

Oracle® Communications Session Element Manager SOAP API Guide



Release 8.2
F20308-03
September 2022

The Oracle logo, consisting of a solid red square with the word "ORACLE" in white, uppercase, sans-serif font centered within it.

ORACLE®

F20308-03

Copyright © 2014, 2022, Oracle and/or its affiliates.

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this is software, software documentation, data (as defined in the Federal Acquisition Regulation), or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, then the following notice is applicable:

U.S. GOVERNMENT END USERS: Oracle programs (including any operating system, integrated software, any programs embedded, installed, or activated on delivered hardware, and modifications of such programs) and Oracle computer documentation or other Oracle data delivered to or accessed by U.S. Government end users are "commercial computer software," "commercial computer software documentation," or "limited rights data" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, the use, reproduction, duplication, release, display, disclosure, modification, preparation of derivative works, and/or adaptation of i) Oracle programs (including any operating system, integrated software, any programs embedded, installed, or activated on delivered hardware, and modifications of such programs), ii) Oracle computer documentation and/or iii) other Oracle data, is subject to the rights and limitations specified in the license contained in the applicable contract. The terms governing the U.S. Government's use of Oracle cloud services are defined by the applicable contract for such services. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

Oracle®, Java, and MySQL are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Inside are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Epyc, and the AMD logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware and documentation may provide access to or information about content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services unless otherwise set forth in an applicable agreement between you and Oracle. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services, except as set forth in an applicable agreement between you and Oracle.

Contents

About This Guide

My Oracle Support xiii

Revision History

1 Overview

Using the Apache CXF Client on the Session Delivery Manager Server	1-2
Configure and Run the CXF Client	1-2
Web Services Definition Language Data Structures	1-4
DeviceInfoObject	1-4
IntegrityCheckResult	1-4
NNCDetails	1-5
NNCServerIPInfo	1-5
SaveDeviceTaskMessage	1-5
SBCDetails	1-6
WSBatch	1-6
WSBatchOperation	1-6
WSConfigAttribute	1-6
WSConfigAttributeMetaData	1-6
WSConfigAttributeMetaData. AttributeValueTypeInfo	1-7
WSConfigElement	1-7
WSConfigElementMetaData	1-8
WSConfigResult	1-8
WSDeviceResult	1-8
Exceptions Faults	1-8
AcmeWSFault	1-8
AcmeAdminWSFault	1-8
AcmeConfigWSFault	1-8
AcmeDeviceWSFault	1-9
Sample Work Flow	1-9

2 Administration Level

UsingExternalAAA	2-1
Input Parameters	2-1
Output Parameters	2-1
Throws	2-1
login	2-1
Input Parameters	2-1
Output Parameters	2-1
Throws	2-1
logOut	2-2
Throws	2-2
Input Parameters	2-2
Output Parameters	2-2
Throws	2-2
getUserInfo	2-2
Input Parameters	2-2
Output Parameters	2-2
Throws	2-3
getAllUserInfo	2-3
Input Parameters	2-3
Output Parameters	2-3
Throws	2-3
getAccountManagementInfo	2-3
Input Parameters	2-4
Output Parameters	2-4
Throws	2-4
getLoginBanner	2-4
Input Parameters	2-4
Output Parameters	2-4
Throws	2-4
getTrapReceivers	2-4
Input Parameters	2-4
Output Parameters	2-4
Throws	2-5
NorthboundAlarmSync	2-5
Input Parameters	2-5
Output Parameters	2-5
Throws	2-6
NorthboundActiveAlarmSync	2-6

3 Device Management

addDevice	3-1
Input Parameters	3-1
Output Parameters	3-1
Throws	3-1
loadDevice	3-1
Input Parameters	3-1
Output Parameters	3-2
Throws	3-2
deleteDevice	3-2
Input Parameters	3-2
Output Parameters	3-2
Throws	3-2
saveConfig	3-2
Input Parameters	3-2
Output Parameters	3-2
Throws	3-3
activateConfig	3-3
Input Parameters	3-3
Output Parameters	3-3
Throws	3-3
saveAndActivateConfig	3-3
Input Parameters	3-4
Output Parameters	3-4
Throws	3-4
getAllManagedDevicesNames	3-4
Input Parameters	3-4
Output Parameters	3-4
Throws	3-4
getAllManagedDevicesbyDeviceGroup	3-4
Input Parameters	3-4
Output Parameters	3-5
Throws	3-5
getSBCDetails	3-5
Input Parameters	3-5
Output Parameters	3-5
Throws	3-5
getDevicePollingInterval	3-5
Input Parameters	3-5
Output Parameters	3-5

Throws	3-6
lockDevice	3-6
Input Parameters	3-6
Output Parameters	3-6
Throws	3-6
unlockDevice	3-6
Input Parameters	3-6
Output Parameters	3-6
Throws	3-6
getAllDeviceGroupList	3-7
Output Parameters	3-7
Throws	3-7
addDeviceGroup	3-7
Input Parameters	3-7
Output Parameters	3-7
Throws	3-7
deleteDeviceGroup	3-7
Input Parameters	3-8
Output Parameters	3-8
Throws	3-8
getLCVContentSaveSessionReport	3-8
Specified by	3-8
Input Parameters	3-8
Output Parameters	3-8
Throws	3-8
getAllManagedDevices	3-8
Specified by	3-9
Input Parameters	3-9
Output Parameters	3-9
Throws	3-9
getAllManagedDeviceTargetNames	3-9
Specified by	3-9
Input Parameters	3-9
Output Parameters	3-9
Throws	3-9
getNNCDetails	3-9
Specified by	3-10
Input Parameters	3-10
Output Parameters	3-10
Throws	3-10
getTopLevelElementCount	3-10

Specified By	3-10
Input Parameters	3-10
Output Parameters	3-10
Throws	3-10
getAllAssociatedDevicesInEMSLicense	3-11
addDeviceToEMSLicense	3-11
removeDeviceFromEMSLicense	3-11

4 Configuration Management Level

getPrimaryKeyByElementType	4-1
Input Parameters	4-1
Output Parameters	4-1
Throws	4-1
getTopLevelConfigElementTypeNames	4-1
Input Parameters	4-1
Output Parameters	4-2
Throws	4-2
getSubElementTypesByElementType	4-2
Input Parameters	4-2
Output Parameters	4-2
Throws	4-2
getRequiredSubElementTypesByElementType	4-2
Input Parameters	4-2
Output Parameters	4-3
Throws	4-3
getAllSupportedAttributeInfoByElementType	4-3
Input Parameters	4-3
Output Parameters	4-3
Throws	4-3
deleteConfigElement	4-3
Input Parameters	4-3
Output Parameters	4-4
Throws	4-4
updateConfigElement	4-4
Input Parameters	4-4
Output Parameters	4-4
Throws	4-5
getConfigElement	4-5
Input Parameters	4-5
Output Parameters	4-5

Throws	4-5
getAllConfigElements	4-5
Input Parameters	4-5
Output Parameters	4-5
Throws	4-6
applyBatch	4-6
Input Parameters	4-6
Output Parameters	4-6
Throws	4-6
addConfigElement	4-6
Input Parameters	4-6
Output Parameters	4-6
Throws	4-7
replace	4-7
Input Parameters	4-7
Output Parameters	4-7
Throws	4-7
addSubElement	4-7
Input Parameters	4-7
Output Parameters	4-8
Throws	4-8
deleteSubElement	4-8
Input Parameters	4-8
Output Parameters	4-8
Throws	4-8
getConfigElementMetaData	4-8
Input Parameters	4-9
Output Parameters	4-9
Throws	4-9
getConfigAttributeMetaData	4-9
Input Parameters	4-9
Output Parameters	4-9
Throws	4-9
getValuesForReferenceAttribute	4-9
Input Parameters	4-9
Output Parameters	4-10
Throws	4-10
newConfigElement	4-10
Input Parameters	4-10
Output Parameters	4-10
Throws	4-10

encryptedPassword	4-10
Input Parameters	4-10
Output Parameters	4-10
Throws	4-11
deleteUserChanges	4-11
Input Parameters	4-11
Output Parameters	4-11
Throws	4-11

A Meta Data Tables

Table Name - ikeSanInfo	A-1
Security-policy - Table Name - spdConfig	A-2
Security-policy - Table Name - networkInterfaceId	A-3
Security-policy - Table Name - spdFineGrained	A-3
SIP Interface - Table Name - sipInterface	A-4
SIP Interface - Table Name - sipPort	A-8
SIP Interface - Table Name - addSdpProfilesInMsg	A-9
SIP Interface - Table Name - mediaProfile	A-10

B ACLI to ACP Mappings

Retrieve Element Metadata and Attributes	B-1
Retrieving the ACLI to ACP Mapping	B-1
Physical Interface	B-3
Network Interface	B-4
Realm	B-5
Realm Media Address	B-8
Surrogate Agent	B-9
SIP Interface	B-9
SIP NAT	B-13
H.323 Stack	B-13
MGCP Config	B-15
DNS Config	B-16
Session Agent	B-17
Session Agent Group	B-21
Local Policy	B-21
Network Management Control	B-25
SIP Header Manipulation	B-26
Session Constraints	B-34
Session Translation	B-35

Translation Rules	B-35
RPH Profile	B-35
RPH Policy	B-36
Host Routes	B-36
SIP Local Map Entry	B-36
Codec Policy	B-38
Access Control	B-39
Media Profile	B-39
SIP Response Map	B-40
Diameter Director Agent	B-40
Diameter Director Configuration	B-41
Diameter Director Constraints	B-42
Diameter Director Group	B-43
Diameter Director Interface	B-44
Diameter Manipulation	B-45

C Running a Legacy SOAP Client API

About This Guide

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

Related Documentation

Table 1 Oracle Communications Product Plug-in 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.

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>

Table 2 (Cont.) Oracle Communications Session Delivery Manager Documentation Library

Document Name	Document Description
Security Guide	Provides the following security guidelines: <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 Guide	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.
SOAP API Guide	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.

My Oracle Support

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

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

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

You are connected to a live agent who can assist you with My Oracle Support registration and opening a support ticket.

My Oracle Support is available 24 hours a day, 7 days a week, 365 days a year.

Emergency Response

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

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

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

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

Locate Product Documentation on the Oracle Help Center Site

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

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

Revision History

This section provides a revision history for the document.

Date	Revision
May 2019	<ul style="list-style-type: none"><li data-bbox="909 598 1464 640">• Initial Release.
September 2022	<ul style="list-style-type: none"><li data-bbox="909 640 1464 676">• Added the section Metadata Tables.

1

Overview

The deprecated Oracle Communications Session Delivery Manager SOAP API 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.

Important:

With the introduction of Oracle Communications Session Delivery Manager, Release 8.0, the SOAP API client is provided for backwards compatibility only. The SOAP API will not support any new APIs for new SDM enhancements. Use the REST API for Oracle Communications Session Delivery Manager if you require access to new SDM features via a programmatic API.

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 Delivery Manager SOAP API 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 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 Delivery Manager SOAP API 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> devicePList
- 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 a 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 missedHBCount;
- 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
- WSConfigElement configElement, which is a data structure described before.

WSConfigAttribute

WSConfigAttribute contains configuration attribute information as follows.

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

WSConfigAttributeMetaData

WSConfigAttributeMetaData 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

WSConfigAttributeMetaData. AttributeValueTypeInfo

WSConfigAttributeMetaData.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

WSConfigElement

WSConfigElement 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.
- 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 subelement 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 Delivery Manager SOAP API 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

2

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 passwor ExpirationDate

- 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 passwor ExpirationDate
- 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
```

## 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 `WSAlarmSyncResult` object is returned. If the execution of the API is unsuccessful, the `AcmeWSAdminFault` exception is thrown.

# 3

## 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)t
hrows 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.

```
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;.

# 4

## 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 Delivery Manager SOAP API 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-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
- 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 WSConfigAttributeMetaData 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

WSConfigElementMetaData

## 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

WConfigElement

## 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

# A

## Meta Data Tables

The tables listed in this section list the SOAP attributes and the sub-elements for the following tables:

- [ikeSanInfo](#)
- [spdConfig](#)
- [networkInterfaceId](#)
- [spdFineGrained](#)
- [sipInterface](#)
- [sipPort](#)
- [addSdpProfilesInMsg](#)
- [mediaProfile](#)

### Table Name - ikeSanInfo

This table lists the the field lengths for the fields in the table ikeSanInfo.

For the fields listed under the Valid Values column, you can consider the longest value listed, but it is recommended that you know the max length. For the fields listed with no valid values, you will need to know the max length.

**Table A-1 ikeSanInfo**

| SOAP Attributes/<br>Subelements | ACLI media-<br>manager- >realm-<br>config | Default Values | Valid Values                                                | Attribute length |
|---------------------------------|-------------------------------------------|----------------|-------------------------------------------------------------|------------------|
| mode                            | ipsec-mode                                | tunnel         | transport, tunnel                                           | max-length = 9   |
| tunnelSrcIP                     | tunnel-local-addr                         |                |                                                             | max-length = 15  |
| lastModifiedDate                | last-modified-date                        |                |                                                             | max-length = 19  |
| proto                           | security-protocol                         | esp-auth       | esp, ah, esp-auth,<br>esp-null                              | max-length = 8   |
| lastModifiedBy                  | last-modified-by                          |                |                                                             | max-length = 52  |
| id                              | name                                      |                |                                                             | 1-128            |
| tunnelDstIP                     | tunnel-remote-addr                        | *              |                                                             | max-length = 15  |
| authAlgo                        | auth-algo                                 | sha2-512       | sha1, sha2-384,<br>xcbc, sha2-512,<br>sha2-256, any,<br>md5 | max-length = 8   |
| encryAlgo                       | encryption-algo                           | aes            | aes-ctr, null, 3des,<br>any, aes                            | max-length = 7   |



**Note:**

The information provided in this table is valid for SBC 8.4.0

## Security-policy - Table Name - spdConfig

This table lists the the field lengths for the fields in the table spdConfig.

For the fields listed under the Valid Values column, you can consider the longest value listed, but it is recommended that you know the max length. For the fields listed with no valid values, you will need to know the max length.

**Table A-2** spdConfig

| SOAP Attributes/<br>Sub-elements | ACLI media-<br>manager-<br>>realm-<br>config | Default Values  | Valid Values                               | Attribute length         |
|----------------------------------|----------------------------------------------|-----------------|--------------------------------------------|--------------------------|
| ikeSaInfoName                    | ike-sainfo-<br>name                          |                 |                                            | 1-128                    |
| srcPort                          | local-port-<br>match                         | 0               | 0 - 65535                                  | -                        |
| dstPortMax                       | remote-port-<br>match-max                    | 65535           | 0 - 65535                                  | -                        |
| protocol                         | trans-<br>protocol-<br>match                 | ALL             | TCP, UDP, ALL,<br>IPV6-ICMP,<br>SCTP, ICMP | max-length = 9           |
| dstPort                          | remote-port-<br>match                        | 0               | 0 - 65535                                  | -                        |
| options                          | options                                      |                 |                                            | No length<br>restriction |
| action                           | action                                       | ipsec           | allow, discard,<br>ipsec, srtp, srtp       | max-length = 7           |
| direction                        | direction                                    | both            | in, out, both                              | max-length = 4           |
| lastModifiedDate                 | last-modified-<br>date                       |                 |                                            | max-length = 19          |
| lastModifiedBy                   | last-modified-<br>by                         |                 |                                            | max-length = 52          |
| dstIPMask                        | remote-ip-<br>mask                           | 255.255.255.255 |                                            | max-length = 15          |
| priority                         | priority                                     | 0               | 0 - 3071                                   | -                        |
| dstIPAddr                        | remote-ip-<br>addr-match                     |                 |                                            | max-length = 15          |
| name                             | name                                         |                 |                                            | 1-128                    |
| srcIPAddr                        | local-ip-addr-<br>match                      |                 |                                            | max-length = 15          |
| srcPortMax                       | local-port-<br>match-max                     | 65535           | 0 - 65535                                  | -                        |
| srcIPMask                        | local-ip-mask                                | 255.255.255.255 |                                            | max-length = 15          |

**Note:**

The information provided in this table is valid for SBC 8.4.0

## Security-policy - Table Name - networkInterfaceld

This table lists the the field lengths for the fields in the table spdConfig/networkInterfaceld which is a sub-element of security-policy.

For the fields listed under the Valid Values column, you can consider the longest value listed, but it is recommended that you know the max length. For the fields listed with no valid values, you will need to know the max length.

**Table A-3** spdConfig/networkInterfaceld

| SOAP Attributes/<br>Subelements | ACLI media-<br>manager- >realm-<br>config | Default Values | Valid Values | Attribute length |
|---------------------------------|-------------------------------------------|----------------|--------------|------------------|
| subPortId                       | subPortId                                 | 0              | 0            | -                |
| name                            | name                                      |                |              | 1-128            |
| family                          | family                                    |                | 4,5,6        | -                |

**Note:**

The information provided in this table is valid for SBC 8.4.0

## Security-policy - Table Name - spdFineGrained

This table lists the the field lengths for the fields in the table spdFineGrained.

For the fields listed under the Valid Values column, you can consider the longest value listed, but it is recommended that you know the max length. For the fields listed with no valid values, you will need to know the max length.

**Table A-4** spdFineGrained

| SOAP Attributes/<br>Subelements | ACLI media-<br>manager- >realm-<br>config | Default Values  | Valid Values      | Attribute Length |
|---------------------------------|-------------------------------------------|-----------------|-------------------|------------------|
| valid                           | valid                                     | enabled         | enabled, disabled | max-length = 8   |
| srcIP                           | local-ip-mask                             | 255.255.255.255 |                   | max-length = 15  |
| protocol                        | trans-protocol-<br>mask                   | 0               | 0 - 65535         | -                |
| dstPort                         | remote-port-mask                          | 0               | 0 - 65535         | -                |
| vlanID                          | vlan-mask                                 | 0xFFFF          |                   | max-length = 5   |
| dstIP                           | remote-ip-mask                            |                 |                   | max-length = 15  |
| srcPort                         | local-port-mask                           | 0               | 0 - 65535         | -                |

**Table A-4 (Cont.) spdFineGrained**

| SOAP Attributes/<br>Subelements | ACLI media-<br>manager- >realm-<br>config | Default Values | Valid Values      | Attribute Length |
|---------------------------------|-------------------------------------------|----------------|-------------------|------------------|
| saLookupException               | sa-lookup-<br>exception                   | enabled        | enabled, disabled | max-length = 8   |



**Note:**

The information provided in this table is valid for SBC 8.4.0

## SIP Interface - Table Name - sipInterface

This table lists the the field lengths for the fields in the table sipInterface.

For the fields listed under the Valid Values column, you can consider the longest value listed, but it is recommended that you know the max length. For the fields listed with no valid values, you will need to know the max length.

**Table A-5 sipInterface**

| SOAP<br>Attributes/<br>Subelements | ACLI media-<br>manager-<br>>realm-config | Default Values | Valid Values                                          | Attribute Length         |
|------------------------------------|------------------------------------------|----------------|-------------------------------------------------------|--------------------------|
| add-sdp-invite                     | add-sdp-invite                           | disabled       | reinvite, disabled,<br>invite, both                   | max-length = 8           |
| RealmID                            | realm-id                                 |                |                                                       | 1-128                    |
| add-sdp-in-msg                     | add-sdp-in-msg                           |                |                                                       | max-length = 6           |
| anonymousPriority                  | anonymous-<br>priority                   | none           | Normal, non-<br>urgent,<br>emergency, none,<br>urgent | max-length = 10          |
| initialInvTransExpire              | initial-inv-trans-<br>expire             | 0              | 0 - 999999999                                         | -                        |
| sipRecursionPolicy                 | sip-recursion-<br>policy                 |                |                                                       | 1-128                    |
| fqdnDomain                         | uri-fqdn-domain                          |                |                                                       | No string<br>restriction |
| sipdynamicHnt                      | sip-dynamic-hnt                          |                | enabled, disabled                                     | max-length = 8           |
| atcfIcsiMatch                      | atcf-icsi-match                          |                |                                                       | No string<br>restriction |
| s8hrProfileName                    | s8hr-profile                             |                |                                                       | 1-128                    |
| userAgentName                      | user-agent                               |                |                                                       | No length<br>restriction |
| smIcsiMatchForInvite               | sm-icsi-match-for-<br>invite             |                |                                                       | No length<br>restriction |
| hmrString                          | manipulation-<br>string                  |                |                                                       | No length<br>restriction |



**Table A-5 (Cont.) sipInterface**

| SOAP Attributes/<br>Subelements | ACL media-<br>manager-<br>>realm-config | Default Values    | Valid Values                                 | Attribute Length      |
|---------------------------------|-----------------------------------------|-------------------|----------------------------------------------|-----------------------|
| options                         | options                                 |                   |                                              | No length restriction |
| operatorIdentifier              | operator-identifier                     |                   |                                              | min length = 1        |
| sec-agree-pref                  | sec-agree-pref                          | ipsec3gpp         | tls-ipsec3gpp, ipsec3gpp-tls, ipsec3gpp, tls | max-length = 13       |
| state                           | state                                   | enabled           | enabled, disabled                            | max-length = 8        |
| natmaxInterval                  | max-nat-interval                        | 3600              | 0 - 4294967295                               | -                     |
| imsAkaFeature                   | sec-agree-feature                       | disabled          | enabled, disabled                            | max-length = 8        |
| tcpNatInterval                  | tcp-nat-interval                        | 90                | 0 - 4294967295                               | -                     |
| stopRecurse                     | stop-recurse                            | 401,407           |                                              | max-length = 3        |
| carriers                        | carriers                                |                   |                                              | 1-24                  |
| registrationCaching             | registration-caching                    | disabled          | enabled, disabled                            | max-length = 8        |
| termTgrpMode                    | term-tgrp-mode                          | none              | egress-uri, iptel, none                      | max-length = 10       |
| pearlyMediaHeader               | p-early-media-header                    | disabled          | add, modify, disabled, support               | max-length = 8        |
| divInfoMappingMode              | diversion-info-mapping-mode             | none              | hist2div, div2hist, force, none              | max-length = 8        |
| asymmetricPreconditionsMode     | asymmetric-preconditions-mode           | send-with-nodelay | send-with-nodelay, send-with-delay           | max-length = 17       |
| sipProfile                      | sip-profile                             |                   |                                              | 1-127                 |
| smIcsiMatchForMessage           | sm-icsi-match-for-message               |                   |                                              | min-length = 11       |
| inManipulationId                | in-manipulationid                       |                   | ACME_NAT_TO_FROM_IP                          | max-length = 19       |
| extPolicyServer                 | ext-policy-server                       |                   |                                              | 1-128                 |
| localResponseMap                | local-response-map                      |                   |                                              | 1-128                 |
| splOptions                      | spl-options                             |                   |                                              | No length restriction |
| responseMap                     | response-map                            |                   |                                              | 1-128                 |
| defaultLocationString           | default-location-string                 |                   |                                              | 1-128                 |
| outManipulationId               | out-manipulationid                      |                   |                                              | max-length = 19       |
| histToDivForCause380            | hist-to-div-for-cause-380               | inherit           | inherit, disabled, enabled                   | max-length = 8        |
| regInterval                     | registration-interval                   | 3600              | 0 - 4294967295                               | -                     |
| natTestIncrement                | nat-test-increment                      | 30                | 0 - 4294967295                               | -                     |

**Table A-5 (Cont.) sipInterface**

| SOAP Attributes/<br>Subelements  | ACLI media-<br>manager-<br>>realm-config | Default Values | Valid Values                                                                                       | Attribute Length         |
|----------------------------------|------------------------------------------|----------------|----------------------------------------------------------------------------------------------------|--------------------------|
| trustMode                        | trust-mode                               | all            | all, realm-prefix,<br>agents-only,<br>registered, none                                             | max-length = 12          |
| pearlyMediaDirec-<br>tion        | p-early-media-<br>direction              |                |                                                                                                    | max-length = 8           |
| imsFeature                       | sip-ims-feature                          | disabled       | enabled, disabled                                                                                  | max-length = 8           |
| redirectAct                      | redirect-action                          |                | Proxy, Recurse,<br>Recurse-305-only                                                                | max-length = 16          |
| RealmID                          | realm-id                                 |                |                                                                                                    | 1-128                    |
| isSecure                         | secured-network                          | disabled       | enabled, disabled                                                                                  | max-length = 8           |
| ccfAddress                       | ccf-address                              |                |                                                                                                    | No string<br>restriction |
| constraintName                   | constraint-name                          |                |                                                                                                    | 1-128                    |
| portMapStart                     | port-map-start                           | 0              | 0- 0, 1025-65535                                                                                   | -                        |
| invite-expire                    | invite-expire                            | 0              | 0 - 999999999                                                                                      | -                        |
| chargingVectorM-<br>ode          | charging-vector-<br>mode                 | pass           | pass, conditional-<br>insert, insert,<br>none, delete-and-<br>respond, delete                      | max-length = 18          |
| rfc2833-payload                  | rfc2833-payload                          | 101            | 96 - 127                                                                                           | -                        |
| tcp-keepalive                    | tcp-keepalive                            | none           | disabled, none,<br>enabled                                                                         | max-length = 8           |
| send380Respon-<br>se             | send-380-<br>response                    |                |                                                                                                    | No string<br>restriction |
| sessionRecording<br>ServerTarget | session-<br>recording-server             |                |                                                                                                    | 1-128                    |
| regMinExpire                     | min-reg-expire                           | 300            | 0 - 999999999                                                                                      | -                        |
| portMapEnd                       | port-map-end                             | 0              | 0 - 0, 1025 -<br>65535                                                                             | -                        |
| sessionTimerProf-<br>ile         | session-timer-<br>profile                |                |                                                                                                    | 1-128                    |
| serviceTag                       | service-tag                              |                |                                                                                                    | No string<br>restriction |
| kpml2833IwfOnH-<br>airpin        | kpml2833-iwf-on-<br>hairpin              | disabled       | enabled, disabled                                                                                  | max-length = 8           |
| chargingFuncAdd-<br>rMode        | charging-<br>function-address-<br>mode   | pass           | insert-reg-cache,<br>pass, conditional-<br>insert, insert,<br>none, delete-and-<br>respond, delete | max-length = 18          |
| maxConnPerPeer                   | per-src-ip-max-<br>incoming-conns        | 0              | 0 - 20000                                                                                          | -                        |
| enforcementProfil-<br>e          | enforcement-<br>profile                  |                |                                                                                                    | 1-128                    |
| proxyMode                        | proxy-mode                               |                | Stateless, Proxy,<br>Record-Route,<br>Redirect                                                     | max-length = 12          |

Table A-5 (Cont.) sipInterface

| SOAP Attributes/<br>Subelements | ACLI media-<br>manager-<br>>realm-config | Default Values | Valid Values                                | Attribute Length      |
|---------------------------------|------------------------------------------|----------------|---------------------------------------------|-----------------------|
| sipRegisterKeepAlive            | register-keep-alive                      | none           | always, bnat, none                          | max-length = 6        |
| ecfAddress                      | ecf-address                              |                |                                             | No string restriction |
| kpmlInterworking                | kpml-interworking                        | disabled       | disabled, enabled                           | max-length = 8        |
| routeUnauthorizedCalls          | route-unauthorized-calls                 |                |                                             | 1-128                 |
| sipIsupProfile                  | sip-isup-profile                         |                |                                             | 1-128                 |
| atcfFeature                     | sip-atcf-feature                         | disabled       | disabled, enabled                           | max-length = 8        |
| natIntervalIncrement            | nat-int-increment                        | 10             | 0 - 4294967295                              | -                     |
| sessionRecordingRequired        | session-recording-required               | disabled       | disabled, enabled                           | max-length = 8        |
| trans-expire                    | trans-expire                             | 0              | 0 - 999999999                               | -                     |
| tunnelName                      | tunnel-name                              |                |                                             | 1-128                 |
| msrpDelayEgressBye              | msrp-delay-egress-bye                    | disabled       | disabled, enabled                           | max-length = 8        |
| natTraversal                    | nat-traversal                            | none           | always, rport, none                         | max-length = 6        |
| rfc2833-mode                    | rfc2833-mode                             | transparent    | dual, transparent, preferred                | max-length = 11       |
| description                     | description                              |                |                                             | No string restriction |
| max-redirect-contacts           | max-redirect-contacts                    | 0              | 0 - 10                                      | -                     |
| contactSip                      | contact-mode                             | none           | maddr, strict-route, loose-route, none      | max-length = 12       |
| NetworkID                       | network-id                               |                |                                             | No string restriction |
| manipPattern                    | manipulation-pattern                     |                |                                             | No string restriction |
| subscribeRegEvent               | subscribe-reg-event                      | disabled       | disabled, enabled                           | max-length = 8        |
| anonymousPriority               | anonymous-priority                       | none           | normal, non-urgent, emergency, none, urgent | max-length = 10       |
| sessionMaxLifeLimit             | session-max-life-limit                   | 0              | 0 - 2073600                                 | -                     |
| regCacheRoute                   | reg-cache-route                          | disabled       | disabled, enabled                           | max-length = 8        |
| isRouteReg                      | route-to-registrar                       | disabled       | disabled, enabled                           | max-length = 8        |
| telUri                          | teluri-scheme                            | disabled       | disabled, enabled                           | max-length = 8        |
| idleConnTimeout                 | inactive-conn-timeout                    | 0              | 0 - 999999999                               | -                     |

**Table A-5 (Cont.) sipInterface**

| SOAP Attributes/<br>Subelements | ACLI media-<br>manager-<br>>realm-config | Default Values | Valid Values                                                                                         | Attribute Length      |
|---------------------------------|------------------------------------------|----------------|------------------------------------------------------------------------------------------------------|-----------------------|
| npliProfileName                 | npli-profile                             |                |                                                                                                      | 1-128                 |
| lastModifiedDate                | last-modified-date                       |                |                                                                                                      | max-length = 19       |
| lastModifiedBy                  | last-modified-by                         |                |                                                                                                      | max-length = 52       |
| tcpConnDereg                    | tcp-conn-dereg                           | 0              | 0 - 999999999                                                                                        | -                     |
| asymmetricPreconditions         | asymmetric-preconditions                 | disabled       | disabled, enabled                                                                                    | max-length = 8        |
| implicitServiceRoute            | implicit-service-route                   | disabled       | replace, absent, disabled, strict, enabled                                                           | max-length = 8        |
| pcscfRestoration                | pcscf-restoration                        |                |                                                                                                      | No string restriction |
| natInterval                     | nat-interval                             | 30             | 0 - 4294967295                                                                                       | -                     |
| add-sdp-invite                  | add-sdp-invite                           | disabled       | reinvite, disabled, invite, both                                                                     | max-length = 8        |
| untrustedConnTimeout            | untrusted-conn-timeout                   | 0              | 0 - 999999999                                                                                        | -                     |
| maxConn                         | max-incoming-conns                       | 0              | 0 - 20000                                                                                            | -                     |
| ldapPolicyServer                | ldap-policy-server                       |                |                                                                                                      | 1-128                 |
| rbtTrigger                      | ringback-trigger                         | none           | refer, 180-force, 183-no-sdp, rbt-playback-on-header, 180-no-sdp, disabled, none, 183, 183-and-refer | max-length = 22       |
| ringbackFile                    | ringback-file                            |                |                                                                                                      | No length restriction |



**Note:**

The information provided in this table is valid for SBC 8.4.0

## SIP Interface - Table Name - sipPort

This table lists the the field lengths for the fields in the table sipPort.

For the fields listed under the Valid Values column, you can consider the longest value listed, but it is recommended that you know the max length. For the fields listed with no valid values, you will need to know the max length.

**Table A-6 sipPort**

| SOAP Attributes/<br>Subelements | ACLI media-<br>manager- >realm-<br>config | Default Values | Valid Values                                                | Attribute Length      |
|---------------------------------|-------------------------------------------|----------------|-------------------------------------------------------------|-----------------------|
| address                         | address                                   |                |                                                             | max-length = 15       |
| transProtocol                   | transport-protocol                        | UDP            | UDP, TCP, TLS, SCTP                                         | max-length = 4        |
| anonMode                        | allow-anonymous                           | all            | all, realm-prefix, agents-only, registered, register-prefix | max-length = 15       |
| port                            | port                                      | 5060           | 1 - 65535                                                   | -                     |
| imsAkaProfile                   | ims-aka-profile                           |                |                                                             | No length restriction |
| sctpMultiHomeAddresses          | multi-home-addresses                      |                |                                                             | max-length = 15       |
| tlsProfile                      | tls-profile                               |                |                                                             | No length restriction |



**Note:**

The information provided in this table is valid for SBC 8.4.0

## SIP Interface - Table Name - addSdpProfilesInMsg

This table lists the the field lengths for the fields in the table sipInterface/addSdpProfilesInMsg. This table is a sub-element of sip-interface.

For the fields listed under the Valid Values column, you can consider the longest value listed, but it is recommended that you know the max length. For the fields listed with no valid values, you will need to know the max length.

**Table A-7 Table sipInterface/addSdpProfilesInMsg**

| SOAP Attributes/<br>Subelements | ACLI media-<br>manager- >realm-<br>config | Default Values | Valid Values | Attribute Length |
|---------------------------------|-------------------------------------------|----------------|--------------|------------------|
| name                            | name                                      |                |              | 1-128            |



**Note:**

The information provided in this table is valid for SBC 8.4.0

## SIP Interface - Table Name - mediaProfile

This table lists the the field lengths for the fields in the table sipInterface/mediaProfile. This table is a sub-element of sip-interface called add-spd-profiles.

For the fields listed under the Valid Values column, you can consider the longest value listed, but it is recommended that you know the max length. For the fields listed with no valid values, you will need to know the max length.

**Table A-8 sipInterface/mediaProfile**

| SOAP Attributes/<br>Subelements | ACLI media-<br>manager-<br>>realm-config | Default Values | Valid Values                                                                                                                                                                                                           | Attribute Length |
|---------------------------------|------------------------------------------|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| name                            | name                                     |                | PCMU, PCMA, G722, G723, G726-16, G726-24, G726-32, G726, G726-40, G728, G729, G729A, GSM, iLBC, G711FB, H261, H263, T.38, telephone-event, AMR, EVRC0, DV14, LPC, L16, QCELP, CN, MPA, CelB, nv, MPV, MP2T, opus, SILK | max-length = 15  |



**Note:**

The information provided in this table is valid for SBC 8.4.0

# B

## 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.

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

5. 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**, and then **Devices**, and then **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";
```

6. 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
getACLIToACPMapping(); // Return a list of ACLI to ACP name
 mapping for Top-level Elements

```

## 7. 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/<br>Sub-elements                            | ACLI<br>system->phy-<br>interface                           | Default Values         | Valid Values                                            | SBC Version     |
|-------------------------------------------------------------|-------------------------------------------------------------|------------------------|---------------------------------------------------------|-----------------|
| acliObjectName *#<br>admin                                  | name<br>admin-state                                         | enabled<br>50          | 24 characters<br>enabled/disabled                       | 4.0.0 and above |
| operationType #<br>port #<br>slot #                         | operation-type<br>port<br>slot                              |                        | maintenance or<br>media<br>0-3                          |                 |
| ae_en<br>duplex<br>speed                                    | auto-negotiation<br>duplex-mode<br>speed                    |                        | 0-1<br>enabled/disabled<br>full or half                 |                 |
| virtualMac<br>wancomHealthScore                             | virtual-mac<br>wancom-health-<br>score                      |                        | 100 or 10<br>empty or<br>hh:hh:hh:hh:hh:hh<br>0-100     |                 |
| overloadProtection<br>AlarmThreshold<br>severity*#<br>value | overload-protection<br>alarm-threshold<br>severity<br>value | disabled<br>minor<br>0 | enabled, disabled<br>minor, major,<br>critical<br>0-100 | 6.2.0 and above |

## Network Interface

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

| SOAP Attributes/Sub-elements | ACLI system->network-interface | Default Values | Valid Values                                | SBC Version            |
|------------------------------|--------------------------------|----------------|---------------------------------------------|------------------------|
| 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                                     |                        |
| state #                      | heartbeat                      |                | 0-65535                                     |                        |
| timeout                      | retry-count                    |                | 1-65535                                     |                        |
| retrycount                   | retry-timeout                  |                | 0-100                                       |                        |
| retryTimeout                 | health-score                   |                | Ipv4                                        |                        |
| healthDec                    | dns-ip-primary                 |                | Ipv4                                        |                        |
| domNameServerB1              | dns-ip-backup1                 |                | Ipv4                                        |                        |
| domNameServerB2              | dns-ip-backup2                 |                | list of IPs                                 |                        |
| defDomainName                | dns-domain                     |                | Ipv4                                        |                        |
| HipIpList                    | hip-ip-list                    |                | empty or combo of (ftp, icmp, snmp, telnet) |                        |
| ip *#                        | ftp-address                    |                | ftp HIP                                     |                        |
| protocolParameters           | icmp-address                   |                | icmp HIP                                    |                        |
| ftpAddress                   | snmp-address                   |                | snmp HIP                                    |                        |
| icmpAddress                  | telnet-address                 |                | telnet HIP                                  |                        |
| snmpAddress                  |                                |                |                                             |                        |
| telnetAddress                |                                |                |                                             |                        |
| dnsTimeout                   | dns-timeout                    | 11             | 0-4294967295                                |                        |
| description                  | description                    |                | 255 chars                                   | 5.0.0 and above        |
| lcmPIPList                   | icmp-address                   |                | HIP                                         | 4.1.4; 5.1.0 and above |
| ip *#                        |                                |                |                                             |                        |

| SOAP Attributes/Sub-elements | ACLI system->network-interface | Default Values | Valid Values                                | SBC Version       |
|------------------------------|--------------------------------|----------------|---------------------------------------------|-------------------|
| 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, ipv6                                  |                   |
| gateway                      | gateway                        |                | ipv4, not allowed for ipv6                  |                   |
| gatewaySec                   | sec-gateway                    |                | ipv4, ipv6                                  |                   |
| domNameServer                | dns-ip-primary                 |                | ipv4, ipv6                                  |                   |
| domNameServer B1             | dns-ip-backup1                 |                | ipv4, ipv6                                  |                   |
| domNameServer B2             | 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                          |                   |

## Realm

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

| <b>SOAP Attributes/Sub-elements</b> | <b>ACLI media-manager-&gt;realm-config</b> | <b>Default Values</b> | <b>Valid Values</b>                              | <b>SBC Version</b> |
|-------------------------------------|--------------------------------------------|-----------------------|--------------------------------------------------|--------------------|
| 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                 |                       | empty or <cls-profile>                           |                    |
| classProfile                        | average-rate-limit                         |                       | none, low, medium, high                          |                    |
| trustLevel                          | invalid-signal-threshold                   |                       | 0-999999999                                      |                    |
| rateLimit                           | maximum-signal-threshold                   |                       | 0-999999999                                      |                    |
| errMsgThreshold                     | deny-period                                |                       | 0-999999999                                      |                    |
| maxMsgThreshold                     | deny-period                                |                       | 0-999999999                                      |                    |
| 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    |
| restrictedLatching                  | restricted-latching                        | none                  | none, sdp, peer-ip                               |                    |
| restrictionMask                     | restriction-mask                           | 32                    | 1-32                                             |                    |

| SOAP Attributes/Sub-elements | ACLI media-manager->realm-config | Default Values | Valid Values                         | SBC Version            |
|------------------------------|----------------------------------|----------------|--------------------------------------|------------------------|
| mmSameIp                     | mm-same-ip                       | enabled        | enabled/disabled                     |                        |
| earlyMediaAllow              | early-media-allow                |                | empty, none, reverse, or both        |                        |
| RealmAdditionalPrefixes      | additional-prefixes              |                | list of ipv4/mask                    |                        |
| prefix *#                    |                                  |                | ipv4/mask                            |                        |
| acctEnable                   | accounting-enable                | enabled        | enabled, disabled                    | 4.1.0 and above        |
| netMgmtCtrl                  | net-management-control           | disabled       | enabled or disabled                  | 4.1.1 and above        |
| userCacMode                  | user-cac-mode                    | none           | none, aor, ip                        |                        |
| userCacBandwidth             | user-cac-bandwidth               | 0              | 0-999999999                          |                        |
| userCacSessions              | user-cac-sessions                | 0              | 0-999999999                          |                        |
| delayedMediaUpdate           | delay-media-update               | disabled       | enabled/disabled                     |                        |
| nonMmBwCAC                   | delay-media-update               | disabled       | enabled/disabled                     |                        |
| codecPolicy                  | bw-cac-non-mm-codec-policy       |                | empty or <codec-policy>              |                        |
| codePolicyInRealm            | codec-manio-in-realm             |                | enabled/disabled                     |                        |
| generateUDPChecksum          | generate-udp-checksum            | disabled       | empty or disabled                    | 4.1.4; 5.1.0 and above |
| enforcementProfile           | enforcement-profile              |                | empty or <enforcement-profile>       |                        |
| monthlyMinutes               | monthly-minutes                  | 0              | 0-71582788                           | 4.1.4 and 5.1.1        |
| constraintName               | constraint-name                  |                | empty or <session-constraint>        |                        |
| referCallTransfer            | refer-call-transfer              | disabled       | enabled, disabled                    | 5.1.1 and above        |
| description                  | description                      |                |                                      |                        |
| callRecordingServerId        | call-recording-server-id         |                | empty, defined call recording server | 6.0.0 and above        |

| SOAP Attributes/Sub-elements | ACLI media-manager->realm-config | Default Values | Valid Values                                | SBC Version       |
|------------------------------|----------------------------------|----------------|---------------------------------------------|-------------------|
| hmrString                    | manipulation-string              | 0              | 0-999999999                                 | 6.1.0 and above   |
| maxPriorityBandwidth         | max-priority-bandwidth           | 0              | 0-999999999                                 |                   |
| fallbackBandwidth            | fallback-bandwidth               | 0              | 0-999999999                                 |                   |
| icmpDetectMultiph            | icmp-detect-multiplier           | disabled       | ipv4                                        |                   |
| icmpAdvInterval              | icmp-target-ip                   | 0.0.0.0        | list of <media-profile>, <media-profile>::, |                   |
| icmpTargetIp                 | match-media-profiles             | 3478           | <media-profile>::<subname>, *, *::,         |                   |
| MatchMediaProfile            | nat-trust-threshold              | 0.0.0.0        | *::<subname>                                |                   |
| acliObjectName*#             | stun-enable                      | 3479           | 0-65535                                     |                   |
| natTrustThreshold            | stun-server-ip                   |                | enabled, disabled                           |                   |
| stunEnable                   | stun-server-port                 |                | ipv4                                        |                   |
| stunServerIp                 | stun-changed-ip                  |                | 1025-65535                                  |                   |
| stunServerPort               | stun-changed-port                |                | ipv4                                        |                   |
| stunChangedIp                | qos-constraint                   |                | 1025-65535                                  |                   |
| stunChangedPort              | sip-profile                      |                | 1025-65535                                  |                   |
| qosConstraintName            | sip-isup-profile                 |                | empty or <qos constraint>                   |                   |
|                              | refer-call-transfer              |                | empty or <sip-profile>                      |                   |
|                              | dyn-refer-term                   |                | empty or <sip-isup-profile>                 |                   |
|                              | cac-failure-threshold            |                | disabled, enabled, dynamic                  |                   |
|                              | untrust-cac-failure-threshold    |                | enabled, disabled                           |                   |
|                              | manipulation-pattern             |                | 0-999999999                                 |                   |
|                              | 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/<br>Sub-elements                            | ACLI<br>media-manager-<br>>steering-pool | Default Values | Valid Values                   | SBC Version      |
|-------------------------------------------------------------|------------------------------------------|----------------|--------------------------------|------------------|
| 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<br><realm> |                  |
| RealmNetworkInter<br>facelId<br>acliObjectName<br>subPortId | network-interface                        |                | empty or<br><phy:port-id>      |                  |
| ipAddress *#                                                | ip-address                               |                | ipv4, ipv6                     | CX6.2.0and above |

## Surrogate Agent

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

| SOAP Attributes/<br>Sub-elements | ACLI<br>session-router-<br>>surrogate-agent | Default Values | Valid Values                                | SBC Version               |
|----------------------------------|---------------------------------------------|----------------|---------------------------------------------|---------------------------|
| 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<br><sa> or ipv4 or<br>hostname |                           |
| customerHost                     | customer-host                               | 1              | hostname                                    |                           |
| customerRoute #                  | customer-next-hop                           |                | ipv4 or hostname                            |                           |
| contactHost #                    | register-contact-<br>host                   |                | 0-999999999                                 |                           |
| contactUser #                    | register-contact-<br>user                   |                | enabled/disabled                            |                           |
| password                         | password                                    |                | enabled/disabled                            |                           |
| expires                          | register-expires                            |                | 0-999999999                                 |                           |
| replaceContact                   | replace-contact                             |                | list of comma<br>separated options          |                           |
| routeToRegistrar<br>count        | route-to-registrar                          |                |                                             |                           |
| authUser<br>options              | aor-count<br>auth-user<br>options           |                |                                             |                           |
| maxRegisterAttem<br>pts          | max-register-<br>attempts                   | 3<br>300       | 0-10<br>30-3600                             | 4.1.4; 5.1.0 and<br>above |
| registerRetryTime<br>countStart  | register-retry-time<br>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 session-router->sip-interface | Default Values | Valid Values      | SBC Version     |
|------------------------------|------------------------------------|----------------|-------------------|-----------------|
| state                        | state                              | enabled        | enabled/disabled  | 4.0.0 and above |
| RealmID *                    | realm-id                           | <realm>        | <realm>           |                 |
| trustMode                    | trust-mode                         | all            | all, agents-only, |                 |
| SIPConfiguration             | sip-port                           | 5060           | relam-prefix,     |                 |
| SIPPort                      | address                            | UDP            | registered        |                 |
| address *#                   | port                               | all            | ipv4              |                 |
| port *#                      | transport-protocol                 | none           | 1025-65535        |                 |
| transProtocol *#             | allow-anonymous                    | disabled       | UDP or TCP        |                 |
| anonMode                     | proxy-mode                         | none           | all, agents-only, |                 |
| proxyMode                    | redirect-action                    | 30             | realm-prefix,     |                 |
| redirectAct                  | contact-mode                       | 300            | registered,       |                 |
| contactSip                   | teluri-scheme                      | 3600           | register-prefix   |                 |
| telUri                       | uri-fqdn-domain                    | disabled       | empty, proxy,     |                 |
| fqdnDomain                   | nat-traversal                      | disabled       | redirect, record- |                 |
| natTraversal                 | nat-interval                       |                | route, stateless  |                 |
| natInterval                  | min-reg-expire                     |                | empty, proxy,     |                 |
| regMinExpire                 | registration-                      |                | recurse           |                 |
| regInterval                  | interval                           |                | none, maddr,      |                 |
| registrationCaching          | registration-                      |                | strict, loose     |                 |
| isRouteReg                   | interval                           |                | enabled, disabled |                 |
| SIPConfiguration             | registration-                      |                | none, always,     |                 |
| Carriers                     | caching                            |                | rport             |                 |
| acliObjectName               | route-to-registrar                 |                | 0-999999999       |                 |
| *#                           | carriers                           |                | 1-999999999       |                 |
| options                      | options                            |                | 0-999999999       |                 |
|                              |                                    |                | enabled/disabled  |                 |
|                              |                                    |                | enabled/disabled  |                 |
|                              |                                    |                | list of carriers  |                 |
|                              |                                    |                | list of options   |                 |
|                              |                                    |                | seperated by      |                 |
|                              |                                    |                | comma             |                 |
| natmaxInterval               | max-nat-interval                   | 3600           | enabled, disabled |                 |
| natIntervalIncrement         | nat-int-increment                  | 10             |                   |                 |
| natTestIncrement             | nat-test-                          | 30             |                   |                 |
| sipdynamicHnt                | increment                          | 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         |                 |



| SOAP Attributes/Sub-elements | ACLI session-router-> sip-interface | Default Values | Valid Values                          | SBC Version            |
|------------------------------|-------------------------------------|----------------|---------------------------------------|------------------------|
| trustMode                    | trust-mode                          | disabled       | all, agents-only,                     |                        |
| extPolicyServer              | ext-policy-server                   | None           | relam-prefix,                         |                        |
| defaultLocationString        | default-location-string             | None           | registered, none                      |                        |
| imsFeature                   | sip-ims-feature                     | pass           | empty or <pol-server>                 |                        |
| NetworkID                    | network-id                          | pass           | enable/disabled                       |                        |
| anonymousPriority            | anonymous-priority                  |                | NONE (4.0.1),                         |                        |
| termTgrpMode                 | term-tgrp-mode                      |                | none (4.2),                           |                        |
| chargingVectorMode           | charging-vector-mode                |                | normal, non-urgent, urgent, emergency |                        |
| chargingFuncAddrMode         | charging-function-address-mode      |                | none, iptel, egress-uri               |                        |
| ecfAddress                   | ecf-address                         |                | none, pass, delete, insert            |                        |
| ccfAddress                   | ccf-address                         |                | none, pass, delete, insert            |                        |
| operatorIdentifier           | ccf-address                         |                | none, pass, delete, insert            |                        |
| inManipulationId             | operator-identifier                 |                | Ipv4 or hostname                      |                        |
| outManipulationId            | in-manipulationid                   |                | Ipv4 or hostname                      |                        |
|                              | out-manipulationid                  |                | empty or <sip-manipulation>           |                        |
| 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              | max-incoming-conns                  | 0              | 0-20000                               |                        |
| SIPConfiguration             | inactive-conn-timeout               |                | 0-999999999                           |                        |
| SIPPort                      | sip-port                            |                | 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; 4.1.1 and above |
| implicitServiceRoute         | implicit-service-route              |                | strict, enabled, disabled             |                        |
| responseMap                  | response-map                        |                | empty or <sip-response-map>           | 4.1.1 and above        |
| localResponseMap             | local-response-map                  |                |                                       |                        |

| SOAP Attributes/Sub-elements                         | ACLI session-router->sip-interface                       | Default Values | Valid Values                                                     | SBC Version            |
|------------------------------------------------------|----------------------------------------------------------|----------------|------------------------------------------------------------------|------------------------|
| 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; 5.1.0 and above |
| chargingFunctionMode                                 | charging-function-address-mode                           | pass           | none, pass, delete, insert, delete-and-respond, insert-reg-cache |                        |
| 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                                        | ims-aka-feature                                          | disabled       | enabled, disabled                                                | 6.1.0 and above        |
| imsAkaProfile                                        | ims-aka-profile                                          | UDP            | <ims-aka-profile> or empty                                       |                        |
| hmrString                                            | manipulation-string                                      |                | UDP, TCP, TLS, SCTP                                              |                        |
| SIPConfiguration SIPPort                             | manipulation-string sip-port                             |                |                                                                  |                        |
| transProtocol                                        | transport-protocol                                       |                |                                                                  |                        |
| sipProfile                                           | sip-profile                                              |                | empty or <sip-profile>                                           | 6.2.0 and above        |
| sipIsupProfile                                       | sip-isup-profile                                         |                | empty or <sip-isup-profile>                                      |                        |
| manipPattern                                         | manipulation-pattern                                     |                |                                                                  |                        |
| SIPConfiguration SIPPort 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/<br>Sub-elements | ACLI<br>Session-router-<br>>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                                                                                                                                                                                                           |                 |
| HomeProxyAddresses               | home-proxy-address                  | -acme-<br>ACME-                                                                                                                   | Ipv4                                                                                                                                                                                                           |                 |
| HomeProxyPort                    | home-proxy-port                     | none                                                                                                                              | enabled, disabled,<br>forced                                                                                                                                                                                   |                 |
| RouteHomeProxy<br>prefix         | route-home-proxy<br>address-prefix  | list of nat headers:<br>Call-ID Contact f<br>From I Join m<br>rRecord-Route<br>Refer-To Replaces<br>Replay-To Route t<br>To v Via | empty, *, 0.0.0.0,<br>ipv4/bitmask<br>enabled/disabled<br><.com>                                                                                                                                               |                 |
| TunnelRedirect                   | tunnel-redirect                     |                                                                                                                                   |                                                                                                                                                                                                                |                 |
| UserNATTag                       | user-nat-tag                        |                                                                                                                                   |                                                                                                                                                                                                                |                 |
| HostNATTag                       | host-nat-tag                        |                                                                                                                                   |                                                                                                                                                                                                                |                 |
| DomainSuffix                     | domain-suffix                       |                                                                                                                                   | none, from-to, all                                                                                                                                                                                             |                 |
| ParamMode                        | use-url-parameter                   |                                                                                                                                   | list of nat headers:<br>Call-ID Contact f<br>From I Join m r<br>Record-Route<br>Refer-To Replaces<br>Replay-To Route t<br>To v Via with<br>values = NAT, fqdn-<br>ip-ext, fqdn-ip-tgt,<br>ip-ip-ext, ip-ip-tgt |                 |
| ParamName                        | parameter-name                      |                                                                                                                                   |                                                                                                                                                                                                                |                 |
| SipNatHeaders                    | headers                             |                                                                                                                                   |                                                                                                                                                                                                                |                 |
| acliObjectName*#                 |                                     |                                                                                                                                   |                                                                                                                                                                                                                |                 |

## H.323 Stack

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

| SOAP Attributes/Sub-elements | ACLI Session-router->h323->h323-stack | Default Values | Valid Values                                                  | SBC Version     |
|------------------------------|---------------------------------------|----------------|---------------------------------------------------------------|-----------------|
| aciObjectName                | name                                  | enabled        | 24 characters                                                 | 4.0.0 and above |
| *#                           | state                                 | <realm>        | enabled/disabled                                              |                 |
| state                        | realm-id                              | 0.0.0.0        | <realm>                                                       |                 |
| realm-id *                   | assoc-stack                           | 1719           | empty or <h323-stack>                                         |                 |
| assoc-stack                  | local-ip                              | 1720           |                                                               |                 |
| local-ip                     | ras-port                              | 200            | empty or <HIP>                                                |                 |
| ras-port                     | q931-port                             | 200            | 1025-65535                                                    |                 |
| q931-port                    | alternate-                            | 6              | 1025-65535                                                    |                 |
| H323AlternateTransport       | transport                             | 0              | list of <ipv4:port>                                           |                 |
| nsport                       | q931-max-calls                        | 0              | Ipv4:port                                                     |                 |
| ipAddress *#                 | max-calls                             | 0              | >0                                                            |                 |
| q931-max-calls               | max-channels                          | 0              | >0, must > q931-max-calls                                     |                 |
| max-calls                    | q931-start-port                       | disabled       | >0                                                            |                 |
| max-channels                 | q931-number-ports                     | enabled        | 0-65535                                                       |                 |
| q931-start-port              | ports                                 | all            |                                                               |                 |
| q931-number-ports            | dynamic-start-port                    |                | 0, 1024, 2048, 4096, 8192, 16384, 32768                       |                 |
| dynamic-start-port           | dynamic-number-ports                  |                | 0-65535                                                       |                 |
| dynamic-number-ports         | tcp-keepalive                         |                | 0, 1024, 2048, 4096, 8192, 16384, 32768                       |                 |
| tcp-keepalive                | isgateway                             |                |                                                               |                 |
| isgateway                    | allow-anonymous                       |                | enabled/disabled                                              |                 |
| AnonMode                     | filename                              |                | enabled/disabled                                              |                 |
| filename                     | terminal-alias                        |                | all, agents-only, realm-prefix                                |                 |
| H323TerminalAlias            | prefixes                              |                |                                                               |                 |
| e164 *#                      |                                       |                | list of e164, url, h323-ID, email, ipAddress                  |                 |
| url *#                       |                                       |                |                                                               |                 |
| ipAddress *#                 |                                       |                | list of e164, url, h323-ID, email, ipAddress for gateway only |                 |
| email *#                     |                                       |                |                                                               |                 |
| h323-ID *#                   |                                       |                |                                                               |                 |
| H323Prefixes                 |                                       |                |                                                               |                 |
| e164 *#                      |                                       |                |                                                               |                 |
| url *#                       |                                       |                |                                                               |                 |
| ipAddress *#                 |                                       |                |                                                               |                 |
| email *#                     |                                       |                |                                                               |                 |
| h323-ID *#                   |                                       |                |                                                               |                 |

| SOAP Attributes/Sub-elements | ACLI Session-router->h323->h323-stack | Default Values | Valid Values                                                                         | SBC Version     |
|------------------------------|---------------------------------------|----------------|--------------------------------------------------------------------------------------|-----------------|
| registration-ttl             | registration-ttl                      | 120            | >0 for gateway only                                                                  |                 |
| processRegistration          | process-registration                  | disabled       | enabled/disabled for gatekeeper only                                                 |                 |
| proxy-mode                   | proxy-mode                            | disabled       |                                                                                      |                 |
| h245-stage                   | h245-stage                            | disabled       | NONE, H225, H245                                                                     |                 |
| h245-tunneling               | h245-tunneling                        | enabled        |                                                                                      |                 |
| stack-options                | options                               | disabled       | CONNECT, SETUP, ALERTING, CALL PROCEEDING, DYNAMIC, FACILITY, SETUP or CONNECT, NONE |                 |
| auto-gk-discovery            | auto-gk-discovery                     | disabled       |                                                                                      |                 |
| multicast                    | multicast                             |                |                                                                                      |                 |
| gatekeeper                   | gatekeeper                            |                |                                                                                      |                 |
| gk-identifier                | gk-identifier                         |                |                                                                                      |                 |
| callStartFast                | call-start-fast                       |                |                                                                                      |                 |
| callStartSlow                | call-start-slow                       |                |                                                                                      |                 |
| H323MediaProfile             | media-profiles                        |                |                                                                                      |                 |
| acliObjectName*#             | fs-in-first-msg                       |                | enabled/disabled                                                                     |                 |
| fs-in-first-msg              |                                       |                | 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      | alarm-threshold                       | minor          | minor, major, critical                                                               | 6.2.0 and above |
| severity*#                   | severity                              | 0              | 0-100                                                                                |                 |
| value                        | value                                 |                |                                                                                      |                 |

## 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,  |                        |
| divisor                      | divisor                          | disabled                      | LinePrefix,      |                        |
| unitPrefix                   | unit-prefix                      | disabled                      | FQDN, FQDN2,     |                        |
| dnsAuthentication            | dns-                             | 0                             | OnlyHost         |                        |
| dnsTranslation               | authentication                   | disabled                      | 256, 65536,      |                        |
| natTraversal                 | dns-translation                  | 0                             | 16777216,        |                        |
| auditInterval                | nat-traversal                    | 0.0.0.0                       | 4294967295enab   |                        |
| options                      | audit-interval                   | 2427                          | led/disabled     |                        |
| caRedundancy                 | options                          | 0<realm>                      | empty or <trans- |                        |
| caPingMethod                 | ca-redundancy                    | 0.0.0.0                       | pfl>             |                        |
| caPingInterval               | ca-ping-method                   | 2727                          | enabled/disabled |                        |
| hostGWPublic                 | ca-ping-interval                 |                               | list of options  |                        |
| addrGWPublic                 | public-gw-host                   |                               | enabled/disabled |                        |
| portGWPublic                 | public-gw-address                |                               | NTFY 1           |                        |
| portGWPublic2re              | public-gw-port                   |                               | ping@host        |                        |
| almPublic                    | second-public-                   |                               | Ipv4/mask        |                        |
| pubCAHost                    | gw-portpublic-                   |                               | 1025-65535       |                        |
| addrCAPublic                 | realm                            |                               | 0,               |                        |
| portCAPublic                 | public-ca-host                   |                               | 1025-65535<real  |                        |
|                              | public-ca-address                |                               | m>               |                        |
|                              | public-ca-port                   |                               | Ipv4             |                        |
| portALG                      | alg-port                         | 2427                          | 1025-65535       | 4.1.4; 5.1.1 and below |
| MGCPConfigIpAd               | ca-failover-ip-                  |                               |                  |                        |
| dresses                      | addresses                        |                               | List of ipv4     | 4.0.1 and above        |
| Addr *#                      |                                  |                               | Ipv4             |                        |
| rsipFailures                 | rsip-failures                    | 500-509<br>511-519<br>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/<br>Sub-elements | ACLI<br>media-manager-<br>>dns-config | Default Values | Valid Values | SBC Version     |
|----------------------------------|---------------------------------------|----------------|--------------|-----------------|
| clientrealmID *#                 | client-realm                          | <realm>        | <realm>      | 4.0.0 and above |
| description                      | description                           | 53             | ipv4         |                 |
| ClientIpList                     | client-address-list                   | 10             | <realm>      |                 |
| IPAddress *#                     | server-dns-<br>attributes             |                | domain       |                 |
| ServerDNSAttribut<br>es          | serverrealmID                         |                | ipv4         |                 |
| serverRealmID *#                 | domain-suffix                         |                | 0-65535      |                 |
| ServerDnsDomain<br>Suffix        | server-address-list                   |                | 0-999999999  |                 |
| aciObjectName * #                | source-address                        |                | ipv4/mask    |                 |
| ServerDnsAddress<br>List         | source-port                           |                | ipv4/mask    |                 |
| IPAddress * #                    | transaction-timeout                   |                |              |                 |
| sourceAddress *#                 | address-translation                   |                |              |                 |
| sourcePort *#                    | server-prefix                         |                |              |                 |
| transactionTimeout               | client-prefix                         |                |              |                 |
| ServerDNSAddress<br>sTranslation |                                       |                |              |                 |
| serverprefix *#                  |                                       |                |              |                 |
| clientprefix *#                  |                                       |                |              |                 |

## Session Agent

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

| SOAP Attributes/Sub-elements | ACLI session-router->session-agent | Default Values | Valid Values                                  | SBC Version     |
|------------------------------|------------------------------------|----------------|-----------------------------------------------|-----------------|
| 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                                   |                 |
| appType                      | app-type                           | 0              | H323-GK or                                    |                 |
| transMethod                  | transport-method                   | 0              | H323-GW for                                   |                 |
| realmID                      | realm-id                           | 0              | H323 only                                     |                 |
| description                  | description                        | 0              | UDP, UDP+TCP,<br>dynamicTCP,<br>staticTCP     |                 |
| options                      | options                            | 0              |                                               |                 |
| SessionAgentMediaProfile     | media-profiles                     | 0              | empty or <realm>                              |                 |
| acliObjectName *#            | carriers                           | 0              | list of comma<br>seperated options            |                 |
| SessionAgentCarriers         | in-translationid                   | 0              | List of <media-<br>profiles> for H323<br>only |                 |
| acliObjectName *#            | outtranslationId                   |                |                                               |                 |
| allowNextHop                 | constraints                        |                | <media-profile>                               |                 |
| inTranslationId              | max-sessions                       |                | List of carriers                              |                 |
| outTranslationId             | max-outbound-<br>sessions          |                | <carrier-code>                                |                 |
| useConstraints               | max-burst-rate                     |                | enabled/disabled                              |                 |
| maxNumSessions               | max-sustain-rate                   |                | empty or<br><translation-<br>profile>         |                 |
| maxOutbSessions              | time-to-resume                     |                | enabled/disabled                              |                 |
| maxBurstRate                 | ttr-no-response                    |                |                                               |                 |
| maxSustainedRate             | in-service-period                  |                | 0-999999999                                   |                 |
| timeToResume                 | burst-rate-window                  |                | 0-999999999                                   |                 |
| noResponseTo                 | sustain-rate-<br>window            |                | 0-999999999                                   |                 |
| inServicePeriod              |                                    |                | 0-999999999                                   |                 |
| burstWindow                  |                                    |                | 0-999999999                                   |                 |
| sustainedWindow              |                                    |                | 0-999999999                                   |                 |



| SOAP Attributes/Sub-elements | ACLI session-router->session-agent | Default Values | Valid Values                          | SBC Version                       |
|------------------------------|------------------------------------|----------------|---------------------------------------|-----------------------------------|
| trustMe                      | trust-me                           | enabled        | enabled/disabled                      | 4.0.0 and above<br>(for SIP only) |
| proxyMode                    | proxy-mode                         | enabled        | empty, proxy, redirect, record-route  |                                   |
| redirectAct                  | redirect-action                    | disabled       |                                       |                                   |
| allocMedia                   | send-media-session                 | None           | empty, proxy, recurse                 |                                   |
| responseMap                  | response-map                       | 0              | enabled/disabled                      |                                   |
| looseRouter                  | loose-routing                      |                | empty or <sip-response-code-profile>  |                                   |
| inclCarrierAs                | req-uri-carrier-mode               |                | enabled, disabled                     |                                   |
| pingMethod                   | ping-method                        |                | None, URI-param, Prefix               |                                   |
| pingInterval                 | ping-interval                      |                | INFO, OPTIONS                         |                                   |
|                              |                                    |                | 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*#             | stop-recurse                       |                |                                       |                                   |
| stopRecurse                  |                                    |                |                                       |                                   |
| trustMeForLI                 | li-trust-me                        | disabled       | enabled/disabled                      |                                   |
| assertedID                   | p-asserted-id                      | 0              | sip:name@acme.com or tel:+1234        |                                   |
| SessionAgentTrunkGroup       | trunk-group                        |                | list of trunk groups or group:context |                                   |
| acliObjectName*#             | out-manipulationid                 |                | empty or <sip-manipulation>           |                                   |
| inManipulationId             | max-register-sustain-rate          |                | 0-999999999                           |                                   |
| outManipulationId            |                                    |                |                                       |                                   |
| maxRegisterSustainedRate     |                                    |                |                                       |                                   |
| earlyMediaAllow              | early-media-allow                  | disabled       | empty, none, reverse, both            | 4.0.1 and above<br>(for SIP only) |
| invalidateRegistrations      | invalidate-registrations           |                | enabled/disabled                      |                                   |
| minSeizure                   | min-seizures                       | 5              | 1-999999999                           | 4.0.1 and above                   |
| minAnswerSeizureRatio        | min-asr                            | 0              | 0-100                                 |                                   |
| rfc2833-mode                 | rfc2833-mode                       | none           | none, transparent, preferred          | 4.1.0 and above<br>for H323       |
| rfc2833-payload              | rfc2833-payload                    | 0              | 0, 96-127                             |                                   |

| SOAP Attributes/Sub-elements | ACLI session-router->session-agent | Default Values | Valid Values                                                                                                 | SBC Version                           |
|------------------------------|------------------------------------|----------------|--------------------------------------------------------------------------------------------------------------|---------------------------------------|
| maxInbSessions               | max-inbound-sessions               | 0              | 0-999999999                                                                                                  | 4.0.1; 4.1.1 and above                |
| maxInbBurstRate              |                                    | 0              | 0-999999999                                                                                                  |                                       |
| maxOutBurstRate              | max-inbounds-burst-rate            | 0              | 0-999999999                                                                                                  | 4.0.1; 4.1.1 and above                |
| maxInbSustainedRate          | max-outbound-burst-rate            | 0              | 0-999999999                                                                                                  |                                       |
| maxOutBurstRate              | max-outbound-sustain-rate          | 0              | 0-999999999                                                                                                  | 4.0.1; 4.1.1 and above                |
| maxInbSustainedRate          |                                    | 0              | 0-999999999                                                                                                  |                                       |
| codecPolicy                  | codec-policy                       |                | empty or <codec-policy>                                                                                      | 4.1.1 and above (for SIP only)        |
| inServiceCodes               | in-service-codes                   |                | list of comma-separated response codes, 200-699                                                              |                                       |
| outServiceCodes              | out-service-response-codes         |                |                                                                                                              |                                       |
| rfc2833-mode                 | rfc2833-mod                        | None           | none, transparent, preferred, dual                                                                           | 4.1.1 and above                       |
| rfc2833-payload              | rfc2833-payload                    | 0              | 0, 96-127                                                                                                    |                                       |
| reuse-connections            | reuse-connections                  | NONE           | NONE, TCP                                                                                                    | 4.1.4; 5.1.0 and above (for SIP only) |
| tcp-keepalive                | tcp-keepalive                      | none           | none, disabled, enabled                                                                                      |                                       |
| tcp-reconn-Interval          | tcp-reconn-interval                | 0              | 0, 2-300                                                                                                     |                                       |
| enforcementProfile           | enforcement-profile                |                | empty or <enforcement-profile>                                                                               | 4.1.4, 5.1.1 and above (for SIP only) |
| maxRegisterBurstRate         | max-register-burst-rate            | 0              | 0-999999999                                                                                                  |                                       |
| registerBurstWindow          | register-burst-window              | 0              | 0-999999999                                                                                                  | 4.1.4, 5.1.1 and above (for SIP only) |
| referCallTransfer            | refer-call-transfer                | disabled       | enabled, disabled                                                                                            |                                       |
| pingSendMode                 | ping-send-mode                     | keep-alive     | keep-alive, continuous                                                                                       | 5.1.1 and above (for SIP only)        |
| egressRealmID                | egress-realm-id                    |                | empty or <realm>                                                                                             |                                       |
| SessionAgentRateConstraints  | rate-constraints                   |                | INVITE, ACK, BYE, REGISTER, CANCEL, PRACK, OPTIONS, INFO, SUBSCRIBE, NOTIFY, REFER, UPDATE, MESSAGE, PUBLISH | 5.1.1 and above                       |
| method                       | method                             |                |                                                                                                              |                                       |
| maxInBurstRate               | max-inbound-burst-rate             |                | 0-999999999                                                                                                  |                                       |
| maxOutBurstRate              | max-outbound-burst-rate            |                | 0-999999999                                                                                                  |                                       |
| maxInSustainedRate           | max-inbound-sustain-rate           |                | 0-999999999                                                                                                  |                                       |
| maxOutSustainedRate          | max-outbound-sustain-rate          |                | 0-999999999                                                                                                  |                                       |
|                              |                                    |                | 0-999999999                                                                                                  |                                       |

| SOAP Attributes/Sub-elements                                                          | ACLI session-router->session-agent                                                                   | Default Values       | Valid Values                                                                                             | SBC Version                    |
|---------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|----------------------|----------------------------------------------------------------------------------------------------------|--------------------------------|
| hmrString<br>transMethod<br>reuse-connections                                         | manipulation-string<br>transport-method<br>reuse-connections                                         | UDP<br>NONE          | UDP, UDP+TCP, dynamicTCP, staticTCP, dynamicTLS, staticTLS, staticSCTP, NONE, TCP, SCTP                  | 6.1.0 and above (for SIP only) |
| pingAllAddresses<br>sipProfile<br>sipIsupProfile<br>manipPattern<br>referCallTransfer | ping-all-addresses<br>sip-profile<br>sip-isup-profile<br>manipulation-pattern<br>refer-call-transfer | disabled<br>disabled | enabled, disabled<br>empty or <sip-profile><br>empty or <sip-isup-profile><br>disabled, enabled, dynamic | 6.2.0 above (for SIP only)     |
| hostname *#<br>ipAddress                                                              | hostname<br>ip-address                                                                               |                      | fqdn, ipv4, ipv6<br>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 session-router->session-agent-group                               | Default Values         | Valid Values                                                                                                                | SBC Version                    |
|---------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|------------------------|-----------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| aciObjectName *#<br>description<br>state<br>protocol #<br>strategy<br>SessionAgentGroupSipDest<br>hostname *# | group-name<br>description<br>state<br>app-protocol<br>strategy<br>dest | enabled<br>SIP<br>hunt | enabled/disabled<br>SIP or H323<br>hunt, roundrobin, leastbusy, proplist, lowsusrate<br>list of session-agents<br><sa name> | 4.0.0 and above                |
| SessionAgentGroupTrunkGroup<br>aciObjectName *#                                                               | trunk-group                                                            |                        | List of trunk groups or group:context<br><trk> or <trk>:<contxt>                                                            | 4.0.0 and above (for SIP only) |
| sagRecurse<br>stopRecurse                                                                                     | sag-recursion<br>stop-sag-recursion                                    | disabled<br>410, 407   | enabled, disabled<br>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,           | 4.0.0 and above |
| LocalPolicyFrom #            | to-address                        | *              | Route1.....       |                 |
| addr *#                      | source-realm                      | *              | +number,          |                 |
| LocalPolicyTo #              | activate-time                     | enabled        | number, *, fqdn,  |                 |
| addr *#                      | deactivate-time                   | none           | ipv4 or 0.0.0.0   |                 |
| LocalPolicySourceRealm #     | state                             | enabled        | same              |                 |
| acliObjectName *#            | policy-priority                   | 0000           | * or <realm>      |                 |
| activateTime                 | policy-attribute                  | 2400           | yyyy-mm-dd-       |                 |
| deactivateTime               | state                             | U-S            | hh:mm:ss          |                 |
| state                        | start-time                        | 0              | yyyy-mm-dd        |                 |
| anonymousPriority            | end-time                          | SIP            | hh:mm:ss          |                 |
| LocalPolicyAttribute         | days-of-week                      | enabled        | enabled/disabled  |                 |
| policyName *                 | cost                              |                | none, normal,     |                 |
| state                        | media-profiles                    |                | non-urgent,       |                 |
| startTime                    | carrier                           |                | urgent,           |                 |
| endTime                      | next-hop                          |                | emergency         |                 |
| dow                          | realm                             |                | RP0, RP1.....     |                 |
| cost                         | app-protocol                      |                | enabled, disabled |                 |
| LocalPolicyMediaProfiles     | replace-uri                       |                | 0000-2400         |                 |
| acliObjectName *#            |                                   |                | 0000-2400         |                 |
| carrierName                  |                                   |                | M, T, W, R, F, S, |                 |
| nextHop #                    |                                   |                | U, H or any       |                 |
| destRealm #                  |                                   |                | combination       |                 |
| appProtocol                  |                                   |                | 0-999999999       |                 |
| replace                      |                                   |                | list of media-    |                 |
|                              |                                   |                | profiles          |                 |
|                              |                                   |                | <media-profile>   |                 |
|                              |                                   |                | <carrier-code>    |                 |
|                              |                                   |                | SAG:<sag>,        |                 |
|                              |                                   |                | <sa>, ipAddress,  |                 |
|                              |                                   |                | FQDN              |                 |
|                              |                                   |                | empty or <realm>  |                 |
|                              |                                   |                | SIP or H323       |                 |
|                              |                                   |                | enabled/disabled  |                 |

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

| SOAP Attributes/Sub-elements                                                                                                           | ACLI Session-router->local-policy                                                                       | Default Values               | Valid Values                                                                                                                                                                                                                                                                                           | SBC Version     |
|----------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| LocalPolicyAttribute methods<br>LocalPolicyFrom #<br>addr *#<br>LocalPolicyTo #<br>addr *#                                             | policy-attribute methods<br>from-address<br>to-address                                                  |                              | space separated list of INVITE, REGISTER, PRACK, OPTIONS, INFO, SUBSCRIBE, NOTIFY, REFER, UPDATE, MESSAGE, PUBLISH<br>also supports DS: 123#456*Ab (alpha-numeric-dtmf, a combination of A-D, a-d, 0-9, #, *) (potsstar)                                                                               | 6.1.0 and above |
| LocalPolicyFrom #<br>addr *#<br>LocalPolicyTo #<br>addr *#<br>LocalPolicyAttribute<br>eLocStrLkup<br>eLocStrMatch<br>lookup<br>nextKey | from-address<br>to-address<br>policy-attribute<br>eloc-str-lkup<br>eloc-str-match<br>lookup<br>next-key | *<br>*<br>disabled<br>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)<br>enabled, disabled<br>24 chars such as noc, lac, line-code<br>single, multi<br>\$TO, \$FROM, \$P<br>AI or any string | 6.2.0 and above |

| SOAP Attributes/Sub-elements    | ACLI Session-router->local-policy | Default Values | Valid Values                                                                                                                                                                                                                                                                                                                                                                      | SBC Version          |
|---------------------------------|-----------------------------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| LocalPolicyFrom #<br>addr *#    | from-address<br>to-address        | *              | +number (e164),<br>number(pots),<br>num**num<br>(potsstar), */fqdn/<br>ipv4/ipv6/0.0.0.0<br>(hostname), DS:<br>[A-D][a-d]<br>[0-9]#*(potsstar),<br>urn:service:[sos,<br>sos.fire,<br>sos.animal-<br>control]<br>(hostname)<br>SAG:<sag>,<br><sa>,<br>enum:<name>,<br>lrt:<name>,<br>enum:<name>;ke<br>y=<cic rn value>,<br>lrt:<name>;key=<<br>cic rn value>,<br>ipv4, ipv6, FQDN | CX6.2.0 and<br>above |
| LocalPolicyTo #<br>addr *#      | policy-attribute<br>next-hop      | *              |                                                                                                                                                                                                                                                                                                                                                                                   |                      |
| LocalPolicyAttribute<br>nextHop |                                   |                |                                                                                                                                                                                                                                                                                                                                                                                   |                      |

## 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                                       | 0              | enabled, disabled    |                 |
| state                        | type                                        | 0              | empty, gap-rate,     |                 |
| aclitype                     | value                                       | 0              | gap-percent,         |                 |
| value                        | treatment                                   | 503            | priority             |                 |
| treatment                    | next-hop                                    | 63             | -1, 0-100 for gap-   |                 |
| nextHop                      | realm-next-hop                              |                | percent,             |                 |
| nextHopRealm                 | protocol-next-hop                           |                | 0-2147483647 for     |                 |
| nextHopProtocol              | status-code                                 |                | gap-rate             |                 |
| statusCode                   | cause-code                                  |                | empty, reject,       |                 |
| causeCode                    | gap-rate-max-                               |                | divert               |                 |
| gapRateMaxCou                | count                                       |                | empty,               |                 |
| nt                           | gap-rate-window-                            |                | hostname:port,       |                 |
| gapRateWindow                | size                                        |                | ipv4:port, sa,       |                 |
| Size                         | destination-                                |                | SAG:sa               |                 |
| DestinationId                | identifier                                  |                | empty, <realm>       |                 |
| destinationId *#             |                                             |                | empty, SIP, H323     |                 |
|                              |                                             |                | 1-699                |                 |
|                              |                                             |                | 0-999999999          |                 |
|                              |                                             |                | 0-999999999          |                 |
|                              |                                             |                | 0-999999999          |                 |
|                              |                                             |                | List of              |                 |
|                              |                                             |                | number(^as           |                 |
|                              |                                             |                | wildcard),           |                 |
|                              |                                             |                | prefix(^as           |                 |
|                              |                                             |                | wildcard),           |                 |
|                              |                                             |                | ipv4(^as wildcard)   |                 |
|                              |                                             |                | and fqdn             |                 |
| rphFeature                   | rph-feature                                 |                | disabled or          | 4.1.4           |
| rphProfile                   | rph-profile                                 |                | enabled              |                 |
| rphPolicy                    | rph-policy                                  |                | empty or <rph-       |                 |
|                              |                                             |                | profile>             |                 |
|                              |                                             |                | empty or <rph-       |                 |
|                              |                                             |                | policy>              |                 |
| destinationId                | destination-                                |                | list of number,      | 6.2.0 and above |
| destinationId *#             | identifier                                  |                | prefix, ipv4 or      |                 |
|                              |                                             |                | fqdn (^ as           |                 |
|                              |                                             |                | wildcard for digit), |                 |
|                              |                                             |                | urn:service:(sos,    |                 |
|                              |                                             |                | sos.fire,            |                 |
|                              |                                             |                | sos.animal-          |                 |
|                              |                                             |                | control etc.)        |                 |

## SIP Header Manipulation

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



| SOAP Attributes/<br>Subelements | ACLI<br>session-router-<br>>sip-<br>manipulation | Default Values | Valid Values                                                                                                                                                                      | SBC Version     |
|---------------------------------|--------------------------------------------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| aclObjectName * #<br>HeaderRule | name<br>header-rule                              | none<br>any    | add, delete,<br>manipulate, none<br>empty or <value>                                                                                                                              | 4.0.0 and above |
| aclObjectName * #               | name                                             | none           | any, request, reply                                                                                                                                                               |                 |
| action                          | action                                           | any            | empty or comma<br>separated strings                                                                                                                                               |                 |
| matchValue                      | match-value                                      |                | header-value,<br>header-param, uri-<br>user, uri-host, uri-<br>port, uri-param, uri-<br>header, uri-user-<br>param                                                                |                 |
| msgType                         | msg-type                                         |                | add, replace,<br>delete-header,<br>delete-element,<br>none                                                                                                                        |                 |
| methods                         | methods                                          |                | IP, FQDN, ANY                                                                                                                                                                     |                 |
| ElementRule                     | element-rule                                     |                | empty or <255<br>characters>                                                                                                                                                      |                 |
| aclObjectName *#                | name                                             |                | empty or<br>combination<br>of \$ORIGINAL, \$L<br>OCAL_IP, \$REMO<br>TE_IP, \$REMOTE_<br>VIA_HOST, \$TRU<br>NK_GROUP, \$TRU<br>NK_GROUP_CON<br>TEXT, <any<br>string>, +, -, +^, -^ |                 |
| aclitype                        | type                                             |                |                                                                                                                                                                                   |                 |
| action                          | action                                           |                |                                                                                                                                                                                   |                 |
| matchValueType                  | match-val-type                                   |                |                                                                                                                                                                                   |                 |
| matchValue                      | match-value                                      |                |                                                                                                                                                                                   |                 |
| newValue                        | new-value                                        |                |                                                                                                                                                                                   |                 |

| SOAP Attributes/<br>Subelements | ACLI<br>session-router-<br>>sip-<br>manipulation | Default Values | Valid Values                                                                                                                                                                                                                                                                                                   | SBC Version     |
|---------------------------------|--------------------------------------------------|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| acliObjectName * #              | name                                             | none           | 255 characters                                                                                                                                                                                                                                                                                                 | 4.1.1 and above |
| description                     | description                                      | case-sensitive | 255 characters or<br>@ status-line                                                                                                                                                                                                                                                                             |                 |
| HeaderRule                      | header-rule                                      | any            |                                                                                                                                                                                                                                                                                                                |                 |
| acliObjectName * #              | name                                             | none           | add, delete,<br>manipulate, store,<br>none                                                                                                                                                                                                                                                                     |                 |
| headerName #                    | header-name                                      | ANY            |                                                                                                                                                                                                                                                                                                                |                 |
| action                          | action                                           | case-sensitive | case-sensitive,<br>case-insensitive,<br>pattern-rule                                                                                                                                                                                                                                                           |                 |
| cmpType                         | comparison-type                                  |                |                                                                                                                                                                                                                                                                                                                |                 |
| matchValue                      | match-value                                      |                |                                                                                                                                                                                                                                                                                                                |                 |
| msgType                         | msg-type                                         |                | empty or <reg-<br>expr>                                                                                                                                                                                                                                                                                        |                 |
| newValue                        | new-value                                        |                |                                                                                                                                                                                                                                                                                                                |                 |
| methods                         | methods                                          |                | any, request, reply                                                                                                                                                                                                                                                                                            |                 |
| ElementRule                     | element-rule                                     |                | empty or <reg-<br>expr>                                                                                                                                                                                                                                                                                        |                 |
| acliObjectName *#               | name                                             |                | empty or comma-<br>seperated strings                                                                                                                                                                                                                                                                           |                 |
| paramName                       | parameter-name                                   |                |                                                                                                                                                                                                                                                                                                                |                 |
| aclitype                        | type                                             |                | 255 characters                                                                                                                                                                                                                                                                                                 |                 |
| action                          | action                                           |                | 255 characters                                                                                                                                                                                                                                                                                                 |                 |
| matchValueType                  | match-val-type                                   |                | header-value,<br>header-param-<br>name, header-<br>param, uri-dis-<br>play, uri-user,<br>uri-user-<br>param, uri-host,<br>uri-port, uri-param-<br>name, uri-param,<br>uri-header-name,<br>uri-header, status-<br>code, reason-<br>phrase,<br>add, replace,<br>delete-header,<br>delete-element,<br>store, none |                 |
| cmpType                         | comparison-type                                  |                | IP, FQDN, ANY                                                                                                                                                                                                                                                                                                  |                 |
| matchValue                      | match-value                                      |                | case-sensitive,<br>case-insensitive,<br>pattern-rule                                                                                                                                                                                                                                                           |                 |
| newValue                        | new-value                                        |                | empty or <reg-<br>expr-value><br>empty or <reg-<br>expr-value> with<br>pre0defined<br>parameters:<br>\$ORIGINAL, \$LOC<br>AL_IP, \$REMOTE_<br>IP, \$REMOTE_VIA<br>_HOST, \$TRUNK_<br>GROUP, \$TRUNK_                                                                                                           |                 |

| SOAP Attributes/<br>Subelements | ACLI<br>session-router-<br>>sip-<br>manipulation | Default Values | Valid Values                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | SBC Version               |
|---------------------------------|--------------------------------------------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
|                                 |                                                  |                | GROUP_CONTEXT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                           |
| Header Rule<br>action           | header-rule<br>action                            | none           | add, delete,<br>manipulate, store,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 4.1.4; 5.1.1 and<br>above |
| cmpType                         | comparison-type                                  |                | none, sip-manip                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           |
| newValue                        | new-value                                        |                | case-sensitive,<br>case-insensitive,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           |
| ElementRule                     | element-rule                                     |                | pattern-rule,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                           |
| cmpType                         | comparison-type                                  |                | boolean, refer-                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           |
| newValue                        | new-value                                        |                | case-sensitive,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           |
| action                          | action                                           |                | refer-case-                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           |
| aclitype                        | type                                             |                | insensitive<br>empty, <reg-expr>,<br>or <sip-<br>manipulation><br>case-sensitive,<br>case-insensitive,<br>pattern-rule,<br>boolean, refer-<br>case-sensitive,<br>refer-case-<br>insensitive<br>empty or <reg-<br>expr> with pre-<br>defined<br>parameters:<br>\$ORIGINAL, \$LOC<br>AL_IP, \$LOCAL_P<br>ORT, \$REMOTE_I<br>P, \$REMOTE_POR<br>T, \$REMOTE_VIA_<br>HOST, \$TRUNK_G<br>ROUP, \$TRUNK_G<br>ROUP_CONTEXT<br>add, replace,<br>delete-header,<br>delete-element,<br>store, none, find-<br>replace-all<br>header-value,<br>header-param-<br>name, header-<br>param, uri-display,<br>uri-user, uri-user-<br>param, uri-host,<br>uri-port, uri-param-<br>name, uri-param,<br>uri-header-name,<br>uri-header, statust-<br>code, reason-<br>phrase, mime |                           |

| SOAP Attributes/<br>Subelements | ACLI<br>session-router-<br>>sip-<br>manipulation | Default Values | Valid Values                                                                                                                                                                                                                                                                                | SBC Version     |
|---------------------------------|--------------------------------------------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| HeaderRule<br>matchValue        | header-rule<br>match-value                       |                | empty or <regular-<br>expr><br>with \$MANIP_STRI<br>NG                                                                                                                                                                                                                                      | 6.1.0 and above |
| ElementRule<br>aclitype         | element-rule<br>type                             |                | header-value,<br>header-param-<br>name, header-<br>param, uri-display,<br>uri-user, uri-user-<br>param, uri-host,<br>uri-port, uri-param-<br>name, uri-param,<br>uri-header-name,<br>uri-header, status-<br>code, reason-<br>phrase, mime, uri-<br>user-only, uri-<br>phone-number-<br>only |                 |
| matchValue                      | match-value                                      |                | empty or <regular-<br>expr><br>with \$MANIP_STRI<br>NG                                                                                                                                                                                                                                      |                 |
|                                 |                                                  |                |                                                                                                                                                                                                                                                                                             |                 |

| SOAP Attributes/<br>Subelements | ACLI<br>session-router-<br>>sip-<br>manipulation | Default Values | Valid Values                                                                                                                                                                                                                                                                                                                                                 | SBC Version     |
|---------------------------------|--------------------------------------------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| HeaderRule                      | header-rule                                      | none           | unique and                                                                                                                                                                                                                                                                                                                                                   | 6.2.0 and above |
| acliObjectName * #              | name                                             | any            | ordered with mime-                                                                                                                                                                                                                                                                                                                                           |                 |
| action                          | action                                           | none           | rule, mime-isup-                                                                                                                                                                                                                                                                                                                                             |                 |
| msgType                         | msg-type                                         |                | rule                                                                                                                                                                                                                                                                                                                                                         |                 |
| matchValue                      | match-value                                      |                | add, delete,                                                                                                                                                                                                                                                                                                                                                 |                 |
| newValue                        | new-value                                        |                | manipulate, store,                                                                                                                                                                                                                                                                                                                                           |                 |
| ElementRule                     | element-rule                                     |                | none, sip-manip,                                                                                                                                                                                                                                                                                                                                             |                 |
| action                          | action                                           |                | find-replace-all,                                                                                                                                                                                                                                                                                                                                            |                 |
| matchValue                      | match-value                                      |                | reject, log                                                                                                                                                                                                                                                                                                                                                  |                 |
| newValue                        | new-value                                        |                | any, request, reply,                                                                                                                                                                                                                                                                                                                                         |                 |
|                                 |                                                  |                | out-of-dialog                                                                                                                                                                                                                                                                                                                                                |                 |
|                                 |                                                  |                | empty or <regular-<br>expr>                                                                                                                                                                                                                                                                                                                                  |                 |
|                                 |                                                  |                | with \$MANIP_STRI<br>NG, \$MANIP_PAT<br>TERN                                                                                                                                                                                                                                                                                                                 |                 |
|                                 |                                                  |                | empty or <regular-<br>expr> or <sip-<br>manipulation> or<br>ACME_NAT_TO_F<br>ROM_IP                                                                                                                                                                                                                                                                          |                 |
|                                 |                                                  |                | add, replace,<br>delete-header,<br>delete-element,<br>store, none, find-<br>replace-all, reject,<br>log, sip-manip                                                                                                                                                                                                                                           |                 |
|                                 |                                                  |                | empty or <regular-<br>expr>                                                                                                                                                                                                                                                                                                                                  |                 |
|                                 |                                                  |                | with \$MANIP_STRI<br>NG<br>(\$M_STRING), \$M<br>ANIP_PATTERN                                                                                                                                                                                                                                                                                                 |                 |
|                                 |                                                  |                | empty or <sip-<br>manipulation> or<br><reg-expr> with<br>reserved words<br>and<br>operators: \$ORIGI<br>NAL, \$LOCAL_IP/<br>PORT, \$REMOTE_<br>IP/<br>PORT, \$REMOTE_<br>VIA_HOST, \$STRU<br>NK_GROUP<br>(\$T_GROUP), \$TR<br>UNK_GROUP_CO<br>NTEXT<br>(\$T_CONTEXT), \$<br>REPLY_IP/<br>PORT, \$TARGET_I<br>P/PORT, \$TO/<br>FROM/CONTACT/<br>RURI/PAI/PPI/ |                 |

| SOAP Attributes/<br>Subelements | ACLI<br>session-router-<br>>sip-<br>manipulation | Default Values | Valid Values                                                                                                              | SBC Version     |
|---------------------------------|--------------------------------------------------|----------------|---------------------------------------------------------------------------------------------------------------------------|-----------------|
|                                 |                                                  |                | PCPID_USER/<br>PHONE/HOST/<br>PORT, \$TIMESTA<br>MP_UTC, \$CALL_I<br>D, &,  , ==, ~=, !=,<br><=, >=, <, >                 |                 |
| MimeRules                       | mime-rule                                        | none           | unique and                                                                                                                | 6.2.0 and above |
| acliObjectName * #              | name                                             | case-sensitive | ordered with                                                                                                              |                 |
| contentType                     | content-type                                     | any            | header-rule, mime-                                                                                                        |                 |
| action                          | action                                           | ascii-string   | isup-rule                                                                                                                 |                 |
| cmpType                         | comparison-type                                  | none           | 255 chars such as                                                                                                         |                 |
| msgType                         | msg-type                                         | case-sensitive | application/SDP,<br>@preamble,<br>@epilogue                                                                               |                 |
| format                          | format                                           |                | add, delete,<br>manipulate, store,<br>none, sip-manip,<br>find-replace-all,<br>reject, log                                |                 |
| methods                         | methods                                          |                | case-sensitive,<br>case-insensitive,<br>pattern-rule,<br>boolean, refer-<br>case-sensitive,<br>refer-case-<br>insensitive |                 |
| matchValue                      | match-value                                      |                | any, request, reply,<br>out-of-dialog                                                                                     |                 |
| newValue                        | new-value                                        |                | ascii-string, hex-<br>ascii, binary-ascii<br>empty or comma<br>seperated strings                                          |                 |
| MimeHeaderRule                  | mime-header-rule                                 |                | 255 chars                                                                                                                 |                 |
| acliObjectName *#               | name                                             |                | 255 chars such as<br>Content-<br>Disposition                                                                              |                 |
| mimeHeaderName<br>#             | mime-header-<br>name                             |                | add, replace, store,<br>none, sip-manip,<br>find-replace-all,<br>reject, log                                              |                 |
| action                          | action                                           |                | case-sensitive,<br>case-insensitive,<br>pattern-rule,<br>boolean, refer-<br>case-sensitive,<br>refer-case-<br>insensitive |                 |
| cmpType                         | comparison-type                                  |                |                                                                                                                           |                 |
| matchValue                      | match-value                                      |                |                                                                                                                           |                 |
| newValue                        | new-value                                        |                |                                                                                                                           |                 |

| SOAP Attributes/<br>Subelements    | ACLI<br>session-router-<br>>sip-<br>manipulation | Default Values    | Valid Values                                                                                                              | SBC Version     |
|------------------------------------|--------------------------------------------------|-------------------|---------------------------------------------------------------------------------------------------------------------------|-----------------|
| MimeISUPRules<br>aclObjectName * # | mime-isup-rule<br>name                           | ansi-2000<br>none | unique and<br>ordered with                                                                                                | 6.2.0 and above |
| contentType                        | content-type                                     | case-sensitive    | header-rule, mime-<br>isup-rule                                                                                           |                 |
| isupSpec                           | isup-spec                                        | any               | 255 chars such as                                                                                                         |                 |
| isupMsgTypes                       | isup-msg-types                                   | 0                 | application/ISUP                                                                                                          |                 |
| action                             | action                                           | hex-ascii         | ansi-2000, itu-99,<br>gr-317, etsi-356                                                                                    |                 |
| cmpType                            | comparison-type                                  | none              | empty or comma<br>seperated list of<br>1-255                                                                              |                 |
| msgType                            | msg-type                                         | case-sensitive    | add, delete,<br>manipulate, store,<br>none, sip-manip,<br>find-replace-all,<br>reject, log                                |                 |
| methods                            | methods                                          |                   | case-sensitive,<br>case-insensitive,<br>pattern-rule,<br>boolean, refer-<br>case-sensitive,<br>refer-case-<br>insensitive |                 |
| matchValue                         | match-value                                      |                   | any, request, reply,<br>out-of-dialog                                                                                     |                 |
| newValue                           | new-value                                        |                   | empty or comma<br>seperated strings                                                                                       |                 |
| MimeHeaderRule                     | mime-header-rule                                 |                   | 255 chars                                                                                                                 |                 |
| MimeISUPParamR<br>ule              | isup-param-rule<br>name                          |                   | 0-255                                                                                                                     |                 |
| aclObjectName *#                   | type                                             |                   | number-param,<br>hex-ascii, binary-<br>ascii, ascii-string,<br>bcd                                                        |                 |
| parameterType                      | format                                           |                   | add, replace, store,<br>none, sip-manip,<br>find-replace-all,<br>reject, log                                              |                 |
| parameterFormat                    | action                                           |                   | case-sensitive,<br>case-insensitive,<br>pattern-rule,<br>boolean, refer-<br>case-sensitive,<br>refer-case-<br>insensitive |                 |
| action                             | comparison-type                                  |                   |                                                                                                                           |                 |
| cmpType                            | match-value                                      |                   |                                                                                                                           |                 |
| matchValue                         | new-value                                        |                   |                                                                                                                           |                 |
| newValue                           |                                                  |                   |                                                                                                                           |                 |
| splitHdrList<br>joinHdrList        | split-headers<br>join-headers                    |                   | comma seperated<br>list of header<br>names such as<br>"Allowed,P-<br>Asserted-Identity",<br>"Diversion,Allow"             |                 |

## 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 *<br>#            | name<br>state                            | disabled<br>0  | 24 characters<br>enabled/disabled                                                                            | 4.0.1; 4.1.1 above |
| useConstraints                   | max-sessions                             | 0              | 0-999999999                                                                                                  |                    |
| maxNumSessions                   | max-inbound-sessions                     | 0              | 0-999999999                                                                                                  |                    |
| maxInbSessions                   | max-outbound-sessions                    | 0              | 0-999999999                                                                                                  |                    |
| maxOutbSessions                  | max-burst-rate                           | 0              | 0-999999999                                                                                                  |                    |
| maxBurstRate                     | max-inbound-burst-rate                   | 0              | 0-999999999                                                                                                  |                    |
| maxInbBurstRate                  | max-outbound-burst-rate                  | 0              | 0-999999999                                                                                                  |                    |
| maxOutbBurstRate                 | max-sustain-rate                         | 0              | 1-999999999                                                                                                  |                    |
| maxSustainedRate                 | max-inbound-sustain-rate                 | 0              | 0-100                                                                                                        |                    |
| maxInbSustainedRate              | max-outbound-sustain-rate                | 0              | 0-999999999                                                                                                  |                    |
| maxOutbSustainedRate             | min-seizures                             | 0              | 0-999999999                                                                                                  |                    |
| minSeizure                       | min-asr                                  | 0              | 0-999999999                                                                                                  |                    |
| minAnswerSeizureRatio            | time-to-resume                           |                |                                                                                                              |                    |
| timeRoResume                     | ttr-no-response                          |                |                                                                                                              |                    |
| noResponseTo                     | in-service-period                        |                |                                                                                                              |                    |
| inservicePeriod                  | burst-rate-window                        |                |                                                                                                              |                    |
| burstWindow                      | sustain-rate-window                      |                |                                                                                                              |                    |
| sustainedWindow                  |                                          |                |                                                                                                              |                    |
| SessionConstraintRateConstraints | method                                   |                | INVITE, ACK, BYE, REGISTER, CANCEL, PRACK, OPTIONS, INFO, SUBSCRIBE, NOTIFY, REFER, UPDATE, MESSAGE, PUBLISH | 5.1.1 and above    |
| method                           | max-inbound-burst-rate                   |                |                                                                                                              |                    |
| maxInBurstRate                   | max-outbound-burst-rate                  |                |                                                                                                              |                    |
| maxOutBurstRate                  | sustain-rate-max-outbound                |                |                                                                                                              |                    |
| maxInSustainedRate               | max-outbound-sustain-rate                |                |                                                                                                              |                    |
| maxOutSustainedRate              |                                          |                | 0-999999999                                                                                                  |                    |
|                                  |                                          |                | 0-999999999                                                                                                  |                    |
|                                  |                                          |                | 0-999999999                                                                                                  |                    |
|                                  |                                          |                | 0-999999999                                                                                                  |                    |



## Session Translation

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

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

## Translation Rules

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

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

## RPH Profile

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

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

## RPH Policy

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

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

## Host Routes

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

| SOAP Attributes/Sub-elements | ACLI system->host-route | Default Values | Valid Values               | SBC Version     |
|------------------------------|-------------------------|----------------|----------------------------|-----------------|
| netAddress *#                | dest-network            |                | Ipv4                       | 4.0.0 and above |
| netmask                      | netmask                 |                | Ipv4                       |                 |
| gateway                      | gateway                 |                |                            | 5.1.1 and above |
| description                  | description             |                |                            |                 |
| netAddress *#                | dest-network            |                | Ipv4, ipv6, ipv6/prefix    |                 |
| 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 *#                | local-error                                      | 0              | invalid-message,    | 4.0.0 and above |
| sipstatus                    | sip-status                                       |                | cpu-overload,       |                 |
| cause                        | q850-cause                                       |                | media-released,     |                 |
| sipreason                    | sip-reason                                       |                | media-not-allocated |                 |
| causereason                  | q850-reason                                      |                | 100-699             |                 |

| SOAP Attributes/Sub-elements | ACLI session-router->local-response-map->entries | Default Values | Valid Values                                                                                                                                                                                                                                                                                                                                                          | SBC Version            |
|------------------------------|--------------------------------------------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| 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 |

| SOAP Attributes/Sub-elements | ACLI session-router->local-response-map->entries | Default Values | Valid Values                                                                                                                                                                                                                                                                                                                                                                                                                                    | SBC Version     |
|------------------------------|--------------------------------------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| localerror *#<br>method      | local-error<br>method                            |                | invalid-message,<br>cpu-overload,<br>media-released,<br>media-not-allocated, enum-void-route,<br>monthly-minutes-exceed, next-hop-sa-oos, recv-sa-exc-constraints,<br>revc-sip-int-exc-constraints, next-hop-sa-exc-constraints, next-hop-sip-int-exc-constraints,<br>realm-bw-exc-poly-serv-reject,<br>no-steering-pool-ports-available,<br>allow-anonymous-rejection, sdp-address-mismatch,<br>request-method-throttled<br>empty,<br>REGISTER | 5.1.1 and above |
| registerResponse Expires     | register-response-expires                        |                | 0-999999999                                                                                                                                                                                                                                                                                                                                                                                                                                     |                 |

## Codec Policy

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

| SOAP Attributes/Sub-elements                                                                        | ACLI media manager->codec-policy     | Default Values | Valid Values                                                                                                                                                                       | SBC Version |
|-----------------------------------------------------------------------------------------------------|--------------------------------------|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| acliObjectName *#<br>CodecPolicyAllow<br>acliObjectName *#<br>CodecPolicyOrder<br>acliObjectName *# | name<br>allow-codecs<br>order-codecs |                | list of *, <media profile>, PCMU, G726-32, G723, PCMA, G722, G726, G729, telephone-event with appending exception :no or :force<br>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/<br>Sub-elements | ACLI<br>session-router-<br>>access-control | Default Values                         | Valid Values                                                                                                  | SBC Version               |
|----------------------------------|--------------------------------------------|----------------------------------------|---------------------------------------------------------------------------------------------------------------|---------------------------|
| inRealm *                        | realm-id                                   | 0.0.0.0                                | <realm>                                                                                                       | 4.0.0                     |
| inSrc *#                         | source-address                             | 0.0.0.0                                | ipv4/mask:port/<br>mask                                                                                       |                           |
| InDst *#                         | destination-<br>address                    | all                                    | ipv4/mask:port/<br>mask for<br>application-<br>protocol, NONE                                                 |                           |
| appProtocol *#                   | application-<br>protocol                   | permit                                 | NONE, SIP, MGCP                                                                                               |                           |
| transProtocol *#                 | transport-protocol                         | 0                                      | TCP, UDP, all                                                                                                 |                           |
| access                           | access                                     | none                                   | permit, deny                                                                                                  |                           |
| rateLimit                        | average-rate-limit                         | 0                                      | 0-4294967295                                                                                                  |                           |
| trustLevel                       | trust-level                                | 30                                     | none, low, medium,<br>high                                                                                    |                           |
| errMsgThreshold                  | invalid-signal-<br>threshold               | 0 or the same as<br>average-rate-limit | 0-4294967295                                                                                                  |                           |
| maxMsgThreshold                  | maximum-signal-<br>threshold               |                                        | 0-4294967295                                                                                                  |                           |
| denyTimer                        | deny-period                                |                                        | 0-4294967295                                                                                                  |                           |
| maxMsgThreshold<br>Untrusted     | untrusted-signal-<br>threshold             |                                        | 0-4294967295                                                                                                  |                           |
| reservedBandwidth                | minimum-reserved-<br>bandwidth             | 0                                      | 0-999999999                                                                                                   | 4.1.4; 5.1.1 and<br>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           |
| untrustedCacFailT<br>hreshold    | untrusted-cac-<br>failure-threshold        | 0                                      | 0-999999999                                                                                                   |                           |
| inSrc *#                         | source-address                             |                                        | ipAddress/<br>mask:port/mask,<br>ipAddress is either<br>ipv4 or ipv6, mask<br>is 32 for ipv4, 128<br>for ipv6 | CX6.2.0 and above         |
| inDst *#                         | destination-<br>address                    |                                        |                                                                                                               |                           |

## 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     |
|------------------------------|------------------------------------|----------------|-----------------------------------------|-----------------|
| aciObjectName<br>*#          | name                               | audio          | 24 characters                           | 4.0.0 and above |
| mediaType                    | media-type                         | 0              | audio, video,                           |                 |
| payloadType                  | payload-type                       | RTP/AVP        | data, application,                      |                 |
| transport                    | transport                          | 0              | control                                 |                 |
| reqBandwidth                 | req-bandwidth                      | 0              | RTP/AVP, UDP                            |                 |
| framesPerPacket              | frames-per-packet                  |                | 0-999999999                             |                 |
| parameters                   | parameters                         |                | 0-256                                   |                 |
|                              |                                    |                | space separated<br><name=value><br>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,                           | 4.1.1 and above |
| sdpRateLimit                 | sdp-rate-limit                     | 0              | data, application,                      |                 |
| sdpBandwidth                 | headroom                           | disabled       | control, imate,                         |                 |
|                              | sdp-bandwidth                      |                | text                                    |                 |
|                              |                                    |                | 0-100                                   |                 |
|                              |                                    |                | enabled or<br>disabled                  |                 |
| policeRate                   | police-rate                        | 0              | 0-999999999                             | 5.1.1 and above |
| 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 session-router->sip-response-map | Default Values | Valid Values | SBC Version     |
|------------------------------|---------------------------------------|----------------|--------------|-----------------|
| aciObjectName<br>*#          | name                                  |                | 100-699      | 4.0.0 and above |
| SIPResponseMapEntry          | entries                               |                | 100-699      |                 |
| statusRcvd *#                | recv-code                             |                |              |                 |
| statusSend #                 | xmit-code                             |                |              |                 |
| reason                       | reason                                |                |              |                 |
| method                       | method                                | 0              | empty,       | 5.1.1 and above |
| registerResponse             | register-                             |                | REGISTER     |                 |
| Expires                      | response-expires                      |                | 0-999999999  |                 |

## Diameter Director Agent

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

| SOAP Attributes/<br>Sub-elements | ACLI<br>session-router-<br>>diameter-<br>director-agent | Default Values | Valid Values                            | SBC Version                |
|----------------------------------|---------------------------------------------------------|----------------|-----------------------------------------|----------------------------|
| port                             | port                                                    | 3868           | Valid port number                       | DD1.0.0 and above          |
| constraintName                   | constraint-name                                         | 30             | 0-65535                                 |                            |
| appProtocol                      | protocol                                                | enabled        | enabled or<br>disabled                  |                            |
| watchDogTimer                    | watchdog-timer                                          | TCP            | TCP or SCTP                             |                            |
| state                            | state                                                   | outbound       | FQDN or IP                              |                            |
| transportProtocol                | transport-protocol                                      | 0              | address diameter-                       |                            |
| responseMap                      | response-map                                            | authentication | manipulation rule                       |                            |
| hostname                         | hostname                                                |                | Existing realm<br>name                  |                            |
| inManipulationId                 | in-manip-ip                                             |                | diameter-                               |                            |
| realmId                          | realm-id                                                |                | manipulation rule                       |                            |
| outManipulationId                | out-manip-id                                            |                | outbound, inbound,<br>inbound-dynamic-  |                            |
| connectionMode                   | connection-mode                                         |                | ip                                      |                            |
| description                      | description                                             |                | 256-character<br>string                 |                            |
| options                          | options                                                 |                | IP address                              |                            |
| ipAddress                        | ipAddress                                               |                | 32-bit hexadecimal<br>or 32-bit integer |                            |
| diamDirApplication               | diameter-director-<br>applications                      |                | 32-bit integer                          |                            |
| appId                            | application-id                                          |                | authentication or<br>accounting         |                            |
| vendorId                         | vendor-id                                               |                |                                         |                            |
| appType                          | application-type                                        |                |                                         |                            |
| tosValue                         | tos-value                                               |                |                                         | DD1.0.0M1 and<br>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 session-router->diameter-director-config | Default Values | Valid Values        | SBC Version       |
|------------------------------|-----------------------------------------------|----------------|---------------------|-------------------|
| 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             | enabled or disabled |                   |
| activeRedPort                | active-                                       | 9000           | 0-100               |                   |
| redNumTrans                  | redundancy-port                               | 50000          | Valid port number   |                   |
| llExpResultCode              | red-max-transactions                          | 3004           | 0-999999            |                   |
| statefulPolicy               | load-limit-exp-result-code                    |                | Valid result code   |                   |
| llResultCode                 | stateful-policy                               |                |                     |                   |
|                              | 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/<br>Sub-elements | ACLI<br>session-router-<br>>diameter-<br>director-<br>constraints | Default Values | Valid Values        | SBC Version       |
|----------------------------------|-------------------------------------------------------------------|----------------|---------------------|-------------------|
| 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                     | name                                                              | 3004           | 0-999999            |                   |
| name                             | max-sustained-rate                                                | 0              | 1000-6000           |                   |
| maxSustainedRate                 | time-to-resume                                                    | 0              | 0-999999            |                   |
| lastModifiedBy                   | name                                                              | 0              | 0-999999            |                   |
| resultCode                       | max-sustained-rate                                                | 0              | 0-999999            |                   |
| lastModifiedDate                 | last-modified-by                                                  |                | 0-999999            |                   |
| messageRateConstraints           | result-code                                                       |                |                     |                   |
| maxOutSustainedRate              | last-modified-date                                                |                |                     |                   |
| maxInSustainedRate               | message-rate-constraints                                          |                |                     |                   |
| maxInBurstRate                   | max-outbound-sustain-rate                                         |                |                     |                   |
| command                          | max-inbound-sustain-rate                                          |                |                     |                   |
| maxOutBurstRate                  | max-inbound-burst-rate                                            |                |                     |                   |
|                                  | command                                                           |                |                     |                   |
|                                  | 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 session-router->diameter-director-constraints | Default Values | Valid Values                  | SBC Version       |
|------------------------------|----------------------------------------------------|----------------|-------------------------------|-------------------|
| groupName                    | group-name                                         | enabled        | 256 character string          | DD1.0.0 and above |
| description                  | description                                        | hunt           |                               |                   |
| lastModifiedBy               | last-modified-by                                   | 100000         | enabled or disabled           |                   |
| state                        | state                                              | disabled       | hunt                          |                   |
| lastModifiedDate             | last-modified-date                                 | 32000          |                               |                   |
| strategy                     | strategy                                           | 0              | diameter-manipulation rule    |                   |
| inManipulationId             | in-manip-id                                        | authentication | diameter-manipulation rule    |                   |
| outManipulationId            | out-manip-id                                       |                |                               |                   |
| recursiveRouting             | recursive-routing                                  |                | 1-999999                      |                   |
| recursionTimeout             | recursion-timeout                                  |                | enabled or disabled           |                   |
| doRecursion                  | do-recursion                                       |                | 1-999999                      |                   |
| transactionTimeout           | transaction-timeout                                |                | valid diameter result code    |                   |
| resultCodes                  | result-codes                                       |                | 32-bit                        |                   |
| expResultCodes               | exp-result-codes                                   |                | hexadecimal or 32-bit integer |                   |
| diamDirApplication           | diameter-director-application                      |                | 32-bit integer                |                   |
| appId                        | application-id                                     |                | authentication or accounting  |                   |
| 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/<br>Sub-elements | ACLI<br>session-router-<br>>diameter-<br>director-<br>constraints | Default Values | Valid Values                                   | SBC Version                |
|----------------------------------|-------------------------------------------------------------------|----------------|------------------------------------------------|----------------------------|
| constraintName                   | constraint-name                                                   | enabled        | diameter director                              | DD1.0.0 and above          |
| outManipId                       | out-manip-id                                                      | none           | constraint                                     |                            |
| state                            | state                                                             | 3868           | diameter-<br>manipulation rule                 |                            |
| routingPolicy                    | routing-policy                                                    | TCP            | disabled                                       |                            |
| realmId                          | realm-id                                                          | all            | 256 character<br>string                        |                            |
| suppVendorIds                    | supported-vendor-<br>ids                                          | 0              | 256 character<br>string                        |                            |
| originHostId                     | origin-host-<br>identifier                                        | authentication | 256 character<br>string                        |                            |
| description                      | description                                                       |                | 256 character<br>string                        |                            |
| originHostFormat                 | origin-host-format                                                |                | none, identifier,<br>identifier-with-<br>realm |                            |
| lastModifiedBy                   | last-modified-by                                                  |                |                                                |                            |
| lastModifiedDate                 | last-modified-date                                                |                |                                                |                            |
| inManipId                        | in-manip-id                                                       |                | diameter-<br>manipulation rule                 |                            |
| sipPort                          | diameter-director-<br>ports                                       |                | number greater<br>than 1023                    |                            |
| port                             | port                                                              |                | TCP, SCTP                                      |                            |
| tlsProfile                       | tls-profile                                                       |                | IP address                                     |                            |
| transProtocol                    | transport-protocol                                                |                | all, agents-only                               |                            |
| address                          | address                                                           |                | IP address                                     |                            |
| anonMode                         | allow-anonymous                                                   |                | 32-bit hexadecimal<br>or integer               |                            |
| imsAkaProfile                    | ims-aka-profile                                                   |                | 32-bit integer                                 |                            |
| sctpMultiHomeAddrs               | multi-home-addr                                                   |                | authentication,<br>accounting                  |                            |
| diamDirApplication               | diameter-director-<br>application                                 |                |                                                |                            |
| appId                            | application-id                                                    |                |                                                |                            |
| vendorId                         | vendor-id                                                         |                |                                                |                            |
| appType                          | application-type                                                  |                |                                                |                            |
| tosValue                         | tos-value                                                         |                |                                                | DD1.0.0M1 and<br>DD2.0.0M1 |

## Diameter Manipulation

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

| SOAP Attributes/Sub-elements | ACLI session-router->diameter-director-constraints | Default Values | Valid Values                                                                              | SBC Version       |
|------------------------------|----------------------------------------------------|----------------|-------------------------------------------------------------------------------------------|-------------------|
| 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              | AVP header-rule                                                                           |                   |
| seqno                        | seqno                                              | none           | 256 character string                                                                      |                   |
| newValue                     | new-value                                          | none           | case-sensitive, case-insensitive, pattern-rule, boolean                                   |                   |
| avpCodeDescrName             | descr-avp-code name                                |                | none, add, delete, store, diameter-manip, group-manip, find-replace-all, replace          |                   |
| 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                                           |                | avp-flag or avp-vendor-id                                                                 |                   |
| msgCmdCode                   | msg-cmd-code                                       |                | none, add, delete, replace                                                                |                   |
| avpType                      | avp-type                                           |                |                                                                                           |                   |
| avpHeaderRule                | avp-header-rule                                    |                |                                                                                           |                   |
| headerType                   | header-type                                        |                |                                                                                           |                   |
| newValue                     | new-value                                          |                |                                                                                           |                   |
| name                         | name                                               |                |                                                                                           |                   |
| action                       | action                                             |                |                                                                                           |                   |
| matchValue                   | match-value                                        |                |                                                                                           |                   |

# C

## 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 NNC700WSIclassic.zip (contained on the Oracle software distribution CD) to a folder on the client computer. This folder provides the [WSCClassicClient\_HOME].
2. Move existing applications, created with the now deprecated provisioning APIs, to the {WSCClassicClient\_HOME}/sampleSouce folder.
3. Delete the directory that previously contained client applications.
4. Go to {WSCClassicClient\_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 Delivery Manager SOAP API 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.
  - a. Use FTP to move a copy of a Oracle Communications Session Delivery Manager SOAP API Server public certificate to the JAVA\_HOME location on the client computer.
  - b. The certificate is usually at opt/AcmePacket/NNC700/ssl/nncentral\_server.cer on the Net-Net Central Server.
  - c. 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.cer, 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,
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

```

- d. 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 Delivery Manager SOAP API Servers.
- e. Edit run.bat by changing the TRUST\_STORE\_PASSWORD to match the password required to access the JAVA keystore containing the Oracle Communications Session Delivery Manager SOAP API Server certificates.
- f. 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 {WSCClassicClient\_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.