISUPRules | mime-isup-rule | ansi-2000 | unique and ordered with header-rule, mime-isup-rule | 6.2.0 and above |
| acliObjectName | name | none | 255 chars such as application/ISUP | |
| * # | content-type | case-sensitive | ansi-2000, itu-99, gr-317, etsi-356 | |
| contentType | isup-spec | any | empty or comma seperated list of 1-255 | |
| isupSpec | isup-msg-types | 0 | add, delete, manipulate, store, none, sip-manip, find-replace-all, reject, log | |
| isupMsgTypes | action | hex-ascii | case-sensitive, case-insensitive, pattern-rule, boolean, refer-case-sensitive, refer-case-insensitive | |
| action | comparison-type | none | any, request, reply, out-of-dialog | |
| cmpType | msg-type | case-sensitive | empty or comma seperated strings | |
| msgType | methods | | 255 chars | |
| methods | match-value | | 0-255 | |
| matchValue | new-value | | | |
| newValue | | | | |
| MimeHeaderRule | | | | |
| le | | | | |

ACLI to ACP Mappings

| | | | | |
|-------------------|-------------------------|--|---|---------|
| MimeISUPParamRule | mime-header-rule | | number-param, hex-ascii, binary-ascii, ascii-string, bcd | |
| acliObjectName*# | isup-param-rule name | | add, replace, store, none, sip-manip, find-replace-all, reject, log | |
| parameterType | type | | case-sensitive, case-insensitive, pattern-rule, boolean, refer-case-sensitive, refer-case-insensitive | |
| parameterFormat | format | | | |
| action | action | | | |
| cmpType | comparison-type | | | |
| matchValue | match-value | | | |
| newValue | new-value | | | |
| splitHdrList | split-headers | | comma seperated list of header names such as "Allowed,P-Asserted-Identity", "Diversion,Allow" | 6.2.0M1 |
| joinHdrList | join-headers | | | |

Session Constraints

The following table lists SOAP attributes and sub-elements for session constraints.

| SOAP Attributes/Sub-elements | ACLI Session-router->session-constraints | Default Values | Valid Values | SBC Version |
|------------------------------|---|----------------|----------------------|--------------------------|
| acliObjectname * # | name | disabled | 24 characters | 4.0.1; 4.1.1 above |
| useConstraints | state | 0 | enabled/ disabled | |
| maxNumSessions | max-sessions | 0 | 0-999999999 | |
| maxInbSessions | max-inbound-sessions | 0 | 0-999999999 | |
| maxOutbSessions | max-outbound-sessions | 0 | 0-999999999 | |
| maxBurstRate | max-burst-rate | 0 | 0-999999999 | |
| maxInbBurstRate | max-inbound-burst-rate | 0 | 0-999999999 | |
| maxOutbBurstRate | max-outbound-burst-rate | 0 | 0-999999999 | |
| maxSustainedRate | max-sustain-rate | 0 | 0-999999999 | |
| maxInbSustainedRate | max-inbound-sustain-rate | 0 | 0-999999999 | |
| maxOutbSustainedRate | max-outbound-sustain-rate | 5 | 0-999999999 | |
| minSeizure | min-seizures | 0 | 0-999999999 | |
| minAnswerSeizureRatio | min-asr | 0 | 1-999999999 | |
| timeRoResume | time-to-resume | 0 | 0-100 | |
| noResponseTo | ttr-no-response | 0 | 0-999999999 | |
| inservicePeriod | in-service-period | 0 | 0-999999999 | |
| burstWindow | burst-rate-window | 0 | 0-999999999 | |

| | | | | |
|--|---|--|--|-----------------|
| sustainedWindow | sustain-rate-window | | 0-999999999 | |
| SessionConstraintRateConstraints method maxInBurstRate maxOutBurstRate maxInSustainedRate maxOutSustainedRate | method max-inbound-burst-rate max-outbound-burst-rate sustain-rate-max-outbound max-outbound-sustain-rate | | INVITE, ACK, BYE, REGISTER, CANCEL, PRACK, OPTIONS, INFO, SUBSCRIBE, NOTIFY, REFER, UPDATE, MESSAGE, PUBLISH 0-999999999 0-999999999 0-999999999 0-999999999 | 5.1.1 and above |

Session Translation

The following table lists SOAP attributes and sub-elements for session translation.

| SOAP Attributes/Sub-elements | ACLI | Default Values | Valid Values | SBC Version |
|--|-------------------------------------|----------------|---------------------------|-----------------|
| | session-router->session-translation | | | |
| Id *# RuleCalling acliObjectName *# RuleCalled acliObjectName *# | id rules-calling rules-called | | list of translation rules | 4.0.0 and above |

Translation Rules

The following table lists SOAP attributes and sub-elements for translation rules.

| SOAP Attributes/Sub-elements | ACLI | Default Values | Valid Values | SBC Version |
|--|---------------------------------------|----------------|--|-----------------|
| | session-router->translation-rule | | | |
| Id *# aclitype add_s add_indx | id type add-string add-index | none 0 0 | add, delete, replace, none <string> 0-999999999, \$ for appending at the end @ as wild char or <string> | 4.0.0 and above |

ACLI to ACP Mappings

| | | | | |
|----------|---------------|--|-------------|--|
| del_s | delete-string | | 0-999999999 | |
| del_indx | delete-index | | | |

RPH Profile

The following table lists the SOAP attributes and sub-elements for RPH profiles.

| SOAP Attributes/ Sub-elements | ACLI | Default Values | Valid Values | SBC Version |
|---|--|----------------|--|---------------------------|
| | session-router->rph-profile | | | |
| acliObjectName *# callTreatment mediaPolicy RValues rValue *# | name call-treatment media-policy r-values | accept | 24 characters accept, reject, priority empty or <QoS marking profile> list or r-values such as ets.0 or wps.1, ets.1 | 4.1.4; 5.1.0 and above |

RPH Policy

The following table lists the SOAP attributes and sub-elements for RPH policies.

| SOAP Attributes/ Sub-elements | ACLI | Default Values | Valid Values | SBC Version |
|---|--|----------------|-----------------------------|---------------------------|
| | session-router->rph-policy | | | |
| acliObjectName *# OverrideRValues rValue *# InsertRValues rValue *# | name override-r-values insert-r-values | | 24 characters One rValue | 4.1.4; 5.1.0 and above |

Host Routes

The following table lists the SOAP attributes and sub-elements for host routes.

| SOAP Attributes/ Sub-elements | ACLI | Default Values | Valid Values | SBC Version |
|-------------------------------------|------------------------------------|----------------|--------------|--------------------|
| | system->host-route | | | |
| netAddress *# netmask gateway | dest-network netmask gateway | | lpv4 lpv4 | 4.0.0 and above |

| | | | | |
|---------------|--------------|--|----------------------------|-------------------|
| description | description | | | 5.1.1 and above |
| netAddress *# | dest-network | | Ipv4, ipv6, ipv6/prefix | CX6.2.0 and above |
| netmask | netmask | | Ipv4, not allowed for ipv6 | |
| gateway | gateway | | Ipv4, ipv6 | |

SIP Local Map Entry

The following table lists the SOAP attributes and sub-elements for SIP local map entries.

| SOAP Attributes/ Sub-elements | ACLI session-router->local- response-map->entries | Default Values | Valid Values | SBC Version |
|---|--|-------------------|--|---------------------------|
| localerror *# sipstatus cause sipreason causereason | local-error sip-status q850-cause sip-reason q850-reason | 0 | invalid-message, cpu- overload, media-released, media-not-allocated 100-699 | 4.0.0 and above |
| localerror *# | local-error | | invalid-message, cpu- overload, media-released, media-not-allocated, enum- void-route | 4.1.1 and above |
| localerror *# | local-error | | invalid-message, cpu- overload, media-released, media-not-allocated, enum- void-route, monthly- minutes-exceed, next-hop- sa-oos, recv-sa-exc- constraints, revc-sip-int-exc- constraints, next-hop-sa-exc- constraints, next-hop-sip- int-exc-constraints, realm- bw-exc-poly-serv-reject, no- steering-pool-ports- available, allow- anonymous-rejection, sdp- address-mismatch, | 4.1.4; 5.1.1 and above |
| localerror *# method registerResponseEx pires | local-error method register-response- expires | | invalid-message, cpu- overload, media-released, media-not-allocated, enum- void-route, monthly- minutes-exceed, next-hop- sa-oos, recv-sa-exc- constraints, revc-sip-int-exc- constraints, next-hop-sa-exc- constraints, next-hop-sip- int-exc-constraints, realm- | 5.1.1 and above |

ACLI to ACP Mappings

| | | | | |
|--|--|--|--|--|
| | | | bw-exc-poly-serv-reject, no-steering-pool-ports-available, allow-anonymous-rejection, sdp-address-mismatch, request-method-throttled empty, REGISTER 0-999999999 | |
|--|--|--|--|--|

Codec Policy

The following table lists the SOAP attributes and sub-elements for codec policies.

| SOAP Attributes/ Sub-elements | ACLI | Default Values | Valid Values | SBC Version |
|---|--------------------------------------|----------------|--|-------------|
| | media manager->codec-policy | | | |
| acliObjectName *# CodecPolicyAllow acliObjectName *# CodecPolicyOrder acliObjectName *# | name allow-codecs order-codecs | | list of *, <media profile>, PCMU, G726-32, G723, PCMA, G722, G726, G729, telephone-event with appending exception :no or :force same values as in list above, but order matters | 4.1.1 |

Access Control

The following table lists the SOAP attributes and sub-elements for access control.

| SOAP Attributes/ Sub-elements | ACLI | Default Values | Valid Values | SBC Version |
|---|---|--|---|-------------|
| | session-router->access-control | | | |
| inRealm * inSrc *# InDst *# appProtocol *# transProtocol *# access rateLimit trustLevel errMsgThreshold maxMsgThreshold denyTimer | realm-id source-address destination-address application-protocol transport-protocol access average-rate-limit trust-level invalid-signal-threshold maximum-signal-threshold deny-period | 0.0.0.0 0.0.0.0 all permit 0 none 0 0 30 0 or the same as | <realm> ipv4/mask:port/mask ipv4/mask:port/mask for application-protocol, NONE NONE, SIP, MGCP TCP, UDP, all permit, deny 0-4294967295 none, low, medium, high 0-4294967295 0-4294967295 | 4.0.0 |

| | | | | |
|---------------------------|---------------------------------------|--------------------|---|------------------------|
| maxMsgThresholdUntrusted | untrusted-signal-threshold | average-rate-limit | | |
| reservedBandwidth | minimum-reserved-bandwidth | 0 | 0-999999999 | 4.1.4; 5.1.1 and above |
| description | description | | 255 characters | 5.1.1 and above |
| natTrustThreshold | nat-trust-threshold | 0 | 0-65535 | 6.1.0 and above |
| cacFailThreshold | cac-fail-threshold | 0 | 0-999999999 | 6.2.0 and above |
| untrustedCacFailThreshold | untrusted-cac-failure-threshold | 0 | 0-999999999 | |
| inSrc *# inDst *# | source-address destination-address | | ipAddress/mask:port/mask, ipAddress is either ipv4 or ipv6, mask is 32 for ipv4, 128 for ipv6 | CX6.2.0 and above |

Media Profile

The following table lists the SOAP attributes and sub-elements for media profile.

| SOAP Attributes/ Sub-elements | ACLI session-router- >media-profile | Default Values | Valid Values | SBC Version |
|----------------------------------|---|-------------------|---|-----------------|
| acliObjectName *# | name | audio | 24 characters | 4.0.0 and above |
| mediaType | media-type | 0 | audio, video, data, application, control | |
| payloadType | payload-type | RTP/AVP | RTP/AVP, UDP | |
| transport | transport | 0 | 0-999999999 | |
| reqBandwidth | req-bandwidth | 0 | 0-256 | |
| framesPerPacket parameters | frames-per-packet parameters | | space separated <name=value> pair | |
| avgRate | average-rate-limit | 0 | 0-125000000 | |
| peakRate | peak-rate-limit | 0 | 0-125000000 | |
| maxBurstSize | max-burst-size | 0 | 0-125000000 | |
| mediaType | media-type | audio | audio, video, data, application, control, imate, text | 4.1.1 and above |
| sdpRateLimit | sdp-rate-limit-headroom | 0 | 0-100 | |
| sdpBandwidth | sdp-bandwidth | disabled | enabled or disabled | |
| policeRate | police-rate | 0 | 0-999999999 | 5.1.1 and above |

ACLI to ACP Mappings

| | | | | |
|---------|---------|--|--|-----------------|
| subName | subname | | | 6.1.0 and above |
|---------|---------|--|--|-----------------|

SIP Response Map

The following table lists the SOAP attributes and sub-elements for SIP response map.

| SOAP Attributes/ Sub-elements | ACLI | Default Values | Valid Values | SBC Version |
|----------------------------------|----------------------------------|----------------|-----------------|-----------------|
| | session-router->sip-response-map | | | |
| acliObjectName *# | name | | 100-699 | 4.0.0 and above |
| SIPResponseMapEntry | entries | | 100-699 | |
| statusRcvd *# | recv-code | | | |
| statusSend # | xmit-code | | | |
| reason | reason | | | |
| method | method | 0 | empty, REGISTER | 5.1.1 and above |
| registerResponseExpires | register-response-expires | | 0-999999999 | |

Diameter Director Agent

The following table lists the SOAP attributes and sub-elements for the DIAMETER Director agent.

| SOAP Attributes/ Sub-elements | ACLI | Default Values | Valid Values | SBC Version |
|----------------------------------|---|----------------|---------------------------------------|-------------------|
| | session-router->diameter-director-agent | | | |
| port | port | 3868 | Valid port number | DD1.0.0 and above |
| constraintName | constraint-name | 30 | 0-65535 | |
| appProtocol | protocol | enabled | enabled or disabled | |
| watchDogTimer | watchdog-timer | TCP | TCP or SCTP | |
| state | state | outbound | FQDN or IP address | |
| transportProtocol | transport-protocol | 0 | diameter-manipulation rule | |
| responseMap | response-map | authentication | Existing realm name | |
| hostname | hostname | | diameter-manipulation rule | |
| inManipulationId | in-manip-ip | | | |
| realmId | realm-id | | outbound, inbound, inbound-dynamic-ip | |
| outManipulationId | out-manip-id | | | |
| connectionMode | connection-mode | | 256-character string | |
| description | description | | IP address | |

| | | | | |
|--------------------|------------------------------------|--|---|-------------------------------|
| options | options | | 32-bit hexadecimal or 32-bit integer | |
| ipAddress | ipAddress | | 32-bit integer | |
| diamDirApplication | diameter-director- applications | | authentication or accounting | |
| appId | application-id | | | |
| vendorId | vendor-id | | | |
| appType | application-type | | | |
| tosValue | tos-value | | | DD1.0.0M1 and DD2.0.0M1 |

Diameter Director Configuration

The following table lists the SOAP attributes and sub-elements for the DIAMETER Director agent.

| SOAP Attributes/ Sub-elements | ACLI | Default Values | Valid Values | SBC Version |
|----------------------------------|--|-------------------|---------------------|----------------------|
| | session-router- >diameter-director- config | | | |
| redundancyPort | redndancy-port | 1999 | Valid port number | DD1.0.0 and above |
| llAction | load-limit-action | reject | reject or drop | |
| dynamicRouting | dynamic-routing | enabled | enabled or disabled | |
| state | state | enabled | enabled or disabled | |
| loadLimit | load-limit | 85 | 0-100 | |
| activeRedPort | active-redundancy-port | 9000 | Valid port number | |
| redNumTrans | red-max-transactions | 50000 | 0-999999 | |
| llExpResultCode | load-limit-exp-result- code | 3004 | Valid result code | |
| statefulPolicy | stateful-policy | | | |
| llResultCode | load-limit-result-code | | | |
| options | options | | | DD2.0.0 and above |

Diameter Director Constraints

The following table lists the SOAP attributes and sub-elements for the DIAMETER Director constraints.

| SOAP Attributes/ Sub-elements | ACLI | Default Values | Valid Values | SBC Version |
|----------------------------------|---|-------------------|--------------|-------------|
| | session-router- >diameter-director- constraints | | | |

ACLI to ACP Mappings

| | | | | |
|----------------------------|---------------------------|---------|---------------------|-------------------|
| burstWindow | burst-rate-window | 0 | 0-999999 | DD1.0.0 and above |
| maxInbSustainedRAte | max-inbound-sustain-rate | 0 | 0-999999 | |
| maxOutbBurstRate | max-outbound-burst-rate | 0 | 0-999999 | |
| sustainedRate | sustain-rate-window | enabled | enabled or disabled | |
| useConstraints | state | 0 | 0-999999 | |
| maxBurstRate | max-burst-rate | 0 | 0-999999 | |
| maxInbBurstRate | max-inbound-burst-rate | 0 | 0-999999 | |
| maxOutbBurstRate | max-outbound-burst-rate | 0 | 0-999999 | |
| timeToResume | time-to-resume | 3004 | 1000-6000 | |
| name | name | 0 | 0-999999 | |
| maxSustainedRate | max-sustained-rate | 0 | 0-999999 | |
| lastModifiedBy | last-modified-by | 0 | 0-999999 | |
| resultCode | result-code | 0 | 0-999999 | |
| lastModifiedDate | last-modified-date | | | |
| messageRateConstrai nts | message-rate-constraints | | | |
| maxOutSustainedRate | max-outbound-sustain-rate | | | |
| maxInSustainedRate | max-inbound-sustain-rate | | | |
| maxInBurstRate | max-inbound-burst-rate | | | |
| command | command | | | |
| maxOutBurstRate | max-outbound-burst-rate | | | |

Diameter Director Group

The following table lists the SOAP attributes and sub-elements for the DIAMETER Director group.

| SOAP Attributes/ Sub-elements | ACLI | Default Values | Valid Values | SBC Version |
|----------------------------------|---|-------------------|-------------------------------|-------------------|
| | session-router- >diameter-director- constraints | | | |
| groupName | group-name | enabled | 256 character string | DD1.0.0 and above |
| description | description | hunt | enabled or disabled | |
| lastModifiedBy | last-modified-by | 100000 | hunt | |
| state | state | disabled | diameter-manipulation rule | |
| lastModifiedDate | last-modified-date | 32000 | | |
| strategy | strategy | 0 | | |

| | | | | |
|--------------------|-------------------------------|----------------|--------------------------------------|--|
| inManipulationId | in-manip-id | authentication | diameter-manipulation rule | |
| outManipulationId | out-manip-id | | 1-999999 | |
| recursiveRouting | recursive-routing | | enabled or disabled | |
| recursionTimeout | recursion-timeout | | 1-999999 | |
| doRecursion | do-recursion | | valid diameter result code | |
| transactionTimeout | transaction-timeout | | 32-bit hexadecimal or 32-bit integer | |
| resultCodes | result-codes | | 32-bit integer | |
| expResultCodes | exp-result-codes | | authentication or accounting | |
| diamDirApplication | diameter-director-application | | | |
| appId | application-id | | | |
| vendorId | vendor-id | | | |
| appType | application-type | | | |
| destination | destinations | | | |
| seqno | seqno | | | |
| name | name | | | |

Diameter Director Interface

The following table lists the SOAP attributes and sub-elements for the DIAMETER Director interface.

| SOAP Attributes/ Sub-elements | ACLI | Default Values | Valid Values | SBC Version |
|----------------------------------|---|----------------|---|-------------------|
| | session-router->diameter-director-constraints | | | |
| constraintName | constraint-name | enabled | diameter director constraint | DD1.0.0 and above |
| outManipId | out-manip-id | none | diameter-manipulation rule | |
| state | state | 3868 | disabled | |
| routingPolicy | routing-policy | TCP | 256 character string | |
| realmId | realm-id | all | 256 character string | |
| suppVendorIds | supported-vendor-ids | 0 | 256 character string | |
| originHostId | origin-host-identifier | authentication | 256 character string | |
| description | description | | none, identifier, identifier-with-realm | |
| originHostFormat | origin-host-format | | diameter-manipulation rule | |
| lastModifiedBy | last-modified-by | | number greater than 1023 | |
| lastModifiedDate | last-modified-date | | TCP, SCTP | |
| inManipId | in-manip-id | | IP address | |
| sipPort | diameter-director-ports | | | |
| port | port | | | |

ACLI to ACP Mappings

| | | | | |
|--------------------|-------------------------------|--|-------------------------------|-------------------------|
| tlsProfile | tls-profile | | all, agents-only | |
| transProtocol | transport-protocol | | IP address | |
| address | address | | 32-bit hexadecimal or integer | |
| anonMode | allow-anonymous | | 32-bit integer | |
| imsAkaProfile | ims-aka-profile | | authentication, accounting | |
| sctpMultiHomeAddrs | multi-home-addrs | | | |
| diamDirApplication | diameter-director-application | | | |
| appId | application-id | | | |
| vendorId | vendor-id | | | |
| appType | application-type | | | |
| tosValue | tos-value | | | DD1.0.0M1 and DD2.0.0M1 |

Diameter Manipulation

The following table lists the SOAP attributes and sub-elements for the DIAMETER manipulation.

| SOAP Attributes/ Sub-elements | ACLI | Default Values | Valid Values | SBC Version |
|----------------------------------|---|----------------|---|-------------------|
| | session-router->diameter-director-constraints | | | |
| description | description | case-sensitive | 256 character string | DD1.0.0 and above |
| name | name | none | 256 character string | |
| lastModifiedBy | last-modified-by | 0 | AVP header-rule | |
| lastModifiedDate | last-modified-date | any | 256 character string | |
| diameterManipRules | diameter-manip-rules | 0 | case-sensitive, case-insensitive, pattern-rule, boolean | |
| seqno | seqno | none | | |
| newValue | new-value | none | none, add, delete, store, diameter-manip, group-manip, find-replace-all, replace | |
| avpCodeDescr | descr-avp-code | | | |
| name | name | | | |
| cmpType | comparison-type | | AVP code | |
| action | action | | any, request, reply | |
| matchValue | match-value | | diameter message code | |
| avpCode | avp-code | | none, octet-string, octet-hex, integer32, unsignedint32, address, diameteruri, enumerated | |
| msgType | msg-type | | | |
| msgCmdCode | msg-cmd-code | | | |
| avpType | avp-type | | | |
| avpHeaderRule | avp-header-rule | | | |

| | | | | |
|------------|-------------|--|----------------------------|--|
| headerType | header-type | | avp-flag or avp-vendor-id | |
| newValue | new-value | | | |
| name | name | | none, add, delete, replace | |
| action | action | | | |
| matchValue | match-value | | | |

Running a Legacy SOAP Client API

Users who have created client applications with now deprecated APIs can run these applications after completing the following procedure.

1. Extract NNC700WSlassic.zip (contained on the Oracle software distribution CD) to a folder on the client computer. This folder provides the [WSClassicClient_HOME].
2. Move existing applications, created with the now deprecated provisioning APIs, to the {WSClassicClient_HOME}/sampleSouce folder.
3. Delete the directory that previously contained client applications.
4. Go to {WSClassicClient_HOME}/bin.
5. Edit run.bat, the file that allows you to run client application code, by changing the JAVA_HOME path variable to match the JDK installation path. In addition, edit the SERVER_NAME and SERVER_PORT variables to match the IP address and port number of the Oracle Communications Session Element Manager SOAP API Guide Server.

 **Note:** Client application code now requires JDK 1.6.0 or later; the latest update is recommended.

6. Edit build.bat by making the same change to the JAVA_HOME path variable.
7. The following Step, which imports one or more server certificates to a specific JAVA keystore, is required only if the client interface will run over HTTPS. This Step can be safely ignored if client/server transactions will take place over unsecured HTTP.
 1. Use FTP to move a copy of a Oracle Communications Session Element Manager SOAP API Guide Server public certificate to the JAVA_HOME location on the client computer.
 2. The certificate is usually at opt/AcmePacket/NNC700/ssl/nncentral_server.cer on the Net-Net Central Server.
 3. Use the JAVA keytool utility to import the public certificate into a specified JAVA keystore. For example,

```
keytool -import -keystore trustedCerts -alias NNC-01 -file nnC01.cer
```

imports the certificate file, nnC01.cert, into the keystore named trustedCerts; the keystore file will be referenced by the NNC-01 alias.

Note that you will be prompted for the keystore password before the import operation is initiated.

For example:

```
Owner: EMAILADDRESS=test@test.com, CN=172.30.10.120, OU=NmsCore,
O=Acme Packet Inc., ST=Some-State, C=AU
Issuer: EMAILADDRESS=test@test.com, CN=172.30.10.120, OU=NmsCore,
```

Running a Legacy SOAP Client API

```
O=Acme Packet Inc., ST=Some-State, C=AU
Serial number: 8b4d53819b6dfff1
Valid from: Tue Nov 14 16:04:53 EST 2006 until: Sat Jan 31 16:04:53 EST
2015
Certificate fingerprints:
MD5: 98:DA:F6:04:A8:A0:CA:D4:33:83:2A:3F:CE:C3:FB:CD
SHA1: F4:BB:72:7D:43:25:56:86:6A:70:55:27:63:96:D2:13:DF:89:B2:68
Trust this certificate? [no]: y
Certificate was added to keystore
```

4. Edit run.bat by changing the TRUST_STORE variable to match the location of the JAVA keystore that contains the public certificates of associated Oracle Communications Session Element Manager SOAP API Guide Servers.
5. Edit run.bat by changing the TRUST_STORE_PASSWORD to match the password required to access the JAVA keystore containing the Oracle Communications Session Element Manager SOAP API Guide Server certificates.

6. Use the JAVA keytool utility to confirm the presence of the key in the keystore. For example,

```
keytool -list -v -keystore trustedCerts
```

provide a verbose display of the contents of the designated JAVA keystore, in this case, trustedCerts.

Note that you will be prompted for the keystore password before the keystore contents are displayed.

Repeat Steps 7a, 7b, and 7e to import additional Net-Net Central Server certificates to the same JAVA keystore.

8. If present, comment out the following code in your applications:

```
/* org.apache.axis.client.Stub yourStub = (Stub) emsLevelStub;// add this
line
yourStub._setProperty(org.apache.axis.MessageContext.HTTP_TRANSPORT_VERSION,
org.apache.axis.transport.http.HTTPConstants.HEADER_PROTOCOL_V11);// add
this line

//For the defect: SocketTimeoutException
org.apache.axis.client.Stub s = (Stub) networkLevelStub;
s.setTimeout(1800000);
//30 minutes, 30*60*1000

*/
```

9. Edit {WSClasicClient_HOME}/conf/client.properties by changing the value of the session_timeout_ms property to specify a session timeout value, expressed in milliseconds.
10. Use build.bat to compile the client application.
11. Use run.bat to run the client application.