

Oracle® Communications Service Broker

Policy Controller Protocol Implementation Conformance
Statement

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Oracle Communications Service Broker Policy Controller Protocol Implementation Conformance Statement, Release 6.1

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Preface

This book is the Protocol Implementation Conformance Statement (PICS) for the Oracle Communication Policy Controller Release 6.1 product.

Audience

This document is intended for personnel who implement the Policy Controller product.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at

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Related Documents

For more information, see the following documents in the Oracle Communications Service Broker Release 6.1 documentation set:

- *Oracle Communications Service Broker Release Notes*
- *Oracle Communications Service Broker Policy Controller Implementation Guide*

Policy Controller PICS Overview

This book describes how Oracle Communications Policy Controller (Policy Controller) supports Diameter protocols. Each chapter lists the supported commands and AVPs for a specific Diameter protocol.

Policy Controller Supported Protocols

Table 1–1 lists the specifications that Policy Controller supports:

Table 1–1 Policy Controller Supported Protocols

Communication Category	Comments/Standard
Policy Controller	Policy Charging and Control Architecture 3GPP TS 23.203 v9.9.0 (2011-06)
Diameter Base specification	RFC 3588. This specification is available here: http://tools.ietf.org/html/rfc3588
AF (application function)	Policy and Charging Control Over Rx reference point (3GPP 29.214 V9.9.0 (2011-12) (Release 9). See " Diameter Rx Protocol Support " for details on the supported messages and attributes. This specification is available here: http://www.3gpp.org/ftp/Specs/html-info/29214.htm
OCS (Online Charging System)	Policy Controller communicated with the OCS portion of your SPR/OSC using this Sy interface standard: Sy Interface based on the Diameter Protocol (3GPP TS 29.219 Release V11.2 (2012-09) (Release 11). See " Diameter Sp Protocol Support " for details on the supported messages and attributes. This specification is available here: http://www.3gpp.org/ftp/Specs/html-info/29219.htm
PCEF (Policy Controller Enforcement Function)	Policy and Charging Control over Gx Reference Point 3GPP TS 29.212 v9.9.0 (2011-12) (Release 9). See " Diameter Gx Protocol Support " for details on the supported messages and attributes. This specification is available here: http://www.3gpp.org/ftp/Specs/html-info/29212.htm
Quality of Service	Policy and Charging Control signalling flows and Quality of Service (QoS) parameter mapping 3GPP TS 29.213 V9.8.0 (2011-12) (Release 9)
SMSC to SME (Short Message Service Centers to Short Message Entities)	Service Centres (SMSCs) to Short Message Entities (SMEs) 3GPP TR 23.039 V5.0.0 (2002-06).

Table 1-1 (Cont.) Policy Controller Supported Protocols

Communication Category	Comments/Standard
SPR (Subscriber Profile Repository)	Policy Controller communicates with the SPR portion of your SPR/OCS using an Sh-like interface as the Sp reference point. For details on the Sh reference point, see Spending Limit Reporting over the Sh reference point 3GPP TS 29.329 v11.1.0 (2012-06) (Release 11). This specification is available here: http://www.3gpp.org/ftp/Specs/html-info/29329.htm

The AVPs in these commands come principally from those same specifications. Where AVPs are reused from other specifications, those specifications are noted.

Diameter Base Protocol Support

This chapter lists the RFC 3588 Diameter base commands and AVPs that Oracle Communications Policy Controller (Policy Controller) supports.

Supported Diameter Base Commands

Table 2–1 lists the Diameter base commands that Policy Controller supports.

Table 2–1 Supported Diameter Base Commands

Command Name	Status	Link to List of Supported AVPs
Abort-Session-Request (ASR)	Supported for Rx	"Supported Rx Abort-Session-Request (ASR) AVPs"
Abort-Session-Answer (ASA)	Supported for Rx	"Supported Rx Abort-Session-Answer (ASA) AVPs"
Capabilities-Exchange-Request (CER)	Supported for Gx	"Supported Base Capabilities-Exchange-Request (CER) AVPs"
Capabilities-Exchange-Answer (CEA)	Supported for Gx	"Supported Base Capabilities-Exchange-Answer (CEA) AVPs"
Device-Watchdog-Request (DWR)	Supported for both Gx and Rx	"Supported Base Device-Watchdog-Request (DWR) AVPs"
Device-Watchdog-Answer (DWA)	Supported for both Gx and Rx	"Supported Base Device-Watchdog-Answer (DWA) AVPs"
Disconnect-Peer-Request (DPR)	Supported for both Gx and Rx	"Supported Base Disconnect-Peer-Request (DPR) AVPs"
Disconnect-Peer-Answer (DPA)	Supported for both Gx and Rx	"Supported Base Disconnect-Peer-Answer (DPA) AVPs"
Re-Auth-Request (RAR)	Supported differently by Gx and Rx.	Rx version: "Supported Rx Re-Auth-Request (RAR) AVPs" Gx version: "Supported Gx Re-Auth-Request (RAR) AVPs"
Re-Auth-Answer (RAA)	Supported differently by Gx and Rx.	Rx version: "Supported Rx Re-Auth-Answer (RAA) AVPs" Gx version: "Supported Gx Re-Auth-Answer (RAA) AVPs"
Session-Termination-Request (STR)	Supported for Rx	"Supported Rx Session-Termination-Request (STR) AVPs"
Session-Termination-Answer (STA)	Supported for Rx	"Supported Rx Session-Termination-Answer (STA) AVPs"

Supported Base Capabilities-Exchange-Request (CER) AVPs

Table 2–2 lists the Diameter base Capabilities-Exchange-Request command AVPs that Policy Controller supports.

Table 2–2 Supported Capabilities-Exchange-Request AVPs

AVP	Status
Origin-Host	Supported
Origin-Realm	Supported
Host-IP-Address	Supported
Vendor-Id	Supported
Product-Name	Supported
Origin-State-Id	Supported
Supported-Vendor-Id	Supported
Auth-Application-Id	Supported
Inband-Security-Id	Supported
Acct-Application-Id	Supported
Vendor-Specific-Application-Id	Supported
---Vendor-Id	Supported
---Auth-Application-Id	Supported
---Acct-Application-Id	Supported
Firmware-Revision	Supported

Supported Base Capabilities-Exchange-Answer (CEA) AVPs

Table 2–3 lists the Capabilities-Exchange-Answer AVPs supported by Policy Controller for RFC 3588.

Table 2–3 Supported Capabilities-Exchange-Answer AVPs

AVP	Status
Result-Code	Supported
Origin-Host	Supported
Origin-Realm	Supported
Host-IP-Address	Supported
Vendor-Id	Supported
Product-Name	Supported
Origin-State-Id	Supported
Error-Message	Supported
Failed-AVP	Supported
---AVP	Supported
Supported-Vendor-Id	Supported
Auth-Application-Id	Supported

Table 2–3 (Cont.) Supported Capabilities-Exchange-Answer AVPs

AVP	Status
Inband-Security-Id	Supported
Acct-Application-Id	Supported
Vendor-Specific-Application-Id	Supported
----Vendor-Id	Supported
----Auth-Application-Id	Supported
----Acct-Application-Id	Supported
Firmware-Revision	Supported

Supported Base Device-Watchdog-Request (DWR) AVPs

Table 2–4 lists the Diameter base Device-Watchdog-Request command AVPs that Policy Controller supports.

Table 2–4 Supported Device-Watchdog-Request AVPs

AVP	Status
Origin-Host	Supported
Origin-Realm	Supported
Origin-State-Id	Supported

Supported Base Device-Watchdog-Answer (DWA) AVPs

Table 2–5 lists the Diameter base Device-Watchdog-Answer command AVPs that Policy Control supports.

Table 2–5 Supported Device-Watchdog-Answer AVPs

AVP	Status
Result-Code	Supported
Origin-Host	Supported
Origin-Realm	Supported
Error-Message	Supported
Failed-AVP	Supported

Supported Base Disconnect-Peer-Request (DPR) AVPs

Table 2–6 lists the Diameter base Disconnect-Peer-Request command AVPs that Policy Controller supports.

Table 2–6 Supported Disconnect-Peer-Request AVPs

AVP	Status
Origin-Host	Supported
Origin-Realm	Supported
Disconnect-Cause	Supported

Supported Base Disconnect-Peer-Answer (DPA) AVPs

Table 2-7 lists the Diameter base Disconnect-Peer-Answer command AVPs that Policy Controller supports.

Table 2-7 Supported Disconnect-Peer-Answer AVPs

AVP	Status
Result-Code	Supported
Origin-Host	Supported
Origin-Realm	Supported
Error-Message	Supported
Failed-AVP	Supported

Diameter Gx Protocol Support

This chapter lists the Diameter Gx commands and AVPs that Oracle Communications Policy Controller (Policy Controller) supports. The supported protocol specification is Policy and Charging Control (PCC) over Gx/Sd reference point 3GPP TS 29.212 V9.9.0 (2011-12) (Release 9). Any reused AVPs are listed as such with their specifications in the Comments column.

About the Levels of Support

The AVPs in this chapter have these levels of Support:

- AVPs with a Status of “Supported” contain values that are accepted by Policy Controller. Some of these AVPs require additional development work by your development team to be useful to Policy Controller.
- AVPs with a Status of “Not Supported” cause Policy Controller operations to fail and send an error message.

Supported Gx Commands

Table 3–1 lists the Diameter Gx commands that Policy Controller supports.

Table 3–1 Supported Gx Commands

Command	Status	Link to List of Supported AVPs
Credit-Control-Request (CCR)	Supported	"Supported Gx Credit-Control-Request (CCR) AVPs"
Credit-Control-Answer (CCA)	Supported	"Supported Gx Credit-Control-Answer (CCA) AVPs"
Re-Authorization-Request (RAR)	Supported	"Supported Gx Re-Auth-Request (RAR) AVPs"
Re-Authorization-Answer (RAA)	Supported	"Supported Gx Re-Authorization-Answer (RAA) AVPs"

Supported Gx Credit-Control-Request (CCR) AVPs

Table 3–2 lists the Diameter Gx Credit-Control-Request AVPs supported by Policy Controller.

Table 3–2 Supported Credit-Control-Request AVPs

AVP	Status
Origin-Host	Supported

Table 3–2 (Cont.) Supported Credit-Control-Request AVPs

AVP	Status
Origin-Realm	Supported
Destination-Realm	Supported
CC-Request-Type	Supported
CC-Request-Number	Supported
Destination-Host	Supported
Origin-State-Id	Supported
Subscription-Id	Supported Reused from RFC 4006
---- Subscription-Id-Type	Supported Reused from RFC 4006
---- Subscription-Id-Data	Supported Reused from RFC 4006
Supported-Features	Supported Reused from 3GPP TS 29.229
---- Vendor-Id	Supported Reused from 3GPP TS 29.229
---- Feature-List-ID	Supported Reused from 3GPP TS 29.229
---- Feature-List	Supported Reused from 3GPP TS 29.229
Network-Request-Support	Supported
Packet-Filter-Information	Supported
---- Packet-Filter-Identifier	Supported
---- Precedence	Supported
---- Packet-Filter-Content	Supported
---- ToS-Traffic-Class	Supported
---- Security-Parameter-Index	Supported
---- Flow-Label	Supported
---- Flow-Direction	Supported
Packet-Filter-Operation	Supported
Bearer-Identifier	Supported
Bearer-Operation	Supported

Table 3–2 (Cont.) Supported Credit-Control-Request AVPs

AVP	Status
Framed-IP-Address	Supported Reused from RFC 4005
Framed-IPv6-Prefix	Supported Reused from RFC 4005
IP-CAN-Type	Supported Reused from 3GPP TS 29.212
3GPP-RAT-Type	Supported
RAT-Type	Supported Reused from 3GPP TS 29.212
Termination-Cause	Supported
User-Equipment-Info	Supported
---- User-Equipment-Info-Type	Supported
---- User-Equipment -Info-Value	Supported
QoS-Information	Supported
---- QoS-Class-Identifier	Supported
---- Max-Requested-Bandwidth-UL	Supported
---- Max-Requested-Bandwidth-DL	Supported
---- Guaranteed-Bitrate-UL	Supported
---- Guaranteed-Bitrate-DL	Supported
---- Bearer-Identifier	Supported
---- Allocation-Retention-Priority	Supported
---- ---- Priority-Level	Supported
---- ---- Pre-Emption-Capability	Supported
---- ---- Pre-Emption-Vulnerability	Supported
---- APN-Aggregate-Max-Bitrate-UL	Supported
---- APN-Aggregate-Max-Bitrate-DL	Supported
QoS-Negotiation	Supported
QoS-Upgrade	Supported
Default-EPS-Bearer-QoS	Supported
---- QoS-Class-Identifier	Supported
---- Allocation-Retention-Priority	Supported
---- ---- Priority-Level	Supported
---- ---- Pre-Emption-Capability	Supported
---- ---- Pre-Emption-Vulnerability	Supported
AN-GW-Address	Supported

Table 3–2 (Cont.) Supported Credit-Control-Request AVPs

AVP	Status
3GPP-SGSN-MCC-MNC	Supported
3GPP-SGSN-Address	Supported
3GPP-SGSN-IPv6-Address	Supported
RAI	Supported
3GPP-User-Location-Info	Supported
3GPP-MS-TimeZone	Supported
Called-Station-Id	Supported Reused from RFC 4005
PDN-Connection-ID	Supported
Bearer-Usage	Supported
Online	Supported
Offline	Supported
---- Precedence	Supported
---- TFT-Filter	Supported
---- ToS-Traffic-Class	Supported
---- Security-Parameter-Index	Supported
---- Flow-Label	Supported
---- Flow-Direction	Supported
TFT-Packet-Filter-Information	Supported
---- Precedence	Supported
---- TFT-Filter	Supported
---- ToS-Traffic-Class	Supported
---- Security-Parameter-Index	Supported
---- Flow-Label	Supported
---- Flow-Direction	Supported
Charging-Rule-Report	Supported
---- Charging-Rule-Name	Supported
---- Charging-Rule-Base-Name	Supported
---- Bearer-Identifier	Supported
---- PCC-Rule-Status	Supported
---- Rule-Failure-Code	Supported
---- Final-Unit-Indication	Supported
Event-Trigger	Supported
Event-Report-Indication	Supported
---- Event-Trigger	Supported
---- User-CSG-Information	Supported

Table 3–2 (Cont.) Supported Credit-Control-Request AVPs

AVP	Status
---- RAT-Type	Supported Reused from 3GPP TS 29.212
---- QoS-Information	Supported
---- ---- QoS-Class-Identifier	Supported
---- ---- Max-Requested-Bandwidth-UL	Supported
---- ---- Max-Requested-Bandwidth-DL	Supported
---- ---- Guaranteed-Bitrate-UL	Supported
---- ---- Guaranteed-Bitrate-DL	Supported
---- ---- Bearer-Identifier	Supported
---- ---- Allocation-Retention-Priority	Supported
---- ---- ---- Priority-Level	Supported
---- ---- ---- Pre-Emption-Capability	Supported
---- ---- ---- Pre-Emption-Vulnerability	Supported
---- ---- APN-Aggregate-Max-Bitrate-UL	Supported
---- ---- APN-Aggregate-Max-Bitrate-DL	Supported
---- RAI	Supported
---- 3GPP-User-Location-Info	Supported
---- Trace-Data	Supported
---- ---- Trace-Reference	Supported
---- ---- Trace-Depth	Supported
---- ---- Trace-NE-Type-List	Supported
---- ---- Trace-Interface-List	Supported
---- ---- Trace-Event-List	Supported
---- ---- OMC-Id	Supported
---- ---- Trace-Collection-Entity	Supported
---- Trace-Reference	Supported
---- 3GPP2-BSID	Supported
---- 3GPP-MS-TimeZone	Supported
---- 3GPP-SGSN-Address	Supported
---- 3GPP-SGSN-IPv6-Address	Supported
Access-Network-Charging-Address	Supported
Access-Network-Charging-Identifier-Gx	Supported
---- Access-Network-Charging-Identifier-Value	Supported
---- Charging-Rule-Base-Name	Supported
---- Charging-Rule-Name	Supported
CoA-Information	Supported

Table 3–2 (Cont.) Supported Credit-Control-Request AVPs

AVP	Status
---- Tunnel-Information	Supported
---- ---- Tunnel-Header-Length	Supported
---- ---- Tunnel-Header-Filter	Supported
---- CoA-IP-Address	Supported
Usage-Monitoring-Information	Supported
---- Monitoring-Key	Supported
---- Granted-Service-Unit	Supported
---- ---- Tariff-Time-Change	Supported
---- ---- CC-Time	Supported
---- ---- CC-Money	Supported
---- ---- ---- Unit-Value	Supported
---- ---- ---- Value-Digits	Supported
---- ---- ---- Exponent	Supported
---- ---- ---- Currency-Code	Supported
---- ---- CC-Total-Octets	Supported
---- ---- CC-Input-Octets	Supported
---- ---- CC-Output-Octets	Supported
---- ---- CC-Service-Specific-Units	Supported
---- Used-Service-Unit	Supported
---- ---- Tariff-Time-Change	Supported
---- ---- CC-Time	Supported
---- ---- CC-Money	Supported
---- ---- ---- Unit-Value	Supported
---- ---- ---- Value-Digits	Supported
---- ---- ---- Exponent	Supported
---- ---- ---- Currency-Code	Supported
---- ---- CC-Total-Octets	Supported
---- ---- CC-Input-Octets	Supported
---- ---- CC-Output-Octets	Supported
---- ---- CC-Service-Specific-Units	Supported
---- Usage-Monitoring-Level	Supported
---- Usage-Monitoring-Support	Supported
Proxy-Info	Supported
---- Proxy-Host	Supported
---- Proxy State	Supported
Route-Record	Supported

Supported Gx Credit-Control-Answer (CCA) AVPs

Table 3–3 lists the Diameter base Credit-Control-Answer AVPs that Policy Controller supports.

Table 3–3 Supported Credit-Control-Answer AVPs

AVP	Status
Auth-Application-Id	Supported
Origin-Host	Supported
Origin-Realm	Supported
Result-Code	Supported
Experimental-Result	Supported
CC-Request-Type	Supported
CC-Request-Number	Supported
Supported-Features	Supported Reused from 3GPP TS 29.229
---- Vendor-Id	Supported Reused from 3GPP TS 29.229
---- Feature-List-ID	Supported Reused from 3GPP TS 29.229
---- Feature-List	Supported Reused from 3GPP TS 29.229
Bearer-Control-Mode	Supported
Event-Trigger	Supported
Origin-State-Id	Supported
Redirect-Host	Supported
Redirect-Host-Usage	Supported
Redirect-Max-Cache-Time	Supported
Charging-Rule-Remove	Supported
---- Charging-Rule-Name	Supported
---- Charging-Rule-Base-Name	Supported
Charging-Rule-Install	Supported
---- Charging-Rule-Definition	Supported
---- ---- Charging-Rule-Name	Supported
---- ---- Service-Identifier	Supported
---- ---- Rating-Group	Supported
---- ---- Flow-Information	Supported
---- ---- ---- Flow-Description	Supported
---- ---- ---- Packet-Filter-Identifier	Supported

Table 3–3 (Cont.) Supported Credit-Control-Answer AVPs

AVP	Status
---- Packet-Filter-Usage	Supported
---- ToS-Traffic-Class	Supported
---- Security-Parameter-Index	Supported
---- Flow-Label	Supported
---- Flow-Direction	Supported
---- Flow-Status	Supported
---- QoS-Information	Supported
---- QoS-Class-Identifier	Supported
---- Max-Requested-Bandwidth-UL	Supported
---- Max-Requested-Bandwidth-DL	Supported
---- Guaranteed-Bitrate-UL	Supported
---- Guaranteed-Bitrate-DL	Supported
---- Bearer-Identifier	Supported
---- Allocation-Retention-Priority	Supported
---- Priority-Level	Supported
---- Pre-Emption-Capability	Supported
---- Pre-Emption-Vulnerability	Supported
---- APN-Aggregate-Max-Bitrate-UL	Supported
---- APN-Aggregate-Max-Bitrate-DL	Supported
---- Reporting-Level	Supported
---- Online	Supported
---- Offline	Supported
---- Metering-Method	Supported
---- Precedence	Supported
---- AF-Charging-Identifier	Supported
---- Flows	Supported
---- Media-Component-Number	Supported
---- Flow-Number	Supported
---- Final-Unit-Action	Supported Reused from RFC 4006
---- Monitoring-Key	Supported
---- AF-Signalling-Protocol	Supported
---- Charging-Rule-Name	Supported
---- Charging-Rule-Base-Name	Supported

Table 3–3 (Cont.) Supported Credit-Control-Answer AVPs

AVP	Status
---- Bearer-Identifier	Supported
---- Rule-Activation-Time	Supported
---- Rule-Deactivation-Time	Supported
---- Resource-Allocation-Notification	Supported
---- Charging-Correlation-Indicator	Supported
Charging-Information	Supported
---- Primary-Event-Charging	Supported
---- Secondary-Event-Charging-Function-Name	Supported
---- Primary-Charging-Collection-Function-Name	Supported
---- Secondary-Charging-Collection-Function-Name	Supported
Online	Supported
Offline	Supported
QoS-Information	Supported
---- QoS-Class-Identifier	Supported
---- Max-Requested-Bandwidth-UL	Supported
---- Max-Requested-Bandwidth-DL	Supported
---- Guaranteed-Bitrate-UL	Supported
---- Guaranteed-Bitrate-DL	Supported
---- Bearer-Identifier	Supported
---- Allocation-Retention-Priority	Supported
---- ---- Priority-Level	Supported
---- ---- Pre-Emption-Capability	Supported
---- ---- Pre-Emption-Vulnerability	Supported
---- APN-Aggregate-Max-Bitrate-UL	Supported
---- APN-Aggregate-Max-Bitrate-DL	Supported
Revalidation-Time	Supported
Default-EPS-Bearer-QoS	Supported
---- QoS-Class-Identifier	Supported
---- Allocation-Retention-Priority	Supported
---- ---- Priority-Level	Supported
---- ---- Pre-Emption-Capability	Supported
---- ---- Pre-Emption-Vulnerability	Supported
Bearer-Usage	Supported

Table 3–3 (Cont.) Supported Credit-Control-Answer AVPs

AVP	Status
3GPP-User-Location-Info	Supported
Usage-Monitoring-Information	Supported
---- Monitoring-Key	Supported
---- Granted-Service-Unit	Supported
---- ---- Tariff-Time-Change	Supported
---- ---- CC-Time	Supported
---- ---- CC-Money	Supported
---- ---- ---- Unit-Value	Supported
---- ---- ---- ---- Value-Digits	Supported
---- ---- ---- ---- Exponent	Supported
---- ---- ---- Currency-Code	Supported
---- ---- CC-Total-Octets	Supported
---- ---- CC-Input-Octets	Supported
---- ---- CC-Output-Octets	Supported
---- ---- CC-Service-Specific-Units	Supported
---- Used-Service-Unit	Supported
---- ---- Tariff-Time-Change	Supported
---- ---- CC-Time	Supported
---- ---- CC-Money	Supported
---- ---- ---- Unit-Value	Supported
---- ---- ---- ---- Value-Digits	Supported
---- ---- ---- ---- Exponent	Supported
---- ---- ---- Currency-Code	Supported
---- ---- CC-Total-Octets	Supported
---- ---- CC-Input-Octets	Supported
---- ---- CC-Output-Octets	Supported
---- ---- CC-Service-Specific-Units	Supported
---- Usage-Monitoring-Level	Supported
---- Usage-Monitoring-Support	Supported
CSG-Information-Reporting	Supported
User-CSG-Information	Supported
---- CSG-Id	Supported
---- CSG-Access-Mode	Supported
---- CSG- Membership-Indication	Supported
Error-Message	Supported
Error-Reporting-Host	Supported
Failed-AVP	Supported

Table 3–3 (Cont.) Supported Credit-Control-Answer AVPs

AVP	Status
Proxy-Info	Supported
---- Proxy-Host	Supported
---- Proxy State	Supported
Route-Record	Supported

Supported Gx Re-Auth-Request (RAR) AVPs

Table 3–4 lists the Diameter Gx Re-Auth-Request AVPs that Policy Controller supports.

Table 3–4 Supported Re-Auth-Request AVPs

AVP	Status
Auth-Application-Id	Supported
Origin-Host	Supported
Origin-Realm	Supported
Destination-Realm	Supported
Destination-Host	Supported
Re-Auth-Request-Type	Supported
Session-Release-Cause	Supported
Origin-State-Id	Supported
Event-Trigger	Supported
Event-Report-Indication	Supported
Charging-Rule-Remove	Supported
---- Charging-Rule-Name	Supported
---- Charging-Rule-Base-Name	Supported
Charging-Rule-Install	Supported
---- Charging-Rule-Definition	Supported
---- ---- Charging-Rule-Name	Supported
---- ---- Service-Identifier	Supported
---- ---- Rating-Group	Supported
---- ---- Flow-Information	Supported
---- ---- ---- Flow-Description	Supported
---- ---- ---- Packet-Filter-Identifier	Supported
---- ---- ---- Packet-Filter-Usage	Supported
---- ---- ---- ToS-Traffic-Class	Supported
---- ---- ---- Security-Parameter-Index	Supported
---- ---- ---- Flow-Label	Supported
---- ---- ---- Flow-Direction	Supported
---- ---- Flow-Status	Supported
---- ---- QoS-Information	Supported

Table 3-4 (Cont.) Supported Re-Auth-Request AVPs

AVP	Status
---- Reporting-Level	Supported
---- Online	Supported
---- Offline	Supported
---- Metering-Method	Supported
---- Precedence	Supported
---- AF-Charging-Identifier	Supported
---- Flows	Supported
---- Media-Component-Number	Supported
---- Flow-Number	Supported
---- Final-Unit-Action	Supported Reused from RFC 4006
---- Monitoring-Key	Supported
---- AF-Signalling-Protocol	Supported
---- Charging-Rule-Name	Supported
---- Charging-Rule-Base-Name	Supported
---- Bearer-Identifier	Supported
---- Rule-Activation-Time	Supported
---- Rule-Deactivation-Time	Supported
---- Resource-Allocation-Notification	Supported
---- Charging-Correlation-Indicator	Supported
Default-EPS-Bearer-QoS	Supported
---- QoS-Class-Identifier	Supported
---- Allocation-Retention-Priority	Supported
---- Priority-Level	Supported
---- Pre-Emption-Capability	Supported
---- Pre-Emption-Vulnerability	Supported
QoS-Information	Supported
---- QoS-Class-Identifier	Supported
---- Max-Requested-Bandwidth-UL	Supported
---- Max-Requested-Bandwidth-DL	Supported
---- Guaranteed-Bitrate-UL	Supported
---- Guaranteed-Bitrate-DL	Supported
---- Bearer-Identifier	Supported
---- Allocation-Retention-Priority	Supported
---- Priority-Level	Supported
---- Pre-Emption-Capability	Supported

Table 3-4 (Cont.) Supported Re-Auth-Request AVPs

AVP	Status
---- Pre-Emption-Vulnerability	Supported
---- APN-Aggregate-Max-Bitrate-UL	Supported
---- APN-Aggregate-Max-Bitrate-DL	Supported
Revalidation-Time	Supported
Usage-Monitoring-Information	Supported
---- Monitoring-Key	Supported
---- Granted-Service-Unit	Supported
---- Tariff-Time-Change	Supported
---- CC-Time	Supported
---- CC-Money	Supported
---- Unit-Value	Supported
---- Value-Digits	Supported
---- Exponent	Supported
---- Currency-Code	Supported
---- CC-Total-Octets	Supported
---- CC-Input-Octets	Supported
---- CC-Output-Octets	Supported
---- CC-Service-Specific-Units	Supported
---- Used-Service-Unit	Supported
---- Tariff-Time-Change	Supported
---- CC-Time	Supported
---- CC-Money	Supported
---- Unit-Value	Supported
---- Value-Digits	Supported
---- Exponent	Supported
---- Currency-Code	Supported
---- CC-Total-Octets	Supported
---- CC-Input-Octets	Supported
---- CC-Output-Octets	Supported
---- CC-Service-Specific-Units	Supported
---- Usage-Monitoring-Level	Supported
---- Usage-Monitoring-Support	Supported
Proxy-Info	Supported
---- Proxy-Host	Supported
---- Proxy State	Supported
Route-Record	Supported

Supported Gx Re-Authorization-Answer (RAA) AVPs

Table 3–5 lists the Diameter Gx Re-Authorization-Answer AVPs that Policy Controller supports.

Table 3–5 Supported Re-Authorization-Answer AVPs

AVP	Status
Origin-Host	Supported
Origin-Realm	Supported
Result-Code	Supported
Experimental-Result	Supported
---- Vendor-Id	Supported
---- Experimental-Result-Code	Supported
Origin-State-Id	Supported
IP-CAN-Type	Supported Reused from 3GPP TS 29.212
RAT-Type	Supported Reused from 3GPP TS 29.212
AN-GW-Address	Supported
3GPP-SGSN-MCC-MNC	Supported
3GPP-SGSN-Address	Supported
3GPP-SGSN-IPv6-Address	Supported
RAI	Supported
3GPP-User-Location-Info	Supported
3GPP-MS-TimeZone	Supported
Charging-Rule-Report	Supported
---- Charging-Rule-Name	Supported
---- Charging-Rule-Base-Name	Supported
---- Bearer-Identifier	Supported
---- PCC-Rule-Status	Supported
---- Rule-Failure-Code	Supported
---- Final-Unit-Indication	Supported
---- Final-Unit-Action	Supported Reused from RFC 4006
---- ---- Restriction-Filter-Rule	Supported
---- ---- Filter-Id	Supported
---- ---- Redirect-Server	Supported
---- ---- Redirect-Address-Type	Supported

Table 3–5 (Cont.) Supported Re-Authorization-Answer AVPs

AVP	Status
----- Redirect-Server-Address	Supported
Error-Message	Supported
Error-Reporting-Host	Supported
Failed-AVP	Supported
Proxy-Info	Supported
---- Proxy-Host	Supported
---- Proxy State	Supported

Diameter Rx Protocol Support

This chapter lists the Diameter Rx commands and AVPs that Oracle Communication Policy Controller (Policy Controller) supports. The supported protocol specification is Policy and Charging Control over Rx reference point 3GPP TS 29.214 V.9.9.0 (2011-12) (Release 9).

Supported Diameter Rx Commands

[Table 4–1](#) lists the Rx commands supported by Policy Controller.

Table 4–1 Supported Rx Commands

Command	Status	Link to List of Supported AVPs
AA-Request (AAR)	Supported	"Supported Rx AA-Request (AAR) AVPs"
AA-Answer (AAA)	Supported	"Supported Rx AA-Answer (AAA) AVPs"
Re-Auth-Request (RAR)	Supported	"Supported Rx Re-Auth-Request (RAR) AVPs"
Re-Auth-Answer (RAA)	Supported	"Supported Rx Re-Auth-Answer (RAA) AVPs"
Session-Termination-Request (STR)	Supported	"Supported Rx Session-Termination-Request (STR) AVPs"
Session-Termination-Answer (STA)	Supported	"Supported Rx Session-Termination-Answer (STA) AVPs"
Abort-Session-Request (ASR)	Supported	"Supported Rx Abort-Session-Request (ASR) AVPs"
Abort-Session-Answer (ASA)	Supported	"Supported Rx Abort-Session-Answer (ASA) AVPs"

Supported Rx AA-Request (AAR) AVPs

[Table 4–2](#) lists the supported Diameter Rx AA-Request AVPs.

Table 4–2 Supported AA-Request AVPs

AVP	Status
Auth-Application-Id	Supported
Origin-Host	Supported
Origin-Realm	Supported
Destination-Realm	Supported
Destination-Host	Supported
AF-Application-Identifier	Supported

Table 4-2 (Cont.) Supported AA-Request AVPs

AVP	Status
---- Media-Component-Description	Supported
---- ---- Media-Component-Number	Supported
---- ---- Media-Sub-Component	Supported
---- ---- AF-Application-Identifier	Supported
---- ---- Media-Type	Supported
---- ---- Max-Requested-Bandwidth-UL	Supported
---- ---- Max-Requested-Bandwidth-DL	Supported
---- ---- Flow-Status	Supported
---- ---- Reservation-Priority	Supported. Reused from ETSI TS 183 017 V2.3.1 (2008-9)
---- ---- RS-Bandwidth	Supported
---- ---- RR-Bandwidth	Supported
---- ---- Codec-Data	Supported
---- Media-Component-Number	Supported
---- Media-Sub-Component	Supported
---- ---- Flow-Number	Supported
---- ---- Flow-Description	Supported
---- ---- Flow-Status	Supported
---- ---- Flow-Usage	Supported
---- ---- Max-Requested-Bandwidth-UL	Supported
---- ---- Max-Requested-Bandwidth-DL	Supported
---- ---- AF-Signalling-Protocol	Supported
---- AF-Application-Identifier	Supported
---- Media-Type	Supported
---- Max-Requested-Bandwidth-UL	Supported
---- Max-Requested-Bandwidth-DL	Supported
---- Flow-Status	Supported
---- Reservation-Priority	Supported
---- RS-Bandwidth	Supported Reused from ETSI TS 183 017 V2.3.1 (2008-9)
---- RR-Bandwidth	Supported
---- Codec-Data	Supported
Service-Info-Status	Supported
AF-Charging-Identifier	Supported
SIP-Forking-Indication	Supported
Specific-Action	Supported

Table 4–2 (Cont.) Supported AA-Request AVPs

AVP	Status
Subscription-Id	Supported Reused from RFC 4006.
---- Subscription-Id-Type	Supported Reused from RFC 4006.
---- Subscription-Id-Data	Supported Reused from RFC 4006
Supported-Features	Supported Reused from 3GPP TS 29.229
---- Vendor-Id	Supported Reused from 3GPP TS 29.229
---- Feature-List-ID	Supported Reused from 3GPP TS 29.229
---- Feature-List	Supported Reused from 3GPP TS 29.229
Reservation-Priority	Supported Reused from ETSI TS 183 017 V2.3.1 (2008-9)
Framed-IP-Address	Supported Reused from RFC 4005
Framed-IPv6-Prefix	Supported Reused from RFC 4005
Called-Station-Id	Supported Reused from RFC 4005
Service-URN	Supported
Origin-State-Id	Supported
Proxy-Info	Supported
---- Proxy-Host	Supported
---- Proxy-State	Supported
Route-Record	Supported

Supported Rx AA-Answer (AAA) AVPs

Table 4–3 lists the supported Diameter Rx AA-Answer AVPs.

Table 4–3 Supported AA-Answer AVPs

AVP	Status
Auth-Application-Id	Supported
Origin-Host	Supported

Table 4-3 (Cont.) Supported AA-Answer AVPs

AVP	Status
Origin-Realm	Supported
Result-Code	Supported
Experiment-Result	Supported
Access-Network-Charging-Identifier	Supported
---- Access-Network-Charging-Identifier-Value	Supported
---- Access-Network-Charging-Identifier-Value	Supported
---- Flows	Supported
---- ---- Media-Component-Number	Supported
---- ---- Flow-Number	Supported
---- ---- Final-Unit-Action	Supported Reused from RFC 4006
Access-Network-Charging-Address	Supported
Acceptable-Service-Info	Supported
---- Media-Component-Description	Supported
---- ---- Media-Component-Number	Supported
---- ---- Media-Sub-Component	Supported
---- ---- Flow-Number	Supported
---- ---- Flow-Description	Supported
---- ---- Flow-Status	Supported
---- ---- Flow-Usage	Supported
---- ---- Max-Requested-Bandwidth-UL	Supported
---- ---- Max-Requested-Bandwidth-DL	Supported
---- ---- AF-Signalling-Protocol	Supported
---- ---- AF-Application-Identifier	Supported
---- ---- Media-Type	Supported
---- ---- Max-Requested-Bandwidth-UL	Supported
---- ---- Max-Requested-Bandwidth-DL	Supported
---- ---- Flow-Status	Supported
---- ---- Reservation-Priority	Supported Reused from ETSI TS 183 017 V2.3.1 (2008-9)
---- ---- RS-Bandwidth	Supported
---- ---- RR-Bandwidth	Supported
---- ---- Codec-Data	Supported
---- Max-Requested-Bandwidth-DL	Supported
---- Max-Requested-Bandwidth-UL	Supported

Table 4–3 (Cont.) Supported AA-Answer AVPs

AVP	Status
IP-CAN-Type	Supported Reused from 3GPP TS 29.212
RAT-Type	Supported Reused from 3GPP TS 29.212
Supported-Features	Supported Reused from 3GPP TS 29.229
---- Vendor-Id	Supported Reused from 3GPP TS 29.229
---- Feature-List-ID	Supported Reused from 3GPP TS 29.229
---- Feature-List	Supported Reused from 3GPP TS 29.229
Class	Supported
Error-Message	Supported
Error-Reporting-Host	Supported
Failed-AVP	Supported
---- AVP	Yes
Origin-State-Id	Supported
Redirect-Host	Supported
Redirect-Host-Usage	Supported
Redirect-Max-Cache-Time	Supported
Proxy-Info	Supported
---- Proxy-Host	Supported
---- Proxy State	Supported

Supported Rx Re-Auth-Request (RAR) AVPs

Table 4–4 lists the supported Diameter Rx Re-Auth-Request AVPs.

Table 4–4 Supported Re-Auth-Request AVPs

AVP	Status
Origin-Host	Supported
Origin-Realm	Supported
Destination-Realm	Supported
Destination-Host	Supported
Auth-Application-Id	Supported
Specific-Action	Supported
Access-Network-Charging-Id entifier	Supported

Table 4–4 (Cont.) Supported Re-Auth-Request AVPs

AVP	Status
---- Access-Network-Charging-Identifer-Value	Supported
---- Access-Network-Charging-Identifer-Value	Supported
---- Flows	Supported
---- ---- Media-Component-Number	Supported
---- ---- Flow-Number	Supported
---- ---- Final-Unit-Action	Supported Reused from RFC 4006
Access-Network-Charging-Address	Supported
Flows	Supported
---- Media-Component-Number	Supported
---- Flow-Number	Supported
---- Final-Unit-Action	Supported Reused from RFC 4006
Subscription-Id	Supported Reused from RFC 4006
---- Subscription-Id-Type	Supported Reused from RFC 4006
---- Subscription-Id-Data	Supported Reused from RFC 4006
Abort-Cause	Supported
IP-CAN-Type	Supported Reused from 3GPP TS 29.212
RAT-Type	Supported Reused from 3GPP TS 29.212
Origin-State-Id	Supported
Class	Supported
Proxy-Info	Supported
---- Proxy-Host	Supported
---- Proxy-State	Supported
Route-Record	Supported

Supported Rx Re-Auth-Answer (RAA) AVPs

Table 4–5 lists the supported Diameter Rx Re-Auth-Answer AVPs.

Table 4–5 Supported Re-Auth-Answer (RAA) AVPs

AVP	Status
Origin-Host	Supported
Origin-Realm	Supported
Experimental-Result	Supported
---- Vendor-Id	Supported
---- Experimental-Result-Code	Supported
Media-Component-Description	Supported
---- Media-Component-Number	Supported
---- Media-Sub-Component	Supported
---- AF-Application-Identifier	Supported
---- Media-Type	Supported
---- Max-Requested-Bandwidth-UL	Supported
---- Max-Requested-Bandwidth-DL	Supported
---- Flow-Status	Supported
---- Reservation-Priority	Supported Reused from ETSI TS 183 017 V2.3.1 (2008-9)
---- RS-Bandwidth	Supported
---- RR-Bandwidth	Supported
---- Codec-Data	Supported
Service-URN	Supported
Origin-State-Id	Supported
Class	Supported
Error-Message	Supported
Error-Reporting-Host	Supported
Redirect-Host	Supported
Redirect-Host-Usage	Supported
Redirect-Max-Cache-Time	Supported
Failed-AVP	Supported
---- AVP	Supported
Proxy-Info	Supported
---- Proxy-Host	Supported

Table 4–5 (Cont.) Supported Re-Auth-Answer (RAA) AVPs

AVP	Status
---- Proxy-State	Supported

Supported Rx Session-Termination-Request (STR) AVPs

Table 4–6 lists the supported Diameter Rx Session-Termination-Request AVPs.

Table 4–6 Supported Session-Termination-Request AVPs

AVP	Status
Origin-Host	Supported
Origin-Realm	Supported
Destination-Realm	Supported
Auth-Application-Id	Supported
Termination-Cause	Supported
Destination-Host	Supported
Class	Supported
Origin-State-Id	Supported
Proxy-Info	Supported
---- Proxy-Host	Supported
---- Proxy-State	Supported
Route-Record	Supported

Supported Rx Session-Termination-Answer (STA) AVPs

Table 4–7 lists the supported Diameter Rx Session-Termination-Answer (STA) AVPs.

Table 4–7 Supported STA Application AVPs

AVP	Status
Origin-Host	Supported
Origin-Realm	Supported
Result-Code	Supported
Error-Message	Supported
Error-Reporting-Host	Supported
Failed-AVP	Supported
Origin-State-Id	Supported
Class	Supported
Redirect-Host	Supported
Redirect-Host-Usage	Supported
Redirect-Max-Cache-Time	Supported
Proxy-Info	Supported
---- Proxy-Host	Supported
---- Proxy-State	Supported

Supported Rx Abort-Session-Request (ASR) AVPs

Table 4–8 lists the supported Diameter Rx Abort-Session-Request (ASR) AVPs.

Table 4–8 Supported Abort-Session-Request AVPs

AVP	Status
Origin-Host	Supported
Origin-Realm	Supported
Destination-Realm	Supported
Destination-Host	Supported
Auth-Application-Id	Supported
Abort-Cause	Supported
Origin-State-Id	Supported
Proxy-Info	Supported
---- Proxy-Host	Supported
---- Proxy State	Supported
Route-Record	Supported

Supported Rx Abort-Session-Answer (ASA) AVPs

Table 4–9 lists the supported Diameter Rx Abort-Session-Answer (ASA) AVPs.

Table 4–9 Supported Abort-Session-Answer AVPs

AVP	Status
Origin-Host	Supported
Origin-Realm	Supported
Result-Code	Supported
Origin-State-Id	Supported
Error-Message	Supported
Error-Reporting-Host	Supported
Failed-AVP	Supported
Redirect-Host	Supported
Redirect-Host-Usage	Supported
Redirect-Max-Cache-Time	Supported
Proxy-Info	Supported
---- Proxy-Host	Supported
---- Proxy State	Supported

Diameter Sy Protocol Support

This chapter lists the Diameter Sy commands and AVPs that Oracle Communications Policy Controller (Policy Controller) supports for communication with an Online Charging System (OCS). The supported protocol specification is Policy and Charging Control: Spending Limit Reporting over Sy reference point 3GPP TS 29.219 V11.0.0 (2012-03) (Release 11). Any reused AVPs are listed as such with their specifications in the Comments column.

Supported Diameter Sy Commands

Table 5–1 lists the Sy commands supported by Policy Controller.

Table 5–1 Supported Sy Commands

Command	Status	Link to List of Supported AVPs
Spending-Limit-Request (SLR)	Supported	"Supported Sy Spending-Limit-Request (SLR) AVPs"
Spending-Limit-Answer (SLA)	Supported	"Supported Sy Spending-Limit-Answer (SLA) AVPs"
Spending-Status-Notification-Request (SNR)	Supported	"Supported Sy Spending-Status-Notification-Request (SNR) AVPs"
Spending-Status-Notification-Answer (SNA)	Supported	"Supported Sy Spending-Status-Notification-Answer (SNA) AVPs"

Supported Sy Spending-Limit-Request (SLR) AVPs

Table 5–3 lists the supported Diameter Sy Spending-Limit-Request AVPs.

Table 5–2 Spending-Limit-Request AVPs

AVP	Status
Auth-Application-Id	Supported
Origin-Host	Supported
Origin-Realm	Supported
Destination-Realm	Supported
Destination-Host	Supported
Origin-State-Id	Supported
SL-Request-Type	Supported

Table 5–2 (Cont.) Spending-Limit-Request AVPs

AVP	Status
Subscription-Id	Supported
---- Subscription-Id-Type	Supported Reused from RFC 4006
---- Subscription-Id-Data	Supported Reused from RFC 4006
Policy-Counter-Identifier	Supported
Proxy-Info	Supported
---- Proxy-Host	Supported
---- Proxy State	Supported
Route-Record	Supported

Supported Sy Spending-Limit-Answer (SLA) AVPs

Table 5–3 lists the supported Diameter Sy Spending-Limit-Answer AVPs.

Table 5–3 Supported Spending-Limit-Answer AVPs

AVPs	Status
Auth-Application-Id	Supported
Origin-Host	Supported
Origin-Realm	Supported
Result-Code	Supported
Experimental-Result	Supported
---- Vendor-Id	Supported
---- Experimental-Result-Code	Supported
Policy-Counter-Status-Report	Supported
--- Policy-Counter-Identifier	Supported
---- Policy-Counter-Status	Supported
Error-Message	Supported
Error-Reporting-Host	Supported
Failed-AVP	Supported
Origin-State-Id	Supported
Redirect-Host	Supported
Redirect-Host-Usage	Supported
Redirect-Max-Cache-Time	Supported
Proxy-Info	Supported
---- Proxy-Host	Supported
---- Proxy State	Supported

Supported Sy Spending-Status-Notification-Request (SNR) AVPs

Table 5–4 lists the supported Diameter Sy Spending-Status-Notification AVPs.

Table 5–4 Supported Status Spending-Notification-Request AVPs

AVP	Status
Origin-Host	Supported
Origin-Realm	Supported
Destination-Realm	Supported
Destination-Host	Supported
Auth-Application-Id	Supported
Origin-State-Id	Supported
Policy-Counter-Status-Report	Supported
--- Policy-Counter-Identifier	Supported
---- Policy-Counter-Status	Supported
Proxy-Info	Supported
---- Proxy-Host	Supported
---- Proxy State	Supported
Route-Record	Supported

Supported Sy Spending-Status-Notification-Answer (SNA) AVPs

Table 5–5 lists the supported Diameter Sy Spending-Status-Notification-Answer AVPs.

Table 5–5 Supported Spending-Status-Notification-Answer AVPs

AVP	Status
Origin-Host	Supported
Origin-Realm	Supported
Result-Code	Supported
Experimental-Result	Supported
---- Vendor-Id	Supported
---- Experimental-Result-Code	Supported
Origin-State-Id	Supported
Error-Message	Supported
Error-Reporting-Host	Supported
Redirect-Host	Supported
Redirect-Host-Usage	Supported
Redirect-Max-Cache-Time	Supported
Failed-AVP	Supported
Proxy-Info	Supported
---- Proxy-Host	Supported
---- Proxy State	Supported

Table 5-5 (Cont.) Supported Spending-Status-Notification-Answer AVPs

AVP	Status
Route-Record	Supported

Diameter Sp Protocol Support

This chapter lists the Diameter commands and AVPs that Oracle Communications Policy Controller (Policy Controller) supports for communication with a Subscriber Profile Repository (SPR). The Policy Controller uses modified commands and AVPs from the Sh Interface based on the Diameter Protocol 3GPP TS 29.329 V9.5.0 (2011-12) (Release 11) specification for this purpose. In some cases the list of AVPs in a command is different from that listed in the specification. Any reused AVPs are listed as such with their specifications in the Comments column.

Supported Diameter Sp Commands

Table 6–1 lists the Sh commands used for by Policy Controller for its Sp protocol communication.

Table 6–1 Supported Sp Commands

Command	Status	Link to List of Supported AVPs
User-Data-Request	Supported	"Supported User-Data-Request (UDR) AVPs"
User-Data-Answer	Supported	"Supported User-Data-Answer (UDA) AVPs"
Subscriber-Notification-Request	Supported	"Supported Subscriber-Notification-Request (SNR) AVPs"
Subscriber-Notification-Answer	Supported	"Supported Subscriber-Notification-Answer (SNA) AVPs"
Push-Notification-Request	Supported	"Supported Push-Notification-Request (PNR) AVPs"
Push-Notification-Answer	Supported	"Supported Push-Notification-Answer (PNA) AVPs"

Supported User-Data-Request (UDR) AVPs

Table 6–2 lists the supported Diameter Sh User-Data-Request AVPs that Policy Controller uses in its Sp protocol.

Table 6–2 User-Data-Request AVPs

AVP	Status/Notes
Vendor-Specific-Application-Id	Supported.

Table 6–2 (Cont.) User-Data-Request AVPs

AVP	Status/Notes
Auth-Session-State	Supported.
Origin-Host	Supported. Mandatory.
Origin-Realm	Supported.
Destination-Host	Supported.
Destination-Realm	Supported.
Supported-Features	Supported.
- Vendor-ID	Supported.
- Feature-List-ID	Supported.
- Feature-List	Supported.
- AVP	Supported.
User-Identity	Supported. Mandatory.
- Public-Identity	Supported. Mandatory.
- MSISDN	Supported. Mandatory.
Wildcarded-Public-Identity	Supported.
Wildcarded-IMPU	Supported.
Server-Name	Supported.
Service-Indication	Supported.
Data-Reference	Supported. Mandatory.
- Identity-Set	Supported. Mandatory.
Requested-Domain	Supported.
Current-Location	Supported.
- DSAI-Tag	Supported.
Session-Priority	Supported.
Requested-Nodes	Supported.
User-Name	Supported.
AVP	Supported.
Proxy-Info	Supported.
Route-Record	Supported.

Supported User-Data-Answer (UDA) AVPs

Table 6–3 lists the supported Diameter Sh User-Data-Answer AVPs that Policy Controller uses in its Sp protocol

Table 6–3 Supported User-Data-Answer AVPs

AVP	Status/Notes
Vendor-Specific-Application-Id	Supported.
Result-Code	Supported. Mandatory.

Table 6–3 (Cont.) Supported User-Data-Answer AVPs

AVP	Status/Notes
Experimental-Result	Supported. Mandatory.
Auth-Session-State	Supported.
Origin-Host	Supported.
Origin-Realm	Supported.
Supported-Features	Supported.
- Vendor-ID	Supported.
- Feature-List-ID	Supported.
- Feature-List	Supported.
Wildcarded-Public-Identity	Supported.
Wildcarded-IMPU	Supported.
User-Data	Supported.
AVP	Supported.
Failed AVP	Supported.
Proxy-Info	Supported.
Route-Record	Supported.

Supported Subscriber-Notification-Request (SNR) AVPs

Table 6–4 lists the supported Diameter Sh Subscriber-Notification-Request AVPs that Policy Controller uses in its Sp protocol.

Table 6–4 Subscriber-Notification-Request AVPs

AVP	Status/Notes
Vendor-Specific-Application-Id	Supported.
Auth-Session-State	Supported.
Origin-Host	Supported. Mandatory.
Origin-Realm	Supported.
Destination-Host	Supported.
Destination-Realm	Supported.
Supported-Features	Supported
- Vendor-ID	Supported.
- Feature-List-ID	Supported.
- Feature-List	Supported.
User-Identity	Supported. Mandatory.
- Public-Identity	Supported. Mandatory.
- MSISDN	Supported. Mandatory.
Wildcarded-Public-Identity	Supported.
Wildcarded-IMPU	Supported.

Table 6–4 (Cont.) Subscriber-Notification-Request AVPs

AVP	Status/Notes
Service-Indication	Supported.
Send-Data-Indication	Supported.
Server-Name	Supported.
Subs-Req-Type	Supported.
Data-Reference	Supported. Mandatory.
Identity-Set	Supported.
Expiry-Time	Supported.
- DSAI-Tag	Supported.
One-Time-Notification	Supported.
AVP	Supported.
Proxy-Info	Supported.
Route-Record	Supported.
User-Name	Supported.

Supported Subscriber-Notification-Answer (SNA) AVPs

Table 6–5 lists the supported Diameter Sh Subscriber-Notification-Answer AVPs that Policy Controller uses in its Sp protocol.

Table 6–5 Subscriber-Notification-Answer AVPs

AVP	Status/Notes
Vendor-Specific-Application-Id	Supported.
Auth-Session-State	Supported.
Result-Code	Supported. Mandatory.
Experimental-Result	Supported. Mandatory.
Origin-Host	Supported.
Origin-Realm	Supported.
Wildcarded-Public-Identity	Supported.
Wildcarded-IMPU	Supported.
Supported-Features	Supported.
- Vendor-ID	Supported.
- Feature-List-ID	Supported.
- Feature-List	Supported.
User-Data	Supported. Mandatory.
Expiry-Time	Supported. Mandatory.
AVP	Supported.
Failed-AVP	Supported.
Proxy-Info	Supported.

Table 6–5 (Cont.) Subscriber-Notification-Answer AVPs

AVP	Status/Notes
Route-Record	Supported.

Supported Push-Notification-Request (PNR) AVPs

Table 6–6 lists the supported Diameter Sh Push-Notification-Request AVPs that Policy Controller uses in it's Sp protocol.

Table 6–6 Push-Notification-Request AVPs

AVP	Status/Notes
Vendor-Specific-Application-Id	Supported.
Auth-Session-State	Supported.
Origin-Host	Supported.
Origin-Realm	Supported.
Destination-Host	Supported.
Destination-Realm	Supported.
Supported-Features	Supported.
- Vendor-ID	Supported.
- Feature-List-ID	Supported.
- Feature-List	Supported.
User-Identity	Supported. Mandatory.
- Public-Identity	Supported. Mandatory.
- MSISDN	Supported. Mandatory.
Wildcarded-Public-Identity	Supported.
Wildcarded-IMPU	Supported.
User-Data	Supported. Mandatory.
AVP	Supported.
Proxy-Info	Supported.
Route-Record	Supported.
Data-reference	Supported.
Service-Indication	Supported.
Expiry-Time	Supported.
Send-Data-Indication	Supported.
User-Name	Supported.

Supported Push-Notification-Answer (PNA) AVPs

Table 6–7 lists the supported Diameter Sh Push-Notification-Answer AVPs that Policy Controller uses in it's Sp protocol.

Table 6-7 Push-Notification-Answer AVPs

AVP	Status/Notes
Vendor-Specific-Application-Id	Supported.
Result-Code	Supported. Mandatory.
Experimental-Result	Supported. Mandatory.
Auth-Session-State	Supported.
Origin-Host	Supported.
Origin-Realm	Supported.
Supported-Features	Supported.
- Vendor-ID	Supported.
- Feature-List-ID	Supported.
- Feature-List	Supported.
AVP	Supported.
Failed-AVP	Supported.
Proxy-Info	Supported.
Route-Record	Supported.