Oracle Communications® ASAP™ Cartridge 1.0 for Alcatel 5020 SoftSwitch

Alcatel 5020 SoftSwitch

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Cartridge Overview

ASAP cartridges are discrete software components that are developed for the ASAP product. An ASAP cartridge offers specific domain behavior on top of the core ASAP software, and provides the configuration that supports a set of services on a network element (NE).

An ASAP cartridge is not a stand-alone component, but operates in conjunction with the ASAP core product. ASAP cartridges offer the following benefits:

- **Reduced Time to Market**—time to market of new services is reduced through simplified development, implementation, and extension of cartridges on customer sites.
- **Extendable**—cartridges can be extended to include additional services and components that deliver business value, without requiring changes to the original cartridge.
- **Simplified Effort**—the effort and technical knowledge that is required to perform customizations is reduced.
- **Ease of Installation**—cartridges can be installed into an ASAP environment without interfering with the existing install base.

An ASAP cartridge can be used to configure ASAP to provision the following:

- NEs from a specific vendor, such as Nortel or Lucent.
- Technologies, such as Asynchronous Transfer Mode (ATM) and Frame Relay switches, or Internet Protocol (IP) routers.
- Services that are supported on the NE, such as ATM, IP Virtual Private Networks (VPN), Wireless, or Optical.

Cartridges are designed for a specific technology, software load, and service.

An ASAP cartridge supports a particular set of services on an NE. These services are independent of customer-specific service definitions. Professional Services or systems integrators can perform extensions to the cartridge to support customer-specific requirements.

For more information on extending a cartridge, refer to the *ASAP Cartridge Development Guide for Service Activation*.

Cartridge content

An ASAP cartridge contains the following:

- An interface to the NE
- A set of scripts, such as State Tables or Java methods
- A set of atomic actions in the form of Atomic Service Description Layer (ASDL) commands
- A set of Common Service Description Layer (CSDL) commands that form meaningful services
- Sample work orders
- Installation scripts

Prerequisites

System integrators such as managers, designers, programmers, and testers who are responsible for the adaptation and integration of ASAP-based solutions should use this manual as a reference. It assumes that readers possess the following skills:

- A knowledge of ASAP programming concepts
- A good working knowledge of the UNIX operating system
- A thorough understanding of service and network provisioning
- Familiarity with telecommunications

About this guide

This guide provides a detailed description of the Alcatel A5020 Softswitch cartridge. It contains overview and technical information to assist with extending and integrating the cartridge into a customer environment.

The scope of this guide includes ASAP as it pertains to this cartridge. It is not a complete ASAP reference guide.

For additional ASAP information when using this cartridge, refer to the following supporting documentation:

- **ASAP documentation set**—for detailed information on the ASAP core product.
- **ASAP Cartridge Development Guide for Service Activation**—for information on how to extend a cartridge.

The Alcatel A5020 Softswitch cartridge provides the ASAP service configuration and network element (NE) interface to activate Call Control Engine and Network Routing Engine (CCE and NRE) services on Alcatel A5020 Softswitch NEs.

Services, features, and options

This cartridge supports the following services to support Call Control and Network Routing actions.

Some of these services may be able to combine actions.

Call Control Engine Services

- Add Call Control Engine -- Add a reference of the SoftSwitch Call Control Engine to the A5020. Note that the notion of CCE is currently a component module of the A5020, but is not restricted to this scenario. The CCE may be a separate distributed network entity.
- Add Network Routing Engine – Add a reference of the Network Routing Engine to the A5020. Note that the notion of NRE is currently a component module of the A5020, but is not restricted to this scenario. The NRE may be a separate distributed network entity.
- Add, modify, delete, and query Point of Presence (POP)
- Add, modify, delete, and query Remote Access Node – Add a Remote Access Node, which represents a Border Element. This may be any of CCE, NRE, PSTN, IP Gateways, AS
- Query All Remote Access Node in a given POP

Network Routing Engine Services

- Add, modify, delete, and query AAA Groups
- Add, modify, delete, and query AAA Selection Criteria Rules
- Add, modify, delete, and query VPNs
- Add, modify, delete, and query VoIP Route Configurations
- Add, modify, delete, and query VoIP Route Blocks – can group up to 10 priority routes, or 5 weighted routes. The routes must be of the same type only
- Add, modify, delete, and query VoIP Route Block Prefix Ranges – used for additional criteria for selecting the best route block. This table is used when E.164 numbers are used to identify the destination
- Add, modify, delete, and query VoIP Route Block Suffixes – used for additional criteria for selecting the best route block. This table is used when SIP URLs are used to identify the destination. The suffix identifies part of the domain that follows the "@".
- Add, modify, delete, and query VoIP Routes – added as a possible path to a particular gateway. Routes are accessed when the route blocks are determined and the routes are selected (based on priority/weight). The contents of this table are used to fill the contact header field (in the SIP API message)

Hardware and software requirements

The following sections contain the high-level software and hardware environment requirements for provisioning Call Control Engine and Network Routing Engine services using this cartridge, including:

- Network element (NE) interface
- ASAP version

Network element (NE) interface

This cartridge operates with the following:

- NE—Alcatel A5020 Softswitch
- NE Software Load—3.0.1

ASAP version

This cartridge was developed and tested using ASAP 4.6.4

For more information on the operating environment of this version of ASAP, refer to the *ASAP 4.6.4 Release Record*.

Connecting to the NE

This cartridge connects to the Alcatel A5020 Softswitch R3.0.1 using CORBA, as specified by Alcatel.

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Installing and Testing the Cartridge

This chapter describes the following procedures related to installing and testing the cartridge:

- Downloading the cartridge
- Installing the cartridge
- Uninstalling the cartridge
- Testing the cartridge installation

Downloading the cartridge

Before you can install the cartridge, you must use the internet to download the cartridge's TAR file from Oracle's Customer Portal.

Use the following instructions to download, then unTAR the TAR file.

To download the TAR file

1. Login to Oracle MetaLink internet home page (http://www.metalink.oracle.com).
2. Download the cartridge patch to your workstation.

To unTAR the TAR file

1. On you workstation, create a repository directory—the naming of which is your choice.

   ```
   mkdir <repository dir>
   ```

2. Untar A5020_VOIP_3_01.tar.

   ```
   tar xvf A5020_VOIP_3_01.tar
   ```

3. Copy the resulting /Alcatel_VOIP_3-01 directory and its contents to the repository directory.

   ```
   cp -rf /Alcatel_VOIP_3-01 <repository_dir>
   ```

The directory structure in the repository directory should look like the following illustration. (this illustration describes the minimum required structure; you can enhance this directory structure with additional directories based on your requirements and deliverables).

```
<repository_directory>
   Alcatel_VOIP_3-01
      /README
      /installCartridge
```

```
/uninstallCartridge
/A5020_VOIP_3_01.sar
```

Starting ASAP

Before downloading the cartridge, ensure that ASAP is running.

To start ASAP

1. To start ASAP, execute the following script:

   ```
   start_asap_sys
   ```

2. Ensure the ASAP Daemon (DAM_$ENV_ID) is running by checking the ASAP status using the ASAP script “status”.

3. Check whether the WebLogic instance for this ASAP environment is running. If not, start the WebLogic instance.

The *ASAP System Configuration and Management Guide* contains more information on starting ASAP, the ASAP Daemon, and WebLogic.

Installing the cartridge

Run the installation script installCartridge to install the cartridge. You will find this script under /Alcatel_VOIP_3-01. The script executes the following tasks:

- Configures the Alcatel A5020 Softswitch-specific NE using the SACT.
- Deploys the Alcatel A5020 Softswitch cartridge service model (only if the Alcatel A5020 Softswitch service model is not yet deployed) using the Service Activation Deployment Tool (SADT).
- Copies the Alcatel A5020 Softswitch-specific jar files and the cpp library file to the ASAP environment.
- Loads the sample work orders to the SRP database.

For information on the SACT and the SADT, refer to the *ASAP System Configuration and Management Guide*.

To install the cartridge

1. Run the installCartridge script from /Alcatel_VOIP_3-01. At the prompt, type:

   ```
   installCartridge A5020_VOIP_3_01
   ```

2. The script prompts you for the values of the following WebLogic login parameters:

   - WebLogic Hostname
   - WebLogic http Port
   - WebLogic Login User ID
   - WebLogic Login Password

   The script loads the NEP-NE configuration and the CSDL-ASDL configuration to the SARM database, and loads sample work orders to the SRP database. The script also copies the cartridge-specific jar files and cpp library file to the ASAP environment.

3. Restart ASAP to upload the cartridge configuration into ASAP.

Uninstalling the cartridge

Run the uninstallation script uninstallCartridge to uninstall the Alcatel A5020 Softswitch cartridge. This script is located under Alcatel_VOIP_3-01. The script executes the following tasks:

- Unconfigures Alcatel A5020 Softswitch-specific NEs using the SACT.
- Undeploys the Alcatel A5020 Softswitch cartridge service model (only if the Alcatel A5020 Softswitch service model is already deployed) using the Service Activation Deployment Tool (SADT).
- Removes the Alcatel A5020 Softswitch-specific jar files and cpp library file from the ASAP environment.

For more information on the SACT and the SADT, refer to the *ASAP System Configuration and Management Guide*.

To uninstall the cartridge

1. Run the uninstallCartridge script from /Alcatel_VOIP_3-01. At the prompt, type

   ```
   uninstallCartridge A5020_VOIP_3_01.sar
   ```

2. The script prompts you for the values of the following parameters:
   - WebLogic Hostname
   - WebLogic HTTP Port
   - WebLogic Login User ID
   - WebLogic Login Password

The script unloads the NEP-NE configuration and CSDL-ASDL configuration from SARM database. It also removes the cartridge specific jar files and cpp library file from the ASAP environment.

Testing the cartridge installation

To test this cartridge installation, you need to know about the network element (NE), services, and basic ASAP configuration. You may need to perform adjustments to provision a service for a specific NE, network, or connectivity configuration.

You can test the cartridge installation using one of the following methods:

- **Loopback mode**—does not actually connect to or send commands to the NE.
- **Live mode**—connects to and sends commands to a live NE.

Configuring loopback and live mode parameters

The following sections tell you which variables you must configure in to use the loopback and live testing modes.

Loopback mode

The following table details the parameters that you must set to test the cartridge in loopback mode.

Table 1: LOOPBACK_ON Parameter Settings for Loopback Testing

Configuration Variable	Parameter Settings	Location
LOOPBACK_ON	1 (default setting)	Global or NEP

The following is a list of parameters for the sample NE configuration XML that are used by the SACT for loopback testing.

Table 2: Loopback Testing Parameters for the Sample NE Configuration XML

Parameters	Default Value	Description
NE_ID_NRE	A5020-VOIP-HOST	Logical NE Name
PORT	7003	Port number to connect on remote NE host
IOR	A5020.ior	Server's CORBA IOR file name
USER_ERROR_TYPES_FILE	/config/A5020-VOIP_3-01_UserExitTypes.cfg	The user exit types file. This file is relative to ASAP_BASE directory.
RESPONSE_LOG	YES	Flag to turn On or Off Response logging

Live mode

The following table details the parameters that you must set in ASAP.cfg to test the cartridge in live mode.

Table 3: LOOPBACK_ON Parameter Settings for Live Testing

Configuration Variable	Parameter Settings	Location
LOOPBACK_ON	0	Global or NEP

Communication Parameters (tbl_comm_param)

This static database table contains the communication parameters required to communicate with various external systems. The table consists of the following fields:

- **dev_type** – the protocol used to connect to the device.
- **host** – the host NE to which the configured parameter value applies.
- **device** – the device for which this parameter value applies.
- **param_label** – the label of the communication parameter.
- **param_value** – the value of the communication parameter.
- **param_desc** – a description of the communication parameter

The following table lists the contents of tbl_comm_param:

Table 4: tbl_comm_param

TYPE	HOST	DEVICE	PARAM_ LABEL	PARAM_ VALUE	PARAM_DESC
C	A5020-HOST	COMMON_ DEVICE_ CFG	HOST_IPADDR	10.9.3.16	The host name or IP Address of the remote NE.
C	A5020-HOST	COMMON_ DEVICE_ CFG	PORT	8080	Port number to connect on remote NE host.
C	A5020-HOST	COMMON_ DEVICE_ CFG	A5020_IOR	Services/IOR.txt	The remote NE service IOR.
C	A5020-HOST	COMMON_ DEVICE_ CFG	READ_ TIMEOUT	5000	The read timeout in milliseconds.
C	A5020-HOST	COMMON_ DEVICE_ CFG	USER_ERROR_ TYPES_FILE	/config/A5020-VOIP_3_01_UserExitTypes.cfg	The User Exit types file. This file is relative to ASAP_BASE directory.
C	A5020-HOST	COMMON_ DEVICE_ CFG	RESPONSE_ LOG	YES	Flag to enable of disable response logging.
C	A5020-HOST	COMMON_ DEVICE_ CFG	HOST_USER	SYSTEM	User name.

Table 4: tbl_comm_param

TYPE	HOST	DEVICE	PARAM_ LABEL	PARAM_ VALUE	PARAM_DESC
C	A5020-HOST	COMMON_ DEVICE_ CFG	HOST_ PASSWORD	User Password	Password.
C	A5020-HOST	COMMON_ DEVICE_ CFG	FTP_USER	User	FTP user name.
C	A5020-HOST	COMMON_ DEVICE_ CFG	FTP_ PASSWORD	Password	FTP password.
C	A5020-HOST	COMMON_ DEVICE_ CFG	FTP_ACTION	Enable	Enable or disable FTP of IOR file from server prior to each connection.
C	A5020-HOST	COMMON_ DEVICE_ CFG	SERVER_IOR_ FILE	/server/IOR.txt	Relative path on the server where the IOR file resides for FTP.
C	A5020-HOST	COMMON_ DEVICE_ CFG	SESSION_ ACTION	Enable	Allow the Alcatel server to use transactional capability.

Modifying Alcatel_voip_3-01_ne_config.xml

Use the following procedure to modify Alcatel_voip_3-01_ne_config.xml.

To modify Alcatel_voip_3-01_ne_config.xml

1. Create a new source directory under /Alcatel_VOIP_3-01. You can give this directory any appropriate, meaningful name you want to.

   ```
   mkdir <new_source_directory>
   ```

2. Copy A5020_VOIP_3_01.sar to this new source directory.

   ```
   cp A5020_VOIP_3_01.sar ./<new_source_directory>
   ```

3. Change directory to <new_source_directory>.

   ```
   cd <new_source_directory>
   ```

4. Un-jar A5020_VOIP_3_01.sar This extracts the contents of the sar file.

   ```
   jar xvf A5020_VOIP_3_01.sar
   ```

5. Edit Alcatel_voip_3-01_ne_config.xml in with the appropriate changes.
6. Create a new sar file at the <new_source_directory> level.

```
CreateSar $PWD
```

7. Uninstall the cartridge using A5020_VOIP_3_01.sar in /Alcatel_VOIP_3-01 (That is, use the original sar file that you copied in Step 2 above—see "Uninstalling the cartridge" on page 7 for uninstallation instructions).
8. After you uninstall the cartridge, rename the sar file in /Alcatel_VOIP_3-01 so you have a backup copy of it.
9. Copy the new sar file from <new_source_directory> to /Alcatel_VOIP_3-01.
10. Reinstall the cartridge (see "Installing the cartridge" on page 7 for installation instructions).

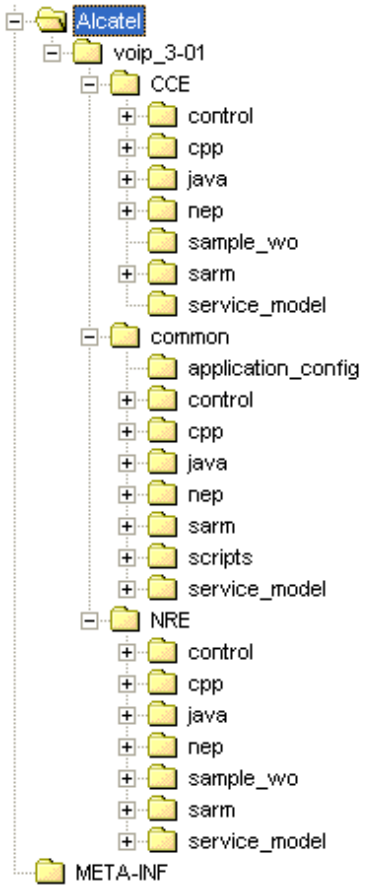

Figure 1: Structure of the Un-Jared .sar File

Testing the installation

The following procedure describes the steps required to test the cartridge installation in loopback mode. We recommend that you perform the initial cartridge installation test in loopback mode.

To test in loopback mode

1. Stop ASAP by typing the following command at the UNIX prompt:

   ```
   stop_asap_sys
   ```

2. Ensure loop back mode is on. See "Loopback mode" on page 8 for a description of how to set the loop back parameter to "On".

3. Start ASAP by typing:

   ```
   start_asap_sys
   ```

4. Send the sample work orders through the SRP Emulator by typing:

   ```
   run_suite $SRP <ctrl_password> <suite name>
   ```

   You can locate the suite names in /Alcatel_VOIP_3-01/sample_wo by typing:

   ```
   grep   SUITE * | grep -v END
   ```

   A list of all available suites appears.

   To see the sample work orders, refer to Viewing the sample work orders, below.

   For more information on the SRP Emulator, refer to the *ASAP System Configuration and Management Guide*.

5. Verify the status of the sample work orders by typing:

   ```
   asap_utils l
   ```

   All successful work orders return the 104 state.

   To view the sample work orders provided with this cartridge, refer to the Alcatel A5020 Softswitch cartridge source.

Viewing the sample work orders

You find the sample work orders under the sample_wo directory in the sar file. The following procedure describes how to view the sample work orders.

To view the sample work orders

1. If necessary, create a repository directory under /Alcatel_VOIP_3-01, copy the sar file to the new directory and un-jar the sar file, as described by Step 1 through Step 4 in "Modifying Alcatel_voip_3-01_ne_config.xml" on page 11.

2. Locate and view the sample work order files under /Alcatel_VOIP_3-01/CCE *or* NRE.

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Atomic Service Description Layer (ASDL) Commands

ASDL commands represent a set of atomic actions that ASAP can perform on a network element (NE). ASAP can combine ASDLs to create meaningful services (CSDLs) within a cartridge.

This chapter presents detailed information on the ASDL parameters that we provide with this cartridge. The following table lists and describes the type of parameter information that is included.

Table 5: ASDL parameter information

Item	Description
Parameter Name	Identifies the parameter that is configured for the stated service.
Description	Describes the parameter.
Range	Describes or lists the range of values that can be used to satisfy this parameter.
Default Value	Configures a default value for the parameter so that it is not mandatory for the upstream system to provide a value.

Table 5: ASDL parameter information

Item	Description
Type	Indicates one of the following parameter types: ◆ S—Scalar, specifies the parameter label transmitted on the ASDL command. Scalar parameters are conventional name-value pair parameters. ◆ C—Compound, specifies the base name of the compound parameter transmitted on the ASDL command. A compound parameter contains structures or arrays of information that are represented by a particular structure name or compound parameter name. Each compound parameter can contain a large number of elements. If you use compound parameters, you only require a single entry in the ASAP translation tables to call the compound parameter and all its associated parameter elements. ◆ I—Indexed, identifies a parameter that contains a sequential numerical index value to tell the SARM that it should execute the same operation (for example, an ASDL command) for all occurrences of that index. Consequently, if there are several options on a particular CSDL command (OPT1, OPT2, OPT3, etc.), you can specify the OPT parameter as an indexed parameter. When you specify the OPT parameter as an indexed parameter, the SARM generates several occurrences of that same ASDL command and each command has a different value for the option being transmitted to the NEP. For more information on parameter types, refer to the *ASAP Developer's Reference*.
Class	Indicates one of the following parameter classifications: ◆ R—Required scalar parameter ◆ O—Optional scalar parameter ◆ C—Required compound parameter ◆ N—Optional compound parameter ◆ M—Mandatory indexed parameter ◆ I—Optional indexed parameter ◆ S—Parameter count

For a detailed description of the Required and Optional parameter classifications, refer to the *ASAP System Configuration and Management Guide.*

Call Control Engine (CCE) Services

This cartridge provides the following ASDL commands:

- A_A5020-VOIP_3-01_ADD_CCE
- A_A5020-VOIP_3-01_ADD_NRE
- A_A5020-VOIP_3-01_ADD_POP
- A_A5020-VOIP_3-01_ADD_RAN
- A_A5020-VOIP_3-01_DEL_POP
- A_A5020-VOIP_3-01_DEL_RAN
- A_A5020-VOIP_3-01_MOD_POP
- A_A5020-VOIP_3-01_MOD_POP-RB
- A_A5020-VOIP_3-01_MOD_RAN
- A_A5020-VOIP_3-01_MOD_RAN-RB
- A_A5020-VOIP_3-01_QRY_ALL-RANS
- A_A5020-VOIP_3-01_QRY_POP
- A_A5020-VOIP_3-01_QRY_RAN

A_A5020-VOIP_3-01_ADD_CCE

Adds a Call Control Engine (CCE) to the system. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.CCEProvisioning.addCCE.**

Table 6: A_A5020-VOIP_3-01_ADD_CCE

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or the CCE instance.			S	R
CCE_ID	The CCE instance identifier.			S	R

MML commands/API calls

Not implemented in this phase.

Output parameters

If the work order is not successful, the method returns:

- ALCATEL_ADD_CCE_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_ADD_CCE_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM.

A_A5020-VOIP_3-01_ADD_NRE

Adds a Network Routing Engine (NRE) to the system. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.CCEProvisioning.addNRE.**

Table 7: A_A5020-VOIP_3-01_ADD_NRE

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier.			S	R
NRE_ID	The NRE instance identifier.			S	R

MML commands/API calls

Not implemented for this phase.

Output parameters

If the work order is not successful, the method returns:

- ALCATEL_ADD_NRE_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_ADD_NRE_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM.

A_A5020-VOIP_3-01_ADD_POP

Adds a Point of Presence (POP). It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.CCEProvisioning.addPop.**

Table 8: A_A5020-VOIP_3-01_ADD_POP

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or the CCE instance.			S	R
POP_NAME	The POP name. Valid characters are alphanumeric capitals.			S	R
POP_TYPE	The POP type.	PopTypePOP, PopTypeGLOBALPOP, PopTypeVIRUTALPOP, or PopTypeVIRTUAL GLOBALPOP	PopTypeVIRTUALPOP	S	R
VPN_ID	The VPN instance identifier. Either VPN_ID or VPN_NAME must be used to identify the VPN.			S	O
VPN_NAME	The VPN name identifier. Either VPN_ID or VPN_NAME must be used to identify the VPN.			S	O

MML commands/API calls

```
Pop globalPop = telcoVpn.GetGlobalPop();
Pop pop = globalPop.NewPop();
pop.Set(setPopFlag, popName);
```

Output parameters

If the work order is not successful, the method returns:

- ALCATEL_CCE_ADD_POP_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_CCE_ADD_POP_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM.

For a successful ASDL, POP_ID and POP_PARENT_ID are populated as CSDL parameters to the SARM table TBL_SRQ_PARM.

A_A5020-VOIP_3-01_ADD_RAN

Adds a Remote Area Node. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.CCEProvisioning.addRan.**

Table 9: A_A5020-VOIP_3-01_ADD_RAN

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or the CCE instance.			S	R
VPN_NAME	The VPN name identifier. Either VPN ID or VPN Name may be used as a key. VPN will default to MANAGER if not specified.			S	O
VPN_ID	The VPN instance identifier. Either VPN ID or VPN Name may be used as a key. VPN will default to MANAGER if not specified.			S	O
POP_ID	The POP primary identifier. Either POP_ID or POP_NAME must be used as a key.			S	O

Table 9: A_A5020-VOIP_3-01_ADD_RAN

Parameter Name	Description	Range	Default Value	Type	Class
POP_NAME	The POP name. Either POP_ID or POP_NAME must be used as a key.			S	O
RAN_NAME	The Remote Area Node name.			S	R
RAN_TYPE	The RAN type.	RanTypeMAX4000, RanTypeMAXINT, RanTypeSHIVA, RanTypePM, RanTypeCISCO, RanTypeDANA2100, RanTypeTUNNELSERVER, RanTypeREDBACK, RanTypeAssured, RanTypeMAX6000, RanTypeSHASTA5000, RanType3COM, RanTypeUNISPHERE, and RanTypeVIRTUALRAN	RanTypeVIRTUALRAN	S	O
RAN_ENABLE	Enables or disables the GW.		Enable	S	O
RAN_PORTS	The number of ports the GW has.		5	S	O
RAN_REGIONID	Selects the region using the Region Iterator.			S	O
RAN_FLAG_TRUSTED	The RAN trusted flag.			S	O
RAN_FLAG_DOWNLOAD_IP_POOLS	The RAN download IP pools flag			S	O

Table 9: A_A5020-VOIP_3-01_ADD_RAN

Parameter Name	Description	Range	Default Value	Type	Class
RAN_FLAG_DOWNLOAD_IP_ROUTES	The RAN download IP routes flag.			S	O
RAN_FLAG_DOWNLOAD_IPX_ROUTES	The RAN download IPX routes flag.			S	O
RAN_FLAG_DOWNLOAD_PERM_CONNECTIONS	The RAN download permanent connection flag.			S	O
RAN_FLAG_DOWNLOAD_FRAMED_PROFILES	The RAN download framed profile flag.			S	O
RAN_FLAG_HEARTBEAT_SUPPORT	The RAN heartbeat support flag.			S	O
RAN_COMMAND_PORT	This port is used if there is a disconnect in some of the GWs.			S	O
RAN_PROTOCOL_TYPE	Indicates the RADIUS protocol used.			S	O
RAN_ITF_IP_ADDRESS	The IP address used if the GW has more than one physical interface with the NE. For more information, see Table 10 on page 25.			C	O
RAN_ITF_IP_NETMASK	Sets the netmask.			S	O
RAN_ITF_SECRET	Sets the shared secret that is used to encrypt all communication between the GW and the proxy.			S	O

Table 9: A_A5020-VOIP_3-01_ADD_RAN

Parameter Name	Description	Range	Default Value	Type	Class
RAN_ITF_FLAGS	Enables the IPNG protocol.		RanITFFlagIPING	S	O
RAN_VOICE_PROTOCOL	Selects between the H323 and SIP protocols.			S	O
RAN_VOICE_PREGRANTED_ARQ_MAKECALL	Sets these options when protocol is H323.	CallOff (no pre-granted ARQ), CallH323GKRouted Mode (only if H.323 GK in routed mode), CallH323GKDirect Mode (only if H.323 GK in direct mode), CallAlways (pre-granted ARQ regardless of GK mode)		S	O
RAN_VOICE_PREGRANTED_ARQ_ANSWERCALL	Sets these options when protocol is H323.	CallOff (no pre-granted ARQ), CallH323GKRouted Mode (only if H.323 GK in routed mode), CallH323GKDirect Mode (only if H.323 GK in direct mode), CallAlways (pre-granted ARQ regardless of GK mode)		S	O
RAN_VOICE_GATEWAY_REGISTERS	Enables the register, if necessary.			S	O

Table 9: A_A5020-VOIP_3-01_ADD_RAN

Parameter Name	Description	Range	Default Value	Type	Class
RAN_VOICE_REGISTRATION_PORT	A specific signaling port number used by the gateway for registration. If given, the gateway can only use the IP address defined in the identifier or Interface address fields with this signalling port. If empty, registrations from any port are accepted.			S	O
RAN_VOICE_TRUSTED	Indicates that voice trusted is used.	Enable, Disable, True, False, 1, 0		S	O
RAN_VOICE_SUPPORT_ISUP_MIME	Indicates that voice support ISUP time is used.	Enable, Disable, True, False, 1, 0		S	O
RAN_LRQ_ENDPOINT_TYPE	If you are using a:Real gateway, the value needs to be NotLRQEndPoint; H323 gatekeeper with no token, use the LRQEndPointNoToken ; H323 gatekeeper with token, use the LRQEndPointToken.			S	O
RAN_LRQ_ENDPPOINT_PORT	The RAS port used in case of an LRQ endpoint.			S	O

MML commands/API calls

```
Ran ran = pop.NewRan();
ran.Set (true, ranName, true, popIdValue, true, ranTypeOption, true,
protocolTypeValue, true, ranFlagType, true, ranEnableOption, true,
ranPortValue, true, ranCommandPortValue, true, regionIdValue);
```

```
ran.SetITF ( true, ranITFIPAddress, true, ranITFIPNetMask, true,
ranItfSecret, true, ranITFFlags );
ran.SetVoice( true, ranVoiceProtocol, true, ranVoiceMakeCall, true,
ranVoiceAnswerCall, true, ranVoiceGatewayRegister, true, ranVoiceRegPort,
true, ranLrqEndpointType, true, ranLrqEndpointPort, true,
ranVoiceTrustedOption, true, ranVoiceSupportIsupTimeOption);
```

Output parameters

If the work order is not successful, the method returns:

- ALCATEL_CCE_ADD_RAN_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_CCE_ADD_RAN_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM.

For a successful ASDL, RAN_ID is added as a CSDL parameter to the SARM table TBL_SRQ_PARM

Compound parameter "IPADDRESS"

The compound parameter IPADDRESS will contain an indefinite number of IP Address and Port values.

Table 10: Compound Parameter "IPADDRESS"

PARAMETER LABEL	PARAMETER TYPE	ELEMENT ATTRIBUTE TYPE	DESCRIPTION
IP_ADDRESS.(n)	O	STRING	IP address of format nnn.nnn.nnn.nnn

A_A5020-VOIP_3-01_DEL_POP

Deletes the POP. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.CCEProvisioning.delPop.**

Table 11: A_A5020-VOIP_3-01_DEL_POP

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or the CCE instance.			S	R

Table 11: A_A5020-VOIP_3-01_DEL_POP

Parameter Name	Description	Range	Default Value	Type	Class
POP_ID	The POP primary identifier. Either POP_ID or POP_NAME must be used as a key.			S	O
POP_NAME	The POP name. Either POP_ID or POP_NAME must be used as a key.			S	O
VPN_ID	The VPN instance identifier.			S	O
VPN_NAME	The VPN name identifier.			S	O

MML commands/API calls

```
Pop globalPop = telcoVpn.GetGlobalPop();
Pop pop = globalPop.OpenPop(popID);
Pop.Delete();
```

Output parameters

If the work order is not successful, the method returns:

- ALCATEL_CCE_DELETE_POP_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_CCE_DELETE_POP_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM

A_A5020-VOIP_3-01_DEL_RAN

Deletes the Remote Area Node. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.CCEProvisioning.delRan.**

Table 12: A_A5020-VOIP_3-01_DEL_RAN

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or the CCE instance.			S	R
VPN_NAME	The VPN name identifier. Either VPN_ID or VPN_NAME may be used as a key. VPN will default to MANAGER if not specified.			S	O
VPN_ID	The VPN instance identifier. Either VPN_ID or VPN_NAME may be used as a key. VPN will default to MANAGER if not specified.			S	O
RAN_ID	The Remote Area Node primary identifier. Either RAN_ID or RAN_NAME must be used as a key.			S	O
RAN_NAME	The Remote Area Node name. Either RAN_ID or RAN_NAME must be used as a key.			S	O

MML commands/API calls

```
Ran ran = telcoVpn.OpenRan(ranIdValue);
```

```
ran.Delete();
```

Output parameters

If the work order is not successful, the method returns:

- ALCATEL_CCE_DELETE_RAN_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_CCE_DELETE_RAN_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM

A_A5020-VOIP_3-01_MOD_POP

Modifies the POP. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.CCEProvisioning.modPop.**

Table 13: A_A5020-VOIP_3-01_MOD_POP

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or the CCE instance.			S	R
POP_ID	The POP primary identifier. Either POP_ID or POP_NAME must be used as a key.			S	O
POP_NAME	The POP name. Either POP_ID or POP_NAME must be used as a key.			S	O
NEW_POP_NAME	The new POP name.			S	O
POP_TYPE	The POP type.	PopTypePOP, PopTypeGLOBALPOP, PopTypeVIRUTALPOP, or PopTypeVIRTUALGLOBALPOP		S	O

Table 13: A_A5020-VOIP_3-01_MOD_POP

Parameter Name	Description	Range	Default Value	Type	Class
VPN_ID	The VPN instance identifier. Either VPN_ID or VPN_NAME must be used to identify the VPN.			S	O
VPN_NAME	The VPN name identifier. Either VPN_ID or VPN_NAME must be used to identify the VPN.			S	O

MML commands/API calls

Not implemented in this phase.

Output parameters

If the work order is not successful, the method returns:

- ALCATEL_CCE_MODIFY_POP_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_CCE_MODIFY_POP_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM

A_A5020-VOIP_3-01_MOD_POP-RB

Rolls back a modified POP. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.CCEProvisioning.modPopRB.**

Table 14: A_A5020-VOIP_3-01_MOD_POP-RB

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or the CCE instance.			S	R

Table 14: A_A5020-VOIP_3-01_MOD_POP-RB

Parameter Name	Description	Range	Default Value	Type	Class
POP_ID	The POP primary identifier. Either POP_ID or POP_NAME must be used as a key.			S	O
POP_NAME	The POP name. Either POP_ID or POP_NAME must be used as a key.			S	O
OLD_POP_NAME	The old POP name.			S	O
OLD_POP_TYPE	The old POP type.			S	O
VPN_ID	The VPN instance identifier.			S	O
VPN_NAME	The VPN name identifier.			S	O

MML commands/API calls

Not implemented in this phase.

Output parameters

If the work order is not successful, the method returns:

- ALCATEL_CCE_MODIFY_POP_RB_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_CCE_MODIFY_POP_RB_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM

A_A5020-VOIP_3-01_MOD_RAN

Modifies the Remote Area Node. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.CCEProvisioning.modRan.**

Table 15: A_A5020-VOIP_3-01_MOD_RAN

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or the CCE instance.			S	R
VPN_NAME	The VPN name identifier. Either VPN_ID or VPN_NAME may be used as a key. VPN will default to MANAGER if not specified.			S	O
VPN_ID	The VPN instance identifier. Either VPN_ID or VPN_NAME may be used as a key. VPN will default to MANAGER if not specified.			S	O
POP_ID	The POP primary identifier.			S	O
POP_NAME	The POP name.			S	O
RAN_ID	The Remote Area Node primary identifier. Either RAN_ID or RAN_NAME must be used as a key.			S	O
RAN_NAME	The Remote Area Node name. Either RAN_ID or RAN_NAME must be used as a key.			S	O

Table 15: A_A5020-VOIP_3-01_MOD_RAN

Parameter Name	Description	Range	Default Value	Type	Class
RAN_TYPE	The RAN type.	RanTypeMAX4000, RanTypeMAXINT, RanTypeSHIVA, RanTypePM, RanTypeCISCO, RanTypeDANA2100, R100, RanTypeTUNNELSERVER, RanTypeREDBACK, RanTypeAssured, RanTypeMAX6000, RanTypeSHASTA5000, RanType3COM, RanTypeUNISPHERE, RanTypeVIRTUALRAN		S	O
RAN_ENABLE	Enables or disables the GW.			S	O
RAN_PORTS	The number of ports the GW has.			S	O
RAN_REGIONID	Selects the region using the Region Iterator.			S	O
RAN_FLAG_TRUSTED	The RAN trusted flag.			S	O
RAN_FLAG_DOWNLOAD_IP_POOLS	The RAN download IP pools flag			S	O
RAN_FLAG_DOWNLOAD_IP_ROUTES	The RAN download IP routes flag.			S	O
RAN_FLAG_DOWNLOAD_IPX_ROUTES	The RAN download IPX routes flag.			S	O
RAN_FLAG_DOWNLOAD_PERM_CONNECTIONS	The RAN download permanent connection flag.			S	O

Table 15: A_A5020-VOIP_3-01_MOD_RAN

Parameter Name	Description	Range	Default Value	Type	Class
RAN_FLAG_DOWNLOAD_FRAMED_PROFILES	The RAN download framed profile flag.			S	O
RAN_FLAG_HEARTBEAT_SUPPORT	The RAN heartbeat support flag.			S	O
RAN_COMMAND_PORT	This port is used if there is a disconnect in some of the GWs.			S	O
RAN_PROTOCOL_TYPE	Indicates the RADIUS protocol used.			S	O
RAN_ITF_IP_ADDRESS	The IP address used if the GW has more than one physical interface with the NE. For more information, see Table 10 on page 25.			C	O
RAN_ITF_IP_NETMASK	Sets the netmask.			S	O
RAN_ITF_SECRET	Sets the shared secret that is used to encrypt all communication between the GW and the proxy.			S	O
RAN_ITF_FLAGS	Enables the IPNG protocol.		RanITFFlagIPING	S	O
RAN_VOICE_PROTOCOL	Selects between the H323 and SIP protocols.			S	O

Table 15: A_A5020-VOIP_3-01_MOD_RAN

Parameter Name	Description	Range	Default Value	Type	Class
RAN_VOICE_PREGRANTED_ARQ_MAKECALL	Sets these options when protocol is H323.	CallOff (no pre-granted ARQ), CallH323GKRoutedMode (only if H.323 GK in routed mode), CallH323GKDirectMode (only if H.323 GK in direct mode), CallAlways (pre-granted ARQ regardless of GK mode)		S	O
RAN_VOICE_PREGRANTED_ARQ_ANSWERCALL	Sets these options when protocol is H323.	CallOff (no pre-granted ARQ), CallH323GKRoutedMode (only if H.323 GK in routed mode), CallH323GKDirectMode (only if H.323 GK in direct mode), CallAlways (pre-granted ARQ regardless of GK mode)		S	O
RAN_VOICE_GATEWAY_REGISTERS	Enables the register, if necessary.			S	O
RAN_VOICE_REGISTRATION_PORT	A specific signaling port number used by the gateway for registration. If given, the gateway can only use the IP address defined in the identifier or Interface address fields with this signalling port. If empty, registrations from any port are accepted.			S	O
RAN_VOICE_TRUSTED	Indicates that voice trusted is used.	Enable, Disable, True, False, 1, 0.		S	O

Table 15: A_A5020-VOIP_3-01_MOD_RAN

Parameter Name	Description	Range	Default Value	Type	Class
RAN_VOICE_SUPPORT_ISUP_MIME	Indicates that voice support ISUP time is used.	Enable, Disable, True, False, 1, 0		S	O
RAN_LRQ_ENDPOINT_TYPE	If you are using a:Real gateway, the value needs to be NotLRQEndPoint; H323 gatekeeper with no token, use the LRQEndPointNoToken; H323 gatekeeper with token, use the LRQEndPointToken.			S	O
RAN_LRQ_ENDPPOINT_PORT	The RAS port used in case of an LRQ endpoint.			S	O

MML commands/API calls

```
Ran ran = pop.NewRan();
ran.Set (true, ranName, true, popIdValue, true, ranTypeOption, true,
protocolTypeValue, true, ranFlagType, true, ranEnableOption, true,
ranPortValue, true, ranCommandPortValue, true, regionIdValue);
ran.SetITF ( true, ranITFIPAddress, true, ranITFIPNetMask, true,
ranItfSecret, true, ranITFFlags );
ran.SetVoice( true, ranVoiceProtocol, true, ranVoiceMakeCall, true,
ranVoiceAnswerCall, true, ranVoiceGatewayRegister, true, ranVoiceRegPort,
true, ranLrqEndpointType, true, ranLrqEndpointPort, true,
ranVoiceTrustedOption, true, ranVoiceSupportIsupTimeOption);
```

Output parameters

If the work order is not successful, the method returns:

- ALCATEL_CCE_MODIFY_RAN_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_CCE_MODIFY_RAN_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM

A_A5020-VOIP_3-01_MOD_RAN-RB

Rolls back a modified Remote Area Node. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.CCEProvisioning.modRanRB.**

Table 16: A_A5020-VOIP_3-01_MOD_RAN-RB

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or the CCE instance.			S	R
VPN_NAME	The VPN name identifier. Either VPN_ID or VPN_NAME may be used as a key. VPN will default to MANAGER if not specified.			S	O
VPN_ID	The VPN instance identifier. Either VPN_ID or VPN_NAME may be used as a key. VPN will default to MANAGER if not specified.			S	O
POP_ID	The POP primary identifier. Either POP_ID or POP_NAME must be used as a key.			S	O
POP_NAME	The POP name. Either POP_ID or POP_NAME must be used as a key.			S	O
RAN_ID	The Remote Area Node primary identifier. Either RAN_ID or RAN_NAME must be used as a key.			S	O

Table 16: A_A5020-VOIP_3-01_MOD_RAN-RB

Parameter Name	Description	Range	Default Value	Type	Class
RAN_NAME	The Remote Area Node name. Either RAND or RAN_NAME must be used as a key.			S	O
OLD_RAN_TYPE	The former RAN type.	RanTypeMAX4000, RanTypeMAXINT, RanTypeSHIVA, RanTypePM, RanTypeCISCO, RanTypeDANA2100, R100, RanTypeTUNNELSERVER, RanTypeREDBACK, RanTypeAssured, RanTypeMAX6000, RanTypeSHASTA5000, RanType3COM, RanTypeUNISPHERE, RanTypeVIRTUALRAN		S	O
OLD_RAN_ENABLE	This parameter enabled or disabled the GW.			S	O
OLD_RAN_PORTS	The previous number of ports the GW had.			S	O
OLD_RAN_REGIONID	The previous region that used the Region Iterator.			S	O
OLD_RAN_FLAG_TRUSTED	The previous RAN trusted flag.			S	O
OLD_RAN_FLAG_DOWNLOAD_IP_POOLS	The previous RAN download IP pools flag.			S	O
OLD_RAN_FLAG_DOWNLOAD_IP_ROUTES	The previous RAN download IP routes flag.			S	O

Table 16: A_A5020-VOIP_3-01_MOD_RAN-RB

Parameter Name	Description	Range	Default Value	Type	Class
OLD_RAN_FLAG_DOWNLOAD_IPX_ROUTES	The previous RAN download IPX routes flag.			S	O
OLD_RAN_FLAG_DOWNLOAD_PERM_CONNECTIONS	The previous RAN download permanent connection flag.			S	O
OLD_RAN_FLAG_DOWNLOAD_FRAMED_PROFILES	The previous RAN download framed profile flag.			S	O
OLD_RAN_FLAG_HEARTBEAT_SUPPORT	The previous RAN heartbeat support flag.			S	O
OLD_RAN_COMMAND_PORT	The previous port used if there was a disconnect in some of the GWs.			S	O
OLD_RAN_PROTOCOL_TYPE	The previous RADIUS protocol used.			S	O
OLD_RAN_ITF_IP_ADDRESS	The previous IP address used if the GW had more than one physical interface with the NE. For more information, see Table 10 on page 25.			C	O
OLD_RAN_ITF_IP_NETMASK	The previous netmask.			S	O
OLD_RAN_ITF_SECRET	The previous shared secret used to encrypt all communication between the GW and the proxy.			S	O
OLD_RAN_ITF_FLAGS	The previous IPNG protocol flag.			S	O

Table 16: A_A5020-VOIP_3-01_MOD_RAN-RB

Parameter Name	Description	Range	Default Value	Type	Class
OLD_RAN_VOICE_PROTOCOL	The previous protocol, either H323 and SIP protocols.			S	O
OLD_RAN_VOICE_PREGRANTED_ARQ_MAKECALL	The previous pregranted options when the protocol was set to H323.			S	O
OLD_RAN_VOICE_PREGRANTED_ARQ_ANSWERCALL	The previous pregranted options when the protocol was set to H323.			S	O
OLD_RAN_VOICE_GATEWAY_REGISTERS	Enabled the register, if necessary.			S	O
OLD_RAN_VOICE_REGISTRATION_PORT	The previous signalling port number.			S	O
OLD_RAN_VOICE_TRUSTED	The previous voice trusted usage flag.			S	O
OLD_RAN_VOICE_SUPPORT_ISUP_MIME	The previous voice support ISUP time flag.			S	O
OLD_RAN_LRQ_ENDPOINT_TYPE	The previous RAN_LRQ_ENDPOINT_TYPE value. If using a:Real gateway, the value needs to be NotLRQEndPoint; H323 gatekeeper with no token, use the LRQEndPointNoToken; H323 gatekeeper with token, use the LRQEndPointToken.			S	O

Table 16: A_A5020-VOIP_3-01_MOD_RAN-RB

Parameter Name	Description	Range	Default Value	Type	Class
OLD_RAN_LRQ_ENDPPOINT_PORT	The previous RAS port used in case of an LRQ endpoint.			S	O

MML commands/API calls

```
Ran ran = pop.NewRan();
ran.Set (true, ranName, true, popIdValue, true, ranTypeOption, true,
protocolTypeValue, true, ranFlagType, true, ranEnableOption, true,
ranPortValue, true, ranCommandPortValue, true, regionIdValue);
ran.SetITF ( true, ranITFIPAddress, true, ranITFIPNetMask, true,
ranItfSecret, true, ranITFFlags );
ran.SetVoice( true, ranVoiceProtocol, true, ranVoiceMakeCall, true,
ranVoiceAnswerCall, true, ranVoiceGatewayRegister, true, ranVoiceRegPort,
true, ranLrqEndpointType, true, ranLrqEndpointPort, true,
ranVoiceTrustedOption, true, ranVoiceSupportIsupTimeOption);
```

Output parameters

If the work order is not successful, the method returns:

- ALCATEL_CCE_ADD_RAN_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_CCE_ADD_RAN_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM.

For a successful ASDL, RAN_ID is added as CSDL parameters to the SARM table TBL_SRQ_PARM.

A_A5020-VOIP_3-01_QRY_ALL-RANS

Queries all RANS related to a particular POP. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.CCEProvisioning.qryAllRans.**

Table 17: A_A5020-VOIP_3-01_QRY_ALL-RANS

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or the CCE instance.			S	R

Table 17: A_A5020-VOIP_3-01_QRY_ALL-RANS

Parameter Name	Description	Range	Default Value	Type	Class
POP_ID	The POP primary identifier. Either POP_ID or POP_NAME must be used as a key.			S	O
POP_NAME	The POP name. Either POP_ID or POP_NAME must be used as a key.			S	O

MML commands/API calls

```
Pop pop = telcoVpn.GetGlobalPop();
RanIterator ranIterator = pop.GetRans();
BaseListItem ranList[] = ranIterator.ListItems();
for ( int count=0; count<ranList.length; count++ ) {
        Ran ran = telcoVpn.OpenRan(ranIdValue);
        IntHolder ranIdHolder = new IntHolder();
        StringHolder ranNameHolder = new StringHolder();
        IntHolder popIdHolder = new IntHolder();
        enumRanTypeHolder ranTypeHolder = new enumRanTypeHolder();
        IntHolder protocolTypeHolder = new IntHolder();
        RanFlagsSeqHolder ranFlagsHolder = new RanFlagsSeqHolder();
        BooleanHolder ranEnableHolder = new BooleanHolder();
        IntHolder ranPortsHolder = new IntHolder();
        IntHolder ranCommandPortHolder = new IntHolder();
        IntHolder regionIdHolder = new IntHolder();
        ran.Get(ranIdHolder, ranNameHolder, popIdHolder, ranTypeHolder,
protocolTypeHolder, ranFlagsHolder, ranEnableHolder, ranPortsHolder,
ranCommandPortHolder, regionIdHolder);}
}
```

Output parameters

If the work order is not successful, the method returns:

- ALCATEL_CCE_QUERY_ALL_RANS_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_CCE_QUERY_ALL_RANS_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM.

Upon a successful query with a record found, the following is returned as an INFO parameter into TBL_INFO_PARM:

```
RAN.(n).RAN_ID
RAN.(n).RAN _NAME
RAN.(n).RAN_TYPE
RAN.(n).RAN_ENABLE
RAN.(n).RAN_PORTS
RAN.(n).RAN_REGIONID
RAN.(n).RAN_DOWNLOAD_IP_POOLS
RAN.(n).RAN.DOWNLOAD_IP_ROUTES
RAN.(n).RAN_DOWNLOAD_IPX_ROUTES
RAN.(n).RAN_DOWNLOAD_PERM_CONNECTIONS
RAN.(n).RAN_DOWNLOAD_FRAMED_PROFILES
RAN.(n).RAN_HEARTBEAT_SUPPORT
RAN.(n).RAN_NOT_REQUIRED_TO_REGISTER
RAN.(n).RAN_TRUSTED
RAN.(n).RAN_COMMAND_PORT
RAN.(n).RAN_PROTOCOL_TYPE
RAN.(n).RAN_ITF_IP_ADDRESS
RAN.(n).RAN_ITF_IP_NETMASK
RAN.(n).RAN_ITF_SECRET
RAN.(n).RAN_ITF_FLAGS_IPNG
RAN.(n).RAN_VOICE_PROTOCOL
RAN.(n).RAN_VOICE_PREGRANTED_ARQ_MAKECALL
RAN.(n).RAN_VOICE_PREGRANTED_ARQ_ANSWERCALL
RAN.(n).RAN_VOICE_GATEWAY_REGISTERS
RAN.(n).RAN_VOICE_REGISTRATION_PORT
RAN.(n).RAN_LRQ_ENDPOINT_TYPE
RAN.(n).RAN_LRQ_ENDPOINT_PORT
```

A_A5020-VOIP_3-01_QRY_POP

Modifies the POP. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.CCEProvisioning.qryPop.**

Table 18: A_A5020-VOIP_3-01_QRY_POP

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or the CCE instance.			S	R
POP_ID	The POP primary identifier. Either POP_ID or POP_NAME must be used as a key.			S	O

Table 18: A_A5020-VOIP_3-01_QRY_POP

Parameter Name	Description	Range	Default Value	Type	Class
POP_NAME	The POP name. Either POP_ID or POP_NAME must be used as a key.			S	O

MML commands/API calls

```
Pop globalPop = telcoVpn.GetGlobalPop();
   Pop pop = globalPop.OpenPop(popID);
                        IntHolder popIdHolder = new IntHolder();
              StringHolder popNameHolder = new StringHolder();
              IntHolder popParentIdHolder = new IntHolder();
              enumPopTypeHolder popTypeHolder = new enumPopTypeHolder();

              pop.Get ( popIdHolder, popNameHolder, popParentIdHolder,
popTypeHolder );
```

Output parameters

If the work order is not successful or no records are returned by the query, the method returns:

- ALCATEL_CCE_QUERY_POP_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_CCE_QUERY_POP_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM.

Upon a successful query with a record found, the following is returned as an INFO parameter into TBL_INFO_PARM and SARM table:

```
POP_ID
POP_NAME
POP_TYPE
POP_PARENT_POP_ID
```

A_A5020-VOIP_3-01_QRY_RAN

Queries the Remote Area Node. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.CCEProvisioning.qryRan.**

Table 19: A_A5020-VOIP_3-01_QRY_RAN

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or the CCE instance.			S	R
VPN_NAME	The VPN name identifier. Either VPN_ID or VPN_NAME may be used as a key. VPN will default to MANAGER if not specified.			S	O
VPN_ID	The VPN instance identifier. Either VPN_ID or VPN_NAME may be used as a key. VPN will default to MANAGER if not specified.			S	O
RAN_ID	The Remote Area Node primary identifier. Either RAN_ID or RAN_NAME must be used as a key.			S	O
RAN_NAME	The Remote Area Node name. Either RAN_ID or RAN_NAME must be used as a key.			S	O

MML commands/API calls

```
Ran ran = telcoVpn.OpenRan(ranIdValue);
        IntHolder ranIdHolder = new IntHolder();
        StringHolder ranNameHolder = new StringHolder();
        IntHolder popIdHolder = new IntHolder();
        enumRanTypeHolder ranTypeHolder = new enumRanTypeHolder();
```

```
        IntHolder protocolTypeHolder = new IntHolder();
        RanFlagsSeqHolder ranFlagsHolder = new RanFlagsSeqHolder();
        BooleanHolder ranEnableHolder = new BooleanHolder();
        IntHolder ranPortsHolder = new IntHolder();
        IntHolder ranCommandPortHolder = new IntHolder();
        IntHolder regionIdHolder = new IntHolder();
        ran.Get(ranIdHolder, ranNameHolder, popIdHolder, ranTypeHolder,
protocolTypeHolder, ranFlagsHolder, ranEnableHolder, ranPortsHolder,
ranCommandPortHolder, regionIdHolder);}
```

Output parameters

If the work order is not successful or no records are returned by the query, the method returns:

ALCATEL_CCE_QUERY_RAN_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.

ALCATEL_CCE_QUERY_RAN_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM.

Upon a successful query with a record found, the following is returned as an INFO parameter into TBL_INFO_PARM:

```
RAN_ID
RAN _NAME
RAN_TYPE
RAN_ENABLE
RAN_PORTS
RAN_REGIONID
RAN_DOWNLOAD_IP_POOLS
RAN_DOWNLOAD_IP_ROUTES
RAN_DOWNLOAD_IPX_ROUTES
RAN_DOWNLOAD_PERM_CONNECTIONS
RAN_DOWNLOAD_FRAMED_PROFILES
RAN_HEARTBEAT_SUPPORT
RAN_TRUSTED
RAN_SUPPORTED_ISUP_MIME
RAN_COMMAND_PORT
RAN_PROTOCOL_TYPE
RAN_ITF_IP_ADDRESS.(n)
RAN_ITF_IP_NETMASK
RAN_ITF_SECRET
RAN_ITF_FLAGS_IPNG
RAN_VOICE_PROTOCOL
RAN_VOICE_PREGRANTED_ARQ_MAKECALL
RAN_VOICE_PREGRANTED_ARQ_ANSWERCALL
RAN_VOICE_GATEWAY_REGISTERS
RAN_VOICE_REGISTRATION_PORT
RAN_LRQ_ENDPOINT_TYPE
RAN_LRQ_ENDPOINT_PORT
```

NRE services

This cartridge provides the following ASDL commands:

- A_A5020-VOIP_3-01_ADD_AAA-GROUP
- A_A5020-VOIP_3-01_ADD_AAA-SELECTION-RULE
- A_A5020-VOIP_3-01_ADD_AAA-SELECTION-RULE-RB
- A_A5020-VOIP_3-01_ADD_ROUTE
- A_A5020-VOIP_3-01_ADD_ROUTE-BLOCK
- A_A5020-VOIP_3-01_ADD_ROUTE-BLOCK-PREFIX
- A_A5020-VOIP_3-01_ADD_ROUTE-BLOCK-SUFFIX
- A_A5020-VOIP_3-01_ADD_ROUTE-CONFIG
- A_A5020-VOIP_3-01_ADD_VPN
- A_A5020-VOIP_3-01_DEL_AAA-GROUP
- A_A5020-VOIP_3-01_DEL_AAA-SELECTION-RULE
- A_A5020-VOIP_3-01_DEL_ROUTE
- A_A5020-VOIP_3-01_DEL_ROUTE-BLOCK
- A_A5020-VOIP_3-01_DEL_ROUTE-BLOCK-PREFIX
- A_A5020-VOIP_3-01_DEL_ROUTE-BLOCK-SUFFIX
- A_A5020-VOIP_3-01_DEL_ROUTE-CONFIG
- A_A5020-VOIP_3-01_DEL_VPN
- A_A5020-VOIP_3-01_MOD_AAA-GROUP
- A_A5020-VOIP_3-01_MOD_AAA-GROUP-RB
- A_A5020-VOIP_3-01_MOD_AAA-SELECTION-RULE
- A_A5020-VOIP_3-01_MOD_AAA-SELECTION-RULE-RB
- A_A5020-VOIP_3-01_MOD_ROUTE
- A_A5020-VOIP_3-01_MOD_ROUTE-BLOCK
- A_A5020-VOIP_3-01_MOD_ROUTE-BLOCK-PREFIX
- A_A5020-VOIP_3-01_MOD_ROUTE-BLOCK-PREFIX-RB
- A_A5020-VOIP_3-01_MOD_ROUTE-BLOCK-RB
- A_A5020-VOIP_3-01_MOD_ROUTE-BLOCK-SUFFIX
- A_A5020-VOIP_3-01_MOD_ROUTE-BLOCK-SUFFIX-RB
- A_A5020-VOIP_3-01_MOD_ROUTE-CONFIG
- A_A5020-VOIP_3-01_MOD_ROUTE-CONFIG-ATTACH-VPN
- A_A5020-VOIP_3-01_MOD_ROUTE-CONFIG-DETACH-VPN
- A_A5020-VOIP_3-01_MOD_ROUTE-RB
- A_A5020-VOIP_3-01_MOD_VPN

- A_A5020-VOIP_3-01_MOD_VPN-RB
- A_A5020-VOIP_3-01_QRY_AAA-GROUP
- A_A5020-VOIP_3-01_QRY_AAA-SELECTION-RULE
- A_A5020-VOIP_3-01_QRY_ROUTE
- A_A5020-VOIP_3-01_QRY_ROUTE-BLOCK
- A_A5020-VOIP_3-01_QRY_ROUTE-BLOCK-ALL
- A_A5020-VOIP_3-01_QRY_ROUTE-BLOCK-PREFIX
- A_A5020-VOIP_3-01_QRY_ROUTE-BLOCK-PREFIX-ALL
- A_A5020-VOIP_3-01_QRY_ROUTE-BLOCK-SUFFIX
- A_A5020-VOIP_3-01_QRY_ROUTE-CONFIG
- A_A5020-VOIP_3-01_QRY_VPN

A_A5020-VOIP_3-01_ADD_AAA-GROUP

Adds an AAA group. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.NREProvisioning.addAAAGroup.**

Table 20: A_A5020-VOIP_3-01_ADD_AAA-GROUP

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or NRE instance.			S	R
VPN_NAME	The VPN name identifier. Either VPN_ID or VPN_NAME must be used as a key.			S	O
VPN_ID	The VPN instance identifier. Either VPN_ID or VPN_NAME must be used as a key.			S	O
AAA_GROUP_NAME	The AAA group's name configuration.			S	R

Table 20: A_A5020-VOIP_3-01_ADD_AAA-GROUP

Parameter Name	Description	Range	Default Value	Type	Class
AAA_GROUP_ENABLE_ON_HOLD	The AAA group's mode, either "enabled" or "hold".	Enabled (default operation), OnHold (a user trying to access a VoIP AAA group that is on hold is rejected), Disabled (the selection criteria will not lead to this VoIP AAA group)	ENABLED	S	O
AAA_GROUP_MAX_USER_SESSIONS	The maximum number of users per session. The default value is 0 (and means no per-user restrictions).			S	O
AAA_GROUP_MAX_ACCOUNTING_RETRIES	The maximum number of retries available to an accounting request.			S	O
AAA_GROUP_EXTERNAL	The type of connection to the A5020X server, either Internal (0) or External (1).			S	O
AAA_GROUP_FAILURE_TO_START_SUPPORT_FLAG	This flag controls the group's failure to start message.			S	O
AAA_GROUP_UNIDENTIFIED_ACCESS_FLAG	Enables or disables the flag that indicates support for this group's unidentified access.			S	O
AAA_GROUP_PRE_AUTHENTICATION_ACCESS_ONLY_FLAG	Controls whether the group performs access checks.			S	O
AAA_GROUP_INTERACTION_SUPPORT_FLAG	Enables the interaction support.			S	O

Table 20: A_A5020-VOIP_3-01_ADD_AAA-GROUP

Parameter Name	Description	Range	Default Value	Type	Class
AAA_GROUP_SUPPORT_ACCOUNTING_INTERIM_UPDATES_FLAG	Enables the radius to process interim updates.			S	O
AAA_GROUP_SUPPORT_ACCESS_FAILED_TICKETS_FLAG	Enables proxy generated messages to be generated by access fail tickets that cause radius accounting stop packets. This feature can be enabled per VoIP AAA group.			S	O
AAA_GROUP_SUPPORT_EAP_MESSAGE_START_FLAG	Enables EAP messages.			S	O
AAA_GROUP_MANDATORY_PORTSET_FLAG	Enables the call to be rejected when no port is defined in the POP or RAN.			S	O
AAA_GROUP_STAGE2_AUTHENTICATION_FLAG	Enables two-stage authentication.			S	O
AAA_GROUP_STAGE2_ACCOUNTING_FLAG	Enables two-stage accounting.			S	O
AAA_GROUP_ACCOUNTING_ONLY_FLAG	Enables accounting validation.			S	O
AAA_GROUP_AUTHENTICATION_PROTOCOL_TYPE	The protocol type, which is based on the AAA server currently in use.			S	O
AAA_GROUP_AUTHENTICATION_RETRIES	The number of retries allowed during a connection timeout.			S	O

Table 20: A_A5020-VOIP_3-01_ADD_AAA-GROUP

Parameter Name	Description	Range	Default Value	Type	Class
AAA_GROUP_ACCOUNTING_PROTOCOL_TYPE	The protocol type in use, based on the prevailing AAA server.			S	O
AAA_GROUP_ACCOUNTING_RETRIES	The number of retries allowed during the connection timeout.			S	O
AAA_GROUP_AUTHORISATION_DEFAULT_PORT_TYPE	The VoIP AAA group default port.			S	O
AAA_GROUP_AUTHORISATION_PORT_TYPES	A list of the authorization port types. For more information, see Table 21 on page 57.			C	O
AAA_GROUP_BARRING_CLASS	The barring class used by the call screening server.			S	O
AAA_GROUP_MAXIMUM_CONCURRENT_CALLS	The maximum concurrent calls per endpoint.			S	O
AAA_GROUP_DIAL_IP_ADDRESS_PREFIX	This prefix value indicates that the dialed number is an IP address.			S	O
AAA_GROUP_DIAL_UNREGISTERED_ENDPOINTS	Allows (1) or prevents (0) the dialing of unregistered endpoints by their IP address (only for terminal-to-terminal calls). By default this is allowed.			S	O

Table 20: A_A5020-VOIP_3-01_ADD_AAA-GROUP

Parameter Name	Description	Range	Default Value	Type	Class
AAA_GROUP_CALL_TRANSFER	Allows (1) or prevents (0) the call transfer service. By default this service is not allowed.			S	O
AAA_GROUP_ALLOW_UNCONDITIONAL_FORWARDING_ACTIVATION	Allows (0) or prevents (1) unconditional forward activation			S	O
AAA_GROUP_ALLOW_BUSY_FORWARD_ACTIVATION	Allows (0) or prevents (1) busy forward activation.			S	O
AAA_GROUP_ALLOW_NOREPLY_FORWARD_ACTIVATION	Allows (0) or prevents (1) no reply forward activation.			S	O
AAA_GROUP_TRIGGER_DESTINATION_AS_FOR_UNREGISTERED_USERS_METHOD	The AAA group's trigger destination method.	Register, Unregister, Admission		S	O
AAA_GROUP_TRIGGER_DESTINATION_AS_FOR_UNREGISTERED_USERS_METHOD_TYPE	The AAA group's trigger destination method type.	NotAllowed (no authentication), Allowed (authenticate), CHAP login		S	O
AAA_GROUP_H323_MAKE_CALL_PREGRANTED_ARQ	The value for making calls.	CallOff (No pre-granted ARQ), CallH323GKRoutedMode (only if H.323 GK in routed mode), CallH323GKDirectMode (only if H.323 GK in direct mode), CallAlways (pre-granted ARQ regardless of GK mode)		S	O

Table 20: A_A5020-VOIP_3-01_ADD_AAA-GROUP

Parameter Name	Description	Range	Default Value	Type	Class
AAA_GROUP_H323_ANSWER_CALL_PREGRANTED_ARQ	The value for answering calls.	CallOff (No pre-granted ARQ), CallH323GKRoutedMode (only if H.323 GK in routed mode), CallH323GKDirectMode (only if H.323 GK in direct mode), CallAlways (pre-granted ARQ regardless of GK mode)		S	O
AAA_GROUP_H323_CHECK_LOCATION_TOKEN	Determines whether the location token should be checked-in (1) or not (0). By default the location token is not checked.			S	O
AAA_GROUP_H323_RIP_REGISTRATION	Identifies which H323 RIP message is sent to the server. By default no RIP messages are sent.			S	O
AAA_GROUP_H323_RIP_UNREGISTRATION	The H323 RIP unregistration timeout in seconds.			S	O
AAA_GROUP_H323_RIP_CALL_ADMISSION	The H323 RIP call admission timeout in seconds.			S	O
AAA_GROUP_H323_TERMINAL_AUTHENTICATION_METHOD	The method of terminal authentication interface.	Register, Unregister, Admission		S	O
AAA_GROUP_H323_TERMINAL_AUTHENTICATION_METHOD_TYPE	The type for terminal authentication interface.	NotAllowed (no authentication), Allowed (authenticate), CHAP login		S	O

Table 20: A_A5020-VOIP_3-01_ADD_AAA-GROUP

Parameter Name	Description	Range	Default Value	Type	Class
AAA_GROUP_H323_GATEWAY_AUTHENTICATION_METHOD	The method for gateway authentication interface.			S	O
AAA_GROUP_H323_GATEWAY_AUTHENTICATION_METHOD_TYPE	The type for authentication interface.	NotAllowed, Allowed (authenticate)		S	O
AAA_GROUP_H323_UPDATE_SETUP_ORIGIN	The H323 update setup origin.			S	O
AAA_GROUP_H323_UPDATE_SETUP_DESTINATION	Determines whether to update the H323 setup.			S	O
AAA_GROUP_H323_UPDATE_DISPLAY	Determines whether to update the H323 display.			S	O
AAA_GROUP_TRIGGER_SIP_APPLICATION_SERVER	The value of trigger SIP application server.			S	O
AAA_GROUP_SIP_ORIGIN_APPLICATION_SERVER	The server method, type, and service information for the application server. For more information, see Table 22 on page 58.			C	O

Table 20: A_A5020-VOIP_3-01_ADD_AAA-GROUP

Parameter Name	Description	Range	Default Value	Type	Class
AAA_GROUP_SIP_DESTINATION_APPLICATION_SERVER	The AAA group's SIP destination AS. It contains the server method, type, and service information about the application server. For more information, see Table 22 on page 58.			C	O
AAA_GROUP_SIP_CALL_APPLICATION_SERVER	Contains information on the AAA group's SIP call application server. For more information, see Table 22 on page 58.			C	O
AAA_GROUP_SIP_PROXY_LOCAL_DESTINATION	The SIP proxy local destination, either: stateful, stateless, or redirect.			S	O
AAA_GROUP_SIP_PROXY_NON_LOCAL_DESTINATION	The proxy non local destination.	stateful or stateless		S	O
AAA_GROUP_SIP_TERMINAL_AUTHENTICATION_METHOD	The SIP terminal authentication method.	register, invite, subscribe, message, options, refer, and unknown		S	O
AAA_GROUP_SIP_TERMINAL_AUTHENTICATION_METHOD_TYPE	The type of SIP terminal authentication method.	NotAllowed, AllowedNoAuthentication, AllowedWithAuthentication, CHAPLogin, HTTPDigest		S	O

Table 20: A_A5020-VOIP_3-01_ADD_AAA-GROUP

Parameter Name	Description	Range	Default Value	Type	Class
AAA_GROUP_SIP_HTTP_DIGEST_REALM	The realm string, which is used for the HTTP digest.			S	O
AAA_GROUP_SIP_HTTP_DIGEST_TIMEOUT	The length of time this one-time instance stays valid.			S	O
AAA_GROUP_SIP_GATEWAY_AUTHENTICATION_METHOD	The gateway authentication method.	invite or unknown		S	O
AAA_GROUP_SIP_GATEWAY_AUTHENTICATION_METHOD_TYPE	The gateway authentication method type.	NotAllowed, Allowed (authenticate)		S	O
AAA_GROUP_CFA_ENABLE	Enables the service for this group.			S	O
AAA_GROUP_CFA_PREFIX	Enables the service for this type.			S	O
AAA_GROUP_CFA_LANGUAGE_INDICATOR	A number indicating the language.			S	O
AAA_GROUP_CFA_DEFAULT_ANNOUNCEMENT	The default announcement code.			S	O
AAA_GROUP_IVR_IP_ADDRESS	The IVR's IP address.			S	O
AAA_GROUP_IVR_PORT	The IVR's port value.			S	O
AAA_GROUP_AAA_SERVER_NAME_1	The AAA server name.			S	O
AAA_GROUP_AAA_SERVER_ID_1	The AAA server ID.			S	O

Table 20: A_A5020-VOIP_3-01_ADD_AAA-GROUP

Parameter Name	Description	Range	Default Value	Type	Class
AAA_GROUP_AAA_SERVER_TYPE_1	The AAA server type.	Authentication, Accounting		S	O
AAA_GROUP_AAA_SERVER_PRIORITY_1	The AAA server priority.			S	O
AAA_GROUP_AAA_SERVER_STAGE_1	The AAA server stage.			S	O
AAA_GROUP_AAA_SERVER_NAME_2	The AAA server name.			S	O
AAA_GROUP_AAA_SERVER_ID_2	The AAA server ID.			S	O
AAA_GROUP_AAA_SERVER_TYPE_2	The AAA server type.	Authentication, Accounting		S	O
AAA_GROUP_AAA_SERVER_PRIORITY_2	The AAA server priority.			S	O
AAA_GROUP_AAA_SERVER_STAGE_2	The AAA server stage.			S	O

MML commands/API calls

```
VoIPAAAGroup aaaGroup = telcoVpn.NewVoIPAAAGroup ();
aaaGroup.Set ( setName, groupName, setEnableOnHold, enableOnHoldType,
setMaxUsers, maxUserSessionsValue, setdub
iousTimeout, dubiousSessionTimeout, setMaxAccountRetries,
maxAccountRetryValue, setAAAFlags, realAAAGroupFlags );
aaaGroup.SetAuthentication ( setAuthProtocolType, authProtocolTypeValue,
setAuthRetries, authRetriesValue );
aaaGroup.SetAccounting ( setAccountProtocolType, accountProtocolTypeValue,
setAccountRetries, accountRetriesValue );
aaaGroup.SetPortAuthorisation
(setAuthDefaultPortType,authDefaultPortTypeValue ,
setAuthPortTypes,portTypes );
aaaGroup.SetVoIPCFA ( setCfaEnable, cfaEnableOption, setIvrIpAddress,
ivrAddressList, setIvrPort,
ivrPortValue,setCfaPrefix,cfaPrefix,setCfaLangIndicator,cfaLangIndicatorValu
e, setCfaDefaultAnnouncement, cfaDefaultAnnouncement );
```

Output parameters

If the work order is not successful, the method returns:

- ALCATEL_NRE_ADD_AAA_GROUP_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_NRE_ADD_AAA_GROUP_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM.

For a successful ASDL, AAA_GROUP_ID, is added as a CSDL parameter to the SARM table TBL_SRQ_PARM.

Compound parameter "PORTTYPES"

The compound parameter PORTTYPES will contain an indefinite number of port type values.

Table 21: Compound Parameter "PORTTYPES"

PARAMETER LABEL	PARAMETER TYPE	ELEMENT ATTRIBUTE TYPE	DESCRIPTION
PORT_TYPE.(n)	O	NUMBER	Port Type, must be unique across the list.

Compound parameter "AAA_APPLICATION_SERVER"

The compound parameter AAA_APPLICATION_SERVER will contain a method, server name or server ID, and service information element parameter attributes.

In a modify context, to delete a particular instance, the method needs to be "UNSET_VALUE" and Server ID or Server Name is required.

Table 22: Compound Parameter "AAA_APPLICATION_SERVER"

PARAMETER LABEL	PARAMETER TYPE	ELEMENT ATTRIBUTE TYPE	DESCRIPTION
AAA_APPLICATION_SERVER.METHOD	R	STRING	For normal Application Server the values allowed are: Register, Invite, Subscribe, Message, Options, Refer and Unknown. For Terminal, the values allowed are: Register, Invite, Subscribe, Message, Options, Refer and Unknown. For Gateway, the values allowed are Invite and Unknown. Default is Unknown.
AAA_APPLICATION_SERVER.SERVER_NAME	O	STRING	Application Server Name. Either Application Server Name or Application Server ID is required.
AAA_APPLICATION_SERVER.SERVER_ID	O	STRING	Application Server ID. Either Application Server Name or Application Server ID is required.
AAA_APPLICATION_SERVER.SERVICEINFO	O	STRING	

A_A5020-VOIP_3-01_ADD_AAA-SELECTION-RULE

Adds an AAA selection rule. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.NREProvisioning.addAAASelectionRule.**

Table 23: A_A5020-VOIP_3-01_ADD_AAA-SELECTION-RULE

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or NRE instance.			S	R
USE_QUERY	Flag to determine whether to use results of the query.			S	O
AAA_SELECTION_VPN_ID	The VPN identifier. Either AAA_SELECTION_VPN_ID or AAA_SELECTION_VPN_NAME must be used as a key.			S	O
AAA_SELECTION_VPN_NAME	The VPN name. Either AAA_SELECTION_VPN_ID or AAA_SELECTION_VPN_NAME must be used as a key.			S	O
AAA_SELECTION_AAA_GROUP_NAME	The AAA group name. Either AAA_SELECTION_AAA_GROUP_ID or AAA_SELECTION_AAA_GROUP_ID must be used as a key.			S	O
AAA_SELECTION_RULE_NUMBER	The name of the subject AAA group. The value of 1 means place at start of rules. This rule number is not relative to the AAA group.			S	O

Table 23: A_A5020-VOIP_3-01_ADD_AAA-SELECTION-RULE

Parameter Name	Description	Range	Default Value	Type	Class
AAA_SELECTION_ENABLE_FLAG	Enables or disables this rule. A disabled rule is not considered in AAA selection.			S	O
AAA_SELECTION_AAA_GROUP_ID	The AAA group identification. Either AAA_SELECTION_ AAA_GROUP_ID or AAA_SELECTION_ AAA_GROUP_ID must be used as a key.			S	O
AAA_SELECTION_METHOD	The AAA group selection method.	Any, H323Any, H323Registration, H323Admission, SipAny, SipInvite, SipSubscribe, SipMessage, SipOptions, SipRefer		S	O
AAA_SELECTION_ORIGIN_MASK	Describes the mask in which the origin must fit so that it can select the correct AAA group. This mask can be based on the user name or calling party E.164 number			S	O
AAA_SELECTION_ORIGIN_START_ADDRESS	Enter the lowest IP address in the range you are defining. Either Address, RAN, POP or Gatekeeper will be used as the ORIGIN selector, the other parameters should not be set otherwise.			S	O
AAA_SELECTION_ORIGIN_END_ADDRESS	Enter the highest IP address in the range you are defining.			S	O

Table 23: A_A5020-VOIP_3-01_ADD_AAA-SELECTION-RULE

Parameter Name	Description	Range	Default Value	Type	Class
AAA_SELECTION_ORIGIN_RAN_ID	The AAA selection originating RAN ID. Either AAA_SELECTION_ORIGIN_RAN_ID or AAA_SELECTION_ORIGIN_RAN_NAME must be used as a key.			S	O
AAA_SELECTION_ORIGIN_RAN_NAME	The AAA selection originating RAN name. Either AAA_SELECTION_ORIGIN_RAN_ID or AAA_SELECTION_ORIGIN_RAN_NAME must be used as a key.			S	O
AAA_SELECTION_ORIGIN_POP_ID	The AAA selection originating POP ID. Either AAA_SELECTION_ORIGIN_POP_ID or AAA_SELECTION_ORIGIN_POP_NAME must be used as a key.			S	O
AAA_SELECTION_ORIGIN_POP_NAME	The AAA selection originating POP name. Either AAA_SELECTION_ORIGIN_POP_ID or AAA_SELECTION_ORIGIN_POP_NAME must be used as a key.			S	O

Table 23: A_A5020-VOIP_3-01_ADD_AAA-SELECTION-RULE

Parameter Name	Description	Range	Default Value	Type	Class
AAA_SELECTION_ORIGIN_EXTERNAL_GATEKEEPER_NAME	The AAA selection originating external gatekeeper name. Either _GATEKEEPER_ NAME or _GATEKEEPER_ID must be used as a key. Either Address, RAN, POP or Gatekeeper will be used as the ORIGIN selector, the other parameters should not be set otherwise.			S	O
AAA_SELECTION_ORIGIN_EXTERNAL_GATEKEEPER_ID	The AAA selection originating external gatekeeper ID. Either _GATEKEEPER_ NAME or _GATEKEEPER_ID must be used as a key. Either Address, RAN, POP or Gatekeeper will be used as the ORIGIN selector, the other parameters should not be set otherwise.			S	O
AAA_SELECTION_DESTINATION_MASK	The mask in which the destination must fit to correctly select the AAA group. This mask can be based on the user name or called party E.164 number.			S	O
AAA_SELECTION_DESTINATION_START_ADDRESS	The lowest IP address in the range that you are defining for the called IP address.			S	O

Table 23: A_A5020-VOIP_3-01_ADD_AAA-SELECTION-RULE

Parameter Name	Description	Range	Default Value	Type	Class
AAA_SELECTION_DESTINATION_END_ADDRESS	The highest IP address in the range that you are defining for the called IP address.			S	O
AAA_SELECTION	Multiple instances of AAA selections can be used here. This compound parameter takes precedence over the scalar parameter. For more information, see Table 24 on page 64.			C	O
OLD_AAA_SELECTION	Multiple instances of AAA selections can be used here. For more information, see Table 24 on page 64.			C	O

MML command/API calls

```
VoIPAAASelectionRule selectionRule = sessionTelco.NewVoIPAAASelectionRule();
selectionRule.Set (setRuleNumber, ruleNumberValue, setEnableFlag,
enableFlagOption, setaaaGroupId, aaGroupIdValue, setSelectionMethod,
ruleMethod, setOriginMask, originMask, setOriginAddress, originAddress,
setDestMask, destinationMask, setDestStartAddress, startIpAddress,
setDestEndAddress, endIpAddress);
```

Output parameters

If the work order is not successful, the method returns:

- ALCATEL_NRE_ADD_AAA_SELECTION_RULE_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_NRE_ADD_AAA_SELECTION_RULE_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM.

For a successful ASDL, AAA_GROUP_ID and SELECTION_RULE_ID, are saved as CSDL parameters to the SARM table TBL_SRQ_PARM.

Compound parameter "AAA_SELECTION"

The compound parameter AAA_SELECTION_RULE will contain attributes associated with the AAA Selection Rules.

Table 24: Compound Parameter "AAA_SELECTION"

PARAMETER LABEL	PARAMETER TYPE	ELEMENT ATTRIBUTE TYPE	DESCRIPTION
AAA_SELECTION.(n).AAA_GROUP_NAME	O	STRING	Name of the AAA group.
AAA_SELECTION.(n).AAA_GROUP_ID	O	NUMBER	The AAA group instance ID.
AAA_SELECTION.(n).VPN_NAME	O	STRING	VPN Name.
AAA_SELECTION.(n).VPN_ID	O	NUMBER	VPN ID.
AAA_SELECTION.(n).RULE_NUMBER	O	NUMBER	Priority sequence of this rule.
AAA_SELECTION.(n).RULE_ID	O	NUMBER	Selection rule database ID.
AAA_SELECTION.(n).ENABLE_FLAG	O	STRING	Enable or disable the rule. A disabled rule is not considered in AAA selection.
AAA_SELECTION.(n).METHOD	O	STRING	Method of the AAA selection.
AAA_SELECTION.(n).ORIGIN_MASK	O	STRING	Origin mask can be based on the user name or calling party E.164 number.
AAA_SELECTION.(n).ORIGIN_START_ADDRESS	O	STRING	Start IP address to define a range that must contain the calling IP address.
AAA_SELECTION.(n).ORIGIN_END_ADDRESS	O	STRING	End IP address to define a range that must contain the calling IP address.

Table 24: Compound Parameter "AAA_SELECTION"

PARAMETER LABEL	PARAMETER TYPE	ELEMENT ATTRIBUTE TYPE	DESCRIPTION
AAA_SELECTION.(n).ORIGIN_RAN_NAME	O	STRING	Name of the RAN used to filter as the ORIGIN.
AAA_SELECTION.(n).ORIGIN_RAN_ID	O	NUMBER	ID of the RAN used to filter as the ORIGIN.
AAA_SELECTION.(n).ORIGIN_ POP_NAME	O	STRING	Name of the RAN used to filter as the ORIGIN.
AAA_SELECTION.(n).ORIGIN_ POP_ID	O	NUMBER	ID of the RAN used to filter as the ORIGIN.
AAA_SELECTION.(n).ORIGIN_EXTERNAL_GATEKEEPER_NAME	O	STRING	Name of the External Gatekeeper used to filter as the ORIGIN.
AAA_SELECTION.(n).ORIGIN_EXTERNAL_GATEKEEPER_ID	O	NUMBER	ID of the External Gatekeeper used to filter as the ORIGIN.
AAA_SELECTION.(n).DESTINATION_MASK	O	STRING	Mask in which the destination must fit to select this VoIP AAA group. This mask can be based on the user name or called party E.164 number.
AAA_SELECTION.(n).DESTINATION_START_ADDRESS	O	STRING	Lower IP address to define a range that must contain the called IP address.
AAA_SELECTION.(n).DESTINATION_END_ADDRESS	O	STRING	Upper IP address to define a range that must contain the called IP address.

A_A5020-VOIP_3-01_ADD_AAA-SELECTION-RULE-RB

Rolls back the addition of an AAA selection rule. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.NREProvisioning.addAAASelectionRuleRB.**

Table 25: A_A5020-VOIP_3-01_ADD_AAA-SELECTION-RULE-RB

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or NRE instance.			S	R
OLD_AAA_SELECTION_VPN_ID	The previous VPN identifier.			S	O
OLD_AAA_SELECTION_VPN_NAME	The previous VPN name.			S	O
OLD_AAA_SELECTION_AAA_GROUP_NAME	The previous AAA group name.			S	O
OLD_AAA_SELECTION_RULE_NUMBER	The previous name of the subject AAA group.			S	O
OLD_AAA_SELECTION_ENABLE_FLAG	The previous flag to enable or disable this rule.			S	O
OLD_AAA_SELECTION_AAA_GROUP_ID	The previous AAA group identification.			S	O
OLD_AAA_SELECTION_METHOD	The previous AAA group selection method.			S	O
OLD_AAA_SELECTION_ORIGIN_MASK	The previous mask in which the origin must fit so that it can select the correct AAA group.			S	O
OLD_AAA_SELECTION_ORIGIN_START_ADDRESS	The previous lowest IP address in the range you are defining.			S	O

Table 25: A_A5020-VOIP_3-01_ADD_AAA-SELECTION-RULE-RB

Parameter Name	Description	Range	Default Value	Type	Class
OLD_AAA_SELECTION_ORIGIN_END_ADDRESS	The previous highest IP address in the range you are defining.			S	O
OLD_AAA_SELECTION_ORIGIN_RAN_ID	The previous AAA selection originating RAN ID.			S	O
OLD_AAA_SELECTION_ORIGIN_RAN_NAME	The previous AAA selection originating RAN name.			S	O
OLD_AAA_SELECTION_ORIGIN_POP_ID	The previous AAA selection originating POP ID.			S	O
OLD_AAA_SELECTION_ORIGIN_POP_NAME	The previous AAA selection originating POP name.			S	O
OLD_AAA_SELECTION_ORIGIN_EXTERNAL_GATEKEEPER_NAME	The previous AAA selection originating external gatekeeper name.			S	O
OLD_AAA_SELECTION_ORIGIN_EXTERNAL_GATEKEEPER_ID	The previous AAA selection originating external gatekeeper ID.			S	O
OLD_AAA_SELECTION_DESTINATION_MASK	The previous mask in which the destination must fit to correctly select the AAA group.			S	O
OLD_AAA_SELECTION_DESTINATION_START_ADDRESS	The previous lowest IP address in the range that you are defining for the called IP address.			S	O

Table 25: A_A5020-VOIP_3-01_ADD_AAA-SELECTION-RULE-RB

Parameter Name	Description	Range	Default Value	Type	Class
OLD_AAA_SELECTION_DESTINATION_END_ADDRESS	The previous highest IP address in the range that you are defining for the called IP address.			S	O
OLD_AAA_SELECTION	The previous multiple instances of AAA selections. For more information, see Table 24 on page 64.			C	O

MML command/API calls

```
VoIPAAASelectionRule selectionRule = sessionTelco.NewVoIPAAASelectionRule();
selectionRule.Set (setRuleNumber, ruleNumberValue, setEnableFlag,
enableFlagOption, setaaaGroupId, aaGroupIdValue, setSelectionMethod,
ruleMethod, setOriginMask, originMask, setOriginAddress, originAddress,
setDestMask, destinationMask, setDestStartAddress, startIpAddress,
setDestEndAddress, endIpAddress);
```

Output parameters

If the work order is not successful, the method returns:

- ALCATEL_NRE_ADD_AAA_SELECTION_RULE_RB_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_NRE_ADD_AAA_SELECTION_RULE_RB_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM.

For a successful ASDL, AAA_GROUP_ID and SELECTION_RULE_ID are saved as CSDL parameters to the SARM table TBL_SRQ_PARM.

A_A5020-VOIP_3-01_ADD_ROUTE

Adds a route. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.NREProvisioning.addRoute.**

Table 26: A_A5020-VOIP_3-01_ADD_ROUTE

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or NRE instance.			S	R
ROUTE_NAME	The route's name.			S	R
ROUTE_TYPE	The type of routing algorithm.	Carrier via GW (VoIPRouteCarrierViaGW), External Gateway (VoIPRouteITSP), Route to EP (VoIPRouteToEP)		S	R
ROUTE_CARRIER_PREFIX	The prefix that identifies the route's carrier. Valid only if ROUTE_TYPE is Carrier via GW.			S	O
ROUTE_ITSPLD	The parameter that identifies the multiple GateKeeper. Valid only if ROUTE_TYPE is External Gateway.			S	O
ROUTE_ENDPOINT_ADDRESS	The IP address for the route's endpoint. Valid only if ROUTE_TYPE is Endpoint.			S	O
ROUTE_ENDPOINT_PORT	The IP port for the route's endpoint. Valid only if ROUTE_TYPE is Endpoint.			S	O

Table 26: A_A5020-VOIP_3-01_ADD_ROUTE

Parameter Name	Description	Range	Default Value	Type	Class
ROUTE_ENDPOINT_TYPE	The route's endpoint type. Valid only if ROUTE_TYPE is Endpoint.			S	O
ROUTE_ODP	The route's Output Digit Preparation.			S	O
ROUTE_GW_POP_RAN_NAME	The Gateway POP or RAN name to which this route is associated. It references the NE table that is populated in the CCE. Either ROUTE_GW_POP_RAN_ID or NAME is accepted, ID takes precedence.			S	O

MML command/API calls

```
enumVoIPRouteType voIPType;

            VoIPRouteHolder voIPRouteHolder = new VoIPRouteHolder();
            VoIPRoute voipRoute =
VoIPRouteHelper.narrow(voIPRouteHolder.value);

            voipRoute = sessiontelco.NewVoIPRoute();
            RouteDetail routeDetail = new RouteDetail();

            int routeItspldValue;

            if ( routeType.equalsIgnoreCase("VoIPRouteCarrierViaGW") ) {
                voIPType = enumVoIPRouteType.VoIPRouteCarrierViaGW;
                routeDetail.carrierPrefix(routeCarrierPrefix);
                voipRoute.Set(addParam,routeName, true, routeOdp,    true,
routeGwPopValue, true, routeDetail );

            } else if ( routeType.equalsIgnoreCase ("VoIPRouteITSP" ) ) {

                routeItspldValue = getIntValue ( routeItspld );
                voIPType = enumVoIPRouteType.VoIPRouteITSP;
                routeDetail.externalGkPxId (routeItspldValue );
```

```
                voipRoute.Set(addParam,routeName,  true, routeOdp,  true,
routeGwPopValue,  true, routeDetail);

            } else if ( routeType.equalsIgnoreCase("VoIPRouteToEP") ) {

                voIPType = enumVoIPRouteType.VoIPRouteToEP;
                enumEndpointType endPointType  = null;

               if  ( routeEndpointType.equalsIgnoreCase("EndpointTypeH323" )
) {
                    endPointType = enumEndpointType.EndpointTypeH323;
                } else if (
routeEndpointType.equalsIgnoreCase("EndpointTypeSIP" ) ) {
                    endPointType = enumEndpointType.EndpointTypeSIP;
                }

                RouteDetailEndPoint endpointDetail = new
RouteDetailEndPoint(endPointType, ipAddress, routeEndpointPortValue );
                routeDetail.endPoint( endpointDetail );
                voipRoute.Set(addParam,routeName, true, routeOdp, true,
routeGwPopValue,  true, routeDetail);
            }
```

Output parameters

If the work order is not successful, the method returns:

- ALCATEL_NRE_ADD_ROUTE_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_NRE_ADD_ROUTE_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM.

For a successful ASDL, ROUTE_ID is saved as a CSDL parameter to the SARM table TBL_SRQ_PARM

A_A5020-VOIP_3-01_ADD_ROUTE-BLOCK

Adds a route block. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.NREProvisioning.addRouteBlock.**

Table 27: A_A5020-VOIP_3-01_ADD_ROUTE-BLOCK

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or NRE instance.			S	R

Table 27: A_A5020-VOIP_3-01_ADD_ROUTE-BLOCK

Parameter Name	Description	Range	Default Value	Type	Class
ROUTE_BLOCK_NAME	The route block name.			S	R
ROUTE_CONFIG_ID	The primary key identifier of the routing configuration. Either ROUTE_CONFIG_ID or ROUTE_CONFIG_NAME must be used as a key.			S	O
ROUTE_CONFIG_NAME	The routing configuration name. Either ROUTE_CONFIG_ID or ROUTE_CONFIG_NAME must be used as a key.			S	O
ROUTING_TYPE	The routing type. Types include Priority or Weight. Up to 10 Priority type routings, or 5 Weight type routings can be defined.			S	R
ROUTE_ID_1	The name, or identity, of route 1.			S	O
ROUTE_WEIGHT_1	The probability that this route will be used.			S	O
ROUTE_ID_2	The name, or identity, of route 2.			S	O
ROUTE_WEIGHT_2	The probability that this route will be used.			S	O
ROUTE_ID_3	The name, or identity, of route 3.			S	O
ROUTE_WEIGHT_3	The probability that this route will be used.			S	O

Table 27: A_A5020-VOIP_3-01_ADD_ROUTE-BLOCK

Parameter Name	Description	Range	Default Value	Type	Class
ROUTE_ID_4	The name, or identity, of route 4.			S	O
ROUTE_WEIGHT_4	The probability that this route will be used.			S	O
ROUTE_ID_5	The name, or identity, of route 5.			S	O
ROUTE_WEIGHT_5	The probability that this route will be used.			S	O
ROUTE_ID_6	The name, or identity, of route 6.			S	O
ROUTE_ID_7	The name, or identity, of route 7.			S	O
ROUTE_ID_8	The name, or identity, of route 8.			S	O
ROUTE_ID_9	The name, or identity, of route 9.			S	O
ROUTE_ID_10	The name, or identity, of route 10.			S	O

MML command/API calls

```
VoIPRoutingConfigHolder voIPRoutingConfig = new VoIPRoutingConfigHolder();
VoIPRoutingConfig voIPRouteConfig =
VoIPRoutingConfigHelper.narrow(voIPRoutingConfig.value);

voIPRouteConfig = sessiontelco.OpenVoIPRoutingConfig(routeConfigId);
voIPRouteBlock = voIPRouteConfig.NewVoIPRouteBlock();
RouteBlockType routeBlockType;
RouteBlockRoutes routeBlockRoutes = new RouteBlockRoutes();

            if (routingType.equalsIgnoreCase("RouteBlockPriority" ) ) {
                routeBlockType = RouteBlockType.RouteBlockPriority;
                int[] routeIdValue = {Integer.parseInt(routeId)};
                routeBlockRoutes.priorityRoutes(routeIdValue);
            }
            else if ( routingType.equalsIgnoreCase("RouteBlockWeighted" ) ) {
                routeBlockType = RouteBlockType.RouteBlockWeighted;
```

```
                int routeIdValue = Integer.parseInt(routeId);
                short routeWeightValue = Short.parseShort(routeWeight);
                WeightedRoute[] weightRoute = {new
WeightedRoute(routeIdValue,routeWeightValue) };
                WeightedRouteListHolder weightRouteHolder = new
WeightedRouteListHolder(weightRoute);
                routeBlockRoutes.weightedRoutes(weightRouteHolder.value);
            }
            enumRouteFallback routeFallbackString =
enumRouteFallback.RouteFallbackNone;
            int clearingHouseId = 0;

            voIPRouteBlock.Set(addParam, routeBlockName, addParam,
routeFallbackString, addParam, clearingHouseId, addParam, routeBlockRoutes
);
```

Output parameters

If the work order is not successful, the method returns:

ALCATEL_NRE_ADD_ROUTEBLOCK_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.

ALCATEL_NRE_ADD_ROUTEBLOCK_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM.\

For a successful ASDL, ROUTE_BLOCK_ID is saved as a CSDL parameter to the SARM table TBL_SRQ_PARM

A_A5020-VOIP_3-01_ADD_ROUTE-BLOCK-PREFIX

Adds a route block prefix. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.NREProvisioning.addRouteBlockPrefix.**

Table 28: A_A5020-VOIP_3-01_ADD_ROUTE-BLOCK-PREFIX

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or NRE instance.			S	R

Table 28: A_A5020-VOIP_3-01_ADD_ROUTE-BLOCK-PREFIX

Parameter Name	Description	Range	Default Value	Type	Class
ROUTE_CONFIG_ID	The primary key identifier of the routing configuration. Either ROUTE_CONFIG_ID or ROUTE_CONFIG_ NAME must be used as a key.			S	O
ROUTE_CONFIG_NAME	The name of the routing configuration. Either ROUTE_CONFIG_ID or ROUTE_CONFIG_ NAME must be used as a key.			S	O
ROUTE_BLOCK_ID	The route block identifier's primary key. Either ROUTE_BLOCK_ID or ROUTE_BLOCK_ NAME must be used as a key.			S	O
ROUTE_BLOCK_NAME	The route block name. Either ROUTE_BLOCK_ID or ROUTE_BLOCK_ NAME must be used as a key.			S	O
ROUTE_BLOCK_START_PREFIX	The route block starting prefix mask. It can also be the entire number when there is an exact match.			S	O
ROUTE_BLOCK_END_PREFIX	The route block end prefix mask. This is the end of the prefix for matching range.			S	O

MML command/API calls

```
VoIPRoutingConfig  voIPRoutingConfig =
sessiontelco.OpenVoIPRoutingConfig(routeConfigId );

            int routeBlockIdValue = getIntValue ( routeBlockId );

            VoIPRouteBlock voipRouteBlock =
voIPRoutingConfig.OpenVoIPRouteBlock(routeBlockIdValue );

            enumVoIPRoutingMatchType enumType =
enumVoIPRoutingMatchType.VoIPRoutingMatchTypeE164Range;
            VoIPRoutingMatchE164Range voipRoutingE164Range = new
VoIPRoutingMatchE164Range ( routeBlockStartPrefix, routeBlockEndPrefix );

            VoIPRoutingMatch voipRoutingMatch = new VoIPRoutingMatch();

            voipRoutingMatch.E164Range(voipRoutingE164Range );
            voipRouteBlock.AddMatch ( voipRoutingMatch );
```

Output parameters

If the work order is not successful, the method returns:

- ALCATEL_NRE_ADD_ROUTEBLOCKPREFIX_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_NRE_ADD_ROUTEBLOCKPREFIX_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM.

A_A5020-VOIP_3-01_ADD_ROUTE-BLOCK-SUFFIX

Adds a route block suffix. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.NREProvisioning.addRouteBlockSuffix.**

Table 29: A_A5020-VOIP_3-01_ADD_ROUTE-BLOCK-SUFFIX

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or NRE instance.			S	R

Table 29: A_A5020-VOIP_3-01_ADD_ROUTE-BLOCK-SUFFIX

Parameter Name	Description	Range	Default Value	Type	Class
ROUTE_CONFIG_ID	The primary key identifier of the routing configuration. Either ROUTE_CONFIG_ID or ROUTE_CONFIG_ NAME must be used as a key.			S	O
ROUTE_CONFIG_NAME	The name of the routing configuration. Either ROUTE_CONFIG_ID or ROUTE_CONFIG_ NAME must be used as a key.			S	O
ROUTE_BLOCK_ID	The route block identifier's primary key. Either ROUTE_BLOCK_ID or ROUTE_BLOCK_ NAME must be used as a key.			S	O
ROUTE_BLOCK_NAME	The route block name. Either ROUTE_BLOCK_ID or ROUTE_BLOCK_ NAME must be used as a key.			S	O
ROUTE_BLOCK_SUFFIX	The suffix mask used for this route block. The suffix identifies part of the domain that follows the @ character.			S	O

MML command/API calls

```
VoIPRoutingConfig  voIPRoutingConfig =
sessiontelco.OpenVoIPRoutingConfig(routeConfigId );
            int routeBlockIdValue = getIntValue ( routeBlockId );
```

```
            VoIPRouteBlock voipRouteBlock =
voIPRoutingConfig.OpenVoIPRouteBlock(routeBlockIdValue );
             enumVoIPRoutingMatchType enumType =
numVoIPRoutingMatchType.VoIPRoutingMatchTypeUsernameSuffix;
            VoIPRoutingMatch voipRoutingMatch = new VoIPRoutingMatch();
            voipRoutingMatch.UsernameSuffix(routeBlockSuffix );
            voipRouteBlock.AddMatch ( voipRoutingMatch );
```

Output parameters

If the work order is not successful, the method returns:

- ALCATEL_NRE_ADD_ROUTEBLOCKSUFFIX_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_NRE_ADD_ROUTEBLOCKSUFFIX_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM.

A_A5020-VOIP_3-01_ADD_ROUTE-CONFIG

Adds a route configuration. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.NREProvisioning.addRouteConfig.**

Table 30: A_A5020-VOIP_3-01_ADD_ROUTE-CONFIG

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or NRE instance.			S	R
ROUTE_CONFIG_NAME	The name of the routing configuration.			S	R
VPN_ID	Links the VPN_ID with the particular routing configuration. Either VPN_ID or VPN_NAME must be specified.			S	O
VPN_NAME	Links the VPN_NAME with the particular routing configuration. Either VPN_ID or VPN_NAME must be specified.			S	O

MML command/API calls

```
VoIPRoutingConfigHolder voIPRouteHolder = new VoIPRoutingConfigHolder();
VoIPRoutingConfig routeConfig =
VoIPRoutingConfigHelper.narrow(voIPRouteHolder.value);

routeConfig = sessiontelco.NewVoIPRoutingConfig();
routeconfig.Set(true, routeName);
```

Output parameters

If the work order is not successful, the method returns:

- ALCATEL_NRE_ADD_ROUTECONFIG_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_NRE_ADD_ROUTECONFIG_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM.

For a successful ASDL, ROUTE_CONFIG_ID is saved as a CSDL parameter to the SARM table TBL_SRQ_PARM

A_A5020-VOIP_3-01_ADD_VPN

Adds a VPN. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.NREProvisioning.addVPN.**

Table 31: A_A5020-VOIP_3-01_ADD_VPN

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or NRE instance.			S	R
VPN_NAME	The VPN name.			S	R
MAX_USERS	The maximum number of users.			S	O
ADMIN_ID	The admin identification.			S	O
MAX_SESSIONS	The maximum number of sessions.			S	O
DBLOG_STARTEXTSESS	The DB log proxy start external session.	None, Failed, All		S	O

Table 31: A_A5020-VOIP_3-01_ADD_VPN

Parameter Name	Description	Range	Default Value	Type	Class
DBLOG_ENDEXTSESS	The DB log proxy end external session.	None, Failed, All		S	O
DBLOG_STARTINTSESS	The DB log proxy start internal session.	None, Failed, All		S	O
DBLOG_ENDINTSESS	The DB log end internal session.	None, Failed, All		S	O
DBLOG_INTERIM_EXT	The DB proxy log interim external.	None, Failed, All		S	O
DBLOG_INTERIM_INT	The DB proxy log interim internal.	None, Failed, All		S	O
DBLOG_TUNNEL_EXT	The DB log tunnel external.	None, Failed, All		S	O
DBLOG_TUNNEL_INT	The DB log tunnel internal.	None, Failed, All		S	O
DBLOG_VENDOR_SPECIFIC	The DB log vendor specific.	True, False		S	O
CSVLOG_STARTEXTSESS	The CSV log proxy start external session.	None, Failed, All		S	O
CSVLOG_ENDEXTSESS	The CSV log end external session.	None, Failed, All		S	O
CSVLOG_STARTINTSESS	The CSV log start internal session.	None, Failed, All		S	O
CSVLOG_ENDINTSESS	The CSV log end internal session.	None, Failed, All		S	O
CSVLOG_INTERIM_EXT	The CSV log interim external.	None, Failed, All		S	O
CSVLOG_INTERIM_INT	The CSV log interim internal.	None, Failed, All		S	O
CSVLOG_TUNNEL_EXT	The CSV log tunnel external.	None, Failed, All		S	O

Table 31: A_A5020-VOIP_3-01_ADD_VPN

Parameter Name	Description	Range	Default Value	Type	Class
CSVLOG_TUNNEL_INT	The CSV log tunnel internal.	None, Failed, All		S	O
CSVLOG_VENDOR_SPECIFIC	The CSV vendor specific.	True, False		S	O
HOLIDAY	Holiday. For more information, see Table 32 on page 84.			C	O
ACTIVATIONTIME_YEAR	Activation time year.			S	O
ACTIVATIONTIME_MONTH	Activation time month.			S	O
ACTIVATIONTIME_DAY	Activation time - day.			S	O
ACTIVATIONTIME_HOUR	Activation time - hour.			S	O
ACTIVATIONTIME_MINUTE	Activation time - minute.			S	O
ACTIVATIONTIME_SECOND	Deactivation time - second.			S	O
DEACTIVATIONTIME_YEAR	Deactivation time - year.			S	O
DEACTIVATIONTIME_MONTH	Deactivation time - month.			S	O
DEACTIVATIONTIME_DAY	Deactivation time - day.			S	O
DEACTIVATIONTIME_HOUR	Deactivation time - hour.			S	O
DEACTIVATIONTIME_MINUTE	Deactivation time - minute.			S	O

Table 31: A_A5020-VOIP_3-01_ADD_VPN

Parameter Name	Description	Range	Default Value	Type	Class
DEACTIVATIONTIME_SECOND	Deactivation time - seconds.			S	O
LOGIN_ALLOWED_TIMES	Login allowed times. For more information, see Table 33 on page 84.			C	O
SPECIAL_PERIODS	Special periods. For more information, see Table 34 on page 85.			C	O
ONHOLD	On hold.	True, False		S	O

MML command/API calls

```
TelcoVPN telcoVpn = sessionTelco.NewTelcoVPN();

telcoVpn.SetGeneral( setVpnName, vpnName, true, currency, setMaxUsers,
maxUsersValue,
setMaxSessions, maxSessionsValue, false, dubiousIPTimeout, false,
privatePools, false, HSPPools, setAdminId, adminIdValue, addParamFlag,
payingAdminId );

telcoVpn.SetAccount(true, activationTime, false, deactivationTime, false,
loginAllowedTimeId, false, specialPerio
dId, true, onHold );

// DB Logging
            boolean setRadiusLogging = true;
            enumRadiusLogItem radiusLogging[] = {};
            boolean setProxyLogStartSessionInternal = true;
            enumProxyLogType proxyLogStartSessionInternal =
enumProxyLogType.ProxyLogNone;
            boolean setProxyLogStartSessionExternal = true;
            enumProxyLogType proxyLogStartSessionExternal =
enumProxyLogType.ProxyLogNone;
            boolean setProxyLogEndSessionInternal = true;
            enumProxyLogType proxyLogEndSessionInternal =
enumProxyLogType.ProxyLogNone;
            boolean setProxyLogEndSessionExternal = true;
            enumProxyLogType proxyLogEndSessionExternal =
enumProxyLogType.ProxyLogNone;
```

```
            boolean setProxyLogInterimInternal = true;
            enumProxyLogType proxyLogInterimInternal =
enumProxyLogType.ProxyLogFailed;
            boolean setProxyLogInterimExternal = true;
            enumProxyLogType proxyLogInterimExternal =
enumProxyLogType.ProxyLogFailed;
            boolean setProxyLogTunnelInternal = true;
            enumProxyLogType proxyLogTunnelInternal =
enumProxyLogType.ProxyLogAll;
            boolean setProxyLogTunnelExternal = true;
            enumProxyLogType proxyLogTunnelExternal =
enumProxyLogType.ProxyLogAll;
            boolean setProxyLogVendorSpecific = false;
            boolean proxyLogVendorSpecific = false;

            telcoVpn.SetDbLogging(setRadiusLogging, radiusLogging,
setProxyLogStartSessionInternal, proxyLogStartSessionInternal,
setProxyLogStartSessionExternal, proxyLogStartSessionExternal,
setProxyLogEndSessionInternal, proxyLogEndSessionInternal,
setProxyLogEndSessionExternal, proxyLogEndSessionExternal,
setProxyLogInterimInternal, proxyLogInterimInternal, setProxyLogInterimExter
nal, proxyLogInterimExternal, setProxyLogTunnelInternal,
proxyLogTunnelInternal, setProxyLogTunnelExternal, proxyLogTunnelExternal,
setProxyLogVendorSpecific,  proxyLogVendorSpecific);

            // CSV Logging
            telcoVpn.SetCsvLogging(setRadiusLogging, radiusLogging,
setProxyLogStartSessionInternal, proxyLogStartSessionInternal,
setProxyLogStartSessionExternal, proxyLogStartSessionExternal,
setProxyLogEndSessionInternal, proxyLogEndSessionInternal,
setProxyLogEndSessionExternal, proxyLogEndSessionExternal,
setProxyLogInterimInternal, proxyLogInterimInternal, setProxyLogInterimExte
rnal, proxyLogInterimExternal, setProxyLogTunnelInternal,
proxyLogTunnelInternal, setProxyLogTunnelExternal, proxyLogTunnelExternal,
setProxyLogVendorSpecific, proxyLogVendorSpecific);
```

Output parameters

If the work order is not successful, the method returns:

- ALCATEL_NRE_ADD_VPN_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_NRE_ADD_VPN_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM.

For a successful ASDL, VPN_ID is saved as a CSDL parameter to the SARM table TBL_SRQ_PARM.

Compound parameter "HOLIDAY"

The compound parameter HOLIDAY will contain an indefinite number of dates.

Table 32: Compound Parameter "HOLIDAY"

PARAMETER LABEL	PARAMETER TYPE	ELEMENT ATTRIBUTE TYPE	DESCRIPTION
HOLIDAY.(n).YEAR	O	STRING	Year format yyyy
HOLIDAY.(n).MONTH	O	STRING	Month format mm
HOLIDAY.(n).DAY	O	STRING	Day format dd
HOLIDAY.(n).HOUR	O	STRING	Hour format hh
HOLIDAY.(n).MINUTE	O	STRING	Minute format mm
HOLIDAY.(n).SECOND	O	STRING	Second format ss

Compound parameter "LOGIN_ALLOWED_TIMES"

The compound parameter LOGIN_ALLOWED_TIMES will contain an indefinite number of entries.

Table 33: Compound Parameter "LOGIN_ALLOWED_TIMES"

PARAMETER LABEL	PARAMETER TYPE	ELEMENT ATTRIBUTE TYPE	DESCRIPTION
LOGIN_ALLOWED_TIMES.(n).NAME	O	STRING	Name for this special period. Either Login Allowed Times Name or ID is required.
LOGIN_ALLOWED_TIMES.(n).ID	O	NUMBER	Identifier for this special period. Either Login Allowed Times Name or ID is required.

Table 33: Compound Parameter "LOGIN_ALLOWED_TIMES"

PARAMETER LABEL	PARAMETER TYPE	ELEMENT ATTRIBUTE TYPE	DESCRIPTION
LOGIN_ALLOWED_TIMES.(n).DAY.(m)	O	STRING	Valid values: Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday.
LOGIN_ALLOWED_TIMES.(n).START_HOUR	O	STRING	Hour format hh.
LOGIN_ALLOWED_TIMES.(n).START_MINUTE	O	STRING	Minute format mm.
LOGIN_ALLOWED_TIMES.(n).STOP_HOUR	O	STRING	Hour format hh.
LOGIN_ALLOWED_TIMES.(n).STOP_MINUTE	O	STRING	Minute format mm.

Compound parameter "SPECIAL_PERIODS"

The compound parameter SPECIAL_PERIODS is used to provide special login periods. A unique name or ID is required per entry. Up to n entries are allowed per VPN.

Table 34: Compound Parameter "SPECIAL_PERIODS"

PARAMETER LABEL	PARAMETER TYPE	ELEMENT ATTRIBUTE TYPE	DESCRIPTION
SPECIAL_PERIODS.(n).NAME	O	STRING	Name for this special period. Either Special Period Name or ID is required.
SPECIAL_PERIODS.(n).ID	O	NUMBER	Identifier for this special period. Either Special Period Name or ID is required.

Table 34: Compound Parameter "SPECIAL_PERIODS"

PARAMETER LABEL	PARAMETER TYPE	ELEMENT ATTRIBUTE TYPE	DESCRIPTION
SPECIAL_PERIODS.(n). START_DAY	O	STRING	Valid values: Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday.
SPECIAL_PERIODS.(n). END_DAY	O	STRING	Valid values: Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday.
SPECIAL_PERIODS.(n). MONTH	O	NUMBER	Valid values: 1-12.
SPECIAL_PERIODS.(n). YEAR	O	NUMBER	Year format xxxx.
SPECIAL_PERIODS.(n). LOGINTIMESNAME	O	STRING	Name of associated Login Times. Either Login Times Name or ID is required.
SPECIAL_PERIODS.(n). LOGINTIMESID	O	STRING	Name of associated Login Times. Either Login Times Name or ID is required.

A_A5020-VOIP_3-01_DEL_AAA-GROUP

Deletes an AAA group. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.NREProvisioning.delAAAGroup.**

Table 35: A_A5020-VOIP_3-01_DEL_AAA-GROUP

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or NRE instance.			S	R

Table 35: A_A5020-VOIP_3-01_DEL_AAA-GROUP

Parameter Name	Description	Range	Default Value	Type	Class
VPN_NAME	The VPN name identifier. Either VPN_ID or VPN_NAME must be used as a key.			S	O
VPN_ID	The VPN instance identifier. Either VPN_ID or VPN_NAME must be used as a key.			S	O
AAA_GROUP_NAME	The AAA group name. Either AAA_GROUP_ID or AAA_GROUP_NAME must be used as a key.			S	O
AAA_GROUP_ID	The AAA group identification. Either AAA_GROUP_ID or AAA_GROUP_NAME must be used as a key.			S	O

MML command/API calls

```
VoIPAAAGroup aaaGroup = telcoVpn.OpenVoIPAAAGroup (AAAGroupID);
AaaGroup.Delete();
```

Output parameters

If the work order is not successful, the method returns:

- ALCATEL_NRE_DELETE_AAA_GROUP_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_NRE_DELETE_AAA_GROUP_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM

A_A5020-VOIP_3-01_DEL_AAA-SELECTION-RULE

Deletes an AAA selection rule. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.NREProvisioning.delAAASelectionRule.**

Table 36: A_A5020-VOIP_3-01_DEL_AAA-SELECTION-RULE

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or NRE instance.			S	R
USE_QUERY	Flag to determine whether to use results of the query.			S	O
AAA_SELECTION_AAA_GROUP_ID	The AAA group ID. Either GROUP_ID or GROUP_NAME and the SELECTION_RULE_NUMBER, must be used as a key. The SELECTION_RULE_ID can be used as a key by itself.			S	O
AAA_SELECTION_AAA_GROUP_NAME	The AAA group name. Either GROUP_ID or GROUP_NAME and the SELECTION_RULE_NUMBER, must be used as a key. The SELECTION_RULE_ID can be used as a key by itself.			S	O
AAA_SELECTION_VPN_ID	The VPN identifier. Either VPN_ID or VPN_NAME must be used as a key.			S	O

Table 36: A_A5020-VOIP_3-01_DEL_AAA-SELECTION-RULE

Parameter Name	Description	Range	Default Value	Type	Class
AAA_SELECTION_VPN_NAME	The VPN name. Either VPN_ID or VPN_NAME must be used as a key. If using RAN or POP or External Gatekeeper Names, then VPN is required.			S	O
AAA_SELECTION_RULE_ID	The AAA selection rule identification. Either AAA_GROUP_ID or NAME, and the SELECTION_RULE_NUMBER must be used as a key; SELECTION_RULE_ID can be used by itself. If both RULE_ID and RULE_NAME are used, an error results.			S	O
AAA_SELECTION_RULE_NUMBER	Priority sequence of the rule within an AAA group. Either AAA_GROUP_ID or NAME, and the SELECTION_RULE_NUMBER must be used as a key; SELECTION_RULE_ID can be used by itself. If not set, rule is placed at start of sequence of rules.			S	O
AAA_SELECTION	Multiple instances of AAA selections can be used here. For more information, see Table 24 on page 64.			C	O

Table 36: A_A5020-VOIP_3-01_DEL_AAA-SELECTION-RULE

Parameter Name	Description	Range	Default Value	Type	Class
OLD_AAA_SELECTION	Multiple instances of AAA selections can be used here. This compound parameter takes precedence over the scalar parameter. For more information, see Table 24 on page 64.			C	O

MML command/API calls

```
VoIPAAASelectionRule selectionRule =
sessionTelco.OpenVoIPAAASelectionRule(selectionRuleId);
 selectionRule.Delete();
```

Output parameters

If the work order is not successful, the method returns:

- ALCATEL_DELETE_AAA_SELECTION_RULE_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_DELETE_AAA_SELECTION_RULE_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM.

A_A5020-VOIP_3-01_DEL_ROUTE

Removes an existing route. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.NREProvisioning.deleteRoute.**

Table 37: A_A5020-VOIP_3-01_DEL_ROUTE

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or NRE instance.			S	R

Table 37: A_A5020-VOIP_3-01_DEL_ROUTE

Parameter Name	Description	Range	Default Value	Type	Class
ROUTE_ID	The route's primary identification key. Either ROUTE_ID or ROUTE_NAME must be used as a key.			S	O
ROUTE_NAME	The route's name. Either ROUTE_ID or ROUTE_NAME must be used as a key.			S	O

MML command/API calls

```
enumVoIPRouteType voIPType;

            VoIPRouteHolder voIPRouteHolder = new VoIPRouteHolder();
            VoIPRoute voipRoute =
VoIPRouteHelper.narrow(voIPRouteHolder.value);

            voipRoute = sessiontelco.NewVoIPRoute();
            RouteDetail routeDetail = new RouteDetail();

            int routeItspldValue;

            if ( routeType.equalsIgnoreCase("VoIPRouteCarrierViaGW") ) {
                voIPType = enumVoIPRouteType.VoIPRouteCarrierViaGW;
                routeDetail.carrierPrefix(routeCarrierPrefix);
                voipRoute.Set(addParam,routeName, true, routeOdp,    true,
routeGwPopValue, true, routeDetail );

            } else if ( routeType.equalsIgnoreCase ("VoIPRouteITSP" ) ) {

                routeItspldValue = getIntValue ( routeItspld );
                voIPType = enumVoIPRouteType.VoIPRouteITSP;
                routeDetail.externalGkPxId (routeItspldValue );

                voipRoute.Set(addParam,routeName,  true, routeOdp,  true,
routeGwPopValue,  true, routeDetail);

            } else if ( routeType.equalsIgnoreCase("VoIPRouteToEP") ) {

                voIPType = enumVoIPRouteType.VoIPRouteToEP;
                enumEndpointType endPointType  = null;
```

```
                if  ( routeEndpointType.equalsIgnoreCase("EndpointTypeH323" )
) {
                    endPointType = enumEndpointType.EndpointTypeH323;
                } else if (
routeEndpointType.equalsIgnoreCase("EndpointTypeSIP" ) ) {
                    endPointType = enumEndpointType.EndpointTypeSIP;
                }

                RouteDetailEndPoint endpointDetail = new
RouteDetailEndPoint(endPointType, ipAddress, routeEndpointPortValue );
                routeDetail.endPoint( endpointDetail );
                voipRoute.Set(addParam,routeName, true, routeOdp, true,
routeGwPopValue,  true, routeDetail);
            }
```

Once voipRoute entity is accessed, it is to be deleted via VoipRoute.delete()

Output parameters

If the work order is not successful, the method returns:

- ALCATEL_NRE_DELETE_ROUTE_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_NRE_DELETE_ROUTE_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM

A_A5020-VOIP_3-01_DEL_ROUTE-BLOCK

Removes the route block. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.NREProvisioning.deleteRouteBlock.**

Table 38: A_A5020-VOIP_3-01_DEL_ROUTE-BLOCK

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or NRE instance.			S	R
ROUTE_BLOCK_ID	The route block identifier's primary key. Either ROUTE_BLOCK_ID or ROUTE_BLOCK_ NAME must be used as a key.			S	O

Table 38: A_A5020-VOIP_3-01_DEL_ROUTE-BLOCK

Parameter Name	Description	Range	Default Value	Type	Class
ROUTE_BLOCK_NAME	The route block name. Either ROUTE_BLOCK_ID or ROUTE_BLOCK_NAME must be used as a key.			S	O
ROUTE_CONFIG_ID	The primary key identifier of the routing configuration. Either ROUTE_CONFIG_ID or ROUTE_CONFIG_NAME must be used as a key.			S	O
ROUTE_CONFIG_NAME	The the routing configuration name. Either ROUTE_CONFIG_ID or ROUTE_CONFIG_NAME must be used as a key.			S	O

MML command/API calls

```
enumVoIPRouteType voIPType;

            VoIPRouteHolder voIPRouteHolder = new VoIPRouteHolder();
            VoIPRoute voipRoute =
VoIPRouteHelper.narrow(voIPRouteHolder.value);

            voipRoute = sessiontelco.NewVoIPRoute();
            RouteDetail routeDetail = new RouteDetail();

            int routeItspldValue;

            if ( routeType.equalsIgnoreCase("VoIPRouteCarrierViaGW") ) {
                voIPType = enumVoIPRouteType.VoIPRouteCarrierViaGW;
                routeDetail.carrierPrefix(routeCarrierPrefix);
                voipRoute.Set(addParam,routeName, true, routeOdp,    true,
routeGwPopValue, true, routeDetail );

            } else if ( routeType.equalsIgnoreCase ("VoIPRouteITSP" ) ) {
```

```
                routeItspldValue = getIntValue ( routeItspld );
                voIPType = enumVoIPRouteType.VoIPRouteITSP;
                routeDetail.externalGkPxId (routeItspldValue );

                voipRoute.Set(addParam,routeName,  true, routeOdp,  true,
routeGwPopValue,  true, routeDetail);

            } else if ( routeType.equalsIgnoreCase("VoIPRouteToEP") ) {

                voIPType = enumVoIPRouteType.VoIPRouteToEP;
                enumEndpointType endPointType  = null;

               if  ( routeEndpointType.equalsIgnoreCase("EndpointTypeH323" )
) {
                    endPointType = enumEndpointType.EndpointTypeH323;
                } else if (
routeEndpointType.equalsIgnoreCase("EndpointTypeSIP" ) ) {
                    endPointType = enumEndpointType.EndpointTypeSIP;
                }

                RouteDetailEndPoint endpointDetail = new
RouteDetailEndPoint(endPointType, ipAddress, routeEndpointPortValue );
                routeDetail.endPoint( endpointDetail );
                voipRoute.Set(addParam,routeName, true, routeOdp, true,
routeGwPopValue,  true, routeDetail);
            }
```

Once route block object is retrieved, call delete() on it, instead of set().

```
voIPRouteBlock.Delete();
```

Output parameters

If the work order is not successful, the method returns:

- ALCATEL_NRE_DELETE_ROUTEBLOCK_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_NRE_DELETE_ROUTEBLOCK_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM.

A_A5020-VOIP_3-01_DEL_ROUTE-BLOCK-PREFIX

Removes the route block prefix. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.NREProvisioning.deleteRouteBlockPrefix.**

Table 39: A_A5020-VOIP_3-01_DEL_ROUTE-BLOCK-PREFIX

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or NRE instance.			S	R
ROUTE_CONFIG_ID	The primary key identifier of the routing configuration. Either ROUTE_CONFIG_ID or ROUTE_BLOCK_NAME must be used as a key.			S	O
ROUTE_CONFIG_NAME	The name of the routing configuration. Either ROUTE_CONFIG_ID or ROUTE_CONFIG_NAME must be used as a key.			S	O
ROUTE_BLOCK_ID	The route block identifier's primary key. Either ROUTE_BLOCK_ID or ROUTE_BLOCK_NAME must be used as a key.			S	O
ROUTE_BLOCK_NAME	The route block name. Either ROUTE_BLOCK_ID or ROUTE_BLOCK_NAME must be used as a key.			S	O

Table 39: A_A5020-VOIP_3-01_DEL_ROUTE-BLOCK-PREFIX

Parameter Name	Description	Range	Default Value	Type	Class
ROUTE_BLOCK_START_PREFIX	The route block starting prefix mask. It can also be the entire number when there is an exact match.			S	O
ROUTE_BLOCK_END_PREFIX	The route block end prefix mask. This is the end of the prefix for matching range.			S	O

MML command/API calls

```
VoIPRoutingConfig  voIPRoutingConfig =
sessiontelco.OpenVoIPRoutingConfig(routeConfigId );
            int routeBlockIdValue = getIntValue ( routeBlockId );
            VoIPRouteBlock voipRouteBlock =
voIPRoutingConfig.OpenVoIPRouteBlock(routeBlockIdValue );
       voipRouteBlock.RemoveMatch ( voipRoutingMatch );
```

Output parameters

If the work order is not successful, the method returns:

- ALCATEL_NRE_DELETE_ROUTEBLOCKPREFIX_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_NRE_DELETE_ROUTEBLOCKPREFIX_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM

A_A5020-VOIP_3-01_DEL_ROUTE-BLOCK-SUFFIX

Removes the route block suffix. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.NREProvisioning.deleteRouteBlockSuffix.**

Table 40: A_A5020-VOIP_3-01_DEL_ROUTE-BLOCK-SUFFIX

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or NRE instance.			S	R
ROUTE_CONFIG_ID	The primary key identifier of the routing configuration. Either ROUTE_CONFIG_ID or ROUTE_CONFIG_NAME must be used as a key.			S	O
ROUTE_CONFIG_NAME	The name of the routing configuration. Either ROUTE_CONFIG_ID or ROUTE_CONFIG_NAME must be used as a key.			S	O
ROUTE_BLOCK_ID	The route block identifier's primary key. Either ROUTE_BLOCK_ID or ROUTE_BLOCK_NAME must be used as a key.			S	O
ROUTE_BLOCK_NAME	The route block name. Either ROUTE_BLOCK_ID or ROUTE_BLOCK_NAME must be used as a key.			S	O

Table 40: A_A5020-VOIP_3-01_DEL_ROUTE-BLOCK-SUFFIX

Parameter Name	Description	Range	Default Value	Type	Class
ROUTE_BLOCK_SUFFIX	The suffix mask used for this route block. The suffix identifies part of the domain that follows the @ symbol.			S	O

MML command/API calls

```
VoIPRoutingConfig voIPRoutingConfig =
sessiontelco.OpenVoIPRoutingConfig(routeConfigId );

            int routeBlockIdValue = getIntValue ( routeBlockId );
            VoIPRouteBlock voipRouteBlock =
voIPRoutingConfig.OpenVoIPRouteBlock(routeBlockIdValue );;
 voipRouteBlock.RemoveMatch ( origVoipRoutingMatch );
            VoIPRoutingMatch voipRoutingMatch = new VoIPRoutingMatch();
            voipRoutingMatch.UsernameSuffix(routeBlockSuffix );
            voipRouteBlock.RemoveMatch ( voipRoutingMatch );
```

Output parameters

If the work order is not successful, the method returns:

- ALCATEL_NRE_DELETE_ROUTEBLOCKSUFFIX_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_NRE_DELETE_ROUTEBLOCKSUFFIX_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM.

A_A5020-VOIP_3-01_DEL_ROUTE-CONFIG

Removes the route configuration. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.NREProvisioning.deleteRouteConfig.**

Table 41: A_A5020-VOIP_3-01_DEL_ROUTE-CONFIG

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or NRE instance.			S	R

Table 41: A_A5020-VOIP_3-01_DEL_ROUTE-CONFIG

Parameter Name	Description	Range	Default Value	Type	Class
ROUTE_CONFIG_ID	The primary key identifier of the routing configuration. Either ROUTE_CONFIG_ID or ROUTE_CONFIG_ NAME must be used as a key			S	O
ROUTE_CONFIG_NAME	The name of the routing configuration. Either ROUTE_CONFIG_ID or ROUTE_CONFIG_ NAME must be used as a key			S	O

MML command/API calls

```
VoIPRoutingConfigHolder voIPRouteHolder = new VoIPRoutingConfigHolder();
VoIPRoutingConfig routeConfig =
VoIPRoutingConfigHelper.narrow(voIPRouteHolder.value);
        routeConfig = sessiontelco.OpenVoIPRoutingConfig(routeConfigID);
        routeConfig.Delete();
```

Output parameters

If the work order is not successful, the method returns:

- ALCATEL_NRE_DELETE_ROUTECONFIG_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_NRE_DELETE_ROUTECONFIG_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM.

A_A5020-VOIP_3-01_DEL_VPN

Deletes a VPN. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.NREProvisioning.delVPN.**

Table 42: A_A5020-VOIP_3-01_DEL_VPN

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or NRE instance.			S	R
VPN_ID	The VPN's ID. Either VPN_ID or VPN_NAME must be used as a key.			S	O
VPN_NAME	The VPN's name. Either VPN_ID or VPN_NAME must be used as a key.			S	O

MML command/API calls

```
TelcoVPN telcoVpn = sessionTelco.OpenTelcoVPN(vpnId);
telcoVpn.Delete();
```

Output parameters

If the work order is not successful, the method returns:

- ALCATEL_NRE_DELETE_VPN_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_NRE_DELETE_VPN_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM.

A_A5020-VOIP_3-01_MOD_AAA-GROUP

Modifies the AAA group. AAA Group VOIP attributes may be removed/unset by setting the value to UNSET_VALUE. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.NREProvisioning.modAAAGroup.**

Table 43: A_A5020-VOIP_3-01_MOD_AAA-GROUP

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or NRE instance.			S	R
VPN_NAME	The VPN name identifier. Either VPN_ID or VPN_NAME must be used as a key.			S	O
VPN_ID	The VPN instance identifier. Either VPN_ID or VPN_NAME must be used as a key.			S	O
AAA_GROUP_NAME	The AAA group's name. Either AAA_GROUP_NAME or AAA_GROUP_ID must be used as a primary key.			S	O
AAA_GROUP_ID	The AAA group identification. Either AAA_GROUP_NAME or AAA_GROUP_ID must be used as a primary key.			S	O

Table 43: A_A5020-VOIP_3-01_MOD_AAA-GROUP

Parameter Name	Description	Range	Default Value	Type	Class
AAA_GROUP_ENABLE_ON_HOLD	The AAA group's mode.	Enabled (the default operation), OnHold (a user trying to access a VoIP AAA group that is put on hold is rejected), Disabled (the selection criteria will never lead to this VoIP AAA group)		S	O
AAA_GROUP_MAX_USER_SESSIONS	The maximum number of users per session. The default value is 0.			S	O
AAA_GROUP_MAX_ACCOUNTING_RETRIES	The maximum number of retries available to an accounting request.			S	O
AAA_GROUP_EXTERNAL	The type of connection to the A5020X server, either "internal" or "external".			S	O
AAA_GROUP_FAILURE_TO_START_SUPPORT_FLAG	Enable or disable this flag enable or disable support for Failure-to-Start messages for this VoIP AAA group.			S	O
AAA_GROUP_UNIDENTIFIED_ACCESS_FLAG	Enables or disables the flag that indicates support for this group's unidentified access.			S	O
AAA_GROUP_PRE_AUTHENTICATION_ACCESS_ONLY_FLAG	Controls whether the group performs the access checks.			S	O
AAA_GROUP_INTERACTION_SUPPORT_FLAG	Enables the interaction support.			S	O

Table 43: A_A5020-VOIP_3-01_MOD_AAA-GROUP

Parameter Name	Description	Range	Default Value	Type	Class
AAA_GROUP_SUPPORT_ACCOUNTING_INTERIM_UPDATES_FLAG	Enable or disable this flag to specify whether the Radius process supports Interim Updates or not.			S	O
AAA_GROUP_SUPPORT_ACCESS_FAILED_TICKETS_FLAG	Enables proxy generated messages to be generated by access fail tickets that cause radius accounting stop packets. This feature can be enabled per VoIP AAA group.			S	O
AAA_GROUP_SUPPORT_EAP_MESSAGE_START_FLAG	Enables EAP messages.			S	O
AAA_GROUP_MANDATORY_PORTSET_FLAG	Enables the call to be rejected when no port is defined in the POP or RAN.			S	O
AAA_GROUP_STAGE2_AUTHENTICATION_FLAG	Enables two-stage authentication. Enable if you want a call to be rejected if no port availability setting is defined on RAN or POP level.			S	O
AAA_GROUP_STAGE2_ACCOUNTING_FLAG	Enables two-stage accounting.			S	O
AAA_GROUP_ACCOUNTING_ONLY_FLAG	Enables accounting validation.			S	O

Table 43: A_A5020-VOIP_3-01_MOD_AAA-GROUP

Parameter Name	Description	Range	Default Value	Type	Class
AAA_GROUP_AUTHENTICATION_PROTOCOL_TYPE	The protocol type, which is based on the AAA server currently in use.			S	O
AAA_GROUP_AUTHENTICATION_RETRIES	The number of retries allowed during a connection timeout.			S	O
AAA_GROUP_ACCOUNTING_PROTOCOL_TYPE	The protocol type in use, based on the prevailing AAA server.			S	O
AAA_GROUP_ACCOUNTING_RETRIES	The number of retries allowed during the connection timeout.			S	O
AAA_GROUP_AUTHORISATION_DEFAULT_PORT_TYPE	The VoIP AAA group default port.			S	O
AAA_GROUP_AUTHORISATION_PORT_TYPES	A list of the authorization port types. For more information, see Table 21 on page 57.			C	O
AAA_GROUP_BARRING_CLASS	The barring class used by the call screening server.			S	O
AAA_GROUP_MAXIMUM_CONCURRENT_CALLS	The maximum concurrent calls per endpoint.			S	O
AAA_GROUP_DIAL_IP_ADDRESS_PREFIX	This prefix value indicates that the dialed number is an IP address.			S	O

Table 43: A_A5020-VOIP_3-01_MOD_AAA-GROUP

Parameter Name	Description	Range	Default Value	Type	Class
AAA_GROUP_DIAL_UNREGISTERED_ENDPOINTS	Allows (0) or prevents (1) the dialing of unregistered endpoints by their IP address (only for terminal-to-terminal calls). By default this is allowed.			S	O
AAA_GROUP_CALL_TRANSFER	Allows (1) or prevents (0) the call transfer service. By default this service is not allowed.			S	O
AAA_GROUP_ALLOW_UNCONDITIONAL_FORWARDING_ACTIVATION	Allows (0) or prevents (1) unconditional forward activation.			S	O
AAA_GROUP_ALLOW_BUSY_FORWARD_ACTIVATION	Allows (0) or prevents (1) busy forward activation.			S	O
AAA_GROUP_ALLOW_NOREPLY_FORWARD_ACTIVATION	Allows (0) or prevents (1) no reply forward activation.			S	O
AAA_GROUP_TRIGGER_DESTINATION_AS_FOR_UNREGISTERED_USERS_METHOD	The AAA group's trigger destination method.	Register, Unregister, Admission		S	O
AAA_GROUP_TRIGGER_DESTINATION_AS_FOR_UNREGISTERED_USERS_METHOD_TYPE	The AAA group's trigger destination method type.	NotAllowed (no authentication), Allowed (authenticate), CHAP login		S	O

Table 43: A_A5020-VOIP_3-01_MOD_AAA-GROUP

Parameter Name	Description	Range	Default Value	Type	Class
AAA_GROUP_H323_MAKE_CALL_PREGRANTED_ARQ	The appropriate value for making calls.	CallOff (No pre-granted ARQ), CallH323GKRoutedMode (only if H.323 GK in routed mode), CallH323GKDirectMode (only if H.323 GK in direct mode), CallAlways (pre-granted ARQ regardless of GK mode)		S	O
AAA_GROUP_H323_ANSWER_CALL_PREGRANTED_ARQ	The appropriate value for answering calls.	CallOff (No pre-granted ARQ), CallH323GKRoutedMode (only if H.323 GK in routed mode), CallH323GKDirectMode (only if H.323 GK in direct mode), CallAlways (pre-granted ARQ regardless of GK mode)		S	O
AAA_GROUP_H323_CHECK_LOCATION_TOKEN	Determines whether the location token should be checked-in (1) or not (0). By default the location token is not checked.			S	O
AAA_GROUP_H323_RIP_REGISTRATION	Identifies which H323 RIP message is sent to the server. By default no RIP messages are sent.			S	O
AAA_GROUP_H323_RIP_UNREGISTRATION	Indicates the H323 RIP unregistration timeout in seconds.			S	O

Table 43: A_A5020-VOIP_3-01_MOD_AAA-GROUP

Parameter Name	Description	Range	Default Value	Type	Class
AAA_GROUP_H323_RIP_CALL_ADMISSION	Indicates the H323 RIP call admission timeout in seconds.			S	O
AAA_GROUP_H323_TERMINAL_AUTHENTICATION_METHOD	The method of terminal authentication interface.	Register, Unregister, Admission		S	O
AAA_GROUP_H323_TERMINAL_AUTHENTICATION_METHOD_TYPE	The type for terminal authentication interface.	NotAllowed (no authentication), Allowed (authenticate), CHAP login		S	O
AAA_GROUP_H323_GATEWAY_AUTHENTICATION_METHOD	The method for gateway authentication interface.			S	O
AAA_GROUP_H323_GATEWAY_AUTHENTICATION_METHOD_TYPE	The type for authentication interface.	NotAllowed, Allowed (authenticate)		S	O
AAA_GROUP_H323_UPDATE_SETUP_ORIGIN	The H323 update setup origin.			S	O
AAA_GROUP_H323_UPDATE_SETUP_DESTINATION	Determines whether to update the H323 setup destination.			S	O
AAA_GROUP_H323_UPDATE_DISPLAY	Determines whether to update the H323 setup display.			S	O
AAA_GROUP_TRIGGER_SIP_APPLICATION_SERVER	The value of trigger SIP application server. If Server Name equals UNSET_VALUE or Server ID = -1 in a modify context, then the SIP Application Server is to be deleted.			S	O

Table 43: A_A5020-VOIP_3-01_MOD_AAA-GROUP

Parameter Name	Description	Range	Default Value	Type	Class
AAA_GROUP_SIP_ORIGIN_APPLICATION_SERVER	The server method, type, and service information for the application server. If Server Name equals UNSET_VALUE or Server ID = -1 in a modify context, then the SIP Application Server is to be deleted. For more information, see Table 22 on page 58.			C	O
AAA_GROUP_SIP_DESTINATION_APPLICATION_SERVER	The AAA group's SIP destination AS. It contains the server method, type, and service information about the application server. If Server Name equals UNSET_VALUE or Server ID = -1 in a modify context, then the SIP Application Server is to be deleted. For more information, see Table 22 on page 58.			C	O

Table 43: A_A5020-VOIP_3-01_MOD_AAA-GROUP

Parameter Name	Description	Range	Default Value	Type	Class
AAA_GROUP_SIP_CALL_APPLICATION_SERVER	Contains information on the AAA group's SIP call application server. If Server Name equals UNSET_VALUE or Server ID = -1 in a modify context, then the SIP Application Server is to be deleted. For more information, see Table 22 on page 58.			C	O
AAA_GROUP_SIP_PROXY_LOCAL_DESTINATION	The SIP proxy local destination.	stateful, stateless, or redirect		S	O
AAA_GROUP_SIP_PROXY_NON_LOCAL_DESTINATION	The proxy non-local destination.	stateful or stateless		S	O
AAA_GROUP_SIP_TERMINAL_AUTHENTICATION_METHOD	The SIP terminal authentication method.	register, invite, subscribe, message, options, refer, and unknown		S	O
AAA_GROUP_SIP_TERMINAL_AUTHENTICATION_METHOD_TYPE	The type of SIP terminal authentication method.	NotAllowed, AllowedNoAuthentication, AllowedWithAuthentication,CHAPLogin, HTTPDigest		S	O
AAA_GROUP_SIP_HTTP_DIGEST_REALM	The realm string, which is used for the HTTP digest.			S	O
AAA_GROUP_SIP_HTTP_DIGEST_TIMEOUT	The length of time this one-time instance stays valid.			S	O

Table 43: A_A5020-VOIP_3-01_MOD_AAA-GROUP

Parameter Name	Description	Range	Default Value	Type	Class
AAA_GROUP_SIP_GATEWAY_AUTHENTICATION_METHOD	The gateway authentication method.	Invite or Unknown		S	O
AAA_GROUP_SIP_GATEWAY_AUTHENTICATION_METHOD_TYPE	The gateway authentication method type.	Invite or Unknown		S	O
AAA_GROUP_CFA_ENABLE	Enables the service for this group.			S	O
AAA_GROUP_CFA_PREFIX	Enables the service for this type.			S	O
AAA_GROUP_CFA_LANGUAGE_INDICATOR	A number indicating the language.			S	O
AAA_GROUP_CFA_DEFAULT_ANNOUNCEMENT	The default announcement code.			S	O
AAA_GROUP_IVR_IP_ADDRESS	The IVR's IP address.			S	O
AAA_GROUP_IVR_PORT	The IVR's port value.			S	O

MML command/API calls

```
VoIPAAAGroup aaaGroup = telcoVpn.NewVoIPAAAGroup ();
aaaGroup.Set ( setName, groupName, setEnableOnHold, enableOnHoldType,
setMaxUsers, maxUserSessionsValue, setdub
iousTimeout, dubiousSessionTimeout, setMaxAccountRetries,
maxAccountRetryValue, setAAAFlags, realAAAGroupFlags );
aaaGroup.SetAuthentication ( setAuthProtocolType, authProtocolTypeValue,
setAuthRetries, authRetriesValue );
aaaGroup.SetAccounting ( setAccountProtocolType, accountProtocolTypeValue,
setAccountRetries, accountRetriesValue );
aaaGroup.SetPortAuthorisation
(setAuthDefaultPortType,authDefaultPortTypeValue ,
setAuthPortTypes,portTypes );
```

```
aaaGroup.SetVoIPCFA ( setCfaEnable, cfaEnableOption, setIvrIpAddress,
ivrAddressList, setIvrPort,
ivrPortValue,setCfaPrefix,cfaPrefix,setCfaLangIndicator,cfaLangIndicatorValu
e, setCfaDefaultAnnouncement, cfaDefaultAnnouncement );
```

Output parameters

If the work order is not successful, the method returns:

- ALCATEL_NRE_MODIFY_AAA_GROUP_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_NRE_MODIFY_AAA_GROUP_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM.

A_A5020-VOIP_3-01_MOD_AAA-GROUP-RB

Rolls back modifications to AAA groups. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.NREProvisioning.modAAAGroupRB.**

Table 44: A_A5020-VOIP_3-01_MOD_AAA-GROUP-RB

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or NRE instance.			S	R
VPN_NAME	The VPN name identifier. Either VPN_ID or VPN_NAME must be used as a key.			S	O
VPN_ID	The VPN instance identifier. Either VPN_ID or VPN_NAME must be used as a key.			S	O
AAA_GROUP_NAME	The AAA group's name. Either the AAA_GROUP_ID or AAA_GROUP_NAME must be used as a key.			S	O

Table 44: A_A5020-VOIP_3-01_MOD_AAA-GROUP-RB

Parameter Name	Description	Range	Default Value	Type	Class
AAA_GROUP_ID	The AAA group identification. Either the AAA_GROUP_ID or AAA_GROUP_NAME must be used as a key.			S	O
OLD_AAA_GROUP_ENABLE_ON_HOLD	The previous AAA group's mode.	Enabled (the default operation), OnHold (a user trying to access a VoIP AAA group that is on hold is rejected)		S	O
OLD_AAA_GROUP_MAX_USER_SESSIONS	The previous maximum number of users per session. The default value is 0 and means no per-user restrictions.			S	O
OLD_AAA_GROUP_MAX_ACCOUNTING_RETRIES	The previous maximum number of retries available to an accounting request.			S	O
OLD_AAA_GROUP_EXTERNAL	The previous type of connection to the A5020X server, either internal (0) or external (1).			S	O
OLD_AAA_GROUP_FAILURE_TO_START_SUPPORT_FLAG	The previous flag that controls the group's failure to start message.			S	O
OLD_AAA_GROUP_UNIDENTIFIED_ACCESS_FLAG	The previous flag that controls the group's old unidentified access.			S	O
OLD_AAA_GROUP_PRE_AUTHENTICATION_ACCESS_ONLY_FLAG	The previous flag that controls whether the group performs the access checks.			S	O

Table 44: A_A5020-VOIP_3-01_MOD_AAA-GROUP-RB

Parameter Name	Description	Range	Default Value	Type	Class
OLD_AAA_GROUP_INTOLD_ERACTION_SUPPORT_FLAG	The previous flag that enables or disables the interaction support.			S	O
OLD_AAA_GROUP_SUPPORT_ACCOUNTING_INTERIM_UPDATES_FLAG	The previous flag that enables or disables the radius process interim updates.			S	O
OLD_AAA_GROUP_SUPPORT_ACCESS_FAILED_TICKETS_FLAG	The previous flag that controls whether or not the system enables proxy generated messages that are caused by access fail tickets.			S	O
OLD_AAA_GROUP_SUPPORT_EAP_MESSAGE_START_FLAG	The previous flag that enables or disables EAP messages.			S	O
OLD_AAA_GROUP_MANDATORY_PORTSET_FLAG	The previous flag that enables or disables the call to be rejected when no port is defined in the POP or RAN.			S	O
OLD_AAA_GROUP_STAGE2_AUTHENTICATION_FLAG	The previous flag that enables or disables two-stage authentication.			S	O
OLD_AAA_GROUP_STAGE2_ACCOUNTING_FLAG	The previous flag that enables or disables two-stage accounting.			S	O
OLD_AAA_GROUP_ACCOUNTING_ONLY_FLAG	The previous flag that enables or disables accounting validation.			S	O
OLD_AAA_GROUP_AUTHENTICATION_PROTOCOL_TYPE	The previous protocol type, which is based on the AAA server currently in use.			S	O

Table 44: A_A5020-VOIP_3-01_MOD_AAA-GROUP-RB

Parameter Name	Description	Range	Default Value	Type	Class
OLD_AAA_GROUP_AUTHENTICATION_RETRIES	The previous number of retries allowed during a connection timeout.			S	O
OLD_AAA_GROUP_ACCOUNTING_PROTOCOL_TYPE	The previous protocol type in use, based on the prevailing AAA server.			S	O
OLD_AAA_GROUP_ACCOUNTING_RETRIES	The previous number of retries allowed during the connection timeout.			S	O
OLD_AAA_GROUP_AUTHORISATION_DEFAULT_PORT_TYPE	The previous VoIP AAA group default port.			S	O
OLD_AAA_GROUP_AUTHORISATION_PORT_TYPES	A previous list of the authorization port types. For more information, see Table 21 on page 57.			C	O
OLD_AAA_GROUP_BARRING_CLASS	The previous barring class used by the call screening server.			S	O
OLD_AAA_GROUP_MAXIMUM_CONCURRENT_CALLS	The previous maximum concurrent calls per endpoint.			S	O
OLD_AAA_GROUP_DIAL_IP_ADDRESS_PREFIX	The previous prefix value that indicated that the dialed number is an IP address.			S	O

Table 44: A_A5020-VOIP_3-01_MOD_AAA-GROUP-RB

Parameter Name	Description	Range	Default Value	Type	Class
OLD_AAA_GROUP_DIAL_UNREGISTERED_ENDPOINTS	The previous flag that allowed (0) or prevented (1) the dialing of unregistered endpoints by their IP address (only for terminal-to-terminal calls). By default this is allowed.			S	O
OLD_AAA_GROUP_CALL_TRANSFER	The previous flag that allowed (1) or prevented (0) the call transfer service. By default this service is not allowed.			S	O
OLD_AAA_GROUP_ALLOW_UNCONDITIONAL_FORWARDING_ACTIVATION	The previous flag that controls unconditional forward activation.			S	O
OLD_AAA_GROUP_ALLOW_BUSY_FORWARD_ACTIVATION	The previous flag that controls busy forward activation.			S	O
OLD_AAA_GROUP_ALLOW_NOREPLY_FORWARD_ACTIVATION	The previous flag that controls no reply forward activation.			S	O
OLD_AAA_GROUP_TRIGGER_DESTINATION_AS_FOR_UNREGISTERED_USERS_METHOD	The AAA group's previous trigger destination method.	Register, Unregister, Admission		S	O
OLD_AAA_GROUP_TRIGGER_DESTINATION_AS_FOR_UNREGISTERED_USERS_METHOD_TYPE	The AAA group's previous trigger destination method type.	NotAllowed (no authentication), Allowed (authenticate), CHAP login		S	O

Table 44: A_A5020-VOIP_3-01_MOD_AAA-GROUP-RB

Parameter Name	Description	Range	Default Value	Type	Class
OLD_AAA_GROUP_H323_MAKE_CALL_PREGRANTED_ARQ	The previous value for making calls.	CallOff (No pre-granted ARQ), CallH323GKRoutedMode (only if H.323 GK in routed mode), CallH323GKDirectMode (only if H.323 GK in direct mode), CallAlways (pre-granted ARQ regardless of GK mode)		S	O
OLD_AAA_GROUP_H323_ANSWER_CALL_PREGRANTED_ARQ	The previous value for answering calls.	CallOff (No pre-granted ARQ), CallH323GKRoutedMode (only if H.323 GK in routed mode), CallH323GKDirectMode (only if H.323 GK in direct mode), CallAlways (pre-granted ARQ regardless of GK mode)		S	O
OLD_AAA_GROUP_H323_CHECK_LOCATION_TOKEN	Determines whether the location token should be checked (1) or not (0). By default the location token is not checked.			S	O
OLD_AAA_GROUP_H323_RIP_REGISTRATION	The previous H323 RIP message sent to the server. By default no RIP messages are sent.			S	O
OLD_AAA_GROUP_H323_RIP_UNREGISTRATION	The previous H323 RIP unregistration timeout in seconds.			S	O
OLD_AAA_GROUP_H323_RIP_CALL_ADMISSION	The previous H323 RIP call admission timeout in seconds.			S	O

Table 44: A_A5020-VOIP_3-01_MOD_AAA-GROUP-RB

Parameter Name	Description	Range	Default Value	Type	Class
OLD_AAA_GROUP_H323_TERMINAL_AUTHENTICATION_METHOD	The previous method of terminal authentication interface.	Register, Unregister, Admission		S	O
OLD_AAA_GROUP_H323_TERMINAL_AUTHENTICATION_METHOD_TYPE	The previous type for terminal authentication interface.	NotAllowed (no authentication), Allowed (authenticate), CHAP login		S	O
OLD_AAA_GROUP_H323_GATEWAY_AUTHENTICATION_METHOD	The previous method for gateway authentication interface.			S	O
OLD_AAA_GROUP_H323_GATEWAY_AUTHENTICATION_METHOD_TYPE	The previous type for authentication interface.	NotAllowed, Allowed (authenticate)		S	O
OLD_AAA_GROUP_H323_UPDATE_SETUP_ORIGIN	The previous H323 update setup origin.			S	O
OLD_AAA_GROUP_H323_UPDATE_SETUP_DESTINATION	Specifies whether to update H323 setup destination.			S	O
OLD_AAA_GROUP_H323_UPDATE_DISPLAY	Specifies whether to update H323 display.			S	O
OLD_AAA_GROUP_TRIGGER_SIP_APPLICATION_SERVER	The previous value of the SIP application server. If Server Name equals UNSET_VALUE or Server ID = -1 in a Modify Context, then the SIP Application Server is to be deleted.			S	O

Table 44: A_A5020-VOIP_3-01_MOD_AAA-GROUP-RB

Parameter Name	Description	Range	Default Value	Type	Class
OLD_AAA_GROUP_SIP_ORIGIN_APPLICATION_SERVER	The previous server method, type, and service information for the application server. If Server Name equals UNSET_VALUE or Server ID = -1 in a Modify Context, then the SIP Application Server is to be deleted. For more information, see Table 22 on page 58.			C	O
OLD_AAA_GROUP_SIP_DESTINATION_APPLICATION_SERVER	The previous AAA group's SIP destination AS. If Server Name equals UNSET_VALUE or Server ID = -1 in a Modify Context, then the SIP Application Server is to be deleted. For more information, see Table 22 on page 58.			C	O
OLD_AAA_GROUP_SIP_CALL_APPLICATION_SERVER	Contains previous information on the AAA group's SIP call application server. If Server Name equals UNSET_VALUE or Server ID = -1 in a Modify Context, then the SIP Application Server is to be deleted. For more information, see Table 22 on page 58.			C	O

Table 44: A_A5020-VOIP_3-01_MOD_AAA-GROUP-RB

Parameter Name	Description	Range	Default Value	Type	Class
OLD_AAA_GROUP_SIP_PROXY_LOCAL_DESTINATION	The previous SIP proxy local destination.	stateful, stateless, or redirect		S	O
OLD_AAA_GROUP_SIP_PROXY_NON_LOCAL_DESTINATION	The previous Proxy non local destination.	stateful or stateless		S	O
OLD_AAA_GROUP_SIP_TERMINAL_AUTHENTICATION_METHOD	The previous SIP terminal authentication method.	register, invite, subscribe, message, options, refer, and unknown		S	O
OLD_AAA_GROUP_SIP_TERMINAL_AUTHENTICATION_METHOD_TYPE	The previous type of SIP terminal authentication method.	NotAllowed, AllowedNoAuthentication, AllowedWithAuthentication,CHAPLogin, HTTPDigest		S	O
OLD_AAA_GROUP_SIP_HTTP_DIGEST_REALM	The previous realm string, which is used for the HTTP digest.			S	O
OLD_AAA_GROUP_SIP_HTTP_DIGEST_TIMEOUT	The previous length of time this one-time instance stays valid.			S	O
OLD_AAA_GROUP_SIP_GATEWAY_AUTHENTICATION_METHOD	The previous gateway authentication method.	invite or unknown		S	O
OLD_AAA_GROUP_SIP_GATEWAY_AUTHENTICATION_METHOD_TYPE	The previous gateway authentication method type.	NotAllowed, Allowed (authenticate)		S	O
OLD_AAA_GROUP_CFA_ENABLE	Enables the service for this group.			S	O
OLD_AAA_GROUP_CFA_PREFIX	Enables the service for this type.			S	O

Table 44: A_A5020-VOIP_3-01_MOD_AAA-GROUP-RB

Parameter Name	Description	Range	Default Value	Type	Class
OLD_AAA_GROUP_CFA_LANGUAGE_INDICATOR	The previous number indicating the language.			S	O
OLD_AAA_GROUP_CFA_DEFAULT_ANNOUNCEMENT	The previous default announcement code.			S	O
OLD_AAA_GROUP_IVR_IP_ADDRESS	The IVR's previous IP address.			S	O
OLD_AAA_GROUP_IVR_PORT	The IVR's previous port value.			S	O
OLD_AAA_GROUP_AAA_SERVER	The previous AAA server. For more information, see Table 22 on page 58.			C	O

MML command/API calls

```
VoIPAAAGroup aaaGroup = telcoVpn.NewVoIPAAAGroup ();
aaaGroup.Set ( setName, groupName, setEnableOnHold, enableOnHoldType,
setMaxUsers, maxUserSessionsValue, setdub
iousTimeout, dubiousSessionTimeout, setMaxAccountRetries,
maxAccountRetryValue, setAAAFlags, realAAAGroupFlags );
aaaGroup.SetAuthentication ( setAuthProtocolType, authProtocolTypeValue,
setAuthRetries, authRetriesValue );
aaaGroup.SetAccounting ( setAccountProtocolType, accountProtocolTypeValue,
setAccountRetries, accountRetriesValue );
aaaGroup.SetPortAuthorisation
(setAuthDefaultPortType,authDefaultPortTypeValue ,
setAuthPortTypes,portTypes );
aaaGroup.SetVoIPCFA ( setCfaEnable, cfaEnableOption, setIvrIpAddress,
ivrAddressList, setIvrPort,
ivrPortValue,setCfaPrefix,cfaPrefix,setCfaLangIndicator,cfaLangIndicatorValu
e, setCfaDefaultAnnouncement, cfaDefaultAnnouncement );
```

Output parameters

If the work order is not successful, the method returns:

- ALCATEL_NRE_MODIFY_AAA_GROUP_RB_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_NRE_MODIFY_AAA_GROUP_RB_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM.

A_A5020-VOIP_3-01_MOD_AAA-SELECTION-RULE

Modifies an AAA selection rule. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.NREProvisioning.modAAASelectionRule.**

Table 45: A_A5020-VOIP_3-01_MOD_AAA-SELECTION-RULE

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or NRE instance.			S	R
USE_QUERY	Flag to determine whether to use results of the query.			S	O
AAA_SELECTION_VPN_ID	The VPN identifier.			S	O
AAA_SELECTION_VPN_NAME	The VPN name.			S	O
AAA_SELECTION_AAA_GROUP_NAME	The AAA group name. Either _AAA_GROUP_ID or _AAA_GROUP_ NAME and the SELECTION_RULE_ NUMBER, must be used as a key. The SELECTION_RULE_ ID can be used as a key by itself.			S	O

Table 45: A_A5020-VOIP_3-01_MOD_AAA-SELECTION-RULE

Parameter Name	Description	Range	Default Value	Type	Class
AAA_SELECTION_AAA_GROUP_ID	The AAA group identification. Either _AAA_GROUP_ID or _AAA_GROUP_ NAME and the SELECTION_RULE_ NUMBER, must be used as a key. The SELECTION_RULE_ ID can be used as a key by itself.			S	O
AAA_SELECTION_RULE_ID	The AAA selection rule identification, assigned by the NE when the rule is created. Either _AAA_GROUP_ID or _AAA_GROUP_ NAME and the SELECTION_RULE_ NUMBER, must be used as a key. The SELECTION_RULE_ ID can be used as a key by itself.			S	O
AAA_SELECTION_RULE_NUMBER	Priority sequence of rule in AAA group. VPN_ID or NAME, GROUP_ID or NAME and SELECTION_RULE_ NUMBER can be used as key. SELECTION_RULE_ ID can be used as key alone. 1 = query first rule for an AAA group. If not set, rule is placed at start of rule sequence.			S	O

Table 45: A_A5020-VOIP_3-01_MOD_AAA-SELECTION-RULE

Parameter Name	Description	Range	Default Value	Type	Class
AAA_SELECTION_ENABLE_FLAG	Enables or disables this rule. A disabled rule is not considered in AAA selection.			S	O
AAA_SELECTION_METHOD	The AAA group selection method.	Any, H323Any, H323Registration, H323Admission, SipAny, SipInvite, SipSubscribe, SipMessage, SipOptions, SipRefer		S	O
AAA_SELECTION_ORIGIN_MASK	The mask in which the origin must fit so that it can select the correct AAA group. This mask can be based on the user name or calling party E.164 number.			S	O
AAA_SELECTION_ORIGIN_START_ADDRESS	The lowest IP address in the range you are defining. Either Address, RAN, POP or Gatekeeper will be used as the ORIGIN selector.			S	O
AAA_SELECTION_ORIGIN_END_ADDRESS	The highest IP address in the range you are defining.			S	O
AAA_SELECTION_ORIGIN_RAN_ID	The AAA selection originating RAN ID. Either RAN_ID or RAN_NAME must be used as a key.			S	O
AAA_SELECTION_ORIGIN_RAN_NAME	The AAA selection originating RAN name. Either RAN_ID or RAN_NAME must be used as a key.			S	O

Table 45: A_A5020-VOIP_3-01_MOD_AAA-SELECTION-RULE

Parameter Name	Description	Range	Default Value	Type	Class
AAA_SELECTION_ORIGIN_POP_ID	The AAA selection originating POP ID. Either POP_ID or POP_NAME must be used as a key.			S	O
AAA_SELECTION_ORIGIN_POP_NAME	The AAA selection originating POP name. Either POP_ID or POP_NAME must be used as a key.			S	O
AAA_SELECTION_ORIGIN_EXTERNAL_GATEKEEPER_NAME	The AAA selection originating external gatekeeper name. Either GATEKEEPER_ID or GATEKEEPER_ NAME must be used as a key. Either Address, RAN, POP or Gatekeeper will be used as the ORIGIN selector.			S	O
AAA_SELECTION_ORIGIN_EXTERNAL_GATEKEEPER_ID	The AAA selection originating external gatekeeper ID. Either GATEKEEPER_ID or GATEKEEPER_ NAME must be used as a key. Either Address, RAN, POP or Gatekeeper will be used as the ORIGIN selector.			S	O
AAA_SELECTION_DESTINATION_MASK	The mask in which the destination must fit to correctly select the AAA group. This mask can be based on the user name or called party E.164 number.			S	O

Table 45: A_A5020-VOIP_3-01_MOD_AAA-SELECTION-RULE

Parameter Name	Description	Range	Default Value	Type	Class
AAA_SELECTION_DESTINATION_START_ADDRESS	The lowest IP address in the range that you are defining for the called IP address.			S	O
AAA_SELECTION_DESTINATION_END_ADDRESS	The highest IP address in the range that you are defining for the called IP address.			S	O
AAA_SELECTION	Multiple instances of AAA selections can be used here. For more information, see Table 24 on page 64.			C	O
OLD_AAA_SELECTION	Multiple instances of AAA selections can be used here. For more information, see Table 24 on page 64.			C	O

MML command/API calls

```
VoIPAAASelectionRule selectionRule = sessionTelco.NewVoIPAAASelectionRule();
selectionRule.Set (setRuleNumber, ruleNumberValue, setEnableFlag,
enableFlagOption, setaaaGroupId, aaGroupIdValue, setSelectionMethod,
ruleMethod, setOriginMask, originMask, setOriginAddress, originAddress,
setDestMask, destinationMask, setDestStartAddress, startIpAddress,
setDestEndAddress, endIpAddress);
```

Output parameters

If the work order is not successful, the method returns:

- ALCATEL_MODIFY_AAA_SELECTION_RULE_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_MODIFY_AAA_SELECTION_RULE_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM.

A_A5020-VOIP_3-01_MOD_AAA-SELECTION-RULE-RB

Rolls back the modification of an AAA selection rule. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.NREProvisioning.modAAASelectionRuleRB.**

Table 46: A_A5020-VOIP_3-01_MOD_AAA-SELECTION-RULE-RB

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or NRE instance.			S	R
OLD_AAA_SELECTION_VPN_ID	The previous VPN identifier.			S	O
OLD_AAA_SELECTION_VPN_NAME	The previous VPN name.			S	O
OLD_AAA_SELECTION_AAA_GROUP_NAME	The previous AAA group name. Either _AAA_GROUP_ID or _AAA_GROUP_ NAME and the SELECTION_RULE_ NUMBER, must be used as a key. The SELECTION_RULE_ ID can be used as a key by itself.			S	O
OLD_AAA_SELECTION_AAA_GROUP_ID	The previous AAA group identification. Either _AAA_GROUP_ID or _AAA_GROUP_ NAME and the SELECTION_RULE_ NUMBER, must be used as a key. The SELECTION_RULE_ ID can be used as a key by itself.			S	O

Table 46: A_A5020-VOIP_3-01_MOD_AAA-SELECTION-RULE-RB

Parameter Name	Description	Range	Default Value	Type	Class
OLD_AAA_SELECTION_RULE_ID	The previous AAA selection rule identification, assigned by the NE when the rule is created. Either AAA_GROUP_ID or NAME, and the SELECTION_RULE_NUMBER must be used as a key; SELECTION_RULE_ID can be used by itself.			S	O
OLD_AAA_SELECTION_RULE_NUMBER	The previous name of the subject AAA group. Either AAA_GROUP_ID or NAME, and the SELECTION_RULE_NUMBER must be used as a key; SELECTION_RULE_ID can be used by itself. If not set, rule is placed at start of sequence of rules.			S	O
OLD_AAA_SELECTION_ENABLE_FLAG	The previous flag to enable or disable this rule.			S	O
OLD_AAA_SELECTION_METHOD	The previous AAA group selection method.	Any, H323Any, H323Registration, H323Admission, SipAny, SipInvite, SipSubscribe, SipMessage, SipOptions, SipRefer		S	O

Table 46: A_A5020-VOIP_3-01_MOD_AAA-SELECTION-RULE-RB

Parameter Name	Description	Range	Default Value	Type	Class
OLD_AAA_SELECTION_ORIGIN_MASK	The previous mask in which the origin must fit so that it can select the correct AAA group. This mask can be based on the user name or calling party E.164 number			S	O
OLD_AAA_SELECTION_ORIGIN_START_ADDRESS	The previous lowest IP address in the range you are defining. Either Address, RAN, POP or Gatekeeper will be used as the ORIGIN selector.			S	O
OLD_AAA_SELECTION_ORIGIN_END_ADDRESS	The previous highest IP address in the range you are defining.			S	O
OLD_AAA_SELECTION_ORIGIN_RAN_ID	The previous AAA selection originating RAN ID. Either RAN_ID or RAN_NAME must be used as a key.			S	O
OLD_AAA_SELECTION_ORIGIN_RAN_NAME	The previous AAA selection originating RAN name.			S	O
OLD_AAA_SELECTION_ORIGIN_POP_ID	The previous AAA selection originating POP ID.			S	O

Table 46: A_A5020-VOIP_3-01_MOD_AAA-SELECTION-RULE-RB

Parameter Name	Description	Range	Default Value	Type	Class
OLD_AAA_SELECTION_ORIGIN_POP_NAME	The previous AAA selection originating POP name. Either POP_ID or POP_NAME must be used as a key. Either Address, RAN, POP or Gatekeeper will be used as the ORIGIN selector.			S	O
OLD_AAA_SELECTION_ORIGIN_EXTERNAL_GATEKEEPER_NAME	The previous AAA selection originating external gatekeeper name. Either EXTERNAL_ GATEKEEPER_ID or NAME must be used as a key. Either Address, RAN, POP or Gatekeeper will be used as the ORIGIN selector.			S	O
OLD_AAA_SELECTION_ORIGIN_EXTERNAL_GATEKEEPER_ID	The previous AAA selection originating external gatekeeper ID. Either EXTERNAL_ GATEKEEPER_ID or NAME must be used as a key.			S	O
OLD_AAA_SELECTION_DESTINATION_MASK	The previous mask in which the destination must fit to correctly select the AAA group.			S	O
OLD_AAA_SELECTION_DESTINATION_START_ADDRESS	The previous lowest IP address in the range that you are defining for the called IP address. This mask can be based on the user name or called party E.164 number.			S	O

Table 46: A_A5020-VOIP_3-01_MOD_AAA-SELECTION-RULE-RB

Parameter Name	Description	Range	Default Value	Type	Class
OLD_AAA_SELECTION_DESTINATION_END_ADDRESS	The previous highest IP address in the range that you are defining for the called IP address.			S	O
OLD_AAA_SELECTION	The previous multiple instances of AAA selections. This compound parameter takes precedence over the scalar parameter. For more information, see Table 24 on page 64.			C	O

MML command/API calls

```
VoIPAAASelectionRule selectionRule = sessionTelco.NewVoIPAAASelectionRule();
selectionRule.Set (setRuleNumber, ruleNumberValue, setEnableFlag,
enableFlagOption, setaaaGroupId, aaGroupIdValue, setSelectionMethod,
ruleMethod, setOriginMask, originMask, setOriginAddress, originAddress,
setDestMask, destinationMask, setDestStartAddress, startIpAddress,
setDestEndAddress, endIpAddress);
```

Output parameters

If the work order is not successful, the method returns:

- ALCATEL_MODIFY_AAA_SELECTION_RULE_RB_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_MODIFY_AAA_SELECTION_RULE_RB_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM.

A_A5020-VOIP_3-01_MOD_ROUTE

Modifies a route. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.NREProvisioning.modifyRoute.**

Table 47: A_A5020-VOIP_3-01_MOD_ROUTE

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or NRE instance.			S	R
ROUTE_ID	The route's primary identification key. Either ROUTE_ID or ROUTE_NAME must be used as a key.			S	O
ROUTE_NAME	The route's name. Either ROUTE_ID or ROUTE_NAME must be used as a key.			S	O
ROUTE_TYPE	The route type.	Carrier via GW (VoIPRouteCarrierViaGW), External Gateway (VoIPRouteITSP), Route to EP (VoIPRouteToEP)		S	O
ROUTE_CARRIER_PREFIX	The prefix that identifies the route's carrier. Valid only if ROUTE_TYPE is Carrier via GW. A value of UNSET_VALUE sets this parameter to an empty value.			S	O

Table 47: A_A5020-VOIP_3-01_MOD_ROUTE

Parameter Name	Description	Range	Default Value	Type	Class
ROUTE_ITSPLD	The parameter that identifies the multiple GateKeeper. Valid only if ROUTE_TYPE is External Gateway. A value of UNSET_VALUE sets this parameter to an empty value.			S	O
ROUTE_ENDPOINT_ADDRESS	The IP address for the route's endpoint. Valid only if ROUTE_TYPE is Endpoint. A value of UNSET_VALUE sets this parameter to an empty value.			S	O
ROUTE_ENDPOINT_PORT	The IP port for the route's endpoint. Valid only if ROUTE_TYPE is Endpoint. A value of UNSET_VALUE sets this parameter to an empty value.			S	O
ROUTE_ENDPOINT_TYPE	The route's endpoint type. Valid only if ROUTE_TYPE is Endpoint. A value of UNSET_VALUE sets this parameter to an empty value.			S	O
ROUTE_ODP	The route's Output Digit Preparation. A value of UNSET_VALUE sets this parameter to an empty value.			S	O

Table 47: A_A5020-VOIP_3-01_MOD_ROUTE

Parameter Name	Description	Range	Default Value	Type	Class
ROUTE_GW_POP_RAN_NAME	The Gateway POP or RAN name to which this route is associated. It references the NE table that is populated in the CCE. A value of UNSET_VALUE sets this parameter to an empty value. Use either ROUTE_GW_POP_RAN_ID or NAME; ID takes precedence.			S	O
ROUTE_GW_POP_RAN_ID	The Gateway POP or RAN ID to which this route is associated. It references the NE table that is populated in the CCE. Use either ROUTE_GW_POP_RAN_ID or NAME; ID takes precedence.			S	O

MML command/API calls

```
enumVoIPRouteType voIPType;

            VoIPRouteHolder voIPRouteHolder = new VoIPRouteHolder();
            VoIPRoute voipRoute =
VoIPRouteHelper.narrow(voIPRouteHolder.value);

            voipRoute = sessiontelco.NewVoIPRoute();
            RouteDetail routeDetail = new RouteDetail();

            int routeItspldValue;

            if ( routeType.equalsIgnoreCase("VoIPRouteCarrierViaGW") ) {
                voIPType = enumVoIPRouteType.VoIPRouteCarrierViaGW;
                routeDetail.carrierPrefix(routeCarrierPrefix);
                voipRoute.Set(addParam,routeName, true, routeOdp,    true,
routeGwPopValue, true, routeDetail );

            } else if ( routeType.equalsIgnoreCase ("VoIPRouteITSP" ) ) {
```

```
                routeItspldValue = getIntValue ( routeItspld );
                voIPType = enumVoIPRouteType.VoIPRouteITSP;
                routeDetail.externalGkPxId (routeItspldValue );

                voipRoute.Set(addParam,routeName,  true, routeOdp,  true,
routeGwPopValue,  true, routeDetail);

            } else if ( routeType.equalsIgnoreCase("VoIPRouteToEP") ) {

                voIPType = enumVoIPRouteType.VoIPRouteToEP;
                enumEndpointType endPointType  = null;

               if  ( routeEndpointType.equalsIgnoreCase("EndpointTypeH323" )
) {
                    endPointType = enumEndpointType.EndpointTypeH323;
                } else if (
routeEndpointType.equalsIgnoreCase("EndpointTypeSIP" ) ) {
                    endPointType = enumEndpointType.EndpointTypeSIP;
                }

                RouteDetailEndPoint endpointDetail = new
RouteDetailEndPoint(endPointType, ipAddress, routeEndpointPortValue );
                routeDetail.endPoint( endpointDetail );
                voipRoute.Set(addParam,routeName, true, routeOdp, true,
routeGwPopValue,  true, routeDetail);
            }
```

Output parameters

If the work order is not successful, the method returns:

- ALCATEL_NRE_MODIFY_ROUTE_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_NRE_MODIFY_ROUTE_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM.

A_A5020-VOIP_3-01_MOD_ROUTE-BLOCK

Modifies a route block. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.NREProvisioning.modifyRouteBlock.**

Table 48: A_A5020-VOIP_3-01_MOD_ROUTE-BLOCK

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or NRE instance.			S	R

Table 48: A_A5020-VOIP_3-01_MOD_ROUTE-BLOCK

Parameter Name	Description	Range	Default Value	Type	Class
ROUTE_BLOCK_ID	The route block identifier's primary key. Either ROUTE_BLOCK_ID or ROUTE_BLOCK_ NAME must be used as a key.			S	O
ROUTE_BLOCK_NAME	The route block name. Either ROUTE_BLOCK_ID or ROUTE_BLOCK_ NAME must be used as a key.			S	O
ROUTE_CONFIG_ID	The primary key identifier of the routing configuration. Either ROUTE_BLOCK_ID or ROUTE_BLOCK_ NAME must be used as a key.			S	O
ROUTE_CONFIG_NAME	The routing configuration name. Either ROUTE_CONFIG_ID or ROUTE_CONFIG_ NAME must be used as a key.			S	O
ROUTING_TYPE	The routing type. Types include Priority or Weight. Up to 10 Priority type routings, or 5 Weight type routings can be defined. This parameter is not valid/used in this release. The routing type will be queried from the switch.			S	R

Table 48: A_A5020-VOIP_3-01_MOD_ROUTE-BLOCK

Parameter Name	Description	Range	Default Value	Type	Class
ROUTE_ID_1	The name, or identity, of route 1. A value of UNSET_VALUE indicates that the route ID is set to an empty value.			S	O
ROUTE_WEIGHT_1	The probability that this route will be used. A value of UNSET_VALUE indicates that the route ID is set to an empty value.			S	O
ROUTE_ID_2	The name, or identity, of route 2. A value of UNSET_VALUE indicates that the route ID is set to an empty value.			S	O
ROUTE_WEIGHT_2	The probability that this route will be used. A value of UNSET_VALUE indicates that the route ID is set to an empty value.			S	O
ROUTE_ID_3	The name, or identity, of route 3. A value of UNSET_VALUE indicates that the route ID is set to an empty value.			S	O

Table 48: A_A5020-VOIP_3-01_MOD_ROUTE-BLOCK

Parameter Name	Description	Range	Default Value	Type	Class
ROUTE_WEIGHT_3	The probability that this route will be used. A value of UNSET_VALUE indicates that the route ID is set to an empty value.			S	O
ROUTE_ID_4	The name, or identity, of route 4. A value of UNSET_VALUE indicates that the route ID is set to an empty value.			S	O
ROUTE_WEIGHT_4	The probability that this route will be used. A value of UNSET_VALUE indicates that the route ID is set to an empty value.			S	O
ROUTE_ID_5	The name, or identity, of route 5. A value of UNSET_VALUE indicates that the route ID is set to an empty value.			S	O
ROUTE_WEIGHT_5	The probability that this route will be used. A value of UNSET_VALUE indicates that the route ID is set to an empty value.			S	O

Table 48: A_A5020-VOIP_3-01_MOD_ROUTE-BLOCK

Parameter Name	Description	Range	Default Value	Type	Class
ROUTE_ID_6	The name, or identity, of route 6. A value of UNSET_VALUE indicates that the route ID is set to an empty value.			S	O
ROUTE_ID_7	The name, or identity, of route 7. A value of UNSET_VALUE indicates that the route ID is set to an empty value.			S	O
ROUTE_ID_8	The name, or identity, of route 8. A value of UNSET_VALUE indicates that the route ID is set to an empty value.			S	O
ROUTE_ID_9	The name, or identity, of route 9. A value of UNSET_VALUE indicates that the route ID is set to an empty value.			S	O
ROUTE_ID_10	The name, or identity, of route 10. A value of UNSET_VALUE indicates that the route ID is set to an empty value.			S	O

MML command/API calls

```
VoIPRoutingConfigHolder voIPRoutingConfig = new VoIPRoutingConfigHolder();
VoIPRoutingConfig voIPRouteConfig =
VoIPRoutingConfigHelper.narrow(voIPRoutingConfig.value);

voIPRouteConfig = sessiontelco.OpenVoIPRoutingConfig(routeConfigId);
voIPRouteBlock = voIPRouteConfig.NewVoIPRouteBlock();
```

```
RouteBlockType routeBlockType;
RouteBlockRoutes routeBlockRoutes = new RouteBlockRoutes();

            if (routingType.equalsIgnoreCase("RouteBlockPriority" ) ) {
                routeBlockType = RouteBlockType.RouteBlockPriority;
                int[] routeIdValue = {Integer.parseInt(routeId)};
                routeBlockRoutes.priorityRoutes(routeIdValue);
            }
            else if ( routingType.equalsIgnoreCase("RouteBlockWeighted" ) ) {
                routeBlockType = RouteBlockType.RouteBlockWeighted;
                int routeIdValue = Integer.parseInt(routeId);
                short routeWeightValue = Short.parseShort(routeWeight);
                WeightedRoute[] weightRoute = {new
WeightedRoute(routeIdValue,routeWeightValue) };
                WeightedRouteListHolder weightRouteHolder = new
WeightedRouteListHolder(weightRoute);
                routeBlockRoutes.weightedRoutes(weightRouteHolder.value);
            }
            enumRouteFallback routeFallbackString =
enumRouteFallback.RouteFallbackNone;
            int clearingHouseId = 0;

            voIPRouteBlock.Set(addParam, routeBlockName, addParam,
routeFallbackString, addParam, clearingHouseId, addParam, routeBlockRoutes
);
```

Output parameters

If the work order is not successful, the method returns:

- ALCATEL_NRE_MODIFY_ROUTEBLOCK_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_NRE_MODIFY_ROUTEBLOCK_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM.

For a successful ASDL:

- ORIG_ROUTE_BLOCK_ID is deleted route block (if deemed necessary by the modification) as a CSDL parameter to the SARM table TBL_SRQ_PARM.
- ROUTE_BLOCK_ID is the newly created route block (if deemed necessary by the modification, otherwise will be the same route block being modified) as a CSDL and a ROLLBACK parameter to the SARM table TBL_SRQ_PARM.

A_A5020-VOIP_3-01_MOD_ROUTE-BLOCK-PREFIX

Modifies a route block prefix. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.NREProvisioning.modifyRouteBlockPrefix.**

Table 49: A_A5020-VOIP_3-01_MOD_ROUTE-BLOCK-PREFIX

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or NRE instance.			S	R
ROUTE_CONFIG_ID	The primary key identifier of the routing configuration. Either ROUTE_CONFIG_ID or ROUTE_CONFIG_NAME must be used as a key.			S	O
ROUTE_CONFIG_NAME	The name of the routing configuration. Either ROUTE_CONFIG_ID or ROUTE_CONFIG_NAME must be used as a key.			S	O
ROUTE_BLOCK_ID	The route block identifier's primary key. Either ROUTE_BLOCK_ID or ROUTE_BLOCK_NAME must be used as a key.			S	O
ROUTE_BLOCK_NAME	The route block name. Either ROUTE_BLOCK_ID or ROUTE_BLOCK_NAME must be used as a key.			S	O

Table 49: A_A5020-VOIP_3-01_MOD_ROUTE-BLOCK-PREFIX

Parameter Name	Description	Range	Default Value	Type	Class
ROUTE_BLOCK_START_PREFIX	The route block starting prefix mask. It can also be the entire number when there is an exact match.			S	O
ROUTE_BLOCK_END_PREFIX	The route block end prefix mask. This is the end of the prefix for matching range.			S	O
NEW_ROUTE_BLOCK_START_PREFIX	The new route block starting prefix mask. It can also be the entire number when there is an exact match.			S	O
NEW_ROUTE_BLOCK_END_PREFIX	The new route block end prefix mask. This is the end of the prefix for matching range.			S	O

MML command/API calls

```
VoIPRoutingConfig  voIPRoutingConfig =
sessiontelco.OpenVoIPRoutingConfig(routeConfigId );

            int routeBlockIdValue = getIntValue ( routeBlockId );

            VoIPRouteBlock voipRouteBlock =
voIPRoutingConfig.OpenVoIPRouteBlock(routeBlockIdValue );
             enumVoIPRoutingMatchType enumType =
enumVoIPRoutingMatchType.VoIPRoutingMatchTypeE164Range;

     VoIPRoutingMatchE164Range voipRoutingE164Range = new
VoIPRoutingMatchE164Range (routeBlockStartPrefix, routeBlockEndPrefix );

            VoIPRoutingMatch voipRoutingMatch = new VoIPRoutingMatch();
            voipRoutingMatch.E164Range(voipRoutingE164Range );

       voipRouteBlock.RemoveMatch ( origVoipRoutingMatch );
            voipRouteBlock.AddMatch ( voipRoutingMatch );
```

Output parameters

If the work order is not successful, the method returns:

- ALCATEL_NRE_MODIFY_ROUTEBLOCKPREFIX_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_NRE_MODIFY_ROUTEBLOCKPREFIX_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM.

A_A5020-VOIP_3-01_MOD_ROUTE-BLOCK-PREFIX-RB

Rolls back a modified route block prefix. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.NREProvisioning.modifyRouteBlockPrefixRB.**

Table 50: A_A5020-VOIP_3-01_MOD_ROUTE-BLOCK-PREFIX-RB

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or NRE instance.			S	R
ROUTE_CONFIG_ID	The primary key identifier of the routing configuration. Either ROUTE_CONFIG_ID or ROUTE_CONFIG_NAME must be used as a key.			S	O
ROUTE_CONFIG_NAME	The name of the routing configuration. Either ROUTE_CONFIG_ID or ROUTE_CONFIG_NAME must be used as a key.			S	O
ROUTE_BLOCK_ID	The route block identifier's primary key. Either ROUTE_BLOCK_ID or ROUTE_BLOCK_NAME must be used as a key.			S	O

Table 50: A_A5020-VOIP_3-01_MOD_ROUTE-BLOCK-PREFIX-RB

Parameter Name	Description	Range	Default Value	Type	Class
ROUTE_BLOCK_NAME	The route block name. Either ROUTE_BLOCK_ID or ROUTE_BLOCK_NAME must be used as a key.			S	O
OLD_ROUTE_BLOCK_START_PREFIX	The previous route block starting prefix mask. It can also be the entire number when there is an exact match.			S	O
OLD_ROUTE_BLOCK_END_PREFIX	The pervious route block end prefix mask. This is the end of the prefix for matching range.			S	O
NEW_ROUTE_BLOCK_START_PREFIX	The new route block starting prefix mask. It can also be the entire number when there is an exact match.			S	O
NEW_ROUTE_BLOCK_END_PREFIX	The new route block end prefix mask. This is the end of the prefix for matching range.			S	O

MML command/API calls

```
VoIPRoutingConfig  voIPRoutingConfig =
sessiontelco.OpenVoIPRoutingConfig(routeConfigId );

            int routeBlockIdValue = getIntValue ( routeBlockId );

            VoIPRouteBlock voipRouteBlock =
voIPRoutingConfig.OpenVoIPRouteBlock(routeBlockIdValue );
             enumVoIPRoutingMatchType enumType =
enumVoIPRoutingMatchType.VoIPRoutingMatchTypeE164Range;

     VoIPRoutingMatchE164Range voipRoutingE164Range = new
VoIPRoutingMatchE164Range (routeBlockStartPrefix, routeBlockEndPrefix );
```

```
        VoIPRoutingMatch voipRoutingMatch = new VoIPRoutingMatch();
        voipRoutingMatch.E164Range(voipRoutingE164Range );

    voipRouteBlock.RemoveMatch ( origVoipRoutingMatch );
        voipRouteBlock.AddMatch ( voipRoutingMatch );
```

Output parameters

If the work order is not successful, the method returns:

- ALCATEL_NRE_MODIFY_ROUTEBLOCKPREFIX_RB_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_NRE_MODIFY_ROUTEBLOCKPREFIX_RB_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM.

A_A5020-VOIP_3-01_MOD_ROUTE-BLOCK-RB

Rolls back modifications to a route block. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.NREProvisioning.modifyRouteBlockRB.**

Table 51: A_A5020-VOIP_3-01_MOD_ROUTE-BLOCK-RB

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or NRE instance.			S	R
ROUTE_BLOCK_ID	The route block identifier's primary key. Either ROUTE_BLOCK_ID or ROUTE_BLOCK_NAME must be used as a key.			S	O
ROUTE_BLOCK_NAME	The route block name. Either ROUTE_BLOCK_ID or ROUTE_BLOCK_NAME must be used as a key.			S	O

Table 51: A_A5020-VOIP_3-01_MOD_ROUTE-BLOCK-RB

Parameter Name	Description	Range	Default Value	Type	Class
ROUTE_CONFIG_ID	The primary key identifier of the routing configuration. Either ROUTE_CONFIG_ID or ROUTE_CONFIG_ NAME must be used as a key.			S	O
ROUTE_CONFIG_NAME	The route configuration name. Either ROUTE_CONFIG_ID or ROUTE_CONFIG_ NAME must be used as a key.			S	O
OLD_ROUTING_TYPE	The previous routing type. Types include Priority or Weight. Up to 10 Priority type routings, or 5 Weight type routings can be defined. This parameter is not valid/used in this release. The routing type will be queried from the switch.			S	R
OLD_ROUTE_ID_1	The name, or identity, of route 1.			S	O
OLD_ROUTE_WEIGHT_1	The probability that this route will be used.			S	O
OLD_ROUTE_ID_2	The name, or identity, of route 2.			S	O
OLD_ROUTE_WEIGHT_2	The probability that this route will be used.			S	O
OLD_ROUTE_ID_3	The name, or identity, of route 3.			S	O

Table 51: A_A5020-VOIP_3-01_MOD_ROUTE-BLOCK-RB

Parameter Name	Description	Range	Default Value	Type	Class
OLD_ROUTE_WEIGHT_3	The probability that this route will be used.			S	O
OLD_ROUTE_ID_4	The name, or identity, of route 4.			S	O
OLD_ROUTE_WEIGHT_4	The probability that this route will be used.			S	O
OLD_ROUTE_ID_5	The name, or identity, of route 5.			S	O
OLD_ROUTE_WEIGHT_5	The probability that this route will be used.			S	O
OLD_ROUTE_ID_6	The name, or identity, of route 6.			S	O
OLD_ROUTE_ID_7	The name, or identity, of route 7.			S	O
OLD_ROUTE_ID_8	The name, or identity, of route 8.			S	O
OLD_ROUTE_ID_9	The name, or identity, of route 9.			S	O
OLD_ROUTE_ID_10	The name, or identity, of route 10.			S	O

MML command/API calls

```
VoIPRoutingConfigHolder voIPRoutingConfig = new VoIPRoutingConfigHolder();
VoIPRoutingConfig voIPRouteConfig =
VoIPRoutingConfigHelper.narrow(voIPRoutingConfig.value);

voIPRouteConfig = sessiontelco.OpenVoIPRoutingConfig(routeConfigId);
voIPRouteBlock = voIPRouteConfig.NewVoIPRouteBlock();
RouteBlockType routeBlockType;
RouteBlockRoutes routeBlockRoutes = new RouteBlockRoutes();

            if (routingType.equalsIgnoreCase("RouteBlockPriority" ) ) {
                routeBlockType = RouteBlockType.RouteBlockPriority;
                int[] routeIdValue = {Integer.parseInt(routeId)};
                routeBlockRoutes.priorityRoutes(routeIdValue);
```

```
            }
            else if ( routingType.equalsIgnoreCase("RouteBlockWeighted" ) ) {
                routeBlockType = RouteBlockType.RouteBlockWeighted;
                int routeIdValue = Integer.parseInt(routeId);
                short routeWeightValue = Short.parseShort(routeWeight);
                WeightedRoute[] weightRoute = {new
WeightedRoute(routeIdValue,routeWeightValue) };
                WeightedRouteListHolder weightRouteHolder = new
WeightedRouteListHolder(weightRoute);
                routeBlockRoutes.weightedRoutes(weightRouteHolder.value);
            }
            enumRouteFallback routeFallbackString =
enumRouteFallback.RouteFallbackNone;
            int clearingHouseId = 0;

            voIPRouteBlock.Set(addParam, routeBlockName, addParam,
routeFallbackString, addParam, clearingHouseId, addParam, routeBlockRoutes
);
```

Output parameters

If the work order is not successful, the method returns:

- ALCATEL_NRE_MODIFY_ROUTEBLOCK_RB_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_NRE_MODIFY_ROUTEBLOCK_RB_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM.

For a successful ASDL:

- ORIG_ROUTE_BLOCK_ID is deleted route block (if deemed necessary by the modification) as a CSDL parameter to the SARM table TBL_SRQ_PARM.
- ROUTE_BLOCK_ID is the newly created route block (if deemed necessary by the modification, otherwise will be the same route block being modified) as a CSDL and a ROLLBACK parameter to the SARM table TBL_SRQ_PARM.

A_A5020-VOIP_3-01_MOD_ROUTE-BLOCK-SUFFIX

Modifies a route block suffix. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.NREProvisioning.modRouteBlockSuffix.**

Table 52: A_A5020-VOIP_3-01_MOD_ROUTE-BLOCK-SUFFIX

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or NRE instance.			S	R
ROUTE_CONFIG_ID	The primary key identifier of the routing configuration. Either ROUTE_CONFIG_ID or ROUTE_CONFIG_NAME must be used as a key.			S	O
ROUTE_CONFIG_NAME	The name of the routing configuration. Either ROUTE_CONFIG_ID or ROUTE_CONFIG_NAME must be used as a key.			S	O
ROUTE_BLOCK_ID	The route block identifier's primary key. Either ROUTE_BLOCK_ID or ROUTE_BLOCK_NAME must be used as a key.			S	O
ROUTE_BLOCK_NAME	The route block name. Either ROUTE_BLOCK_ID or ROUTE_BLOCK_NAME must be used as a key.			S	O

Table 52: A_A5020-VOIP_3-01_MOD_ROUTE-BLOCK-SUFFIX

Parameter Name	Description	Range	Default Value	Type	Class
ROUTE_BLOCK_SUFFIX	The suffix mask used for this route block. The suffix identifies part of the domain that follows the @ symbol.			S	O
NEW_ROUTE_BLOCK_SUFFIX	The new suffix mask used for this route block. The suffix identifies part of the domain that follows the @ symbol.			S	O

MML command/API calls

See "A_A5020-VOIP_3-01_ADD_ROUTE-BLOCK-SUFFIX" on page 76 and "A_A5020-VOIP_3-01_DEL_ROUTE-BLOCK-SUFFIX" on page 97 as modify uses delete, then add.

Output parameters

If the work order is not successful, the method returns:

- ALCATEL_NRE_MODIFY_ROUTEBLOCKSUFFIX_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_NRE_MODIFY_ROUTEBLOCKSUFFIX_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM

A_A5020-VOIP_3-01_MOD_ROUTE-BLOCK-SUFFIX-RB

Rolls back a modified route block suffix. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.NREProvisioning.modRouteBlockSuffixRB.**

Table 53: A_A5020-VOIP_3-01_MOD_ROUTE-BLOCK-SUFFIX-RB

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or NRE instance.			S	R

Table 53: A_A5020-VOIP_3-01_MOD_ROUTE-BLOCK-SUFFIX-RB

Parameter Name	Description	Range	Default Value	Type	Class
ROUTE_CONFIG_ID	The primary key identifier of the routing configuration. Either ROUTE_CONFIG_ID or ROUTE_CONFIG_ NAME must be used as a key.			S	O
ROUTE_CONFIG_NAME	The name of the routing configuration. Either ROUTE_CONFIG_ID or ROUTE_CONFIG_ NAME must be used as a key.			S	O
ROUTE_BLOCK_ID	The route block identifier's primary key. Either ROUTE_BLOCK_ID or ROUTE_BLOCK_ NAME must be used as a key.			S	O
ROUTE_BLOCK_NAME	The route block name. Either ROUTE_BLOCK_ID or ROUTE_BLOCK_ NAME must be used as a key.			S	O
OLD_ROUTE_BLOCK_SUFFIX	The previous suffix mask used for this route block. The suffix identifies part of the domain that follows the @ symbol.			S	O
NEW_ROUTE_BLOCK_SUFFIX	The new suffix mask used for this route block. The suffix identifies part of the domain that follows the @ symbol.			S	O

MML command/API calls

See "A_A5020-VOIP_3-01_ADD_ROUTE-BLOCK-SUFFIX" on page 76 and "A_A5020-VOIP_3-01_DEL_ROUTE-BLOCK-SUFFIX" on page 97 as modify uses delete, then add.

Output parameters

If the work order is not successful, the method returns:

- ALCATEL_NRE_MODIFY_ROUTEBLOCKSUFFIX_RB_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_NRE_MODIFY_ROUTEBLOCKSUFFIX_RB_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM.

A_A5020-VOIP_3-01_MOD_ROUTE-CONFIG

Modifies the route configuration. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.NREProvisioning.modifyRouteConfig.**

Table 54: A_A5020-VOIP_3-01_MOD_ROUTE-CONFIG

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or NRE instance.			S	R
ROUTE_CONFIG_ID	The primary key identifier of the routing configuration. Either ROUTE_CONFIG_ID or ROUTE_CONFIG_NAME must be used as a key.			S	O
ROUTE_CONFIG_NAME	The name of the routing configuration. Either ROUTE_CONFIG_ID or ROUTE_CONFIG_NAME must be used as a key.			S	O
NEW_ROUTE_CONFIG_NAME	The new name of the routing configuration.			S	O

MML command/API calls

```
VoIPRoutingConfigHolder voIPRouteHolder = new VoIPRoutingConfigHolder();
VoIPRoutingConfig routeConfig =
VoIPRoutingConfigHelper.narrow(voIPRouteHolder.value);
routeConfig = sessiontelco.OpenVoIPRoutingConfig(routeConfigID );
routeConfig.Set (true, routeConfigName );
```

Output parameters

If the work order is not successful, the method returns:

- ALCATEL_NRE_MODIFY_ROUTECONFIG_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_NRE_MODIFY_ROUTECONFIG_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM.

A_A5020-VOIP_3-01_MOD_ROUTE-CONFIG-ATTACH-VPN

Modifies the routing configuration and the attached VPN. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.NREProvisioning.modifyRouteConfigAttachVPN.**

Table 55: A_A5020-VOIP_3-01_MOD_ROUTE-CONFIG-ATTACH-VPN

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or NRE instance.			S	R
ROUTE_CONFIG_ID	The primary key identifier of the routing configuration. Either ROUTE_CONFIG_ID or ROUTE_CONFIG_NAME must be used as a key.			S	O
ROUTE_CONFIG_NAME	The name of the routing configuration. Either ROUTE_CONFIG_ID or ROUTE_CONFIG_NAME must be used as a key.			S	O

Table 55: A_A5020-VOIP_3-01_MOD_ROUTE-CONFIG-ATTACH-VPN

Parameter Name	Description	Range	Default Value	Type	Class
VPN_ID	Links the VPN_ID with a routing configuration. Either VPN_ID or VPN_NAME must be specified.			S	O
VPN_NAME	Links the VPN_NAME with a routing configuration. Either VPN_ID or VPN_NAME must be specified.			S	O

MML command/API calls

```
VoIPRoutingConfigHolder voIPRouteHolder = new VoIPRoutingConfigHolder();
VoIPRoutingConfig routeConfig =
VoIPRoutingConfigHelper.narrow(voIPRouteHolder.value);
routeConfig = sessiontelco.OpenVoIPRoutingConfig(routeConfigID );
routeConfig.Set (true, routeConfigName );
routeConfig.AttachVPN(vpiID);
```

Output parameters

If the work order is not successful, the method returns:

- ALCATEL_NRE_MODIFY_ROUTECONFIGATTACHVPN_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_NRE_MODIFY_ROUTECONFIGATTACHVPN_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM.

A_A5020-VOIP_3-01_MOD_ROUTE-CONFIG-DETACH-VPN

Links the VPN_NAME with the particular route. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.NREProvisioning.modifyRouteConfigDetachVPN.**

Table 56: A_A5020-VOIP_3-01_MOD_ROUTE-CONFIG-DETACH-VPN

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or NRE instance.			S	R
ROUTE_CONFIG_ID	The primary key identifier of the routing configuration. Either ROUTE_CONFIG_ID or ROUTE_CONFIG_NAME must be used as a key.			S	O
ROUTE_CONFIG_NAME	The name of the routing configuration. Either ROUTE_CONFIG_ID or ROUTE_CONFIG_NAME must be used as a key.			S	O
VPN_ID	Links the VPN_ID with the particular routing configuration. Either VPN_ID or VPN_NAME must be specified.			S	O
VPN_NAME	Links the VPN_NAME with the particular routing configuration. Either VPN_ID or VPN_NAME must be specified.			S	O

MML command/API calls

```
VoIPRoutingConfigHolder voIPRouteHolder = new VoIPRoutingConfigHolder();
```

```
VoIPRoutingConfig routeConfig =
VoIPRoutingConfigHelper.narrow(voIPRouteHolder.value);
routeConfig = sessiontelco.OpenVoIPRoutingConfig(routeConfigID );
routeConfig.Set (true, routeConfigName );
routeConfig.DetachVPN(vpiID);
```

Output parameters

If the work order is not successful, the method returns:

- ALCATEL_NRE_MODIFY_ROUTECONFIGDETACHVPN_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_NRE_MODIFY_ROUTECONFIGDETACHVPN_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM.

A_A5020-VOIP_3-01_MOD_ROUTE-RB

Rolls back a modified route. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.NREProvisioning.modifyRouteRB.**

Table 57: A_A5020-VOIP_3-01_MOD_ROUTE-RB

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or NRE instance.			S	R
ROUTE_ID	The route's primary identification key. Either ROUTE_ID or ROUTE_NAME must be used as a key.			S	O
ROUTE_NAME	The route's name. Either ROUTE_ID or ROUTE_NAME must be used as a key.			S	O
OLD_ROUTE_TYPE	The route type.	Carrier via GW (VoIPRouteCarrierVia GW), External Gateway (VoIPRouteITSP), Route to EP (VoIPRouteToEP)		S	O

Table 57: A_A5020-VOIP_3-01_MOD_ROUTE-RB

Parameter Name	Description	Range	Default Value	Type	Class
OLD_ROUTE_CARRIER_PREFIX	The old prefix that identifies the route's carrier. Valid only if ROUTE_TYPE is Carrier via GW. A value of UNSET_VALUE sets this parameter to an empty value.			S	O
OLD_ROUTE_ITSPLD	The old parameter that identifies the multiple GateKeeper. Valid only if Route type is External Gateway. A value of UNSET_VALUE sets this parameter to an empty value.			S	O
OLD_ROUTE_ENDPOINT_ADDRESS	The old IP address for the route's endpoint. Valid only if Route type is Endpoint. A value of UNSET_VALUE sets this parameter to an empty value.			S	O
OLD_ROUTE_ENDPOINT_PORT	The old IP port for the route's endpoint. Valid only if Route type is Endpoint. A value of UNSET_VALUE sets this parameter to an empty value.			S	O
OLD_ROUTE_ENDPOINT_TYPE	The old route's endpoint type. Valid only if route type is Endpoint. A value of UNSET_VALUE sets this parameter to an empty value.			S	O

Table 57: A_A5020-VOIP_3-01_MOD_ROUTE-RB

Parameter Name	Description	Range	Default Value	Type	Class
OLD_ROUTE_ODP	The old route's Output Digit Preparation.			S	O
OLD_ROUTE_GW_POP_RAN_NAME	The old Gateway POP or RAN name to which this route is associated. It references the NE table that is populated in the CCE.			S	O
OLD_ROUTE_GW_POP_RAN_ID	The old Gateway POP or RAN ID to which this route is associated. It references the NE table that is populated in the CCE.			S	O

MML command/API calls

```
enumVoIPRouteType voIPType;

            VoIPRouteHolder voIPRouteHolder = new VoIPRouteHolder();
            VoIPRoute voipRoute =
VoIPRouteHelper.narrow(voIPRouteHolder.value);

            voipRoute = sessiontelco.NewVoIPRoute();
            RouteDetail routeDetail = new RouteDetail();

            int routeItspldValue;

            if ( routeType.equalsIgnoreCase("VoIPRouteCarrierViaGW") ) {
                voIPType = enumVoIPRouteType.VoIPRouteCarrierViaGW;
                routeDetail.carrierPrefix(routeCarrierPrefix);
                voipRoute.Set(addParam,routeName, true, routeOdp,    true,
routeGwPopValue, true, routeDetail );

            } else if ( routeType.equalsIgnoreCase ("VoIPRouteITSP" ) ) {

                routeItspldValue = getIntValue ( routeItspld );
                voIPType = enumVoIPRouteType.VoIPRouteITSP;
                routeDetail.externalGkPxId (routeItspldValue );

                voipRoute.Set(addParam,routeName,  true, routeOdp,  true,
routeGwPopValue,  true, routeDetail);
```

```
            } else if ( routeType.equalsIgnoreCase("VoIPRouteToEP") ) {

                voIPType = enumVoIPRouteType.VoIPRouteToEP;
                enumEndpointType endPointType  = null;

               if  ( routeEndpointType.equalsIgnoreCase("EndpointTypeH323" )
) {
                    endPointType = enumEndpointType.EndpointTypeH323;
                } else if (
routeEndpointType.equalsIgnoreCase("EndpointTypeSIP" ) ) {
                    endPointType = enumEndpointType.EndpointTypeSIP;
                }

                RouteDetailEndPoint endpointDetail = new
RouteDetailEndPoint(endPointType, ipAddress, routeEndpointPortValue );
                routeDetail.endPoint( endpointDetail );
                voipRoute.Set(addParam,routeName, true, routeOdp, true,
routeGwPopValue,  true, routeDetail);
            }
```

Output parameters

If the work order is not successful, the method returns:

- ALCATEL_NRE_MODIFY_ROUTE_RB_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_NRE_MODIFY_ROUTE_RB_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM.

A_A5020-VOIP_3-01_MOD_VPN

Modifies the VPN. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.NREProvisioning.modVPN.**

Table 58: A_A5020-VOIP_3-01_MOD_VPN

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or NRE instance.			S	R
VPN_ID	The VPN's ID. Either VPN_ID or VPN_NAME must be used as a key.			S	O

Table 58: A_A5020-VOIP_3-01_MOD_VPN

Parameter Name	Description	Range	Default Value	Type	Class
VPN_NAME	The VPN's name. Either VPN_ID or VPN_NAME must be used as a key.			S	O
MAX_USERS	The maximum number of users.			S	O
ADMIN_ID	The admin identification.			S	O
MAX_SESSIONS	The maximum number of sessions.			S	O
DBLOG_STARTEXTSESS	The DB log proxy start external session.	None, Failed, All		S	O
DBLOG_ENDEXTSESS	The DB log proxy end external session.	None, Failed, All		S	O
DBLOG_STARTINTSESS	The DB log proxy start internal session.	None, Failed, All		S	O
DBLOG_ENDINTSESS	The DB log end internal session.	None, Failed, All		S	O
DBLOG_INTERIM_EXT	The DB proxy log interim external.	None, Failed, All		S	O
DBLOG_INTERIM_INT	The DB proxy log interim internal.	None, Failed, All		S	O
DBLOG_TUNNEL_EXT	The DB log tunnel external.	None, Failed, All		S	O
DBLOG_TUNNEL_INT	The DB log tunnel internal.	None, Failed, All		S	O
DBLOG_VENDOR_SPECIFIC	The DB log vendor specific.	True, False		S	O
CSVLOG_STARTEXTSESS	The CSV log proxy start external session.	None, Failed, All		S	O

Table 58: A_A5020-VOIP_3-01_MOD_VPN

Parameter Name	Description	Range	Default Value	Type	Class
CSVLOG_ENDEXTSESS	The CSV log end external session.	None, Failed, All		S	O
CSVLOG_STARTINTSESS	The CSV log start internal session.	None, Failed, All		S	O
CSVLOG_ENDINTSESS	The CSV log end internal session.	None, Failed, All		S	O
CSVLOG_INTERIM_EXT	The CSV log interim external.	None, Failed, All		S	O
CSVLOG_INTERIM_INT	The CSV log interim internal.	None, Failed, All		S	O
CSVLOG_TUNNEL_EXT	The CSV log tunnel external.	None, Failed, All		S	O
CSVLOG_TUNNEL_INT	The CSV log tunnel internal.	None, Failed, All		S	O
CSVLOG_VENDOR_SPECIFIC	The CSV vendor specific.	None, Failed, All		S	O
HOLIDAY	Holiday. For more information, see Table 32 on page 84.			C	O
ACTIVATIONTIME_YEAR	Activation time - year.			S	O
ACTIVATIONTIME_MONTH	Activation time - month.			S	O
ACTIVATIONTIME_DAY	Activation time - day.			S	O
ACTIVATIONTIME_HOUR	Activation time - hour.			S	O
ACTIVATIONTIME_MINUTE	Activation time - minute.			S	O

Table 58: A_A5020-VOIP_3-01_MOD_VPN

Parameter Name	Description	Range	Default Value	Type	Class
ACTIVATIONTIME_SECOND	Activation time - second.			S	O
DEACTIVATIONTIME_YEAR	Deactivation time - year.			S	O
DEACTIVATIONTIME_MONTH	Deactivation time - month.			S	O
DEACTIVATIONTIME_DAY	Deactivation time - day.			S	O
DEACTIVATIONTIME_HOUR	Deactivation time - hour.			S	O
DEACTIVATIONTIME_MINUTE	Deactivation time - minute.			S	O
DEACTIVATIONTIME_SECOND	Deactivation time - second.			S	O
LOGIN_ALLOWED_TIMES	Login allowed times. For more information, see Table 33 on page 84.			C	O
SPECIAL_PERIODS	Special periods. For more information, see Table 34 on page 85.			C	O
ONHOLD	On hold.	True, False		S	O

MML command/API calls

```
TelcoVPN telcoVpn = sessionTelco.NewTelcoVPN();

telcoVpn.SetGeneral( setVpnName, vpnName, true, currency, setMaxUsers,
maxUsersValue,
setMaxSessions, maxSessionsValue, false, dubiousIPTimeout, false,
privatePools, false, HSPPools, setAdminId, adminIdValue, addParamFlag,
payingAdminId );
```

```
telcoVpn.SetAccount(true, activationTime, false, deactivationTime, false,
loginAllowedTimeId, false, specialPerio
dId, true, onHold );

// DB Logging
            boolean setRadiusLogging = true;
            enumRadiusLogItem radiusLogging[] = {};
            boolean setProxyLogStartSessionInternal = true;
            enumProxyLogType proxyLogStartSessionInternal =
enumProxyLogType.ProxyLogNone;
            boolean setProxyLogStartSessionExternal = true;
            enumProxyLogType proxyLogStartSessionExternal =
enumProxyLogType.ProxyLogNone;
            boolean setProxyLogEndSessionInternal = true;
            enumProxyLogType proxyLogEndSessionInternal =
enumProxyLogType.ProxyLogNone;
            boolean setProxyLogEndSessionExternal = true;
            enumProxyLogType proxyLogEndSessionExternal =
enumProxyLogType.ProxyLogNone;
            boolean setProxyLogInterimInternal = true;
            enumProxyLogType proxyLogInterimInternal =
enumProxyLogType.ProxyLogFailed;
            boolean setProxyLogInterimExternal = true;
            enumProxyLogType proxyLogInterimExternal =
enumProxyLogType.ProxyLogFailed;
            boolean setProxyLogTunnelInternal = true;
            enumProxyLogType proxyLogTunnelInternal =
enumProxyLogType.ProxyLogAll;
            boolean setProxyLogTunnelExternal = true;
            enumProxyLogType proxyLogTunnelExternal =
enumProxyLogType.ProxyLogAll;
            boolean setProxyLogVendorSpecific = false;
            boolean proxyLogVendorSpecific = false;

            telcoVpn.SetDbLogging(setRadiusLogging, radiusLogging,
setProxyLogStartSessionInternal, proxyLogStartSessionInternal,
setProxyLogStartSessionExternal, proxyLogStartSessionExternal,
setProxyLogEndSessionInternal, proxyLogEndSessionInternal,
setProxyLogEndSessionExternal, proxyLogEndSessionExternal,
setProxyLogInterimInternal, proxyLogInterimInternal, setProxyLogInterimExter
nal, proxyLogInterimExternal, setProxyLogTunnelInternal,
proxyLogTunnelInternal, setProxyLogTunnelExternal, proxyLogTunnelExternal,
setProxyLogVendorSpecific,  proxyLogVendorSpecific);

            // CSV Logging
            telcoVpn.SetCsvLogging(setRadiusLogging, radiusLogging,
setProxyLogStartSessionInternal, proxyLogStartSessionInternal,
setProxyLogStartSessionExternal, proxyLogStartSessionExternal,
setProxyLogEndSessionInternal, proxyLogEndSessionInternal,
setProxyLogEndSessionExternal, proxyLogEndSessionExternal,
setProxyLogInterimInternal, proxyLogInterimInternal, setProxyLogInterimExte
```

```
rnal, proxyLogInterimExternal, setProxyLogTunnelInternal,
proxyLogTunnelInternal, setProxyLogTunnelExternal, proxyLogTunnelExternal,
setProxyLogVendorSpecific, proxyLogVendorSpecific);
```

Output parameters

If the work order is not successful, the method returns:

- ALCATEL_NRE_MODIFY_VPN_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_NRE_MODIFY_VPN_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM.

A_A5020-VOIP_3-01_MOD_VPN-RB

Rolls back the modified VPN. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.NREProvisioning.modVPNRB.**

Table 59: A_A5020-VOIP_3-01_MOD_VPN-RB

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or NRE instance.			S	R
VPN_ID	The VPN's ID. Either VPN_ID or VPN_NAME must be used as a key.			S	O
VPN_NAME	The VPN's name. Either VPN_ID or VPN_NAME must be used as a key.			S	O
OLD_MAX_USERS	The previous maximum number of users.			S	O
OLD_ADMIN_ID	The previous admin identification.			S	O
OLD_MAX_SESSIONS	The previous maximum number of sessions.			S	O

Table 59: A_A5020-VOIP_3-01_MOD_VPN-RB

Parameter Name	Description	Range	Default Value	Type	Class
OLD_DBLOG_STARTEXTSESS	The previous DB log proxy start external session value.	None, Failed, All		S	O
OLD_DBLOG_ENDEXTSESS	The previous DB log proxy end external session value.	None, Failed, All		S	O
OLD_DBLOG_STARTINTSESS	The previous DB log proxy start internal session value.	None, Failed, All		S	O
OLD_DBLOG_ENDINTSESS	The previous DB log end internal session value.	None, Failed, All		S	O
OLD_DBLOG_INTERIM_EXT	The previous DB proxy log interim external value.	None, Failed, All		S	O
OLD_DBLOG_INTERIM_INT	The previous DB proxy log interim internal value.	None, Failed, All		S	O
OLD_DBLOG_TUNNEL_EXT	The previous DB log tunnel external value.	None, Failed, All		S	O
OLD_DBLOG_TUNNEL_INT	The previous DB log tunnel internal value.	None, Failed, All		S	O
OLD_DBLOG_VENDOR_SPECIFIC	The previous DB log vendor-specific value.	True, False		S	O
OLD_CSVLOG_STARTEXTSESS	The previous CSV log proxy start external session value.	None, Failed, All		S	O
OLD_CSVLOG_ENDEXTSESS	The previous CSV log end external session value.	None, Failed, All		S	O
OLD_CSVLOG_STARTINTSESS	The previous CSV log start internal session value.	None, Failed, All		S	O

Table 59: A_A5020-VOIP_3-01_MOD_VPN-RB

Parameter Name	Description	Range	Default Value	Type	Class
OLD_CSVLOG_ENDINTSESS	The previous CSV log end internal session value.	None, Failed, All		S	O
OLD_CSVLOG_INTERIM_EXT	The previous CSV log interim external value.	None, Failed, All		S	O
OLD_CSVLOG_INTERIM_INT	The previous CSV log interim internal value.	None, Failed, All		S	O
OLD_CSVLOG_TUNNEL_EXT	The previous CSV log tunnel external value.	None, Failed, All		S	O
OLD_CSVLOG_TUNNEL_INT	The previous CSV log tunnel internal value.	None, Failed, All		S	O
OLD_CSVLOG_VENDOR_SPECIFIC	The previous CSV vendor-specific value.	True, False		S	O
OLD_HOLIDAY	The previous holiday year value. For more information, see Table 32 on page 84.			C	O
OLD_ACTIVATIONTIME_YEAR	The previous activation time - year value.			S	O
OLD_ACTIVATIONTIME_MONTH	The previous activation time - month value.			S	O
OLD_ACTIVATIONTIME_DAY	The previous activation time - day value.			S	O
OLD_ACTIVATIONTIME_HOUR	The previous activation time - hour value.			S	O
OLD_ACTIVATIONTIME_MINUTE	The previous activation time - minute value.			S	O
OLD_ACTIVATIONTIME_SECOND	The previous activation time - second value.			S	O

Table 59: A_A5020-VOIP_3-01_MOD_VPN-RB

Parameter Name	Description	Range	Default Value	Type	Class
OLD_DEACTIVATIONTIME_YEAR	The previous deactivation time - year value.			S	O
OLD_DEACTIVATIONTIME_MONTH	The previous deactivation time - month value.			S	O
OLD_DEACTIVATIONTIME_DAY	The previous deactivation time - day value.			S	O
OLD_DEACTIVATIONTIME_HOUR	The previous deactivation time - hour value.			S	O
OLD_DEACTIVATIONTIME_MINUTE	The previous deactivation time - minute value.			S	O
OLD_DEACTIVATIONTIME_SECOND	The previous deactivation time - second value.			S	O
OLD_LOGIN_ALLOWED_TIMES	The previous login allowed times value. For more information, see Table 60 on page 169.			C	O
OLD_SPECIAL_PERIODS	The previous special periods value. For more information, see Table 61 on page 170.			C	O
OLD_ONHOLD	The previous on hold value.	True, False		S	O

MML command/API calls

```
TelcoVPN telcoVpn = sessionTelco.NewTelcoVPN();
```

```
telcoVpn.SetGeneral( setVpnName, vpnName, true, currency, setMaxUsers,
maxUsersValue,
setMaxSessions, maxSessionsValue, false, dubiousIPTimeout, false,
privatePools, false, HSPPools, setAdminId, adminIdValue, addParamFlag,
payingAdminId );

telcoVpn.SetAccount(true, activationTime, false, deactivationTime, false,
loginAllowedTimeId, false, specialPerio
dId, true, onHold );

// DB Logging
            boolean setRadiusLogging = true;
            enumRadiusLogItem radiusLogging[] = {};
            boolean setProxyLogStartSessionInternal = true;
            enumProxyLogType proxyLogStartSessionInternal =
enumProxyLogType.ProxyLogNone;
            boolean setProxyLogStartSessionExternal = true;
            enumProxyLogType proxyLogStartSessionExternal =
enumProxyLogType.ProxyLogNone;
            boolean setProxyLogEndSessionInternal = true;
            enumProxyLogType proxyLogEndSessionInternal =
enumProxyLogType.ProxyLogNone;
            boolean setProxyLogEndSessionExternal = true;
            enumProxyLogType proxyLogEndSessionExternal =
enumProxyLogType.ProxyLogNone;
            boolean setProxyLogInterimInternal = true;
            enumProxyLogType proxyLogInterimInternal =
enumProxyLogType.ProxyLogFailed;
            boolean setProxyLogInterimExternal = true;
            enumProxyLogType proxyLogInterimExternal =
enumProxyLogType.ProxyLogFailed;
            boolean setProxyLogTunnelInternal = true;
            enumProxyLogType proxyLogTunnelInternal =
enumProxyLogType.ProxyLogAll;
            boolean setProxyLogTunnelExternal = true;
            enumProxyLogType proxyLogTunnelExternal =
enumProxyLogType.ProxyLogAll;
            boolean setProxyLogVendorSpecific = false;
            boolean proxyLogVendorSpecific = false;

            telcoVpn.SetDbLogging(setRadiusLogging, radiusLogging,
setProxyLogStartSessionInternal, proxyLogStartSessionInternal,
setProxyLogStartSessionExternal, proxyLogStartSessionExternal,
setProxyLogEndSessionInternal, proxyLogEndSessionInternal,
setProxyLogEndSessionExternal, proxyLogEndSessionExternal,
setProxyLogInterimInternal, proxyLogInterimInternal, setProxyLogInterimExter
nal, proxyLogInterimExternal, setProxyLogTunnelInternal,
proxyLogTunnelInternal, setProxyLogTunnelExternal, proxyLogTunnelExternal,
setProxyLogVendorSpecific,  proxyLogVendorSpecific);

            // CSV Logging
```

```
            telcoVpn.SetCsvLogging(setRadiusLogging, radiusLogging,
setProxyLogStartSessionInternal, proxyLogStartSessionInternal,
setProxyLogStartSessionExternal, proxyLogStartSessionExternal,
setProxyLogEndSessionInternal, proxyLogEndSessionInternal,
setProxyLogEndSessionExternal, proxyLogEndSessionExternal,
setProxyLogInterimInternal, proxyLogInterimInternal, setProxyLogInterimExte
rnal, proxyLogInterimExternal, setProxyLogTunnelInternal,
proxyLogTunnelInternal, setProxyLogTunnelExternal, proxyLogTunnelExternal,
setProxyLogVendorSpecific, proxyLogVendorSpecific);
```

Output parameters

If the work order is not successful, the method returns:

- ALCATEL_NRE_MODIFY_VPN_RB_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_NRE_MODIFY_VPN_RB_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM.

Compound parameter "LOGIN_ALLOWED_TIMES"

The compound parameter LOGIN_ALLOWED_TIMES will contain an indefinite number of entries.

Table 60: Compound Parameter "LOGIN_ALLOWED_TIMES"

PARAMETER LABEL	PARAMETER TYPE	ELEMENT ATTRIBUTE TYPE	DESCRIPTION
LOGIN_ALLOWED_TIMES.(n).NAME	O	STRING	Name for this special period. Either Login Allowed Times Name or ID is required.
LOGIN_ALLOWED_TIMES.(n).ID	O	NUMBER	Identifier for this special period. Either Login Allowed Times Name or ID is required.
LOGIN_ALLOWED_TIMES.(n).DAY.(m)	O	STRING	Valid values: Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday.

Table 60: Compound Parameter "LOGIN_ALLOWED_TIMES"

PARAMETER LABEL	PARAMETER TYPE	ELEMENT ATTRIBUTE TYPE	DESCRIPTION
LOGIN_ALLOWED_TIMES.(n).START_HOUR	O	STRING	Hour format hh.
LOGIN_ALLOWED_TIMES.(n).START_MINUTE	O	STRING	Minute format mm.
LOGIN_ALLOWED_TIMES.(n).STOP_HOUR	O	STRING	Hour format hh.
LOGIN_ALLOWED_TIMES.(n).STOP_MINUTE	O	STRING	Minute format mm.

Compound parameter "SPECIAL_PERIODS"

The compound parameter SPECIAL_PERIODS is used to provide special login periods. A unique name or ID is required per entry. Up to n entries are allowed per VPN.

Table 61: Compound Parameter "SPECIAL_PERIODS"

PARAMETER LABEL	PARAMETER TYPE	ELEMENT ATTRIBUTE TYPE	DESCRIPTION
SPECIAL_PERIODS.(n).NAME	O	STRING	Name for this special period. Either Special Period Name or ID is required.
SPECIAL_PERIODS.(n).ID	O	NUMBER	Identifier for this special period. Either Special Period Name or ID is required.
SPECIAL_PERIODS.(n).START_DAY	O	STRING	Valid values: Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday.

Table 61: Compound Parameter "SPECIAL_PERIODS"

PARAMETER LABEL	PARAMETER TYPE	ELEMENT ATTRIBUTE TYPE	DESCRIPTION
SPECIAL_PERIODS.(n). END_DAY	O	STRING	Valid values: Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday.
SPECIAL_PERIODS.(n). MONTH	O	NUMBER	Valid values: 1-12.
SPECIAL_PERIODS.(n). YEAR	O	NUMBER	Year format xxxx.
SPECIAL_PERIODS.(n). LOGINTIMESNAME	O	STRING	Name of associated Login Times. Either Login Times Name or ID is required.
SPECIAL_PERIODS.(n). LOGINTIMESID	O	STRING	Name of associated Login Times. Either Login Times Name or ID is required.

A_A5020-VOIP_3-01_QRY_AAA-GROUP

Retrieves an AAA group. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.NREProvisioning.qryAAAGroup.**

Table 62: A_A5020-VOIP_3-01_QRY_AAA-GROUP

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or NRE instance.			S	R
VPN_NAME	The VPN name identifier. Either VPN_ID or VPN_NAME must be used as a key.			S	O

Table 62: A_A5020-VOIP_3-01_QRY_AAA-GROUP

Parameter Name	Description	Range	Default Value	Type	Class
VPN_ID	The VPN instance identifier. Either VPN_ID or VPN_NAME must be used as a key.			S	O
AAA_GROUP_NAME	The AAA group's name. Either AAA_GROUP_ID or AAA_GROUP_NAME must be used as a key.			S	O
AAA_GROUP_ID	The AAA group identification. Either AAA_GROUP_ID or AAA_GROUP_NAME must be used as a key.			S	O

MML command/API calls

```
aaaGroup = aaaGroupIterator.OpenVoIPAAAGroup( tempGroupId );

IntHolder aaaGroupIdHolder = new IntHolder();
StringHolder aaaGroupNameHolder = new StringHolder();
enumEnableOnholdHolder enableOnHoldHolder= new enumEnableOnholdHolder();
IntHolder maxUserSessionHolder = new IntHolder();
IntHolder dubiousSessionTimeoutHolder = new IntHolder();
ShortHolder maxAccountRetriesHolder = new ShortHolder();
AAAGroupFlagsHolder aaaGroupFlagsHolder = new AAAGroupFlagsHolder();

aaaGroup.Get(aaaGroupIdHolder, aaaGroupNameHolder, enableOnHoldHolder,
maxUserSessionHolder, dubiousSessionTimeoutHolder, maxAccountRetriesHolder,
aaaGroupFlagsHolder);

enumAAAGroupFlags  aaaGroupFlags[] = aaaGroupFlagsHolder.value;
enumAAAGroupFlags aaaGroupFlag = null;

for ( int j=0; j<aaaGroupFlags.length; j++ ) {
            val = aaaGroupFlags[j].value();
            aaaGroupFlag = enumAAAGroupFlags.from_int(val);
}

IntHolder authProtocolTypeHolder = new IntHolder();
ShortHolder authRetriesHolder = new ShortHolder();
```

```
aaaGroup.GetAuthentication(authProtocolTypeHolder, authRetriesHolder);

IntHolder accountProtocolTypeHolder = new IntHolder();
ShortHolder accountRetriesHolder = new ShortHolder();

aaaGroup.GetAccounting ( accountProtocolTypeHolder, accountRetriesHolder );

IntHolder defaultPortTypeHolder = new IntHolder();
PortTypesHolder portTypes = new PortTypesHolder();

aaaGroup.GetPortAuthorisation( defaultPortTypeHolder, portTypes);

int[] portTypesValues = new int[10];
portTypesValues = portTypes.value;
Integer portType;
String tempString = "PORT_TYPE";

BooleanHolder cfaEnableHolder = new BooleanHolder();
tIpAddressHolder cfaIpAddressHolder = new tIpAddressHolder();
IntHolder cfaPortHolder = new IntHolder();
StringHolder cfaPrefixHolder = new StringHolder();
ShortHolder cfaLanguageIndicatorHolder = new ShortHolder();
StringHolder cfaDefaultAnnHolder = new StringHolder();

aaaGroup.GetVoIPCFA ( cfaEnableHolder, cfaIpAddressHolder, cfaPortHolder,
cfaPrefixHolder, cfaLanguageI
ndicatorHolder, cfaDefaultAnnHolder);
```

Output parameters

If the work order is not successful or no records are returned by the query, the method returns:

- ALCATEL_NRE_QUERY_AAA_GROUP_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_NRE_QUERY_AAA_GROUP_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM.

Upon a successful query with a record found, the following is returned as an INFO parameter into TBL_INFO_PARM:

```
AAA_GROUP_ID
AAA_GROUP_NAME
AAA_GROUP_ENABLE_ON_HOLD
AAA_GROUP_MAX_USER_SESSIONS
AAA_GROUP_MAX_ACCOUNTING_RETRIES
AAA_GROUP_EXTERNAL
AAA_GROUP_FAILURE_TO_START_SUPPORT_FLAG
AAA_GROUP_UNIDENTIFIED_ACCESS_FLAG
AAA_GROUP_PRE_AUTHENTICATION_ACCESS_ONLY_FLAG
AAA_GROUP_INTERACTION_SUPPORT_FLAG
```

AAA_GROUP_SUPPORT_ACCOUNTING_INTERIM_UPDATES_FLAG
AAA_GROUP_SUPPORT_ACCESS_FAILED_TICKETS_FLAG
AAA_GROUP_SUPPORT_EAP_MESSAGE_START_FLAG
AAA_GROUP_MANDATORY_PORTSET_FLAG
AAA_GROUP_STAGE2_AUTHENTICATION_FLAG
AAA_GROUP_STAGE2_ACCOUNTING_FLAG
AAA_GROUP_ACCOUNTING_ONLY_FLAG
AAA_GROUP_AUTHENTICATION_PROTOCOL_TYPE
AAA_GROUP_AUTHENTICATION_RETRIES
AAA_GROUP_ACCOUNTING_PROTOCOL_TYPE
AAA_GROUP_ACCOUNTING _RETRIES
AAA_GROUP_AUTHORISATION_DEFAULT_PORT_TYPE
AAA_GROUP_AUTHORISATION_PORT_TYPES
AAA_GROUP_BARRING_CLASS
AAA_GROUP_MAXIMUM_CONCURRENT_CALLS
AAA_GROUP_DIAL_IP_ADDRESS_PREFIX
AAA_GROUP_DIAL_UNREGISTERED_ENDPOINTS
AAA_GROUP_CALL_TRANSFER
AAA_GROUP_UNCONDITIONAL_FORWARDING_ACTIVATION
AAA_GROUP_BUSY_FORWARD_ACTIVATION
AAA_GROUP_NOREPLY_FORWARD_ACTIVATION
AAA_GROUP_TRIGGER_DESTINATION_AS_FOR_UNREGISTERED_USERS
AAA_GROUP_H323_PREGRANTED_ARQ
AAA_GROUP_H323_CHECK_LOCATION_TOKEN
AAA_GROUP_H323_RIP_REGISTRATION
AAA_GROUP_H323_RIP_UNREGISTRATION
AAA_GROUP_H323_RIP_CALL_ADMISSION
AAA_GROUP_H323_TERMINAL_AUTHENTICATION_METHOD
AAA_GROUP_H323_GATEWAY_AUTHENTICATION_METHOD
AAA_GROUP_H323_UPDATE_SETUP_ORIGIN
AAA_GROUP_H323_UPDATE_SETUP_DESTINATION
AAA_GROUP_H323_UPDATE_DISPLAY
AAA_GROUP_TRIGGER_SIP_APPLICATION_SERVER
AAA_GROUP_SIP_ORIGIN_APPLICATION_SERVER
AAA_GROUP_SIP_DESTINATION_APPLICATION_SERVER
AAA_GROUP_SIP_CALL_APPLICATION_SERVER
AAA_GROUP_SIP_PROXY_LOCAL_DESTINATION
AAA_GROUP_SIP_PROXY_NON_LOCAL_DESTINATION
AAA_GROUP_SIP_TERMINAL_AUTHENTICATION_METHOD
AAA_GROUP_SIP_TERMINAL_AUTHENTICATION_METHOD_TYPE
AAA_GROUP_SIP_HTTP_DIGEST
AAA_GROUP_SIP_GATEWAY_AUTHENTICATION_METHOD
AAA_GROUP_SIP_GATEWAY_AUTHENTICATION_METHOD_TYPE
AAA_GROUP_CFA_ENABLE
AAA_GROUP_CFA_PREFIX
AAA_GROUP_CFA_LANGUAGE_INDICATOR
AAA_GROUP_CFA_DEFAULT_ANNOUNCEMENT
AAA_GROUP_IVR_IP_ADDRESS
AAA_GROUP_IVR_PORT
AAA_GROUP_AAA_SERVER_NAME_x
AAA_GROUP_AAA_SERVER_ID_x
AAA_GROUP_AAA_SERVER_TYPE_x

```
AAA_GROUP_AAA_SERVER_STAGE_x
AAA_GROUP_AAA_SERVER_PRIORITY_x
```

A_A5020-VOIP_3-01_QRY_AAA-SELECTION-RULE

Queries an AAA selection rule. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.NREProvisioning.qryAAASelectionRule.**

Table 63: A_A5020-VOIP_3-01_QRY_AAA-SELECTION-RULE

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or NRE instance.			S	R
AAA_SELECTION_AAA_GROUP_ID	The AAA group ID. Either GROUP_ID or GROUP_NAME and the SELECTION_RULE_NUMBER, must be used as a key. The SELECTION_RULE_ID can be used as a key by itself.			S	O
AAA_SELECTION_AAA_GROUP_NAME	The AAA group name. Either GROUP_ID or GROUP_NAME and the SELECTION_RULE_NUMBER, must be used as a key. The SELECTION_RULE_ID can be used as a key by itself.			S	O
AAA_SELECTION_VPN_ID	The VPN identifier.			S	O
AAA_SELECTION_VPN_NAME	The VPN name.			S	O

Table 63: A_A5020-VOIP_3-01_QRY_AAA-SELECTION-RULE

Parameter Name	Description	Range	Default Value	Type	Class
AAA_SELECTION_RULE_ID	The AAA selection rule identification. Either AAA_GROUP_ID or NAME, and the SELECTION_RULE_NUMBER must be used as a key; SELECTION_RULE_ID can be used by itself. If not set, rule is placed at start of sequence of rules.			S	O
AAA_SELECTION_RULE_NUMBER	Priority sequence of the rule within an AAA group. Either AAA_GROUP_ID or NAME, and the SELECTION_RULE_NUMBER must be used as a key; SELECTION_RULE_ID can be used by itself. If not set, rule is placed at start of sequence of rules.			S	O
AAA_SELECTION_ENABLE_FLAG	Enables or disables this rule. A disabled rule is not considered in AAA selection.			S	O
AAA_SELECTION_METHOD	The AAA group selection method.	Any, H323Any, H323Registration, H323Admission, SipAny, SipInvite, SipSubscribe, SipMessage, SipOptions, SipRefer		S	O

Table 63: A_A5020-VOIP_3-01_QRY_AAA-SELECTION-RULE

Parameter Name	Description	Range	Default Value	Type	Class
AAA_SELECTION_ORIGIN_MASK	Describes the mask in which the origin must fit so that it can select the correct AAA group. This mask can be based on the user name or calling party E.164 number.			S	O
AAA_SELECTION_ORIGIN_START_ADDRESS	The lowest IP address in the range you are defining. Either Address, RAN, POP or Gatekeeper will be used as the ORIGIN selector.			S	O
AAA_SELECTION_ORIGIN_END_ADDRESS	The end IP address in the range you are defining.			S	O
AAA_SELECTION_ORIGIN_RAN_ID	The AAA selection originating RAN ID. Either the RAN_ID or RAN_NAME must be used as a key.			S	O
AAA_SELECTION_ORIGIN_RAN_NAME	The AAA selection originating RAN name. Either RAN_ID or RAN_NAME must be used as a key. Either Address, RAN, POP or Gatekeeper will be used as the ORIGIN selector.			S	O
AAA_SELECTION_ORIGIN_POP_ID	The AAA selection originating POP ID. Either POP_ID or POP_NAME must be used as a key.			S	O

Table 63: A_A5020-VOIP_3-01_QRY_AAA-SELECTION-RULE

Parameter Name	Description	Range	Default Value	Type	Class
AAA_SELECTION_ORIGIN_POP_NAME	The AAA selection originating POP name. Either POP_ID or POP_NAME must be used as a key. Either RAN, POP or Gatekeeper will be used as the ORIGIN selector.			S	O
AAA_SELECTION_ORIGIN_EXTERNAL_GATEKEEPER_NAME	The AAA selection originating external gatekeeper name. Either GATEKEEPER_ID or GATEKEEPER_ NAME must be used as a key. Either Address, RAN, POP or Gatekeeper will be used as the ORIGIN selector.			S	O
AAA_SELECTION_ORIGIN_EXTERNAL_GATEKEEPER_ID	The AAA selection originating external gatekeeper ID. Either GATEKEEPER_ID or GATEKEEPER_ NAME must be used as a key.			S	O
AAA_SELECTION_DESTINATION_MASK	Define the mask in which the destination must fit to correctly select the AAA group. This mask can be based on the user name or called party E.164 number.			S	O
AAA_SELECTION_DESTINATION_START_ADDRESS	Enter the lowest IP address in the range that you are defining for the called IP address.			S	O

Table 63: A_A5020-VOIP_3-01_QRY_AAA-SELECTION-RULE

Parameter Name	Description	Range	Default Value	Type	Class
AAA_SELECTION_DESTINATION_END_ADDRESS	Enter the highest IP address in the range that you are defining for the called IP address.			S	O
AAA_SELECTION	Multiple instances of AAA selections can be used here. For more information, see Table 24 on page 64.			C	O
OLD_AAA_SELECTION	Multiple instances of AAA selections can be used here. For more information, see Table 24 on page 64.			C	O

MML command/API calls

```
selectionRule = selectionIterator.OpenVoIPAAASelectionRule(
selectionRuleList[count].Id);
IntHolder ruleIdHolder = new IntHolder();
IntHolder ruleNumberHolder = new IntHolder();
BooleanHolder enableFlagHolder = new BooleanHolder();
IntHolder aaaGroupIdHolder = new IntHolder();
enumAAARulesMethodHolder selectionMethodHolder = new
enumAAARulesMethodHolder();
StringHolder originMaskHolder = new StringHolder();
OriginAddressHolder originAddHolder = new OriginAddressHolder();
StringHolder destMaskHolder = new StringHolder();
tIpAddressHolder destStartIPaddrHolder = new tIpAddressHolder();
tIpAddressHolder destEndIPaddrHolder = new tIpAddressHolder();
selectionRule.Get ( ruleIdHolder, ruleNumberHolder, enableFlagHolder,
aaaGroupIdHolder, selectionMethodHold
er, originMaskHolder, originAddHolder, destMaskHolder, destStartIPaddrHolder,
destEndIPaddrHolder );
```

Output parameters

If the work order is not successful or no records are returned by the query, the method returns:

- ALCATEL_QUERY_AAA_SELECTION_RULE_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_QUERY_AAA_SELECTION_RULE_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM.

Upon a successful query with a record found, the following is returned as an INFO parameter into TBL_INFO_PARM and CSDL parameters into TBL_SRQ_SARM (Note that some ORIGIN parameters are mutually exclusive).

If only one row is retrieved, then this set of scalar parameters are returned:

```
AAA_SELECTION_AAA_GROUP_NAME
AAA_SELECTION_AAA_GROUP_ID
AAA_SELECTION_RULE_ID
AAA_SELECTION_RULE_NUMBER
AAA_SELECTION_VPN_NAME
AAA_SELECTION_VPN_ID
AAA_SELECTION_ENABLE_FLAG
AAA_SELECTION_METHOD
AAA_SELECTION_ORIGIN_MASK
AAA_SELECTION_ORIGIN_START_ADDRESS
AAA_SELECTION_ORIGIN_END_ADDRESS
AAA_SELECTION_ORIGIN_POP_NAME
AAA_SELECTION_ORIGIN_POP_ID
AAA_SELECTION_ORIGIN_RAN_NAME
AAA_SELECTION_ORIGIN_RAN_ID
AAA_SELECTION_ORIGIN_EXTERNAL_GATEKEEPER_NAME
AAA_SELECTION_ORIGIN_EXTERNAL_GATEKEEPER_ID
AAA_SELECTION_DESTINATION_MASK
AAA_SELECTION_DESTINATION_START_ADDRESS
AAA_SELECTION_DESTINATION_END_ADDRESS
```

If only one row is retrieved then both the SCALAR and COMPOUND parameters are populated, if more than one row is retrieved, then only the AAA_SELECTION_RULE compound parameter is populated.

It is up to the upstream system to interpret how to use which set of returned data for its own purposes.

A_A5020-VOIP_3-01_QRY_ROUTE

Queries an existing route. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.NREProvisioning.queryRoute.**

Table 64: A_A5020-VOIP_3-01_QRY_ROUTE

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or NRE instance.			S	R
ROUTE_ID	The route's primary identification key. Either ROUTE_ID or ROUTE_NAME must be used as a key.			S	O
ROUTE_NAME	The route's name. Either ROUTE_ID or ROUTE_NAME must be used as a key.			S	O

MML command/API calls

```
VoIPRoutingConfig routeConfig =
VoIPRoutingConfigHelper.narrow(voIPRouteHolder.value);

     routeConfig = sessiontelco.OpenVoIPRoutingConfig(routeConfigID );
     routeConfig.Get(routeConfigIDHolder, routeConfigNameHolder);
     routeIDValue = new Integer(routeConfigIDHolder.value);

    VoIPRoutingConfigIterator routingConfigIterator =
sessiontelco.GetVoIPRoutingConfigs ();;

    BaseListItem configList[] = routingConfigIterator.ListItems();

     for ( int count=0; count< configList.length; count++ ) {
                   String configName = configList[count].Name;
                   int configId = configList[count].Id ;

                                    routeConfig =
routingConfigIterator.OpenVoIPRoutingConfig( configId );
                    routeConfig.Get( routeConfigIDHolder,
routeConfigNameHolder );
                    routeIDValue = new Integer( routeConfigIDHolder.value );
                   }
```

Output parameters

If the work order is not successful or no records are returned by the query, the method returns:

- ALCATEL_NRE_QUERY_ROUTE_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_NRE_QUERY_ROUTE_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM.

Upon a successful query with a record found, the following is returned as an INFO parameter into TBL_INFO_PARM:

```
ROUTE_ID
ROUTE_NAME
ROUTE_TYPE
ROUTE_CARRIER_PREFIX
ROUTE_ITSPLD
ROUTE_ENDPOINT_ADDRESS
ROUTE_ENDPOINT_PORT
ROUTE_ENDPOINT_TYPE
ROUTE_ODP
ROUTE_GW_POP
```

A_A5020-VOIP_3-01_QRY_ROUTE-BLOCK

Queries a route block. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.NREProvisioning.queryRouteBlock.**

Table 65: A_A5020-VOIP_3-01_QRY_ROUTE-BLOCK

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or NRE instance.			S	R
ROUTE_BLOCK_ID	The route block identifier. This is a primary key. Either ROUTE_BLOCK_ID or ROUTE_BLOCK_ NAME must be used as a key.			S	O

Table 65: A_A5020-VOIP_3-01_QRY_ROUTE-BLOCK

Parameter Name	Description	Range	Default Value	Type	Class
ROUTE_BLOCK_NAME	The route block name. Either ROUTE_BLOCK_ID or ROUTE_BLOCK_NAME must be used as a key.			S	O
ROUTE_CONFIG_ID	The primary key identifier of the routing configuration. Either ROUTE_CONFIG_ID or ROUTE_CONFIG_NAME must be used as a key.			S	O
ROUTE_CONFIG_NAME	The routing configuration name. Either ROUTE_CONFIG_ID or ROUTE_CONFIG_NAME must be used as a key.			S	O

MML command/API calls

```
VoIPRoutingConfigHolder voIPRoutingConfig = new VoIPRoutingConfigHolder();
VoIPRoutingConfig voIPRouteConfig =
VoIPRoutingConfigHelper.narrow(voIPRoutingConfig.value);

voIPRouteConfig = sessiontelco.OpenVoIPRoutingConfig(routeConfigId);
voIPRouteBlock = voIPRouteConfig.NewVoIPRouteBlock();
RouteBlockType routeBlockType;
RouteBlockRoutes routeBlockRoutes = new RouteBlockRoutes();

            if (routingType.equalsIgnoreCase("RouteBlockPriority" ) ) {
                routeBlockType = RouteBlockType.RouteBlockPriority;
                int[] routeIdValue = {Integer.parseInt(routeId)};
                routeBlockRoutes.priorityRoutes(routeIdValue);
            }
            else if ( routingType.equalsIgnoreCase("RouteBlockWeighted" ) ) {
                routeBlockType = RouteBlockType.RouteBlockWeighted;
                int routeIdValue = Integer.parseInt(routeId);
                short routeWeightValue = Short.parseShort(routeWeight);
```

```
                WeightedRoute[] weightRoute = {new
WeightedRoute(routeIdValue,routeWeightValue) };
                WeightedRouteListHolder weightRouteHolder = new
WeightedRouteListHolder(weightRoute);
                routeBlockRoutes.weightedRoutes(weightRouteHolder.value);
            }
            enumRouteFallback routeFallbackString =
enumRouteFallback.RouteFallbackNone;
            int clearingHouseId = 0;

            voIPRouteBlock.Set(addParam, routeBlockName, addParam,
routeFallbackString, addParam, clearingHouseId, addParam, routeBlockRoutes
);
```

Output parameters

If the work order is not successful or no records are returned by the query, the method returns:

- ALCATEL_NRE_QUERY_ROUTEBLOCK_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_NRE_QUERY_ROUTEBLOCK_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM.

Upon a successful query with a record found, the following is returned as an INFO parameter into TBL_INFO_PARM:

```
ROUTE_BLOCK_ID
ROUTE_BLOCK_NAME
ROUTE_BLOCK_ROUTE_CONFIG_ID
ROUTING_TYPE
ROUTE_ID_1
ROUTE_ID_2
ROUTE_ID_3
ROUTE_ID_4
ROUTE_ID_5
ROUTE_ID_6
ROUTE_ID_7
ROUTE_ID_8
ROUTE_ID_9
ROUTE_ID_10
ROUTE_WEIGHT_1
ROUTE_WEIGHT_2
ROUTE_WEIGHT_3
ROUTE_WEIGHT_4
ROUTE_WEIGHT_5
```

A_A5020-VOIP_3-01_QRY_ROUTE-BLOCK-ALL

Queries route blocks on the NE. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.NREProvisioning.queryRouteBlockAll.**

Table 66: A_A5020-VOIP_3-01_QRY_ROUTE-BLOCK-ALL

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or NRE instance.			S	R

MML command/API calls

Get RoutingConfig

```
                    VoIPRoutingConfig routeConfig =
VoIPRoutingConfigHelper.narrow(voIPRouteHolder.value);

     routeConfig = sessiontelco.OpenVoIPRoutingConfig(routeConfigID );
     routeConfig.Get(routeConfigIDHolder, routeConfigNameHolder);
     routeIDValue = new Integer(routeConfigIDHolder.value);

    VoIPRoutingConfigIterator routingConfigIterator =
sessiontelco.GetVoIPRoutingConfigs ();;

    BaseListItem configList[] = routingConfigIterator.ListItems();

     for ( int count=0; count< configList.length; count++ ) {
                    String configName = configList[count].Name;
                    int configId = configList[count].Id ;

                                      routeConfig =
routingConfigIterator.OpenVoIPRoutingConfig( configId );
                     routeConfig.Get( routeConfigIDHolder,
routeConfigNameHolder );
                     routeIDValue = new Integer( routeConfigIDHolder.value );
                    }
```

Get RouteBlock

```
                                    VoIPRouteBlockIterator routeBlockIterator
= null;

                          routeBlockIterator =
voipRouteConfig.GetVoIPRouteBlocks();
```

```
                        if ( routeBlockIterator == null ) {
                                throw new ProvCartridgeException (
SAConstants.NOENTITY_EX
IT_MSG + "RouteBlock Iterator object is not created" );
                        }

                        BaseListItem routeBlockList[] =
routeBlockIterator.ListItems();

                        String tempRouteName;
                        int tempRouteBlockId;

                        for ( int count = 0; count < routeBlockList.length;
count++ ) {

                                tempRouteName = routeBlockList[count].Name;
                                tempRouteBlockId = routeBlockList[count].Id;

                                if (
tempRouteName.equalsIgnoreCase(routeBlockName ) ) {

                                        routeBlockId = tempRouteBlockId;
                                        break;
                                }
                        }


                        VoIPRouteIterator routeIterator = null;

                        routeIterator = sessionTelco.GetVoIPRoutes ();

                        if ( routeIterator == null ) {
                                throw new ProvCartridgeException (
SAConstants.NOENTITY_EX
IT_MSG + " GetVoIPRoutes method return NULL");
                        }

                        BaseListItem routeList[] = routeIterator.ListItems();

                        String tempRouteName;
                        int tempRouteId;

                      for ( int count=0; count< routeList.length; count++ ) {

                                tempRouteName = routeList[count].Name;
                                tempRouteId = routeList[count].Id ;

                             if ( tempRouteName.equalsIgnoreCase(routeName)
) {
                                        routeId = tempRouteId;
                                        break;
```

```
                                    }
                              }
```

Output parameters

If the work order is not successful or no records are returned by the query, the method returns:

- ALCATEL_NRE_QUERY_ROUTE_BLOCK_ALL_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_NRE_QUERY_ROUTE_BLOCK_ALL_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM.

Upon a successful query with a record found, the following is returned as an INFO parameter into TBL_INFO_PARM:

```
ROUTE_CONFIG.(n).ROUTE_CONFIG_NAME
ROUTE_CONFIG.(n).ROUTE_CONFIG_ID
ROUTE_CONFIG.(n).ROUTE_BLOCK.(m).ROUTE_BLOCK_NAME
ROUTE_CONFIG.(n).ROUTE_BLOCK.(m).ROUTE_BLOCK_ID
ROUTE_CONFIG.(n).ROUTE_BLOCK.(m).ROUTING_TYPE

ROUTE_CONFIG.(n).ROUTE_BLOCK.(m).ROUTE_1.ROUTE_NAME
ROUTE_CONFIG.(n).ROUTE_BLOCK.(m).ROUTE_1.ROUTE_ID
ROUTE_CONFIG.(n).ROUTE_BLOCK.(m).ROUTE_1.ROUTE_ODP
ROUTE_CONFIG.(n).ROUTE_BLOCK.(m).ROUTE_1.ROUTE_GW_POP_RAN_ID

… (All of the parameters listed above for
ROUTE_CONFIG.(n).ROUTE_BLOCK.(m).ROUTE_1 may also be returned for
ROUTE_CONFIG.(n).ROUTE_BLOCK.(m).ROUTE_2 through
ROUTE_CONFIG.(n).ROUTE_BLOCK.(m).ROUTE_10.)

ROUTE_CONFIG.(n).ROUTE_BLOCK.(m).ROUTE_WEIGHT_1
ROUTE_CONFIG.(n).ROUTE_BLOCK.(m).ROUTE_WEIGHT_2
ROUTE_CONFIG.(n).ROUTE_BLOCK.(m).ROUTE_WEIGHT_3
ROUTE_CONFIG.(n).ROUTE_BLOCK.(m).ROUTE_WEIGHT_4
ROUTE_CONFIG.(n).ROUTE_BLOCK.(m).ROUTE_WEIGHT_5
```

A_A5020-VOIP_3-01_QRY_ROUTE-BLOCK-PREFIX

Queries a route block prefix. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.NREProvisioning.queryRouteBlockPrefix.**

Table 67: A_A5020-VOIP_3-01_QRY_ROUTE-BLOCK-PREFIX

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or NRE instance.			S	R
ROUTE_CONFIG_ID	The primary key identifier of the routing configuration. Either ROUTE_CONFIG_ID or ROUTE_CONFIG_NAME must be used as a key.			S	O
ROUTE_CONFIG_NAME	The name of the routing configuration. Either ROUTE_CONFIG_ID or ROUTE_CONFIG_NAME must be used as a key.			S	O
ROUTE_BLOCK_ID	The route block identifier's primary key. Either ROUTE_BLOCK_ID or ROUTE_BLOCK_NAME must be used as a key.			S	O
ROUTE_BLOCK_NAME	The route block name. Either ROUTE_BLOCK_ID or ROUTE_BLOCK_NAME must be used as a key.			S	O

MML command/API calls

```
VoIPRoutingConfig  voIPRoutingConfig =
sessiontelco.OpenVoIPRoutingConfig(routeConfigID );

            if (routeBlockIdValue!=null)
                  voipRouteBlock =
voIPRoutingConfig.OpenVoIPRouteBlock(routeBlockIdValue );

            } else if ( ( routeBlockName != null ) && ( routeBlockId == null
) ) {
                 VoIPRouteBlockIterator routeBlockIterator =
voIPRoutingConfig.GetVoIPRouteBlocks();;

                BaseListItem routeBlockList[] =
routeBlockIterator.ListItems();

               for ( int count = 0; count < routeBlockList.length; count++ ) {
                     String tempRouteName = routeBlockList[count].Name;
                     int  tempRouteBlockId = routeBlockList[count].Id;

                     if ( tempRouteName.equalsIgnoreCase(routeBlockName ) ) {
                         voipRouteBlock =
routeBlockIterator.OpenVoIPRouteBlock(tempRouteBlockId );
                     }
                }
            }

            VoIPRoutingMatch routingMatch[] = voipRouteBlock.GetMatchList();

            for ( int count = 0; count < routingMatch.length; count++ ) {
                VoIPRoutingMatch routeMatch =
(VoIPRoutingMatch)routingMatch[count];
  enumVoIPRoutingMatchType routeMatchType = routeMatch.discriminator();

                String routeMatchString = routeMatchType.toString();
                if ( routeMatchString.equals("VoIPRoutingMatchTypeE164Range"
) ) {

                     VoIPRoutingMatchE164Range matchRange =
routeMatch.E164Range();
                     String startPrefix = matchRange.start;
                     String endPrefix = matchRange.end;

                     returnInfoParam ( "Start Prefix Value" , startPrefix );
                     returnInfoParam ( "End Prefix value" , endPrefix );
                }
            }
```

Output parameters

If the work order is not successful or no records are returned by the query, the method returns:

- ALCATEL_NRE_QUERY_ROUTEBLOCKPREFIX_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_NRE_QUERY_ROUTEBLOCKPREFIX_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM.

Upon a successful query with a record found, the following is returned as an INFO parameter into TBL_INFO_PARM:

```
ROUTE_BLOCK_NAME
ROUTE_BLOCK_ID
ROUTE_BLOCK_START_PREFIX.(n)
ROUTE_BLOCK END_PREFIX.(n)
```

A_A5020-VOIP_3-01_QRY_ROUTE-BLOCK-PREFIX-ALL

Queries a route prefix on the NE. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.NREProvisioning.queryRouteBlockPrefixAll.**

Table 68: A_A5020-VOIP_3-01_QRY_ROUTE-BLOCK-PREFIX-ALL

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or NRE instance.			S	R
ROUTE_BLOCK_START_PREFIX	Route block start prefix.			S	R

MML command/API calls

Get RoutingConfig

```
                  VoIPRoutingConfig routeConfig =
VoIPRoutingConfigHelper.narrow(voIPRouteHolder.value);

     routeConfig = sessiontelco.OpenVoIPRoutingConfig(routeConfigID );
     routeConfig.Get(routeConfigIDHolder, routeConfigNameHolder);
     routeIDValue = new Integer(routeConfigIDHolder.value);

    VoIPRoutingConfigIterator routingConfigIterator =
sessiontelco.GetVoIPRoutingConfigs ();;
```

```
    BaseListItem configList[] = routingConfigIterator.ListItems();

     for ( int count=0; count< configList.length; count++ ) {
                    String configName = configList[count].Name;
                    int configId = configList[count].Id ;

                                        routeConfig =
routingConfigIterator.OpenVoIPRoutingConfig( configId );
                     routeConfig.Get( routeConfigIDHolder,
routeConfigNameHolder );
                     routeIDValue = new Integer( routeConfigIDHolder.value );
                    }
```

Get RouteBlock

```
                                      VoIPRouteBlockIterator routeBlockIterator
= null;

                          routeBlockIterator =
voipRouteConfig.GetVoIPRouteBlocks();

                          if ( routeBlockIterator == null ) {
                                  throw new ProvCartridgeException (
SAConstants.NOENTITY_EX
IT_MSG + "RouteBlock Iterator object is not created" );
                          }

                          BaseListItem routeBlockList[] =
routeBlockIterator.ListItems();

                          String tempRouteName;
                          int tempRouteBlockId;

                          for ( int count = 0; count < routeBlockList.length;
count++ ) {

                                  tempRouteName = routeBlockList[count].Name;
                                  tempRouteBlockId = routeBlockList[count].Id;

                                  if (
tempRouteName.equalsIgnoreCase(routeBlockName ) ) {

                                          routeBlockId = tempRouteBlockId;
                                          break;
                                  }
                          }


                          VoIPRouteIterator routeIterator = null;

                          routeIterator = sessionTelco.GetVoIPRoutes ();
```

```
                        if ( routeIterator == null ) {
                                throw new ProvCartridgeException (
SAConstants.NOENTITY_EX
IT_MSG + " GetVoIPRoutes method return NULL");
                        }

                        BaseListItem routeList[] = routeIterator.ListItems();

                        String tempRouteName;
                        int tempRouteId;

                      for ( int count=0; count< routeList.length; count++ ) {

                                tempRouteName = routeList[count].Name;
                                tempRouteId = routeList[count].Id ;

                             if ( tempRouteName.equalsIgnoreCase(routeName)
) {
                                        routeId = tempRouteId;
                                        break;
                                }
                        }
```

Output parameters

If the work order is not successful or no records are returned by the query, the method returns:

- ALCATEL_NRE_QUERY_ROUTE_BLOCK_PREFIX_ALL_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_NRE_QUERY_ROUTE_ BLOCK_PREFIX_ALL_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM.

Upon a successful query with a record found, the following is returned as an INFO parameter into TBL_INFO_PARM:

```
ROUTE_CONFIG.(n).ROUTE_CONFIG_ID
ROUTE_CONFIG.(n).ROUTE_CONFIG_NAME
ROUTE_CONFIG.(n).ROUTE_BLOCK_START_PREFIX
ROUTE_CONFIG.(n).ROUTE_BLOCK_END_PREFIX

ROUTE_CONFIG.(n).ROUTE_BLOCK.(m).ROUTE_BLOCK_NAME
ROUTE_CONFIG.(n).ROUTE_BLOCK.(m).ROUTE_BLOCK_ID
ROUTE_CONFIG.(n).ROUTE_BLOCK.(m).ROUTING_TYPE
ROUTE_CONFIG.(n).ROUTE_BLOCK.(m).ROUTE_1.ROUTE_NAME
ROUTE_CONFIG.(n).ROUTE_BLOCK.(m).ROUTE_1.ROUTE_ID
ROUTE_CONFIG.(n).ROUTE_BLOCK.(m).ROUTE_1.ROUTE_ODP
ROUTE_CONFIG.(n).ROUTE_BLOCK.(m).ROUTE_1.ROUTE_GW_POP_RAN_ID

… (All of the parameters listed above for
ROUTE_CONFIG.(n).ROUTE_BLOCK.(m).ROUTE_1 may also be returned for
```

```
ROUTE_CONFIG.(n).ROUTE_BLOCK.(m).ROUTE_2 through
ROUTE_CONFIG.(n).ROUTE_BLOCK.(m).ROUTE_10.)

ROUTE_CONFIG.(n).ROUTE_BLOCK.(m).ROUTE_WEIGHT_1
ROUTE_CONFIG.(n).ROUTE_BLOCK.(m).ROUTE_WEIGHT_2
ROUTE_CONFIG.(n).ROUTE_BLOCK.(m).ROUTE_WEIGHT_3
ROUTE_CONFIG.(n).ROUTE_BLOCK.(m).ROUTE_WEIGHT_4
ROUTE_CONFIG.(n).ROUTE_BLOCK.(m).ROUTE_WEIGHT_5
```

A_A5020-VOIP_3-01_QRY_ROUTE-BLOCK-SUFFIX

Queries a route block suffix. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.NREProvisioning.queryRouteBlockSuffix.**

Table 69: A_A5020-VOIP_3-01_QRY_ROUTE-BLOCK-SUFFIX

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or NRE instance.			S	R
ROUTE_CONFIG_ID	The primary key identifier of the routing configuration. Either ROUTE_CONFIG_ID or ROUTE_CONFIG_NAME must be used as a key.			S	O
ROUTE_CONFIG_NAME	The name of the routing configuration. Either ROUTE_CONFIG_ID or ROUTE_CONFIG_NAME must be used as a key.			S	O
ROUTE_BLOCK_ID	The route block identifier's primary key. Either ROUTE_BLOCK_ID or ROUTE_BLOCK_NAME must be used as a key.			S	O

Table 69: A_A5020-VOIP_3-01_QRY_ROUTE-BLOCK-SUFFIX

Parameter Name	Description	Range	Default Value	Type	Class
ROUTE_BLOCK_NAME	The route block name. Either ROUTE_BLOCK_ID or ROUTE_BLOCK_NAME must be used as a key.			S	O

MML command/API calls

```
VoIPRoutingConfig  voIPRoutingConfig =
sessiontelco.OpenVoIPRoutingConfig(routeConfigID );

            if (routeBlockIdValue!=null)
                  voipRouteBlock =
voIPRoutingConfig.OpenVoIPRouteBlock(routeBlockIdValue );

            } else if ( ( routeBlockName != null ) && ( routeBlockId == null
) ) {
                 VoIPRouteBlockIterator routeBlockIterator =
voIPRoutingConfig.GetVoIPRouteBlocks();;

                BaseListItem routeBlockList[] =
routeBlockIterator.ListItems();

               for ( int count = 0; count < routeBlockList.length; count++ ) {
                    String tempRouteName = routeBlockList[count].Name;
                    int  tempRouteBlockId = routeBlockList[count].Id;

                    if ( tempRouteName.equalsIgnoreCase(routeBlockName ) ) {
                        voipRouteBlock =
routeBlockIterator.OpenVoIPRouteBlock(tempRouteBlockId );
                    }
                }
            }

            VoIPRoutingMatch routingMatch[] = voipRouteBlock.GetMatchList();

            for ( int count = 0; count < routingMatch.length; count++ ) {
                VoIPRoutingMatch routeMatch =
(VoIPRoutingMatch)routingMatch[count];
  enumVoIPRoutingMatchType routeMatchType = routeMatch.discriminator();

                String routeMatchString = routeMatchType.toString();
                if ( routeMatchString.equals("VoIPRoutingMatchTypeE164Range"
) ) {
```

```
                    VoIPRoutingMatchE164Range matchRange =
routeMatch.E164Range();
                    String startPrefix = matchRange.start;
                    String endPrefix = matchRange.end;

                    returnInfoParam ( "Start Prefix Value" , startPrefix );
                    returnInfoParam ( "End Prefix value" , endPrefix );
                }
            }
```

Output parameters

If the work order is not successful or no records are returned by the query, the method returns:

- ALCATEL_NRE_QUERY_ROUTEBLOCKSUFFIX_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_NRE_QUERY_ROUTEBLOCKSUFFIX_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM.

Upon a successful query with a record found, the following is returned as an INFO parameter into TBL_INFO_PARM:

```
ROUTE_BLOCK_NAME
ROUTE_BLOCK_ID
ROUTE-BLOCK-SUFFIX.(n)
```

A_A5020-VOIP_3-01_QRY_ROUTE-CONFIG

Queries the route configuration. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.NREProvisioning.queryRouteConfig.**

Table 70: A_A5020-VOIP_3-01_QRY_ROUTE-CONFIG

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or NRE instance.			S	R
ROUTE_CONFIG_ID	The primary key identifier of the routing configuration. Either ROUTE_CONFIG_ID or ROUTE_CONFIG_ NAME must be used as a key.			S	O

Table 70: A_A5020-VOIP_3-01_QRY_ROUTE-CONFIG

Parameter Name	Description	Range	Default Value	Type	Class
ROUTE_CONFIG_NAME	The name of the routing configuration. Either ROUTE_CONFIG_ID or ROUTE_CONFIG_NAME must be used as a key.			S	O

MML command/API calls

```
VoIPRoutingConfigIterator routingConfigIterator =
sessiontelco.GetVoIPRoutingConfigs();

routingConfigIterator BaseListItem configList[] =
routingConfigIterator.ListItems();

for ( int count=0; count< configList.length; count++ )
{
        String configName = configList[count].Name;
         int configId = configList[count].Id ;

if ( configName.equals(routeConfigName) ) {
                  routeConfig = routingConfigIterator.OpenVoIPRoutingConfig(
configId );
                  routeConfig.Get( routeConfigIDHolder, routeConfigNameHolder
);
                  routeIDValue = new Integer( routeConfigIDHolder.value );
         }
}
```

Output parameters

If the work order is not successful or no records are returned by the query, the method returns:

- ALCATEL_NRE_QUERY_ROUTECONFIG_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_NRE_QUERY_ROUTECONFIG_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM.

Upon a successful query with a record found, the following is returned as an INFO parameter into TBL_INFO_PARM:

```
ROUTE_CONFIG_ID
ROUTE_CONFIG_NAME
```

```
ROUTE_BLOCK.(n).ROUTE_BLOCK_NAME
ROUTE_BLOCK.(n).ROUTE_BLOCK_ROUTE_CONFIG_ID
ROUTE_BLOCK.(n).ROUTING_TYPE
ROUTE_BLOCK.(n).ROUTE_ID_1
ROUTE_BLOCK.(n).ROUTE_ID_2
ROUTE_BLOCK.(n).ROUTE_ID_3
ROUTE_BLOCK.(n).ROUTE_ID_4
ROUTE_BLOCK.(n).ROUTE_ID_5
ROUTE_BLOCK.(n).ROUTE_ID_6
ROUTE_BLOCK.(n).ROUTE_ID_7
ROUTE_BLOCK.(n).ROUTE_ID_8
ROUTE_BLOCK.(n).ROUTE_ID_9
ROUTE_BLOCK.(n).ROUTE_ID_10
ROUTE_BLOCK.(n).ROUTE_WEIGHT_1
ROUTE_BLOCK.(n).ROUTE_WEIGHT_2
ROUTE_BLOCK.(n).ROUTE_WEIGHT_3
ROUTE_BLOCK.(n).ROUTE_WEIGHT_4
ROUTE_BLOCK.(n).ROUTE_WEIGHT_5
VPN_ID.(n)
```

A_A5020-VOIP_3-01_QRY_VPN

Queries a VPN. It is implemented by the Java method **com.metasolv.cartridge.oss.ala5020_voip_3_01.prov.NREProvisioning.qryVPN.**

Table 71: A_A5020-VOIP_3-01_QRY_VPN

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The A5020 instance identifier, or NRE instance.			S	R
VPN_ID	The VPN's ID. Either VPN_ID or VPN_NAME must be used as a key.			S	O
VPN_NAME	The VPN's name. Either VPN_ID or VPN_NAME must be used as a key.			S	O

MML command/API calls

```
TelcoVPN telcoVpn = vpnIt.OpenTelcoVPN(vpnList[i].Id);
tDateTimeHolder activationTime = new tDateTimeHolder();
tDateTimeHolder deActivationTime = new tDateTimeHolder();
```

```
IntHolder   loginAllowedTimeId = new IntHolder();
IntHolder   specialLoginPeriodId = new IntHolder();
BooleanHolder onHold = new BooleanHolder();
telcoVpn.GetAccount(activationTime,deActivationTime,loginAllowedTimeId,speci
alLoginPeriodId,onHold);
```

Output parameters

If the work order is not successful or no records are returned by the query, the method returns:

- ALCATEL_NRE_QUERY_VPN_ERRCODE as INFO parameter to the SARM table TBL_INFO_PARM.
- ALCATEL_NRE_QUERY_VPN_ERRCODE as CSDL parameter to the SARM table TBL_SRQ_PARM.

Upon a successful query with a record found, the following is returned as an INFO parameter into TBL_INFO_PARM:

```
VPN_ID
VPN_NAME
CURRENCY
MAX_USERS
MAX_SESSIONS
ADMIN_ID
PAYING_ADMIN_ID
PRIVATE_POOLS
HSP_POOLS
DUBIOUS_IP_TIMEOUT
DBLOG_STARTEXTSESS
DBLOG_ENDEXTSESS
DBLOG_STARTINTSESS
DBLOG_ENDINTSESS
DBLOG_INTERIM_EXT
DBLOG_INTERIM_INT
DBLOG_TUNNEL_EXT
DBLOG_TUNNEL_INT
DBLOG_VENDOR_SPECIFIC
CSVLOG_STARTEXTSESS
CSVLOG_ENDEXTSESS
CSVLOG_STARTINTSESS
CSVLOG_ENDINTSESS
CSVLOG_INTERIM_EXT
CSVLOG_INTERIM_INT
CSVLOG_TUNNEL_EXT
CSVLOG_TUNNEL_INT
CSVLOG_VENDOR_SPECIFIC
HOLIDAY.(n).YEAR
HOLIDAY.(n).MONTH
HOLIDAY.(n).DAY
HOLIDAY.(n).HOUR
HOLIDAY.(n).MINUTE
```

```
HOLIDAY.(n).SECOND
ACTIVATIONTIME_YEAR
ACTIVATIONTIME_MONTH
ACTIVATIONTIME_DAY
ACTIVATIONTIME_HOUR
ACTIVATIONTIME_MINUTE
ACTIVATIONTIME_SECOND
DEACTIVATIONTIME_YEAR
DEACTIVATIONTIME_MONTH
DEACTIVATIONTIME_DAY
DEACTIVATIONTIME_HOUR
DEACTIVATIONTIME_MINUTE
DEACTIVATIONTIME_SECOND
LOGIN_ALLOWED_TIMES.(n).NAME
LOGIN_ALLOWED_TIMES.(n).ID
LOGIN_ALLOWED_TIMES.(n).DAY.(m)
LOGIN_ALLOWED_TIMES.(n).START_HOUR(m)
LOGIN_ALLOWED_TIMES.(n).START_MINUTE(m)
LOGIN_ALLOWED_TIMES.(n).STOP_HOUR(m)
LOGIN_ALLOWED_TIMES.(n). STOP_ MINUTE (m)
SPECIAL_PERIODS.(n).NAME
SPECIAL_PERIODS.(n).ID
SPECIAL_PERIODS.(n).START_DAY
SPECIAL_PERIODS.(n).END_DAY
SPECIAL_PERIODS.(n).MONTH
SPECIAL_PERIODS.(n).YEAR
SPECIAL_PERIODS.(n).LOGINTIMESID
ONHOLD
```

Customizing error handling

You can customize the cartridge's error handling behavior by updating the following file:

`tbl_user_err.sql`

From this file, you can remap any user-type exit code (USER_TYPE) to a different base exit type (BASE_TYPE). For example, if on a given NE you want a particular ASDL to return a SOFT_FAIL instead of FAIL (which is a hard fail) when it detects a specific error, you change the BASE_TYPE associated with the appropriate USER_TYPE from FAIL to SOFT_FAIL (the ASDL state table or Java method's exit type is mapped to the USER_TYPE).

Before

USER_TYPE	BASE_TYPE	DESCRIPTION
A5020_SYS_FAIL	FAIL	System Failure

After

USER_TYPE	BASE_TYPE	DESCRIPTION
A5020_SYS_FAIL	SOFT_FAIL	System Failure

ASAP base exit types

- SUCCEED — successful ASDL execution.
- FAIL — hard error.
- SOFT_FAIL — a soft error occurred, but processing will be allowed to continue.
- RETRY — the ASDL was not provisioned, but will be retried again.
- MAINTENANCE — the ASDL detected the NE is in maintenance mode.
- DELAYED_FAIL — the ASDL failed; but processing will continue.

For a complete description of the ASAP base-error types, refer to Chapter 3 of the ASAP Developer's Guide.

The Alcatel A5020 Softswitch User Error Types

The user defined error / exit types are in `A5020_VOIP_3_01_UserExitTypes.cfg`.

The following table lists the contents of this file. You have full control of this file. For example, you can add additional error codes to this file as discovered. If you add an additional error code, ensure the corresponding user exit type and ASAP exit type in tbl_user_err.

If this file is removed or its path is incorrect, the user exit type defaults to A5020_NO_MATCH and maps to ASAP exit type FAIL.

Table 72: User Exit Type Descriptions

USER EXIT TYPE	DESCRIPTION
ALA_SUCCESS	Successful Status
ALA_FAIL	System/Generic failure
ALA_DATABASE_ERROR	Database Failure
ALA_INVALID_VALUE	Any number of server validation errors, or ASDL/CSDL parameter values that are invalid
ALA_INVALID_PARAM	An ASDL/CSDL or entity parameter is invalid
ALA_BASE_EXCEPTION	Add fails due to object previously existing

Table 72: User Exit Type Descriptions

USER EXIT TYPE	DESCRIPTION
ALA_ENTITY_EXIST	Delete fails due to object not previously existing
ALA_MISSING_PARAM	A required parameter is missing
ALA_NO_ENTITY	No Such Entity exists on a lookup of a parent entity, or associated entity, or current entity
ALA_NOT_IMPLEMENTED	This particular feature/functionality not yet implemented
ALA_UNEXPECTED	Unknown internal error
ALA_TELCO_VPN_ERROR	The Telco VPN could not be obtained
ALA_BASE_ERROR	Error with Base CORBA entity
ALA_AAA_GROUP_ERROR	Error in AAA Group
ALA_ROUTEBLOCK_ERROR	Error in route block entity
ALA_TELCO_ERROR	The Telco object could not be obtained
ALA_SMC_ROOT_ERROR	The main server entity object could not be obtained
ALA_RAN_ERROR	Error in Remote access node entity
ALA_POP_ERROR	Error in Point of Presence entity
ALA_ATTRIBUTE_ERROR	Error in AAA Group attributes
ALA_SELECT_RULE_ERROR	Error in AAA Selection rule entity
ALA_ROUTE_ERROR	Error in route entity
ALA_ROUTECONFIG_ERROR	Error in route config entity
ALA_VPN_ERROR	Error in obtaining Virtual Private Network entity
A5020_NO_MATCH	Unknown generic exit type

4

Service Definitions

The Alcatel A5020 Softswitch cartridge contains a set of CSDLs that map to one or more ASDL commands. You can also create additional CSDLs that map to existing and newly-created ASDLs. An upstream system can assemble any of these CSDL commands onto a work order for provisioning.

This chapter presents detailed information on the CSDL parameters that we provide in this cartridge. The following table lists and describes the type of parameter information that is included.

Table 73: CSDL parameter information

Information Type	Description
Parameter Name	Identifies the parameter that is configured for the stated service.
Description	Describes the parameter.
Range	Describes or lists the range of values that can be used to satisfy this parameter.
Default Value	Configures a default value for the parameter so that it is not mandatory for the upstream system to provide a value.

Table 73: CSDL parameter information

Information Type	Description
Type	Indicates one of the following parameter types: ◆ S—Scalar, specifies the parameter label transmitted on the ASDL command. Scalar parameters are conventional name-value pair parameters. ◆ C—Compound, specifies the base name of the compound parameter transmitted on the ASDL command. A compound parameter contains structures or arrays of information that are represented by a particular structure name or compound parameter name. Each compound parameter can contain a large number of elements. If you use compound parameters, you only require a single entry in the ASAP translation tables to call the compound parameter and all its associated parameter elements. ◆ I—Indexed, identifies a parameter that contains a sequential numerical index value to tell the SARM that it should execute the same operation (for example, an ASDL command) for all occurrences of that index. Consequently, if there are several options on a particular CSDL command (OPT1, OPT2, OPT3, etc.), you can specify the OPT parameter as an indexed parameter. When you specify the OPT parameter as an indexed parameter, the SARM generates several occurrences of that same ASDL command and each command has a different value for the option being transmitted to the NEP. For more information on parameter types, refer to the *ASAP Developer's Reference*.
Class	Indicates one of the following parameter classifications: ◆ R—Required scalar parameter ◆ O—Optional scalar parameter ◆ C—Required compound parameter ◆ N—Optional compound parameter ◆ M—Mandatory indexed parameter ◆ I—Optional indexed parameter ◆ S—Parameter count
Parameter Name	Identifies the parameter that is configured for the stated service.

For a detailed description of the Required and Optional parameter classifications, refer to the *ASAP System Configuration and Management Guide.*

CCE Service Pack

This cartridge provides the following CSDL commands:

- C_A5020-VOIP_3-01_ADD_CCE
- C_A5020-VOIP_3-01_ADD_NRE
- C_A5020-VOIP_3-01_ADD_POP
- C_A5020-VOIP_3-01_ADD_RAN
- C_A5020-VOIP_3-01_DEL_POP
- C_A5020-VOIP_3-01_DEL_RAN
- C_A5020-VOIP_3-01_MOD_POP
- C_A5020-VOIP_3-01_MOD_RAN
- C_A5020-VOIP_3-01_QRY_ALL-RANS
- C_A5020-VOIP_3-01_QRY_POP
- C_A5020-VOIP_3-01_QRY_RAN

C_A5020-VOIP_3-01_ADD_CCE

Adds a Call Control Engine.

Table 74: C_A5020-VOIP_3-01_ADD_CCE

Parameter Name	Description	Range	Default Value	Type	Class
CCE_ID	The CCE instance identifier.			S	R
NE_ID_CCE	The A5020 instance identifier, or the CCE instance.			S	R

Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

Table 75: CSDL to ASDL Mapping

CSDL	ASDL
C_A5020-VOIP_3-01_ADD_CCE	A_A5020-VOIP_3-01_ADD_CCE

C_A5020-VOIP_3-01_ADD_NRE

Adds a Network Routing Engine.

Table 76: C_A5020-VOIP_3-01_ADD_NRE

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_CCE	The A5020 instance identifier.			S	R
NRE_ID	The NRE instance identifier.			S	R

Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

Table 77: CSDL to ASDL Mapping

CSDL	ASDL
C_A5020-VOIP_3-01_ADD_NRE	A_A5020-VOIP_3-01_ADD_NRE

C_A5020-VOIP_3-01_ADD_POP

Adds a Point of Presence (POP).

Table 78: C_A5020-VOIP_3-01_ADD_POP

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_CCE	The A5020 instance identifier, or the CCE instance.			S	R
POP_NAME	The POP name. Valid characters are alphanumeric capitals.			S	R
POP_TYPE	The POP type.	PopTypePOP, PopTypeGLOBALPOP, PopTypeVIRUTALPOP, or PopTypeVIRTUALGLOBALPOP	PopTypeVIRTUALPOP	S	R
VPN_ID	The VPN instance identifier. Either VPN_ID or VPN_NAME must be used to identify the VPN.			S	O
VPN_NAME	The VPN name identifier. Either VPN_ID or VPN_NAME must be used to identify the VPN.			S	O

Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

Table 79: CSDL to ASDL Mapping

CSDL	ASDL
C_A5020-VOIP_3-01_ADD_POP	A_A5020-VOIP_3-01_ADD_POP

C_A5020-VOIP_3-01_ADD_RAN

Adds a Remote Area Node.

Table 80: C_A5020-VOIP_3-01_ADD_RAN

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_CCE	The A5020 instance identifier, or the CCE instance.			S	R
POP_ID	The POP primary identifier. Either POP_ID or POP_NAME must be used as a key.			S	O
POP_NAME	The POP name. Either POP_ID or POP_NAME must be used as a key.			S	O
RAN_COMMAND_PORT	This port is used if there is a disconnect in some of the GWs.			S	O
RAN_ENABLE	Enables or disables the GW.		Enable	S	O
RAN_FLAG_DOWNLOAD_FRAMED_PROFILES	The RAN download framed profile flag.			S	O
RAN_FLAG_DOWNLOAD_IPX_ROUTES	The RAN download IPX routes flag.			S	O
RAN_FLAG_DOWNLOAD_IP_POOLS	The RAN download IP pools flag			S	O
RAN_FLAG_DOWNLOAD_IP_ROUTES	The RAN download IP routes flag.			S	O
RAN_FLAG_DOWNLOAD_PERM_CONNECTIONS	The RAN download permanent connection flag.			S	O

Table 80: C_A5020-VOIP_3-01_ADD_RAN

Parameter Name	Description	Range	Default Value	Type	Class
RAN_FLAG_HEARTBEAT_SUPPORT	The RAN heartbeat support flag.			S	O
RAN_FLAG_TRUSTED	The RAN Trusted flag.			S	O
RAN_ITF_FLAGS	Enables the IPNG protocol.		RanITFFlagIPING	S	O
RAN_ITF_IP_ADDRESS	The IP address used if the GW has more than one physical interface with the NE.			C	O
RAN_ITF_IP_NETMASK	Sets the netmask.			S	O
RAN_ITF_SECRET	Sets the shared secret that is used to encrypt all communication between the GW and the proxy.			S	O
RAN_LRQ_ENDPOINT_PORT	The RAS port used in case of an LRQ endpoint.			S	O
RAN_LRQ_ENDPOINT_TYPE	If you are using a:Real gateway, the value needs to be NotLRQEndPoint; H323 gatekeeper with no token, use the LRQEndPointNoToken ; H323 gatekeeper with token, use the LRQEndPointToken.			S	O
RAN_NAME	The Remote Area Node name.			S	R
RAN_PORTS	The number of ports the GW has.		5	S	O

Table 80: C_A5020-VOIP_3-01_ADD_RAN

Parameter Name	Description	Range	Default Value	Type	Class
RAN_PROTOCOL_TYPE	Indicates the RADIUS protocol used.			S	O
RAN_REGIONID	Selects the region using the Region Iterator.			S	O
RAN_TYPE	The RAN type.	RanTypeMAX4000, RanTypeMAXINT, RanTypeSHIVA, RanTypePM, RanTypeCISCO, RanTypeDANA2100, RanTypeTUNNELSERVER, RanTypeREDBACK, RanTypeAssured, RanTypeMAX6000, RanTypeSHASTA5000, RanType3COM, RanTypeUNISPHERE, and RanTypeVIRTUALRAN.	RanTypeVIRTUALRAN	S	O
RAN_VOICE_GATEWAY_REGISTERS	Enables the register, if necessary.			S	O
RAN_VOICE_PREGRANTED_ARQ_ANSWERCALL	Sets these options when protocol is H323.	CallOff (no pre-granted ARQ), CallH323GKRoutedMode (only if H.323 GK in routed mode), CallH323GKDirectMode (only if H.323 GK in direct mode), CallAlways (pre-granted ARQ regardless of GK mode)		S	O

Table 80: C_A5020-VOIP_3-01_ADD_RAN

Parameter Name	Description	Range	Default Value	Type	Class
RAN_VOICE_PREGRANTED_ARQ_MAKECALL	Sets these options when protocol is H323.	CallOff (no pre-granted ARQ), CallH323GKRoutedMode (only if H.323 GK in routed mode), CallH323GKDirectMode (only if H.323 GK in direct mode), CallAlways (pre-granted ARQ regardless of GK mode)		S	O
RAN_VOICE_PROTOCOL	Selects between the H323 and SIP protocols.			S	O
RAN_VOICE_REGISTRATION_PORT	A specific signaling port number used by the gateway for registration. If given, the gateway can only use the IP address defined in the identifier or Interface address fields with this signalling port. If empty, registrations from any port are accepted.			S	O
RAN_VOICE_SUPPORT_ISUP_MIME	Indicates that voice support ISUP time is used.	Enable, Disable, True, False, 1, 0		S	O
RAN_VOICE_TRUSTED	Indicates that voice trusted is used.	Enable, Disable, True, False, 1, 0		S	O

Table 80: C_A5020-VOIP_3-01_ADD_RAN

Parameter Name	Description	Range	Default Value	Type	Class
VPN_ID	The VPN instance identifier. Either VPN ID or VPN Name may be used as a key. VPN will default to MANAGER if not specified.			S	O
VPN_NAME	The VPN name identifier. Either VPN ID or VPN Name may be used as a key. VPN will default to MANAGER if not specified.			S	O

Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

Table 81: CSDL to ASDL Mapping

CSDL	ASDL
C_A5020-VOIP_3-01_ADD_RAN	A_A5020-VOIP_3-01_ADD_RAN

C_A5020-VOIP_3-01_DEL_POP

Deletes a POP.

Table 82: C_A5020-VOIP_3-01_DEL_POP

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_CCE	The A5020 instance identifier, or the CCE instance.			S	R

Table 82: C_A5020-VOIP_3-01_DEL_POP

Parameter Name	Description	Range	Default Value	Type	Class
POP_ID	The POP primary identifier. Either POP_ID or POP_NAME must be used as a key.			S	O
POP_NAME	The POP name. Either POP_ID or POP_NAME must be used as a key.			S	O
VPN_ID	The VPN instance identifier.			S	O
VPN_NAME	The VPN name identifier.			S	O

Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

Table 83: CSDL to ASDL Mapping

CSDL	ASDL
C_A5020-VOIP_3-01_DEL_POP	A_A5020-VOIP_3-01_DEL_POP

C_A5020-VOIP_3-01_DEL_RAN

Deletes the Remote Area Node.

Table 84: C_A5020-VOIP_3-01_DEL_RAN

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_CCE	The A5020 instance identifier, or the CCE instance.			S	R

Table 84: C_A5020-VOIP_3-01_DEL_RAN

Parameter Name	Description	Range	Default Value	Type	Class
RAN_ID	The Remote Area Node primary identifier. Either RAN_ID or RAN_NAME must be used as a key.			S	O
RAN_NAME	The Remote Area Node name. Either RAN_ID or RAN_NAME must be used as a key.			S	O
VPN_ID	The VPN instance identifier. Either VPN_ID or VPN_NAME may be used as a key. VPN will default to MANAGER if not specified.			S	O
VPN_NAME	The VPN name identifier. Either VPN_ID or VPN_NAME may be used as a key. VPN will default to MANAGER if not specified.			S	O

Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

Table 85: CSDL to ASDL Mapping

CSDL	ASDL
C_A5020-VOIP_3-01_DEL_RAN	A_A5020-VOIP_3-01_DEL_RAN

C_A5020-VOIP_3-01_MOD_POP

Modifies a Point of Presence.

Table 86: C_A5020-VOIP_3-01_MOD_POP

Parameter Name	Description	Range	Default Value	Type	Class
NEW_POP_NAME	The new POP name.			S	O
NE_ID_CCE	The A5020 instance identifier, or the CCE instance.			S	R
POP_ID	The POP primary identifier. Either POP_ID or POP_NAME must be used as a key.			S	O
POP_NAME	The POP name. Either POP_ID or POP_NAME must be used as a key.			S	O
POP_TYPE	The POP type.	PopTypePOP, PopTypeGLOBALPOP, PopTypeVIRUTALPOP, or PopTypeVIRTUALGLOBALPOP		S	O
VPN_ID	The VPN instance identifier. Either VPN_ID or VPN_NAME must be used to identify the VPN.			S	O
VPN_NAME	The VPN name identifier. Either VPN_ID or VPN_NAME must be used to identify the VPN.			S	O

Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

Table 87: CSDL to ASDL Mapping

CSDL	ASDL
C_A5020-VOIP_3-01_MOD_POP	A_A5020-VOIP_3-01_MOD_POP

C_A5020-VOIP_3-01_MOD_RAN

Modifies a Remote Area Node.

Table 88: C_A5020-VOIP_3-01_MOD_RAN

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_CCE	The A5020 instance identifier, or the CCE instance.			S	R
POP_ID	The POP primary identifier.			S	O
POP_NAME	The POP name.			S	O
RAN_COMMAND_PORT	This port is used if there is a disconnect in some of the GWs.			S	O
RAN_ENABLE	Enables or disables the GW.			S	O
RAN_FLAG_DOWNLOAD_FRAMED_PROFILES	The RAN download framed profile flag.			S	O
RAN_FLAG_DOWNLOAD_IPX_ROUTES	The RAN download IPX routes flag.			S	O
RAN_FLAG_DOWNLOAD_IP_POOLS	The RAN download IP pools flag			S	O
RAN_FLAG_DOWNLOAD_IP_ROUTES	The RAN download IP routes flag.			S	O

Table 88: C_A5020-VOIP_3-01_MOD_RAN

Parameter Name	Description	Range	Default Value	Type	Class
RAN_FLAG_DOWNLOAD_PERM_CONNECTIONS	The RAN download permanent connection flag.			S	O
RAN_FLAG_HEARTBEAT_SUPPORT	The RAN heartbeat support flag.			S	O
RAN_FLAG_TRUSTED	The RAN Trusted flag.			S	O
RAN_ID	The Remote Area Node primary identifier. Either RAN_ID or RAN_NAME must be used as a key.			S	O
RAN_ITF_FLAGS	Enables the IPNG protocol.		RanITFFlagIPING	S	O
RAN_ITF_IP_ADDRESS	The IP address used if the GW has more than one physical interface with the NE.			C	O
RAN_ITF_IP_NETMASK	Sets the netmask.			S	O
RAN_ITF_SECRET	Sets the shared secret that is used to encrypt all communication between the GW and the proxy.			S	O
RAN_LRQ_ENDPOINT_PORT	The RAS port used in case of an LRQ endpoint.			S	O

Table 88: C_A5020-VOIP_3-01_MOD_RAN

Parameter Name	Description	Range	Default Value	Type	Class
RAN_LRQ_ENDPOINT_TYPE	If you are using a:Real gateway, the value needs to be NotLRQEndPoint; H323 gatekeeper with no token, use the LRQEndPointNoToken ; H323 gatekeeper with token, use the LRQEndPointToken.			S	O
RAN_NAME	The Remote Area Node name. Either RAN_ID or RAN_NAME must be used as a key.			S	O
RAN_PORTS	The number of ports the GW has.			S	O
RAN_PROTOCOL_TYPE	Indicates the RADIUS protocol used.			S	O
RAN_REGIONID	Selects the region using the Region Iterator.			S	O
RAN_TYPE	The RAN type.	RanTypeMAX4000, RanTypeMAXINT, RanTypeSHIVA, RanTypePM, RanTypeCISCO, RanTypeDANA2100, R100, RanTypeTUNNELSERVER, RanTypeREDBACK, RanTypeAssured, RanTypeMAX6000, RanTypeSHASTA5000, RanType3COM, RanTypeUNISPHERE, RanTypeVIRTUALRAN		S	O

Table 88: C_A5020-VOIP_3-01_MOD_RAN

Parameter Name	Description	Range	Default Value	Type	Class
RAN_VOICE_GATEWAY_REGISTERS	Enables the register, if necessary.			S	O
RAN_VOICE_PREGRANTED_ARQ_ANSWERCALL	Sets these options when protocol is H323.	CallOff (no pre-granted ARQ), CallH323GKRoutedMode (only if H.323 GK in routed mode), CallH323GKDirectMode (only if H.323 GK in direct mode), CallAlways (pre-granted ARQ regardless of GK mode)		S	O
RAN_VOICE_PREGRANTED_ARQ_MAKECALL	Sets these options when protocol is H323.	CallOff (no pre-granted ARQ), CallH323GKRoutedMode (only if H.323 GK in routed mode), CallH323GKDirectMode (only if H.323 GK in direct mode), CallAlways (pre-granted ARQ regardless of GK mode)		S	O
RAN_VOICE_PROTOCOL	Selects between the H323 and SIP protocols.			S	O

Table 88: C_A5020-VOIP_3-01_MOD_RAN

Parameter Name	Description	Range	Default Value	Type	Class
RAN_VOICE_REGISTRATION_PORT	A specific signaling port number used by the gateway for registration. If given, the gateway can only use the IP address defined in the identifier or Interface address fields with this signalling port. If empty, registrations from any port are accepted.			S	O
RAN_VOICE_SUPPORT_ISUP_MIME	Indicates that voice support ISUP time is used.	Enable, Disable, True, False, 1, 0		S	O
RAN_VOICE_TRUSTED	Indicates that voice trusted is used.	Enable, Disable, True, False, 1, 0		S	O
VPN_ID	The VPN instance identifier. Either VPN_ID or VPN_NAME may be used as a key. VPN will default to MANAGER if not specified.			S	O
VPN_NAME	The VPN name identifier. Either VPN_ID or VPN_NAME may be used as a key. VPN will default to MANAGER if not specified.			S	O

Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

Table 89: CSDL to ASDL Mapping

CSDL	ASDL
C_A5020-VOIP_3-01_MOD_RAN	A_A5020-VOIP_3-01_MOD_RAN

C_A5020-VOIP_3-01_QRY_ALL-RANS

Gets information about all Remote Access Nodes on a given POP.

Table 90: C_A5020-VOIP_3-01_QRY_ALL-RANS

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_CCE	The A5020 instance identifier, or the CCE instance.			S	R
POP_ID	The POP primary identifier. Either POP_ID or POP_NAME must be used as a key.			S	O
POP_NAME	The POP name. Either POP_ID or POP_NAME must be used as a key.			S	O

Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

Table 91: CSDL to ASDL Mapping

CSDL	ASDL
C_A5020-VOIP_3-01_QRY_ALL-RANS	A_A5020-VOIP_3-01_QRY_ALL-RANS

C_A5020-VOIP_3-01_QRY_POP

Gets information about the Point of Presence.

Table 92: C_A5020-VOIP_3-01_QRY_POP

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_CCE	The A5020 instance identifier, or the CCE instance.			S	R
POP_ID	The POP primary identifier. Either POP_ID or POP_NAME must be used as a key.			S	O
POP_NAME	The POP name. Either POP_ID or POP_NAME must be used as a key.			S	O

Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

Table 93: CSDL to ASDL Mapping

CSDL	ASDL
C_A5020-VOIP_3-01_QRY_POP	A_A5020-VOIP_3-01_QRY_POP

C_A5020-VOIP_3-01_QRY_RAN

Gets information about a Remote Area Node.

Table 94: C_A5020-VOIP_3-01_QRY_RAN

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_CCE	The A5020 instance identifier, or the CCE instance.			S	R

Table 94: C_A5020-VOIP_3-01_QRY_RAN

Parameter Name	Description	Range	Default Value	Type	Class
RAN_ID	The Remote Area Node primary identifier. Either RAN_ID or RAN_NAME must be used as a key.			S	O
RAN_NAME	The Remote Area Node name. Either RAN_ID or RAN_NAME must be used as a key.			S	O
VPN_ID	The VPN instance identifier. Either VPN_ID or VPN_NAME may be used as a key. VPN will default to MANAGER if not specified.			S	O
VPN_NAME	The VPN name identifier. Either VPN_ID or VPN_NAME may be used as a key. VPN will default to MANAGER if not specified.			S	O

Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

Table 95: CSDL to ASDL Mapping

CSDL	ASDL
C_A5020-VOIP_3-01_QRY_RAN	A_A5020-VOIP_3-01_QRY_RAN

NRE Service Pack

This cartridge provides the following CSDL commands:

- C_A5020-VOIP_3-01_ADD_AAA-GROUP
- C_A5020-VOIP_3-01_ADD_AAA-SELECTION-RULE
- C_A5020-VOIP_3-01_ADD_ROUTE
- C_A5020-VOIP_3-01_ADD_ROUTE-BLOCK
- C_A5020-VOIP_3-01_ADD_ROUTE-BLOCK-PREFIX
- C_A5020-VOIP_3-01_ADD_ROUTE-BLOCK-SUFFIX
- C_A5020-VOIP_3-01_ADD_ROUTE-CONFIG
- C_A5020-VOIP_3-01_ADD_VPN
- C_A5020-VOIP_3-01_DEL_AAA-GROUP
- C_A5020-VOIP_3-01_DEL_AAA-SELECTION-RULE
- C_A5020-VOIP_3-01_DEL_ROUTE
- C_A5020-VOIP_3-01_DEL_ROUTE-BLOCK
- C_A5020-VOIP_3-01_DEL_ROUTE-BLOCK-PREFIX
- C_A5020-VOIP_3-01_DEL_ROUTE-BLOCK-SUFFIX
- C_A5020-VOIP_3-01_DEL_ROUTE-CONFIG
- C_A5020-VOIP_3-01_DEL_VPN
- C_A5020-VOIP_3-01_MOD_AAA-GROUP
- C_A5020-VOIP_3-01_MOD_AAA-SELECTION-RULE
- C_A5020-VOIP_3-01_MOD_ROUTE
- C_A5020-VOIP_3-01_MOD_ROUTE-BLOCK
- C_A5020-VOIP_3-01_MOD_ROUTE-BLOCK-PREFIX
- C_A5020-VOIP_3-01_MOD_ROUTE-BLOCK-SUFFIX
- C_A5020-VOIP_3-01_MOD_ROUTE-CONFIG
- C_A5020-VOIP_3-01_MOD_VPN
- C_A5020-VOIP_3-01_QRY_AAA-GROUP
- C_A5020-VOIP_3-01_QRY_AAA-SELECTION-RULE
- C_A5020-VOIP_3-01_QRY_ROUTE
- C_A5020-VOIP_3-01_QRY_ROUTE-BLOCK
- C_A5020-VOIP_3-01_QRY_ROUTE-BLOCK-ALL
- C_A5020-VOIP_3-01_QRY_ROUTE-BLOCK-PREFIX
- C_A5020-VOIP_3-01_QRY_ROUTE-BLOCK-PREFIX-ALL
- C_A5020-VOIP_3-01_QRY_ROUTE-BLOCK-SUFFIX
- C_A5020-VOIP_3-01_QRY_ROUTE-CONFIG

- C_A5020-VOIP_3-01_QRY_VPN

C_A5020-VOIP_3-01_ADD_AAA-GROUP

Adds an AAA group.

Table 96: C_A5020-VOIP_3-01_ADD_AAA-GROUP

Parameter Name	Description	Range	Default Value	Type	Class
AAA_GROUP_AAA_SERVER_ID_1	The AAA Server ID.			S	O
AAA_GROUP_AAA_SERVER_ID_2	The AAA Server ID.			S	O
AAA_GROUP_AAA_SERVER_NAME_1	The AAA Server Name.			S	O
AAA_GROUP_AAA_SERVER_NAME_2	The AAA Server Name.			S	O
AAA_GROUP_AAA_SERVER_PRIORITY_1	The AAA Server Priority.			S	O
AAA_GROUP_AAA_SERVER_PRIORITY_2	The AAA Server Priority.			S	O
AAA_GROUP_AAA_SERVER_STAGE_1	The AAA Server Stage.			S	O
AAA_GROUP_AAA_SERVER_STAGE_2	The AAA Server Stage.			S	O
AAA_GROUP_AAA_SERVER_TYPE_1	The AAA Server Type.			S	O
AAA_GROUP_AAA_SERVER_TYPE_2	The AAA Server Type.			S	O
AAA_GROUP_ACCOUNTING_ONLY_FLAG	This flag enables accounting validation.			S	O

Table 96: C_A5020-VOIP_3-01_ADD_AAA-GROUP

Parameter Name	Description	Range	Default Value	Type	Class
AAA_GROUP_ACCOUNTING_PROTOCOL_TYPE	The protocol type in use, based on the prevailing AAA server.			S	O
AAA_GROUP_ACCOUNTING_RETRIES	The number of retries allowed during the connection timeout.			S	O
AAA_GROUP_ALLOW_BUSY_FORWARD_ACTIVATION	This flag controls busy forward activation.			S	O
AAA_GROUP_ALLOW_NOREPLY_FORWARD_ACTIVATION	This flag controls no reply forward activation.			S	O
AAA_GROUP_ALLOW_UNCONDITIONAL_FORWARDING_ACTIVATION	This flag controls unconditional forward activation.			S	O
AAA_GROUP_AUTHENTICATION_PROTOCOL_TYPE	The protocol type, which is based on the AAA server currently in use.			S	O
AAA_GROUP_AUTHENTICATION_RETRIES	The number of retries allowed during a connection timeout.			S	O
AAA_GROUP_AUTHORISATION_DEFAULT_PORT_TYPE	The VoIP AAA group default port.			S	O
AAA_GROUP_AUTHORISATION_PORT_TYPES	A list of the authorization port types.			C	O
AAA_GROUP_BARRING_CLASS	The barring class used by the call screening server.			S	O
AAA_GROUP_CALL_TRANSFER	This flag controls the call transfer service.			S	O

Table 96: C_A5020-VOIP_3-01_ADD_AAA-GROUP

Parameter Name	Description	Range	Default Value	Type	Class
AAA_GROUP_CFA_DEFAULT_ANNOUNCEMENT	The default announcement code.			S	O
AAA_GROUP_CFA_ENABLE	Enables the service for this group.			S	O
AAA_GROUP_CFA_LANGUAGE_INDICATOR	A number indicating the language.			S	O
AAA_GROUP_CFA_PREFIX	Enables the service for this type			S	O
AAA_GROUP_DIAL_IP_ADDRESS_PREFIX	This prefix value indicates that the dialed number is an IP address.			S	O
AAA_GROUP_DIAL_UNREGISTERED_ENDPOINTS	This flag controls the dialing of unregistered endpoints.			S	O
AAA_GROUP_ENABLE_ON_HOLD	The AAA group's mode.	ENABLED, HOLD	ENABLED	S	O
AAA_GROUP_EXTERNAL	Specifies the type of connection to the A5020X server.	internal, external		S	O
AAA_GROUP_FAILURE_TO_START_SUPPORT_FLAG	This flag controls the group's failure to start message.			S	O
AAA_GROUP_H323_ANSWER_CALL_PREGRANTED_ARQ	This parameter selects the appropriate value for answering calls.			S	O
AAA_GROUP_H323_CHECK_LOCATION_TOKEN	Determines whether the location token should be checked-in.			S	O

Table 96: C_A5020-VOIP_3-01_ADD_AAA-GROUP

Parameter Name	Description	Range	Default Value	Type	Class
AAA_GROUP_H323_GATEWAY_AUTHENTICATION_METHOD	Selects the method for gateway authentication interface.			S	O
AAA_GROUP_H323_GATEWAY_AUTHENTICATION_METHOD_TYPE	Selects the type for authentication interface.			S	O
AAA_GROUP_H323_MAKE_CALL_PREGRANTED_ARQ	This parameter selects the appropriate value for making calls.			S	O
AAA_GROUP_H323_RIP_CALL_ADMISSION	Indicates the H323 RIP call admission timeout in seconds.			S	O
AAA_GROUP_H323_RIP_REGISTRATION	Selects which H323 RIP message is sent to the server.			S	O
AAA_GROUP_H323_RIP_UNREGISTRATION	Indicates the H323 RIP unregistration timeout in seconds.			S	O
AAA_GROUP_H323_TERMINAL_AUTHENTICATION_METHOD	Selects the method of terminal authentication interface.			S	O
AAA_GROUP_H323_TERMINAL_AUTHENTICATION_METHOD_TYPE	Selects the type for terminal authentication interface.			S	O
AAA_GROUP_H323_UPDATE_DISPLAY	Determines whether to update the H323 display			S	O
AAA_GROUP_H323_UPDATE_SETUP_DESTINATION	Determines whether to update H323 setup			S	O

Table 96: C_A5020-VOIP_3-01_ADD_AAA-GROUP

Parameter Name	Description	Range	Default Value	Type	Class
AAA_GROUP_H323_UPDATE_SETUP_ORIGIN	The H323 update setup origin.			S	O
AAA_GROUP_INTERACTION_SUPPORT_FLAG	This flag enables the interaction support.			S	O
AAA_GROUP_IVR_IP_ADDRESS	The IVR's IP address.			S	O
AAA_GROUP_IVR_PORT	The IVR's port value.			S	O
AAA_GROUP_MANDATORY_PORTSET_FLAG	This flag enables the call to be rejected when no port is defined in the POP or RAN.			S	O
AAA_GROUP_MAXIMUM_CONCURRENT_CALLS	The maximum concurrent calls per endpoint.			S	O
AAA_GROUP_MAX_ACCOUNTING_RETRIES	The maximum number of retries available to an accounting request.			S	O
AAA_GROUP_MAX_USER_SESSIONS	The maximum number of users. per session. The default value is 0.			S	O
AAA_GROUP_NAME	The AAA group's name.			S	R
AAA_GROUP_PRE_AUTHENTICATION_ACCESS_ONLY_FLAG	This flag controls whether the group performs the access checks.			S	O
AAA_GROUP_SIP_CALL_APPLICATION_SERVER	Contain's information on the AAA group's SIP call application server.			C	O

Table 96: C_A5020-VOIP_3-01_ADD_AAA-GROUP

Parameter Name	Description	Range	Default Value	Type	Class
AAA_GROUP_SIP_DESTINATION_APPLICATION_SERVER	The AAA group's SIP destination AS. It contains the server method, type, and service information about the application server.			C	O
AAA_GROUP_SIP_GATEWAY_AUTHENTICATION_METHOD	The gateway authentication method, either: invite or unknown.			S	O
AAA_GROUP_SIP_GATEWAY_AUTHENTICATION_METHOD_TYPE	The gateway authentication method type.			S	O
AAA_GROUP_SIP_HTTP_DIGEST_REALM	The realm string, which is used for the HTTP digest.			S	O
AAA_GROUP_SIP_HTTP_DIGEST_TIMEOUT	The length of time this one-time instance stays valid.			S	O
AAA_GROUP_SIP_ORIGIN_APPLICATION_SERVER	This parameter contains the server method, type, and service information for the application server.			C	O
AAA_GROUP_SIP_PROXY_LOCAL_DESTINATION	Indicates the SIP proxy local destination, either: stateful, stateless, or redirect.			S	O
AAA_GROUP_SIP_PROXY_NON_LOCAL_DESTINATION	Indicates the Proxy non local destination, either: stateful or stateless.			S	O

Table 96: C_A5020-VOIP_3-01_ADD_AAA-GROUP

Parameter Name	Description	Range	Default Value	Type	Class
AAA_GROUP_SIP_TERMINAL_AUTHENTICATION_METHOD	The SIP terminal authentication method.	register, invite, subscribe, message, options, refer, unknown		S	O
AAA_GROUP_SIP_TERMINAL_AUTHENTICATION_METHOD_TYPE	The type of SIP terminal authentication method.			S	O
AAA_GROUP_STAGE2_ACCOUNTING_FLAG	This flag enables two-stage accounting.			S	O
AAA_GROUP_STAGE2_AUTHENTICATION_FLAG	This flag enables two-stage authentication.			S	O
AAA_GROUP_SUPPORT_ACCESS_FAILED_TICKETS_FLAG	Enables proxy generated messages to be generated by access fail tickets that cause radius accounting stop packets.			S	O
AAA_GROUP_SUPPORT_ACCOUNTING_INTERIM_UPDATES_FLAG	This flag enables the radius process interim updates.			S	O
AAA_GROUP_SUPPORT_EAP_MESSAGE_START_FLAG	This flag enables EAP messages.			S	O
AAA_GROUP_TRIGGER_DESTINATION_AS_FOR_UNREGISTERED_USERS_METHOD	The AAA group's trigger destination method			S	O

Table 96: C_A5020-VOIP_3-01_ADD_AAA-GROUP

Parameter Name	Description	Range	Default Value	Type	Class
AAA_GROUP_TRIGGER_DESTINATION_AS_FOR_UNREGISTERED_USERS_METHOD_TYPE	The AAA group's trigger destination method type.			S	O
AAA_GROUP_TRIGGER_SIP_APPLICATION_SERVER	This parameter contains the value of trigger sip application server.			S	O
AAA_GROUP_UNIDENTIFIED_ACCESS_FLAG	Either enables or disables the flag that indicates support for this group's unidentified access.			S	O
NE_ID_NRE	The A5020 instance identifier, or NRE instance.			S	R
VPN_ID	The VPN instance identifier			S	O
VPN_NAME	The VPN name identifier			S	O

Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

Table 97: CSDL to ASDL Mapping

CSDL	ASDL
C_A5020-VOIP_3-01_ADD_AAA-GROUP	A_A5020-VOIP_3-01_ADD_AAA-GROUP

C_A5020-VOIP_3-01_ADD_AAA-SELECTION-RULE

Adds an AAA selection rule.

Table 98: C_A5020-VOIP_3-01_ADD_AAA-SELECTION-RULE

Parameter Name	Description	Range	Default Value	Type	Class
AAA_SELECTION	Multiple instances of AAA selections can be used here			C	O
AAA_SELECTION_AAA_GROUP_ID	The AAA group identification.			S	O
AAA_SELECTION_AAA_GROUP_NAME	The AAA group name.			S	O
AAA_SELECTION_DESTINATION_END_ADDRESS	Enter the highest IP address in the range that you are defining for the called IP address.			S	O
AAA_SELECTION_DESTINATION_MASK	Defines the mask in which the destination must fit to correctly select the AAA group.			S	O
AAA_SELECTION_DESTINATION_START_ADDRESS	Enter the lowest IP address in the range that you are defining for the called IP address.			S	O
AAA_SELECTION_ENABLE_FLAG	Enables or disables this rule.			S	O
AAA_SELECTION_METHOD	The AAA group selection method.			S	O
AAA_SELECTION_ORIGIN_END_ADDRESS	Enter the highest IP address in the range you are defining.			S	O
AAA_SELECTION_ORIGIN_EXTERNAL_GATEKEEPER_ID	The AAA selection originating external gatekeeper ID.			S	O

Table 98: C_A5020-VOIP_3-01_ADD_AAA-SELECTION-RULE

Parameter Name	Description	Range	Default Value	Type	Class
AAA_SELECTION_ORIGIN_EXTERNAL_GATEKEEPER_NAME	The AAA selection originating external gatekeeper Name.			S	O
AAA_SELECTION_ORIGIN_MASK	Describes the mask in which the origin must fit so that it can select the correct AAA group.			S	O
AAA_SELECTION_ORIGIN_POP_ID	The AAA selection originating POP ID.			S	O
AAA_SELECTION_ORIGIN_POP_NAME	The AAA selection originating POP Name.			S	O
AAA_SELECTION_ORIGIN_RAN_ID	The AAA selection originating RAN ID.			S	O
AAA_SELECTION_ORIGIN_RAN_NAME	The AAA selection originating RAN name.			S	O
AAA_SELECTION_ORIGIN_START_ADDRESS	Enter the lowest IP address in the range you are defining.			S	O
AAA_SELECTION_RULE_NUMBER	The name of the subject AAA group.			S	O
AAA_SELECTION_VPN_ID	The VPN identifier.			S	O
AAA_SELECTION_VPN_NAME	The VPN name.			S	O
NE_ID_NRE	The A5020 instance identifier, or NRE instance.			S	R
OLD_AAA_SELECTION	Multiple instances of AAA Selections can be used here.			C	O

Table 98: C_A5020-VOIP_3-01_ADD_AAA-SELECTION-RULE

Parameter Name	Description	Range	Default Value	Type	Class
USE_QUERY	Flag to determine whether to use results of the query.			S	O

Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

Table 99: CSDL to ASDL Mapping

CSDL	ASDL
C_A5020-VOIP_3-01_ADD_AAA-SELECTION-RULE	A_A5020-VOIP_3-01_ADD_AAA-SELECTION-RULE

C_A5020-VOIP_3-01_ADD_ROUTE

Adds a route.

Table 100: C_A5020-VOIP_3-01_ADD_ROUTE

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_NRE	The A5020 instance identifier, or NRE instance.			S	R
ROUTE_CARRIER_PREFIX	The prefix that identifies the route's carrier.			S	O
ROUTE_ENDPOINT_ADDRESS	The IP Address for the route's endpoint.			S	O
ROUTE_ENDPOINT_PORT	The IP port for the route's endpoint.			S	O
ROUTE_ENDPOINT_TYPE	The route's endpoint type.			S	O

Table 100: C_A5020-VOIP_3-01_ADD_ROUTE

Parameter Name	Description	Range	Default Value	Type	Class
ROUTE_GW_POP_RAN_NAME	The Gateway POP or RAN Name to which this route is associated. It references the NE table that is populated in the CCE.			S	O
ROUTE_ITSPLD	The parameter that identifies the multiple Gatekeeper.			S	O
ROUTE_NAME	The route's name.			S	R
ROUTE_ODP	The route's Output Digit Preparation.			S	O
ROUTE_TYPE	Indicates the type of routing algorithm.	weight, priority		S	R

Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

Table 101: CSDL to ASDL Mapping

CSDL	ASDL
C_A5020-VOIP_3-01_ADD_ROUTE	A_A5020-VOIP_3-01_ADD_ROUTE

C_A5020-VOIP_3-01_ADD_ROUTE-BLOCK

Adds a route block.

Table 102: C_A5020-VOIP_3-01_ADD_ROUTE-BLOCK

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_NRE	The A5020 instance identifier, or NRE instance.			S	R

Table 102: C_A5020-VOIP_3-01_ADD_ROUTE-BLOCK

Parameter Name	Description	Range	Default Value	Type	Class
ROUTE_BLOCK_NAME	The route block name.			S	R
ROUTE_CONFIG_ID	The primary key identifier of the routing configuration.			S	O
ROUTE_CONFIG_NAME	The route configuration name.			S	O
ROUTE_ID_1	The name, or identity, of Route 1.			S	O
ROUTE_ID_10	The name, or identity, of Route 10.			S	O
ROUTE_ID_2	The name, or identity, of Route 2.			S	O
ROUTE_ID_3	The name, or identity, of Route 3.			S	O
ROUTE_ID_4	The name, or identity, of Route 4.			S	O
ROUTE_ID_5	The name, or identity, of Route 5.			S	O
ROUTE_ID_6	The name, or identity, of Route 6.			S	O
ROUTE_ID_7	The name, or identity, of Route 7.			S	O
ROUTE_ID_8	The name, or identity, of Route 8.			S	O
ROUTE_ID_9	The name, or identity, of Route 9.			S	O
ROUTE_WEIGHT_1	The probability that this route will be used.			S	O

Table 102: C_A5020-VOIP_3-01_ADD_ROUTE-BLOCK

Parameter Name	Description	Range	Default Value	Type	Class
ROUTE_WEIGHT_2	The probability that this route will be used.			S	O
ROUTE_WEIGHT_3	The probability that this route will be used.			S	O
ROUTE_WEIGHT_4	The probability that this route will be used.			S	O
ROUTE_WEIGHT_5	The probability that this route will be used.			S	O
ROUTING_TYPE	The routing type, either "weight" or "priority".			S	R

Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

Table 103: CSDL to ASDL Mapping

CSDL	ASDL
C_A5020-VOIP_3-01_ADD_ROUTE-BLOCK	A_A5020-VOIP_3-01_ADD_ROUTE-BLOCK

C_A5020-VOIP_3-01_ADD_ROUTE-BLOCK-PREFIX

Adds a route block prefix.

Table 104: C_A5020-VOIP_3-01_ADD_ROUTE-BLOCK-PREFIX

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_NRE	The A5020 instance identifier, or NRE instance.			S	R
ROUTE_BLOCK_END_PREFIX	The route block end prefix mask. This is the end of the prefix for matching range.			S	O

Table 104: C_A5020-VOIP_3-01_ADD_ROUTE-BLOCK-PREFIX

Parameter Name	Description	Range	Default Value	Type	Class
ROUTE_BLOCK_ID	The route block identifier's primary key.			S	O
ROUTE_BLOCK_NAME	The route block name.			S	O
ROUTE_BLOCK_START_PREFIX	The route block starting prefix mask. It can also be the entire number when there is an exact match.			S	O
ROUTE_CONFIG_ID	The primary key identifier of the routing configuration.			S	O
ROUTE_CONFIG_NAME	The name of the routing configuration.			S	O

Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

Table 105: CSDL to ASDL Mapping

CSDL	ASDL
C_A5020-VOIP_3-01_ADD_ROUTE-BLOCK-PREFIX	A_A5020-VOIP_3-01_ADD_ROUTE-BLOCK-PREFIX

C_A5020-VOIP_3-01_ADD_ROUTE-BLOCK-SUFFIX

Adds a route block suffix.

Table 106: C_A5020-VOIP_3-01_ADD_ROUTE-BLOCK-SUFFIX

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_NRE	The A5020 instance identifier, or NRE instance.			S	R
ROUTE_BLOCK_ID	The route block identifier's primary key.			S	O
ROUTE_BLOCK_NAME	The route block name.			S	O
ROUTE_BLOCK_SUFFIX	The suffix mask used for this route block. The suffix identifies part of the domain that follows the @ symbol.			S	O
ROUTE_CONFIG_ID	The primary key identifier of the routing configuration.			S	O
ROUTE_CONFIG_NAME	The name of the routing configuration.			S	O

Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

Table 107: CSDL to ASDL Mapping

CSDL	ASDL
C_A5020-VOIP_3-01_ADD_ROUTE-BLOCK-SUFFIX	A_A5020-VOIP_3-01_ADD_ROUTE-BLOCK-SUFFIX

C_A5020-VOIP_3-01_ADD_ROUTE-CONFIG

Adds a route configuration.

Table 108: C_A5020-VOIP_3-01_ADD_ROUTE-CONFIG

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_NRE	The A5020 instance identifier, or NRE instance.			S	R
ROUTE_CONFIG_NAME	The name of the routing configuration.			S	R
VPN_ID	Links the VPN_ID with the particular route configuration.			S	O
VPN_NAME	Links the VPN_NAME with the particular route configuration.			S	O

Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

Table 109: CSDL to ASDL Mapping

CSDL	ASDL
C_A5020-VOIP_3-01_ADD_ROUTE-CONFIG	A_A5020-VOIP_3-01_ADD_ROUTE-CONFIG

C_A5020-VOIP_3-01_ADD_VPN

Adds a VPN.

Table 110: C_A5020-VOIP_3-01_ADD_VPN

Parameter Name	Description	Range	Default Value	Type	Class
ACTIVATIONTIME_DAY	Activation time day.			S	O

Table 110: C_A5020-VOIP_3-01_ADD_VPN

Parameter Name	Description	Range	Default Value	Type	Class
ACTIVATIONTIME_HOUR	Activation time hour.			S	O
ACTIVATIONTIME_MINUTE	Activation time minute.			S	O
ACTIVATIONTIME_MONTH	Activation time month.			S	O
ACTIVATIONTIME_SECOND	Activation time second.			S	O
ACTIVATIONTIME_YEAR	Activation time year.			S	O
ADMIN_ID	The admin identification.			S	O
CSVLOG_ENDEXTSESS	The CSV log end external session.			S	O
CSVLOG_ENDINTSESS	The CSV log end internal session.			S	O
CSVLOG_INTERIM_EXT	The CSV log interim external.			S	O
CSVLOG_INTERIM_INT	The CSV log interim internal.			S	O
CSVLOG_STARTEXTSESS	The CSV Log Proxy Start external session.			S	O
CSVLOG_STARTINTSESS	The CSV log start internal session.			S	O
CSVLOG_TUNNEL_EXT	The CSV log tunnel external.			S	O
CSVLOG_TUNNEL_INT	The CSV log tunnel internal			S	O
CSVLOG_VENDOR_SPECIFIC	The CSV Vendor specific.			S	O

Table 110: C_A5020-VOIP_3-01_ADD_VPN

Parameter Name	Description	Range	Default Value	Type	Class
DBLOG_ENDEXTSESS	The DB log proxy end external session.			S	O
DBLOG_ENDINTSESS	The DB log end internal session.			S	O
DBLOG_INTERIM_EXT	The DB proxy log interim external.			S	O
DBLOG_INTERIM_INT	The DB proxy log interim internal.			S	O
DBLOG_STARTEXTSESS	The DB log proxy start external session.			S	O
DBLOG_STARTINTSESS	The DB log proxy start internal session.			S	O
DBLOG_TUNNEL_EXT	The DB log tunnel external.			S	O
DBLOG_TUNNEL_INT	The DB log tunnel internal.			S	O
DBLOG_VENDOR_SPECIFIC	The DB log vendor specific.			S	O
DEACTIVATIONTIME_DAY	Activation time day.			S	O
DEACTIVATIONTIME_HOUR	Activation time hour.			S	O
DEACTIVATIONTIME_MINUTE	Activation time minute.			S	O
DEACTIVATIONTIME_MONTH	Activation time month.			S	O
DEACTIVATIONTIME_SECOND	Activation time second.			S	O
DEACTIVATIONTIME_YEAR	Activation time year.			S	O

Table 110: C_A5020-VOIP_3-01_ADD_VPN

Parameter Name	Description	Range	Default Value	Type	Class
HOLIDAY	Holiday.			C	O
LOGIN_ALLOWED_TIMES	Login allowed times.			C	O
MAX_SESSIONS	The maximum number of sessions.			S	O
MAX_USERS	The maximum number of users.			S	O
NE_ID_NRE	The A5020 instance identifier, or NRE instance.			S	R
ONHOLD	On hold.			S	O
SPECIAL_PERIODS	Special periods.			C	O
VPN_NAME	The VPN's name.			S	R

Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

Table 111: CSDL to ASDL Mapping

CSDL	ASDL
C_A5020-VOIP_3-01_ADD_VPN	A_A5020-VOIP_3-01_ADD_VPN

C_A5020-VOIP_3-01_DEL_AAA-GROUP

Deletes an AAA group.

Table 112: C_A5020-VOIP_3-01_DEL_AAA-GROUP

Parameter Name	Description	Range	Default Value	Type	Class
AAA_GROUP_ID	The AAA group identification.			S	O

Table 112: C_A5020-VOIP_3-01_DEL_AAA-GROUP

Parameter Name	Description	Range	Default Value	Type	Class
AAA_GROUP_NAME	The AAA group's name.			S	O
NE_ID_NRE	The A5020 instance identifier, or NRE instance.			S	R
VPN_ID	The VPN instance identifier.			S	O
VPN_NAME	The VPN name identifier.			S	O

Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

Table 113: CSDL to ASDL Mapping

CSDL	ASDL
C_A5020-VOIP_3-01_DEL_AAA-GROUP	A_A5020-VOIP_3-01_DEL_AAA-GROUP

C_A5020-VOIP_3-01_DEL_AAA-SELECTION-RULE

Deletes an AAA selection rule.

Table 114: C_A5020-VOIP_3-01_DEL_AAA-SELECTION-RULE

Parameter Name	Description	Range	Default Value	Type	Class
AAA_SELECTION	Multiple instances of AAA selections can be used here.			C	O
AAA_SELECTION_AAA_GROUP_ID	The AAA group ID.			S	O
AAA_SELECTION_AAA_GROUP_NAME	The AAA group name.			S	O

Table 114: C_A5020-VOIP_3-01_DEL_AAA-SELECTION-RULE

Parameter Name	Description	Range	Default Value	Type	Class
AAA_SELECTION_DESTINATION_END_ADDRESS	Enter the highest IP address in the range that you are defining for the called IP address.			S	O
AAA_SELECTION_DESTINATION_MASK	Define the mask in which the destination must fit to correctly select the AAA group.			S	O
AAA_SELECTION_DESTINATION_START_ADDRESS	Enter the lowest IP address in the range that you are defining for the called IP address.			S	O
AAA_SELECTION_ENABLE_FLAG	Enables or disables this rule.			S	O
AAA_SELECTION_METHOD	The AAA group selection method.			S	O
AAA_SELECTION_ORIGIN_END_ADDRESS	Enter the highest IP address in the range you are defining.			S	O
AAA_SELECTION_ORIGIN_EXTERNAL_GATEKEEPER_ID	The AAA selection originating external gatekeeper ID.			S	O
AAA_SELECTION_ORIGIN_EXTERNAL_GATEKEEPER_NAME	The AAA selection originating external gatekeeper Name.			S	O
AAA_SELECTION_ORIGIN_MASK	Describes the mask in which the origin must fit so that it can select the correct AAA group.			S	O
AAA_SELECTION_ORIGIN_POP_ID	The AAA selection originating POP ID.			S	O

Table 114: C_A5020-VOIP_3-01_DEL_AAA-SELECTION-RULE

Parameter Name	Description	Range	Default Value	Type	Class
AAA_SELECTION_ORIGIN_POP_NAME	The AAA selection originating POP Name.			S	O
AAA_SELECTION_ORIGIN_RAN_ID	The AAA selection originating RAN ID.			S	O
AAA_SELECTION_ORIGIN_RAN_NAME	The AAA selection originating RAN name.			S	O
AAA_SELECTION_ORIGIN_START_ADDRESS	Enter the lowest IP address in the range you are defining.			S	O
AAA_SELECTION_RULE_ID	The AAA selection rule identification.			S	O
AAA_SELECTION_RULE_NUMBER	The name of the subject AAA group.			S	O
AAA_SELECTION_VPN_ID	The VPN identifier.			S	O
AAA_SELECTION_VPN_NAME	The VPN name.			S	O
NE_ID_NRE	The A5020 instance identifier, or NRE instance.			S	R
OLD_AAA_SELECTION	Multiple instances of AAA selections can be used here			C	O
USE_QUERY	Flag to determine whether to use results of the query			S	O

Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

Table 115: CSDL to ASDL Mapping

CSDL	ASDL
C_A5020-VOIP_3-01_DEL_AAA-SELECTION-RULE	A_A5020-VOIP_3-01_QRY_AAA-SELECTION-RULE
C_A5020-VOIP_3-01_DEL_AAA-SELECTION-RULE	A_A5020-VOIP_3-01_DEL_AAA-SELECTION-RULE

C_A5020-VOIP_3-01_DEL_ROUTE

Remove's an existing route.

Table 116: C_A5020-VOIP_3-01_DEL_ROUTE

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_NRE	The A5020 instance identifier, or NRE instance.			S	R
ROUTE_ID	The route's primary identification key.			S	O
ROUTE_NAME	The route's name.			S	O

Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

Table 117: CSDL to ASDL Mapping

CSDL	ASDL
C_A5020-VOIP_3-01_DEL_ROUTE	A_A5020-VOIP_3-01_DEL_ROUTE

C_A5020-VOIP_3-01_DEL_ROUTE-BLOCK

Removes the route block.

Table 118: C_A5020-VOIP_3-01_DEL_ROUTE-BLOCK

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_NRE	The A5020 instance identifier, or NRE instance.			S	R
ROUTE_BLOCK_ID	The route block identifier's primary key.			S	O
ROUTE_BLOCK_NAME	The route block name.			S	O
ROUTE_CONFIG_ID	The primary key identifier of the routing configuration.			S	O
ROUTE_CONFIG_NAME	The the routing configuration name.			S	O

Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

Table 119: CSDL to ASDL Mapping

CSDL	ASDL
C_A5020-VOIP_3-01_DEL_ROUTE-BLOCK	A_A5020-VOIP_3-01_DEL_ROUTE-BLOCK

C_A5020-VOIP_3-01_DEL_ROUTE-BLOCK-PREFIX

Removes the route block prefix.

Table 120: C_A5020-VOIP_3-01_DEL_ROUTE-BLOCK-PREFIX

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_NRE	The A5020 instance identifier, or NRE instance.			S	R
ROUTE_BLOCK_END_PREFIX	The route block end prefix mask. This is the end of the prefix for matching range.			S	O
ROUTE_BLOCK_ID	The route block identifier's primary key.			S	O
ROUTE_BLOCK_NAME	The route block name.			S	O
ROUTE_BLOCK_START_PREFIX	The route block starting prefix mask. It can also be the entire number when there is an exact match.			S	O
ROUTE_CONFIG_ID	The primary key identifier of the routing configuration.			S	O
ROUTE_CONFIG_NAME	The name of the routing configuration.			S	O

Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

Table 121: CSDL to ASDL Mapping

CSDL	ASDL
C_A5020-VOIP_3-01_DEL_ROUTE-BLOCK-PREFIX	A_A5020-VOIP_3-01_DEL_ROUTE-BLOCK-PREFIX

C_A5020-VOIP_3-01_DEL_ROUTE-BLOCK-SUFFIX

Removes the route block suffix.

Table 122: C_A5020-VOIP_3-01_DEL_ROUTE-BLOCK-SUFFIX

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_NRE	The A5020 instance identifier, or NRE instance.			S	R
ROUTE_BLOCK_ID	The route block identifier's primary key.			S	O
ROUTE_BLOCK_NAME	The route block name.			S	O
ROUTE_BLOCK_SUFFIX	The suffix mask used for this route block. The suffix identifies part of the domain that follows the @ symbol.			S	O
ROUTE_CONFIG_ID	The primary key identifier of the routing configuration.			S	O
ROUTE_CONFIG_NAME	The name of the routing configuration.			S	O

Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

Table 123: CSDL to ASDL Mapping

CSDL	ASDL
C_A5020-VOIP_3-01_DEL_ROUTE-BLOCK-SUFFIX	A_A5020-VOIP_3-01_DEL_ROUTE-BLOCK-SUFFIX

C_A5020-VOIP_3-01_DEL_ROUTE-CONFIG

Removes the route configuration.

Table 124: C_A5020-VOIP_3-01_DEL_ROUTE-CONFIG

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_NRE	The A5020 instance identifier, or NRE instance.			S	R
ROUTE_CONFIG_ID	The primary key identifier of the routing configuration.			S	O
ROUTE_CONFIG_NAME	The name of the routing configuration.			S	O

Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

Table 125: CSDL to ASDL Mapping

CSDL	ASDL
C_A5020-VOIP_3-01_DEL_ROUTE-CONFIG	A_A5020-VOIP_3-01_DEL_ROUTE-CONFIG

C_A5020-VOIP_3-01_DEL_VPN

Deletes a VPN.

Table 126: C_A5020-VOIP_3-01_DEL_VPN

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_NRE	The A5020 instance identifier, or NRE instance.			S	R
VPN_ID	The VPN's ID.			S	O
VPN_NAME	The VPN's name.			S	O

Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

Table 127: CSDL to ASDL Mapping

CSDL	ASDL
C_A5020-VOIP_3-01_DEL_VPN	A_A5020-VOIP_3-01_DEL_VPN

C_A5020-VOIP_3-01_MOD_AAA-GROUP

Modifies the AAA group.

Table 128: C_A5020-VOIP_3-01_MOD_AAA-GROUP

Parameter Name	Description	Range	Default Value	Type	Class
AAA_GROUP_ACCOUNTING_ONLY_FLAG	This flag enables accounting validation.			S	O
AAA_GROUP_ACCOUNTING_PROTOCOL_TYPE	The protocol type in use, based on the prevailing AAA server.			S	O
AAA_GROUP_ACCOUNTING_RETRIES	The number of retries allowed during the connection timeout.			S	O
AAA_GROUP_ALLOW_BUSY_FORWARD_ACTIVATION	This flag controls busy forward activation.			S	O
AAA_GROUP_ALLOW_NOREPLY_FORWARD_ACTIVATION	This flag controls no reply forward activation.			S	O
AAA_GROUP_ALLOW_UNCONDITIONAL_FORWARDING_ACTIVATION	This flag controls unconditional forward activation.			S	O
AAA_GROUP_AUTHENTICATION_PROTOCOL_TYPE	The protocol type, which is based on the AAA server currently in use.			S	O

Table 128: C_A5020-VOIP_3-01_MOD_AAA-GROUP

Parameter Name	Description	Range	Default Value	Type	Class
AAA_GROUP_AUTHENTICATION_RETRIES	The number of retries allowed during a connection timeout.			S	O
AAA_GROUP_AUTHORISATION_DEFAULT_PORT_TYPE	The VoIP AAA group default port.			S	O
AAA_GROUP_AUTHORISATION_PORT_TYPES	A list of the authorization port types.			C	O
AAA_GROUP_BARRING_CLASS	The barring class used by the call screening server.			S	O
AAA_GROUP_CALL_TRANSFER	This flag controls the call transfer service.			S	O
AAA_GROUP_CFA_DEFAULT_ANNOUNCEMENT	The default announcement code.			S	O
AAA_GROUP_CFA_ENABLE	Enables the service for this group.			S	O
AAA_GROUP_CFA_LANGUAGE_INDICATOR	A number indicating the language.			S	O
AAA_GROUP_CFA_PREFIX	Enables the service for this type.			S	O
AAA_GROUP_DIAL_IP_ADDRESS_PREFIX	This prefix value indicates that the dialed number is an IP address.			S	O
AAA_GROUP_DIAL_UNREGISTERED_ENDPOINTS	This flag controls the dialing of unregistered endpoints.			S	O
AAA_GROUP_ENABLE_ON_HOLD	The AAA group's mode.	enabled, hold		S	O

Table 128: C_A5020-VOIP_3-01_MOD_AAA-GROUP

Parameter Name	Description	Range	Default Value	Type	Class
AAA_GROUP_EXTERNAL	Specifies the type of connection to the A5020X server.	internal, external		S	O
AAA_GROUP_FAILURE_TO_START_SUPPORT_FLAG	This flag controls the group's failure to start message.			S	O
AAA_GROUP_H323_ANSWER_CALL_PREGRANTED_ARQ	This parameter selects the appropriate value for answering calls.			S	O
AAA_GROUP_H323_CHECK_LOCATION_TOKEN	Determines whether the location token should be checked-in.			S	O
AAA_GROUP_H323_GATEWAY_AUTHENTICATION_METHOD	Selects the method for gateway authentication interface.			S	O
AAA_GROUP_H323_GATEWAY_AUTHENTICATION_METHOD_TYPE	Selects the type for authentication interface.			S	O
AAA_GROUP_H323_MAKE_CALL_PREGRANTED_ARQ	This parameter selects the appropriate value for making calls.			S	O
AAA_GROUP_H323_RIP_CALL_ADMISSION	Indicates the H323 RIP call admission timeout in seconds.			S	O
AAA_GROUP_H323_RIP_REGISTRATION	Selects which H323 RIP message is sent to the server.			S	O
AAA_GROUP_H323_RIP_UNREGISTRATION	Indicates the H323 RIP unregistration timeout in seconds.			S	O

Table 128: C_A5020-VOIP_3-01_MOD_AAA-GROUP

Parameter Name	Description	Range	Default Value	Type	Class
AAA_GROUP_H323_TERMINAL_AUTHENTICATION_METHOD	Selects the method of terminal authentication interface.			S	O
AAA_GROUP_H323_TERMINAL_AUTHENTICATION_METHOD_TYPE	Selects the type for terminal authentication interface.			S	O
AAA_GROUP_H323_UPDATE_DISPLAY	Determines whether to update the H323 setup display			S	O
AAA_GROUP_H323_UPDATE_SETUP_DESTINATION	Determines whether to update the H323 setup destination			S	O
AAA_GROUP_H323_UPDATE_SETUP_ORIGIN	The H323 update setup origin.			S	O
AAA_GROUP_ID	The AAA group identification.			S	O
AAA_GROUP_INTERACTION_SUPPORT_FLAG	This flag enables the interaction support.			S	O
AAA_GROUP_IVR_IP_ADDRESS	The IVR's IP address.			S	O
AAA_GROUP_IVR_PORT	The IVR's port value.			S	O
AAA_GROUP_MANDATORY_PORTSET_FLAG	This flag enables the call to be rejected when no port is defined in the POP or RAN.			S	O
AAA_GROUP_MAXIMUM_CONCURRENT_CALLS	The maximum concurrent calls per endpoint.			S	O

Table 128: C_A5020-VOIP_3-01_MOD_AAA-GROUP

Parameter Name	Description	Range	Default Value	Type	Class
AAA_GROUP_MAX_ACCOUNTING_RETRIES	The maximum number of retries available to an accounting request.			S	O
AAA_GROUP_MAX_USER_SESSIONS	The maximum number of users per session.		0	S	O
AAA_GROUP_NAME	The AAA group's name.			S	O
AAA_GROUP_PRE_AUTHENTICATION_ACCESS_ONLY_FLAG	This flag controls whether the group performs the access checks.			S	O
AAA_GROUP_SIP_CALL_APPLICATION_SERVER	Contain's information on the AAA group's SIP call application server.			C	O
AAA_GROUP_SIP_DESTINATION_APPLICATION_SERVER	The AAA group's SIP destination AS. It contains the server method, type, and service information about the application server.			C	O
AAA_GROUP_SIP_GATEWAY_AUTHENTICATION_METHOD	The gateway authentication method.	invite, unknown		S	O
AAA_GROUP_SIP_GATEWAY_AUTHENTICATION_METHOD_TYPE	The gateway authentication method type.			S	O
AAA_GROUP_SIP_HTTP_DIGEST_REALM	The realm string, which is used for the HTTP digest.			S	O
AAA_GROUP_SIP_HTTP_DIGEST_TIMEOUT	The length of time this one-time instance stays valid.			S	O

Table 128: C_A5020-VOIP_3-01_MOD_AAA-GROUP

Parameter Name	Description	Range	Default Value	Type	Class
AAA_GROUP_SIP_ORIGIN_APPLICATION_SERVER	This parameter contains the server method, type, and service information for the application server.			C	O
AAA_GROUP_SIP_PROXY_LOCAL_DESTINATION	Indicates the SIP proxy local destination, either: stateful, stateless, or redirect.			S	O
AAA_GROUP_SIP_PROXY_NON_LOCAL_DESTINATION	Indicates the Proxy non local destination, either: stateful or stateless.			S	O
AAA_GROUP_SIP_TERMINAL_AUTHENTICATION_METHOD	The SIP terminal authentication method, either: register, invite, subscribe, message, options, refer, and unknown.			S	O
AAA_GROUP_SIP_TERMINAL_AUTHENTICATION_METHOD_TYPE	The type of SIP terminal authentication method.			S	O
AAA_GROUP_STAGE2_ACCOUNTING_FLAG	This flag enables two-stage accounting.			S	O
AAA_GROUP_STAGE2_AUTHENTICATION_FLAG	This flag enables two-stage authentication.			S	O
AAA_GROUP_SUPPORT_ACCESS_FAILED_TICKETS_FLAG	Enables proxy generated messages to be generated by access fail tickets that cause radius accounting stop packets.			S	O

Table 128: C_A5020-VOIP_3-01_MOD_AAA-GROUP

Parameter Name	Description	Range	Default Value	Type	Class
AAA_GROUP_SUPPORT_ACCOUNTING_INTERIM_UPDATES_FLAG	This flag enables the radius process interim updates.			S	O
AAA_GROUP_SUPPORT_EAP_MESSAGE_START_FLAG	This flag enables EAP messages.			S	O
AAA_GROUP_TRIGGER_DESTINATION_AS_FOR_UNREGISTERED_USERS_METHOD	The AAA group's trigger destination method.			S	O
AAA_GROUP_TRIGGER_DESTINATION_AS_FOR_UNREGISTERED_USERS_METHOD_TYPE	The AAA group's trigger destination method type.			S	O
AAA_GROUP_TRIGGER_SIP_APPLICATION_SERVER	This parameter contains the value of trigger sip application server.			S	O
AAA_GROUP_UNIDENTIFIED_ACCESS_FLAG	Either enables or disables the flag that indicates support for this group's unidentified access.			S	O
NE_ID_NRE	The A5020 instance identifier, or NRE instance.			S	R
VPN_ID	The VPN instance identifier.			S	O
VPN_NAME	The VPN name identifier.			S	O

Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

Table 129: CSDL to ASDL Mapping

CSDL	ASDL
C_A5020-VOIP_3-01_MOD_AAA-GROUP	A_A5020-VOIP_3-01_MOD_AAA-GROUP

C_A5020-VOIP_3-01_MOD_AAA-SELECTION-RULE

Modifies an AAA selection rule.

Table 130: C_A5020-VOIP_3-01_MOD_AAA-SELECTION-RULE

Parameter Name	Description	Range	Default Value	Type	Class
AAA_SELECTION	Multiple instances of AAA selections can be used here.			C	O
AAA_SELECTION_AAA_GROUP_ID	The AAA group ID.			S	O
AAA_SELECTION_AAA_GROUP_NAME	The AAA group name.			S	O
AAA_SELECTION_DESTINATION_END_ADDRESS	Enter the highest IP address in the range that you are defining for the called IP address.			S	O
AAA_SELECTION_DESTINATION_MASK	Define the mask in which the destination must fit to correctly select the AAA group.			S	O
AAA_SELECTION_DESTINATION_START_ADDRESS	Enter the lowest IP address in the range that you are defining for the called IP address.			S	O
AAA_SELECTION_ENABLE_FLAG	Enables or disables this rule.			S	O

Table 130: C_A5020-VOIP_3-01_MOD_AAA-SELECTION-RULE

Parameter Name	Description	Range	Default Value	Type	Class
AAA_SELECTION_METHOD	The AAA group selection method.			S	O
AAA_SELECTION_ORIGIN_END_ADDRESS	Enter the highest IP address in the range you are defining.			S	O
AAA_SELECTION_ORIGIN_EXTERNAL_GATEKEEPER_ID	The AAA selection originating external gatekeeper ID.			S	O
AAA_SELECTION_ORIGIN_EXTERNAL_GATEKEEPER_NAME	The AAA selection originating external gatekeeper name.			S	O
AAA_SELECTION_ORIGIN_MASK	Describes the mask in which the origin must fit so that it can select the correct AAA group.			S	O
AAA_SELECTION_ORIGIN_POP_ID	The AAA selection originating POP ID.			S	O
AAA_SELECTION_ORIGIN_POP_NAME	The AAA selection originating POP Name.			S	O
AAA_SELECTION_ORIGIN_RAN_ID	The AAA selection originating RAN ID.			S	O
AAA_SELECTION_ORIGIN_RAN_NAME	The AAA selection originating RAN name.			S	O
AAA_SELECTION_ORIGIN_START_ADDRESS	Enter the lowest IP address in the range you are defining.			S	O
AAA_SELECTION_RULE_ID	The AAA selection rule identification.			S	O
AAA_SELECTION_RULE_NUMBER	The name of the subject AAA group.			S	O

Table 130: C_A5020-VOIP_3-01_MOD_AAA-SELECTION-RULE

Parameter Name	Description	Range	Default Value	Type	Class
AAA_SELECTION_VPN_ID	The VPN identifier.			S	O
AAA_SELECTION_VPN_NAME	The VPN name.			S	O
NE_ID_NRE	The A5020 instance identifier, or NRE instance.			S	R
OLD_AAA_SELECTION	Multiple instances of AAA Selections can be used here			C	O
USE_QUERY	Flag to determine whether to use results of the query.			S	O

Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

Table 131: CSDL to ASDL Mapping

CSDL	ASDL
C_A5020-VOIP_3-01_MOD_AAA-SELECTION-RULE	A_A5020-VOIP_3-01_QRY_AAA-SELECTION-RULE
	A_A5020-VOIP_3-01_MOD_AAA-SELECTION-RULE

C_A5020-VOIP_3-01_MOD_ROUTE

Modifies the route.

Table 132: C_A5020-VOIP_3-01_MOD_ROUTE

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_NRE	The A5020 instance identifier, or NRE instance.			S	R
ROUTE_CARRIER_PREFIX	The prefix that identifies the route's carrier.			S	O
ROUTE_ENDPOINT_ADDRESS	The IP Address for the route's endpoint.			S	O
ROUTE_ENDPOINT_PORT	The IP port for the route's endpoint.			S	O
ROUTE_ENDPOINT_TYPE	The route's endpoint type.			S	O
ROUTE_GW_POP_RAN_NAME	The Gateway POP or RAN Name to which this route is associated. It references the NE table that is populated in the CCE.			S	O
ROUTE_GW_POP_RAN_NAME	The Gateway POP or RAN ID to which this route is associated. It references the NE table that is populated in the CCE.			S	O
ROUTE_ID	The route's primary identification key.			S	O
ROUTE_ITSPLD	The parameter that identifies the multiple Gatekeeper.			S	O
ROUTE_NAME	The route's name.			S	O

Table 132: C_A5020-VOIP_3-01_MOD_ROUTE

Parameter Name	Description	Range	Default Value	Type	Class
ROUTE_ODP	The route's Output Digit Preparation.			S	O
ROUTE_TYPE	The type of routing algorithm used.	weight, priority		S	O

Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

Table 133: CSDL to ASDL Mapping

CSDL	ASDL
C_A5020-VOIP_3-01_MOD_ROUTE	A_A5020-VOIP_3-01_MOD_ROUTE

C_A5020-VOIP_3-01_MOD_ROUTE-BLOCK

Modifies a route block.

Table 134: C_A5020-VOIP_3-01_MOD_ROUTE-BLOCK

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_NRE	The A5020 instance identifier, or NRE instance.			S	R
ROUTE_BLOCK_ID	The route block identifier's primary key.			S	O
ROUTE_BLOCK_NAME	The route block name.			S	O
ROUTE_CONFIG_ID	The primary key identifier of the routing configuration.			S	O
ROUTE_CONFIG_NAME	The route configuration name.			S	O

Table 134: C_A5020-VOIP_3-01_MOD_ROUTE-BLOCK

Parameter Name	Description	Range	Default Value	Type	Class
ROUTE_ID_1	The name, or identity, of Route 1.			S	O
ROUTE_ID_10	The name, or identity, of Route 10.			S	O
ROUTE_ID_2	The name, or identity, of Route 2.			S	O
ROUTE_ID_3	The name, or identity, of Route 3.			S	O
ROUTE_ID_4	The name, or identity, of Route 4.			S	O
ROUTE_ID_5	The name, or identity, of Route 5.			S	O
ROUTE_ID_6	The name, or identity, of Route 6.			S	O
ROUTE_ID_7	The name, or identity, of Route 7.			S	O
ROUTE_ID_8	The name, or identity, of Route 8.			S	O
ROUTE_ID_9	The name, or identity, of Route 9.			S	O
ROUTE_WEIGHT_1	The probability that this route will be used.			S	O
ROUTE_WEIGHT_2	The probability that this route will be used.			S	O
ROUTE_WEIGHT_3	The probability that this route will be used.			S	O
ROUTE_WEIGHT_4	The probability that this route will be used.			S	O
ROUTE_WEIGHT_5	The probability that this route will be used.			S	O

Table 134: C_A5020-VOIP_3-01_MOD_ROUTE-BLOCK

Parameter Name	Description	Range	Default Value	Type	Class
ROUTING_TYPE	The routing type.	weight, priority		S	R

Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

Table 135: CSDL to ASDL Mapping

CSDL	ASDL
C_A5020-VOIP_3-01_MOD_ROUTE-BLOCK	A_A5020-VOIP_3-01_MOD_ROUTE-BLOCK

C_A5020-VOIP_3-01_MOD_ROUTE-BLOCK-PREFIX

Modifies a route block prefix.

Table 136: C_A5020-VOIP_3-01_MOD_ROUTE-BLOCK-PREFIX

Parameter Name	Description	Range	Default Value	Type	Class
NEW_ROUTE_BLOCK_END_PREFIX	The new route block end prefix mask. This is the end of the prefix for matching range.			S	O
NEW_ROUTE_BLOCK_START_PREFIX	The new route block starting prefix mask. It can also be the entire number when there is an exact match.			S	O
NE_ID_NRE	The A5020 instance identifier, or NRE instance.			S	R
ROUTE_BLOCK_END_PREFIX	The route block end prefix mask. This is the end of the prefix for matching range.			S	O

Table 136: C_A5020-VOIP_3-01_MOD_ROUTE-BLOCK-PREFIX

Parameter Name	Description	Range	Default Value	Type	Class
ROUTE_BLOCK_ID	The route block identifier's primary key.			S	O
ROUTE_BLOCK_NAME	The route block name.			S	O
ROUTE_BLOCK_START_PREFIX	The route block starting prefix mask. It can also be the entire number when there is an exact match.			S	O
ROUTE_CONFIG_ID	The primary key identifier of the routing configuration.			S	O
ROUTE_CONFIG_NAME	The name of the routing configuration.			S	O

Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

Table 137: CSDL to ASDL Mapping

CSDL	ASDL
C_A5020-VOIP_3-01_MOD_ROUTE-BLOCK-PREFIX	A_A5020-VOIP_3-01_MOD_ROUTE-BLOCK-PREFIX

C_A5020-VOIP_3-01_MOD_ROUTE-BLOCK-SUFFIX

Modifies a route block suffix.

Table 138: C_A5020-VOIP_3-01_MOD_ROUTE-BLOCK-SUFFIX

Parameter Name	Description	Range	Default Value	Type	Class
NEW_ROUTE_BLOCK_SUFFIX	The new suffix mask used for this route block. The suffix identifies part of the domain that follows the @ symbol.			S	O
NE_ID_NRE	The A5020 instance identifier, or NRE instance.			S	R
ROUTE_BLOCK_ID	The route block identifier's primary key.			S	O
ROUTE_BLOCK_NAME	The route block name.			S	O
ROUTE_BLOCK_SUFFIX	The suffix mask used for this route block. The suffix identifies part of the domain that follows the @ symbol.			S	O
ROUTE_CONFIG_ID	The primary key identifier of the routing configuration.			S	O
ROUTE_CONFIG_NAME	The name of the routing configuration.			S	O

Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

Table 139: CSDL to ASDL Mapping

CSDL	ASDL
C_A5020-VOIP_3-01_MOD_ROUTE-BLOCK-SUFFIX	A_A5020-VOIP_3-01_MOD_ROUTE-BLOCK-SUFFIX

C_A5020-VOIP_3-01_MOD_ROUTE-CONFIG

Modifies the route configuration.

Table 140: C_A5020-VOIP_3-01_MOD_ROUTE-CONFIG

Parameter Name	Description	Range	Default Value	Type	Class
NEW_ROUTE_CONFIG_NAME	The new name of the routing configuration.			S	O
NE_ID_NRE	The A5020 instance identifier, or NRE instance.			S	R
ROUTE_CONFIG_ID	The primary key identifier of the routing configuration.			S	O
ROUTE_CONFIG_NAME	The name of the routing configuration.			S	O

Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

Table 141: CSDL to ASDL Mapping

CSDL	ASDL
C_A5020-VOIP_3-01_MOD_ROUTE-CONFIG	A_A5020-VOIP_3-01_MOD_ROUTE-CONFIG

C_A5020-VOIP_3-01_MOD_VPN

Modifies the VPN.

Table 142: C_A5020-VOIP_3-01_MOD_VPN

Parameter Name	Description	Range	Default Value	Type	Class
ACTIVATIONTIME_DAY	Activation time day.			S	O
ACTIVATIONTIME_HOUR	Activation time hour.			S	O
ACTIVATIONTIME_MINUTE	Activation time minute.			S	O
ACTIVATIONTIME_MONTH	Activation time month.			S	O
ACTIVATIONTIME_SECOND	Activation time second.			S	O
ACTIVATIONTIME_YEAR	Activation time year.			S	O
ADMIN_ID	The admin identification.			S	O
CSVLOG_ENDEXTSESS	The CSV log end external session.			S	O
CSVLOG_ENDINTSESS	The CSV log end internal session.			S	O
CSVLOG_INTERIM_EXT	The CSV log interim external.			S	O
CSVLOG_INTERIM_INT	The CSV log interim internal.			S	O
CSVLOG_STARTEXTSESS	The CSV log proxy start external session.			S	O
CSVLOG_STARTINTSESS	The CSV log start internal session.			S	O
CSVLOG_TUNNEL_EXT	The CSV log tunnel external.			S	O

Table 142: C_A5020-VOIP_3-01_MOD_VPN

Parameter Name	Description	Range	Default Value	Type	Class
CSVLOG_TUNNEL_INT	The CSV log tunnel internal.			S	O
CSVLOG_VENDOR_SPECIFIC	The CSV vendor specific.			S	O
DBLOG_ENDEXTSESS	The DB log proxy end external session.			S	O
DBLOG_ENDINTSESS	The DB log end internal session.			S	O
DBLOG_INTERIM_EXT	The DB proxy Log Interim External.			S	O
DBLOG_INTERIM_INT	The DB proxy log interim internal.			S	O
DBLOG_STARTEXTSESS	The DB log proxy start external session.			S	O
DBLOG_STARTINTSESS	The DB log proxy start internal session.			S	O
DBLOG_TUNNEL_EXT	The DB log tunnel External.			S	O
DBLOG_TUNNEL_INT	The DB log tunnel Internal.			S	O
DBLOG_VENDOR_SPECIFIC	The DB log vendor specific.			S	O
DEACTIVATIONTIME_DAY	Activation time day.			S	O
DEACTIVATIONTIME_HOUR	Activation time hour.			S	O
DEACTIVATIONTIME_MINUTE	Activation time minute.			S	O
DEACTIVATIONTIME_MONTH	Activation time month.			S	O

Table 142: C_A5020-VOIP_3-01_MOD_VPN

Parameter Name	Description	Range	Default Value	Type	Class
DEACTIVATIONTIME_SECOND	Activation time second.			S	O
DEACTIVATIONTIME_YEAR	Activation time year.			S	O
HOLIDAY	Holiday.			C	O
LOGIN_ALLOWED_TIMES	Login allowed times.			C	O
MAX_SESSIONS	The maximum number of sessions.			S	O
MAX_USERS	The maximum number of users.			S	O
NE_ID_NRE	The A5020 instance identifier, or NRE instance.			S	R
ONHOLD	On hold.			S	O
SPECIAL_PERIODS	Special periods.			C	O
VPN_ID	The VPN's ID.			S	O
VPN_NAME	The VPN's name.			S	O

Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

Table 143: CSDL to ASDL Mapping

CSDL	ASDL
C_A5020-VOIP_3-01_MOD_VPN	A_A5020-VOIP_3-01_MOD_VPN

C_A5020-VOIP_3-01_QRY_AAA-GROUP

Queries an AAA group.

Table 144: C_A5020-VOIP_3-01_QRY_AAA-GROUP

Parameter Name	Description	Range	Default Value	Type	Class
AAA_GROUP_ID	The AAA group identification.			S	O
AAA_GROUP_NAME	The AAA group's name.			S	O
NE_ID_NRE	The A5020 instance identifier, or NRE instance.			S	R
VPN_ID	The VPN instance identifier.			S	O
VPN_NAME	The VPN name identifier.			S	O

Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

Table 145: CSDL to ASDL Mapping

CSDL	ASDL
C_A5020-VOIP_3-01_QRY_AAA-GROUP	A_A5020-VOIP_3-01_QRY_AAA-GROUP

C_A5020-VOIP_3-01_QRY_AAA-SELECTION-RULE

Queries an AAA selection rule.

Table 146: C_A5020-VOIP_3-01_QRY_AAA-SELECTION-RULE

Parameter Name	Description	Range	Default Value	Type	Class
AAA_SELECTION	Multiple instances of AAA selections can be used here.			C	O

Table 146: C_A5020-VOIP_3-01_QRY_AAA-SELECTION-RULE

Parameter Name	Description	Range	Default Value	Type	Class
AAA_SELECTION_AAA_GROUP_ID	The AAA group ID.			S	O
AAA_SELECTION_AAA_GROUP_NAME	The AAA group name.			S	O
AAA_SELECTION_DESTINATION_END_ADDRESS	Enter the highest IP address in the range that you are defining for the called IP address.			S	O
AAA_SELECTION_DESTINATION_MASK	Define the mask in which the destination must fit to correctly select the AAA group.			S	O
AAA_SELECTION_DESTINATION_START_ADDRESS	Enter the lowest IP address in the range that you are defining for the called IP address.			S	O
AAA_SELECTION_ENABLE_FLAG	Enables or disables this rule.			S	O
AAA_SELECTION_METHOD	The AAA group selection method.			S	O
AAA_SELECTION_ORIGIN_END_ADDRESS	Enter the highest IP address in the range you are defining.			S	O
AAA_SELECTION_ORIGIN_EXTERNAL_GATEKEEPER_ID	The AAA selection originating external gatekeeper ID.			S	O
AAA_SELECTION_ORIGIN_EXTERNAL_GATEKEEPER_NAME	The AAA selection originating external gatekeeper name.			S	O

Table 146: C_A5020-VOIP_3-01_QRY_AAA-SELECTION-RULE

Parameter Name	Description	Range	Default Value	Type	Class
AAA_SELECTION_ORIGIN_MASK	Describes the mask in which the origin must fit so that it can select the correct AAA group.			S	O
AAA_SELECTION_ORIGIN_POP_ID	The AAA selection originating POP ID.			S	O
AAA_SELECTION_ORIGIN_POP_NAME	The AAA selection originating POP name.			S	O
AAA_SELECTION_ORIGIN_RAN_ID	The AAA selection originating RAN ID.			S	O
AAA_SELECTION_ORIGIN_RAN_NAME	The AAA selection originating RAN name.			S	O
AAA_SELECTION_ORIGIN_START_ADDRESS	Enter the lowest IP address in the range you are defining.			S	O
AAA_SELECTION_RULE_ID	The AAA selection rule identification.			S	O
AAA_SELECTION_RULE_NUMBER	The name of the subject AAA group.			S	O
AAA_SELECTION_VPN_ID	The VPN identifier.			S	O
AAA_SELECTION_VPN_NAME	The VPN name.			S	O
NE_ID_NRE	The A5020 instance identifier, or NRE instance.			S	R
OLD_AAA_SELECTION	Multiple instances of AAA selections can be used here.			C	O

Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

Table 147: CSDL to ASDL Mapping

CSDL	ASDL
C_A5020-VOIP_3-01_QRY_AAA-SELECTION-RULE	A_A5020-VOIP_3-01_QRY_AAA-SELECTION-RULE

C_A5020-VOIP_3-01_QRY_ROUTE

Queries an existing route.

Table 148: C_A5020-VOIP_3-01_QRY_ROUTE

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_NRE	The A5020 instance identifier, or NRE instance.			S	R
ROUTE_ID	The route's primary identification key.			S	O
ROUTE_NAME	The route's name.			S	O

Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

Table 149: CSDL to ASDL Mapping

CSDL	ASDL
C_A5020-VOIP_3-01_QRY_ROUTE	A_A5020-VOIP_3-01_QRY_ROUTE

C_A5020-VOIP_3-01_QRY_ROUTE-BLOCK

Queries a route block.

Table 150: C_A5020-VOIP_3-01_QRY_ROUTE-BLOCK

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_NRE	The A5020 instance identifier, or NRE instance.			S	R
ROUTE_BLOCK_ID	The route block identifier. This is a primary key.			S	O
ROUTE_BLOCK_NAME	The route block name.			S	O
ROUTE_CONFIG_ID	The primary key identifier of the routing configuration.			S	O
ROUTE_CONFIG_NAME	The the routing configuration name.			S	O

Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

Table 151: CSDL to ASDL Mapping

CSDL	ASDL
C_A5020-VOIP_3-01_QRY_ROUTE-BLOCK	A_A5020-VOIP_3-01_QRY_ROUTE-BLOCK

C_A5020-VOIP_3-01_QRY_ROUTE-BLOCK-ALL

Queries an NE.

Table 152: C_A5020-VOIP_3-01_QRY_ROUTE-BLOCK-ALL

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_NRE	The A5020 instance identifier, or NRE instance.			S	R

Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

Table 153: CSDL to ASDL Mapping

CSDL	ASDL
C_A5020-VOIP_3-01_QRY_ROUTE-BLOCK-ALL	A_A5020-VOIP_3-01_QRY_ROUTE-BLOCK-ALL

C_A5020-VOIP_3-01_QRY_ROUTE-BLOCK-PREFIX

Queries a route block prefix.

Table 154: C_A5020-VOIP_3-01_QRY_ROUTE-BLOCK-PREFIX

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_NRE	The A5020 instance identifier, or NRE instance.			S	R
ROUTE_BLOCK_ID	The route block identifier's primary key.			S	O
ROUTE_BLOCK_NAME	The route block name.			S	O
ROUTE_CONFIG_ID	The primary key identifier of the routing configuration.			S	O

Table 154: C_A5020-VOIP_3-01_QRY_ROUTE-BLOCK-PREFIX

Parameter Name	Description	Range	Default Value	Type	Class
ROUTE_CONFIG_NAME	The name of the routing configuration.			S	O

Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

Table 155: CSDL to ASDL Mapping

CSDL	ASDL
C_A5020-VOIP_3-01_QRY_ROUTE-BLOCK-PREFIX	A_A5020-VOIP_3-01_QRY_ROUTE-BLOCK-PREFIX

C_A5020-VOIP_3-01_QRY_ROUTE-BLOCK-SUFFIX

Queries a route block suffix.

Table 156: C_A5020-VOIP_3-01_QRY_ROUTE-BLOCK-SUFFIX

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_NRE	The A5020 instance identifier, or NRE instance.			S	R
ROUTE_BLOCK_ID	The route block identifier's primary key.			S	O
ROUTE_BLOCK_NAME	The route block name.			S	O
ROUTE_CONFIG_ID	The primary key identifier of the routing configuration.			S	O
ROUTE_CONFIG_NAME	The name of the routing configuration.			S	O

Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

Table 157: CSDL to ASDL Mapping

CSDL	ASDL
C_A5020-VOIP_3-01_QRY_ROUTE-BLOCK-SUFFIX	A_A5020-VOIP_3-01_QRY_ROUTE-BLOCK-SUFFIX

C_A5020-VOIP_3-01_QRY_ROUTE-BLOCK-PREFIX-ALL

Queries an NE.

Table 158: C_A5020-VOIP_3-01_QRY_ROUTE-BLOCK-PREFIX-ALL

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_NRE	The A5020 instance identifier, or NRE instance.			S	R
ROUTE_BLOCK_START_PREFIX	Route Block Start Prefix.			S	R

Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

Table 159: CSDL to ASDL Mapping

CSDL	ASDL
C_A5020-VOIP_3-01_QRY_ROUTE-BLOCK-PREFIX-ALL	A_A5020-VOIP_3-01_QRY_ROUTE-BLOCK-PREFIX-ALL

C_A5020-VOIP_3-01_QRY_ROUTE-CONFIG

Queries the route configuration.

Table 160: C_A5020-VOIP_3-01_QRY_ROUTE-CONFIG

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_NRE	The A5020 instance identifier, or NRE instance.			S	R
ROUTE_CONFIG_ID	The primary key identifier of the routing configuration.			S	O
ROUTE_CONFIG_NAME	The name of the routing configuration.			S	O

Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

Table 161: CSDL to ASDL Mapping

CSDL	ASDL
C_A5020-VOIP_3-01_QRY_ROUTE-CONFIG	A_A5020-VOIP_3-01_QRY_ROUTE-CONFIG

C_A5020-VOIP_3-01_QRY_VPN

Queries a VPN.

Table 162: C_A5020-VOIP_3-01_QRY_VPN

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_NRE	The A5020 instance identifier, or NRE instance.			S	R
VPN_ID	The VPN's ID.			S	O
VPN_NAME	The VPN's name.			S	O

Mapping to ASDLs

The following table illustrates the CSDL to ASDL mapping for this service.

Table 163: CSDL to ASDL Mapping

CSDL	ASDL
C_A5020-VOIP_3-01_QRY_VPN	A_A5020-VOIP_3-01_QRY_VPN

5

Configuring ASAP to Support Additional NE Instances

You can configure ASAP to support the Alcatel A5020 Softswitch - NEP configuration using the Service Activation Configuration Tool (SACT). Refer to the *ASAP System Configuration and Management Guide* fore more information.

Below is an example of the Activation.Configuration.XML file for the Alcatel A5020 Softswitch cartridge.

```
<?xml version="1.0" encoding="UTF-8"?>
<activationConfig xmlns="http://www.metasolv.com/ServiceActivation/2003/
ActivationConfig" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.metasolv.com/ServiceActivation/2003/
ActivationConfig
C:\data\ASAP\4.6\xsd\ActivationConfig.xsd">
   <connectionPool name="Ala_Pool">
      <device name="A5020_corba_dev1">
         <environment>MY_ASAP_SYS</environment>
         <lineType>CORBA_CONNECTION</lineType>
      </device>
   </connectionPool>

   <element name="A5020-REMOTEHOST">
      <technology>A5020-voip</technology>
      <softwareLoad>3-01</softwareLoad>
      <nepServerName>$NEP</nepServerName>
      <primaryPool>Ala_Pool</primaryPool>
      <maximumConnections>1</maximumConnections>
      <dropTimeout>2</dropTimeout>
      <spawnThreshold>10</spawnThreshold>
      <killThreshold>8</killThreshold>
      <routingElement name="A5020-HOST">
         <atomicService/>
      </routingElement>
      <communicationParameter>
         <label>A5020_IOR</label>
         <value>
            <value>/tmp/IOR.txt</value>
         </value>
         <description>The IOR file name</description>
         <deviceName>COMMON_DEVICE_CFG</deviceName>
         <lineType>CORBA_CONNECTION</lineType>
```

```
        </communicationParameter>
        <communicationParameter>
            <label>FTP_ACTION</label>
            <value>
                <value>Enable</value>
            </value>
            <description>Enalbe or disable the flag to support FTP action</
description>
            <deviceName>COMMON_DEVICE_CFG</deviceName>
            <lineType>CORBA_CONNECTION</lineType>
        </communicationParameter>
        <communicationParameter>
            <label>SERVER_IOR_FILE</label>
            <value>
                <value>/usr/smc30/smc301/cod/smcroot.ior</value>
            </value>
            <description>The server IOR file name</description>
            <deviceName>COMMON_DEVICE_CFG</deviceName>
            <lineType>CORBA_CONNECTION</lineType>
        </communicationParameter>
        <communicationParameter>
            <label>HOST_IPADDR</label>
            <value>
                <value>192.160.5.71</value>
            </value>
            <description>The host name or IP address of the remote NE</
description>
            <deviceName>COMMON_DEVICE_CFG</deviceName>
            <lineType>CORBA_CONNECTION</lineType>
        </communicationParameter>
        <communicationParameter>
            <label>HOST_USER</label>
            <value>
                <value>SYSTEM</value>
            </value>
            <description>The user name used to connect the remote NE</
description>
            <deviceName>COMMON_DEVICE_CFG</deviceName>
            <lineType>CORBA_CONNECTION</lineType>
        </communicationParameter>
        <communicationParameter>
            <label>HOST_PASSWORD</label>
            <value>
                <value>system</value>
            </value>
            <description>The user password used to connect the remote NE</
description>
            <deviceName>COMMON_DEVICE_CFG</deviceName>
            <lineType>CORBA_CONNECTION</lineType>
        </communicationParameter>
        <communicationParameter>
            <label>FTP_USER</label>
```

```
            <value>
                <value>smc30</value>
            </value>
            <description>The user name used to connect the remote NE for FTP
session</description>
            <deviceName>COMMON_DEVICE_CFG</deviceName>
            <lineType>CORBA_CONNECTION</lineType>
        </communicationParameter>
        <communicationParameter>
            <label>FTP_PASSWORD</label>
            <value>
                <value>12345678</value>
            </value>
            <description>The user password used to connect the remote NE for
FTP session</description>
            <deviceName>COMMON_DEVICE_CFG</deviceName>
            <lineType>CORBA_CONNECTION</lineType>
        </communicationParameter>
        <communicationParameter>
            <label>PORT</label>
            <value>
                <value>2000</value>
            </value>
            <description>Port number to connect on remote NE host</description>
            <deviceName>COMMON_DEVICE_CFG</deviceName>
            <lineType>CORBA_CONNECTION</lineType>
        </communicationParameter>
        <communicationParameter>
            <label>READ_TIMEOUT</label>
            <value>
                <value>5000</value>
            </value>
            <description>The read timeout in milliseconds</description>
            <deviceName>COMMON_DEVICE_CFG</deviceName>
            <lineType>CORBA_CONNECTION</lineType>
        </communicationParameter>
        <communicationParameter>
            <label>USER_ERROR_TYPES_FILE</label>
            <value>
                <value>/config/A5020_VOIP_3_01_UserExitTypes.cfg</value>
            </value>
            <description>The user exit type file. This file is relative to
ASAP_BASE directory</description>
            <deviceName>COMMON_DEVICE_CFG</deviceName>
            <lineType>CORBA_CONNECTION</lineType>
        </communicationParameter>
        <communicationParameter>
            <label>RESPONSELOG</label>
            <value>
                <value>TRUE</value>
            </value>
            <description>Flag to turn on or off response logging</description>
```

```
            <deviceName>COMMON_DEVICE_CFG</deviceName>
            <lineType>CORBA_CONNECTION</lineType>
        </communicationParameter>
        <communicationParameter>
            <label>SESSION_ACTION</label>
            <value>
                <value>ENABLE</value>
            </value>
            <description>Flag to enable or disable session transaction</
description>
            <deviceName>COMMON_DEVICE_CFG</deviceName>
            <lineType>CORBA_CONNECTION</lineType>
        </communicationParameter>
    </element>
</activationConfig>
```

Extracting source files

Before you can access an XML file to modify it, you must extract it from the sar file. Use the following procedure to extract source files from the sar file.

To extract source files

1. If necessary, create a repository directory under /Alcatel_VOIP_3-01, copy the .sar file to the new directory and un-jar the sar file, as described by Step 1 through Step 4 in “Modifying Alcatel_voip_3-01_ne_config.xml” on page 11.
2. After you un-jar the sar file, you can access the XML files.

Loading a new XML file

When you finish modifying an XML, you must create a new sar file, then restart the cartridge using the new file.

Follow the instructions in “Modifying Alcatel_voip_3-01_ne_config.xml” on page 11 for directions on how to load a new XML file.