Oracle® Communications ASAP Cartridge 1.0 for Nortel_MCS5200_SIP_3_0 Cartridge

Nortel_MCS5200_SIP_3_0 Cartridge Guide

First Edition

April 2011

ORACLE®

Nortel_MCS5200_SIP_3_0 Cartridge Guide, First Edition

Contents

1   Cartridge Overview

2   Atomic Service Description Layer (ASDL) Commands

4 Configuring ASAP to Support Additional NE Instances

1

Cartridge Overview

This guide provides a detailed description of the Nortel_MCS5200_SIP_3_0 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 Oracle Communications ASAP (ASAP) as it pertains to the use of this cartridge. It is not intended to be a complete ASAP reference guide. For additional information when using this cartridge, refer to the ASAP documentation.

The Nortel_MCS5200_SIP_3_0 cartridge provides the ASAP service configuration and network element (NE) interface to activate subscriber services on NTMCS5200 NEs.

Hardware and Software Requirements

The following sections contain the high-level software and hardware environment requirements for provisioning subscriber services on authentication center:

- NE Interface
- ASAP Version

NE Interface

The following database tables in Service Activation Request Manager (SARM) are configured to support the NE configuration:

- tbl_host_clli
- tbl_clli_route
- tbl_comm_param
- tbl_resource_pool
- tbl_ne_config

ASAP Version

This cartridge was developed and tested using ASAP version 7.0.2.

For more information on the operating environment of this ASAP version, refer to the ASAP version 7.0.2 Release Record.

Connecting to the NE

The cartridge uses Generic Message Based protocol.

Services, Features, and Options

This cartridge supports the following services:

Table 1–1   Supported Services

Service	Description
C_NT-MCS5200_3-0_ACTIVATE_MCS-CLIR-FEAT	Activate CLIR
C_NT-MCS5200_3-0_DEACTIVATE_MCS-CLIR-FEAT	Dectivate CLIR
C_NT-MCS5200_3-0_ADD_MCS-DEVICE	Adds an MCS SIP device to a domain.
C_NT-MCS5200_3-0_DEL_MCS-DEVICE	Deletes an MCS SIP device from a domain.
C_NT-MCS5200_3-0_MOD_MCS-DEVICE	Modifies MCS SIP device properties.
C_NT-MCS5200_3-0_QUERY_MCS-DEVICE	Queries an MCS SIP device.
C_NT-MCS5200_3-0_ADD_MCS-DEVICES	Adds MCS SIP devices to a domain.
C_NT-MCS5200_3-0_DEL_MCS-DEVICES	Deletes multiple MCS SIP devices from a domain.
C_NT-MCS5200_3-0_QUERY_MCS-DEVICES	Retrieves all MCS SIP devices from a domain.
C_NT-MCS5200_3-0_QUERY_MCS-DEVICES-BY-DOMAIN	Queries devices by domain.
C_NT-MCS5200_3-0_QUERY_MCS-DOMAIN	Queries an MCS SIP domain by name.
C_NT-MCS5200_3-0_QUERY_MCS-DOMAIN-PROPS	Retrieves domain properties and their parameters.
C_NT-MCS5200_3-0_QUERY_MCS-SERVICE-PACKAGE	Retrieves an MCS SIP service package.
C_NT-MCS5200_3-0_QUERY_MCS-SERVICE-PACKAGES	Retrieves all of the MCS SIP service packages from a domain.
C_NT-MCS5200_3-0_QUERY_MCS-SERVICE-PARAM	Retrieves properties for an MCS SIP service parameter.
C_NT-MCS5200_3-0_QUERY_MCS-SERVICES	Retrieves all of the MCS SIP services from a domain.
C_NT-MCS5200_3-0_ADD_MCS-USER	Adds an MCS SIP user to a domain.
C_NT-MCS5200_3-0_MOD_MCS-USER	Modifies MCS SIP user information.
C_NT-MCS5200_3-0_DEL_MCS-USER-BY-NAME	Deletes MCS users by name.
C_NT-MCS5200_3-0_QUERY_MCS-USER-BY-NAME	Queries users by name.
C_NT-MCS5200_3-0_ADD_MCS-USER-ROUTE	Add user route with ring call action
C_NT-MCS5200_3-0_DEL_MCS-USER-ROUTE	Delete user route
C_NT-MCS5200_3-0_MOD_MCS-USER-ROUTE	Modify user route with ring call action
C_NT-MCS5200_3-0_ACTIVATE_MCS-USER-ROUTES	Activates user routes.
C_NT-MCS5200_3-0_DEACTIVATE_MCS-USER-ROUTES	Deactivates user routes.
C_NT-MCS5200_3-0_QUERY_MCS-USER-ROUTES	Gets user route names.
C_NT-MCS5200_3-0_ADD_MCS-USER-VMS	Add a user to a voice mail server.
C_NT-MCS5200_3-0_MOD_MCS-USER-VMS	Modifies voice mail server data.
C_NT-MCS5200_3-0_QUERY_MCS-USER-VMS	Gets voice mail server data.
C_NT-MCS5200_3-0_ADD_MCS-USERS	Adds multiple users to an MCS SIP domain.

Table 1–1   (Cont.) Supported Services

Service	Description
C_NT-MCS5200_3-0_QUERY_MCS-USERS-BY-DOMAIN	Queries users by domain.
C_NT-MCS5200_3-0_QUERY_MCS-USERS-BY-STATUS	Queries domain users by status.
C_NT-MCS5200_3-0_DEL_MCS-USERS-FROM-DOMAIN	Deletes MCS users by name.

Communication Parameters

The following is the list of parameters for the sample NE configuration XML used by Service Activation Configuration Tool (SACT).

Table 1–2   Communication Parameters

Parameter Label	Parameter Value	Description
HOST_IPADDR	127.0.0.1	The network IP Address for the NE host
MCS_URL	http://47.234.102.94:80/prov/services/OPI	service url
MCS_PROV_HOST	47.234.102.94	MCS provisioning server address
MCS_PROV_PORT	80	MCS provisioning server port
MCS_USER	Metasolv	MCS user
MCS_PASSWORD	iot789	MCS password
SRQ_LOG_ON	Y	Turn on cartridge logging in tbl_srq_log

Related Documentation

This cartridge is developed according to the following NE provisioning specifications:

- <Document_Name_1>
- <Document_Name_2>

2

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 2–1   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.
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 Guide*.

Table 2–1   (Cont.) ASDL Parameter Information

Item	Description
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 Administrator's Guide.*

ASDL Commands

This cartridge provides the following ASDL commands:

■   A_NT-MCS5200_3-0_ACTIVATE_MCS-CLIR-FEAT

■   A_NT-MCS5200_3-0_ACTIVATE_MCS-USER-ROUTES

■   A_NT-MCS5200_3-0_ADD_MCS-DEVICE

■   A_NT-MCS5200_3-0_ADD_MCS-DEVICES

■   A_NT-MCS5200_3-0_ADD_MCS-USER

■   A_NT-MCS5200_3-0_ADD_MCS-USER-ROUTE

■   A_NT-MCS5200_3-0_ADD_MCS-USER-VMS

■   A_NT-MCS5200_3-0_ADD_MCS-USERS

■   A_NT-MCS5200_3-0_DEACTIVATE_MCS-CLIR-FEAT

■   A_NT-MCS5200_3-0_DEACTIVATE_MCS-USER-ROUTES

■   A_NT-MCS5200_3-0_DEL_MCS-DEVICE

■   A_NT-MCS5200_3-0_DEL_MCS-DEVICES

■   A_NT-MCS5200_3-0_DEL_MCS-USER-BY-NAME

■   A_NT-MCS5200_3-0_DEL_MCS-USER-ROUTE

■   A_NT-MCS5200_3-0_DEL_MCS-USERS-FROM-DOMAIN

■   A_NT-MCS5200_3-0_MOD_MCS-DEVICE

■   A_NT-MCS5200_3-0_MOD_MCS-USER

■   A_NT-MCS5200_3-0_MOD_MCS-USER-ROUTE

■   A_NT-MCS5200_3-0_MOD_MCS-USER-VMS

■   A_NT-MCS5200_3-0_QUERY_MCS-DEVICE

■   A_NT-MCS5200_3-0_QUERY_MCS-DEVICES

■   A_NT-MCS5200_3-0_QUERY_MCS-DEVICES-BY-DOMAIN

■   A_NT-MCS5200_3-0_QUERY_MCS-DOMAIN

- A_NT-MCS5200_3-0_QUERY_MCS-DOMAIN-PROPS

- A_NT-MCS5200_3-0_QUERY_MCS-SERVICE-PACKAGE

- A_NT-MCS5200_3-0_QUERY_MCS-SERVICE-PACKAGES

- A_NT-MCS5200_3-0_QUERY_MCS-SERVICE-PARAM

- A_NT-MCS5200_3-0_QUERY_MCS-SERVICES

- A_NT-MCS5200_3-0_QUERY_MCS-USER-BY-NAME

- A_NT-MCS5200_3-0_QUERY_MCS-USER-ROUTES

- A_NT-MCS5200_3-0_QUERY_MCS-USER-VMS

- A_NT-MCS5200_3-0_QUERY_MCS-USERS-BY-DOMAIN

- A_NT-MCS5200_3-0_QUERY_MCS-USERS-BY-STATUS

A_NT-MCS5200_3-0_ACTIVATE_MCS-CLIR-FEAT

Activate CLIR feature. It is implemented by the Java method **com.metasolv.cartridge.oss.nt_mcs5200_ sip30.prov.MCSUserProvisioning.activateClir.**

Table 2–2   A_NT-MCS5200_3-0_ACTIVATE_MCS-CLIR-FEAT

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The NE's logical ID.	N/A	N/A	S	R
USER_NAME	The subscriber's system name. Use only lowercase characters.	N/A	N/A	S	R

MML commands

MML Syntax :

```
None
```

Output Parameters
None

A_NT-MCS5200_3-0_ACTIVATE_MCS-USER-ROUTES

Activates user routes. It is implemented by the Java method **com.metasolv.cartridge.oss.nt_mcs5200_ sip30.prov.MCSRouteProvisioning.activateUserRoutes.**

Table 2–3   A_NT-MCS5200_3-0_ACTIVATE_MCS-USER-ROUTES

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The NE's logical ID.	N/A	N/A	S	R
USER_NAME	The subscriber's system name. Use only lowercase characters.	N/A	N/A	S	R
ROUTES	The user's route.	N/A	N/A	C	R

MML commands

MML Syntax :

```
deactivateRoutes(String username, String[] routes)
```

Output Parameters
None

A_NT-MCS5200_3-0_ADD_MCS-DEVICE

Adds an MCS device. It is implemented by the Java method **com.metasolv.cartridge.oss.nt_mcs5200_ sip30.prov.MCSDeviceProvisioning.addDevice.**

Table 2–4   A_NT-MCS5200_3-0_ADD_MCS-DEVICE

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The NE's logical ID.	N/A	N/A	S	R
DOMAIN	The MCS domain.	N/A	N/A	S	R
USER_NAME	The subscriber's system name. Use only lowercase letters.	N/A	N/A	C	O
LOCATION	Text describing the device's location.	N/A	N/A	S	O
TIME_FORMAT	The default time format.	N/A	N/A	S	O
CONTRAST	The telephone display contrast setting.	N/A	N/A	S	O
ALPHA	Enables alphanumeric dialing as the default dialing style.	N/A	N/A	S	O
MAC_ADDRESS	The machine, or MAC address.	N/A	N/A	S	R
LABEL	A user-defined text label that uniquely describes a device.	N/A	N/A	S	O
VOCODER		N/A	N/A	S	O
PSEIZ_TIMER	The time-out value for the first dialed digit.	N/A	N/A	S	O
BEHIND_FIREWALL	This indicates whether there is a firewall / NAT between the telephone and the system.	N/A	N/A	S	O
CODECS		N/A	N/A	S	O
DATE_FORMAT	The default date format.	N/A	N/A	S	O
TIMEZONE	The time zone from which the subscriber usually accesses the system.	N/A	N/A	S	O
LOCALE	The subscriber's location.	N/A	N/A	S	O
IDLE_DISPLAY	The idle telephone display heading.	N/A	N/A	S	O
PACKET_TIME	The packet time in milliseconds.	N/A	N/A	S	O
PDIL_TIMER	The interdigit timeout.	N/A	N/A	S	O

MML commands

MML Syntax :

```
None
```

Output Parameters
None

A_NT-MCS5200_3-0_ADD_MCS-DEVICES

Adds MCS devices to a domain. It is implemented by the Java method
**com.metasolv.cartridge.oss.nt_mcs5200_
sip30.prov.MCSDeviceProvisioning.addDevices.**

Table 2–5   A_NT-MCS5200_3-0_ADD_MCS-DEVICES

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The NE's logical ID.	N/A	N/A	S	R
DEVICE	The MCS device.	N/A	N/A	C	R
DOMAIN	The SIP domain.	N/A	N/A	S	R

MML commands

MML Syntax :

```
None
```

Output Parameters
None

A_NT-MCS5200_3-0_ADD_MCS-USER

Adds an MCS user. It is implemented by the Java method
**com.metasolv.cartridge.oss.nt_mcs5200_
sip30.prov.MCSUserProvisioning.addUserToDomain.**

Table 2–6   A_NT-MCS5200_3-0_ADD_MCS-USER

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The NE's logical ID.	N/A	N/A	S	R
USER_NAME	The subscriber's system name. Use only lowercase characters.	N/A	N/A	S	R
FIRST_NAME	The subscriber's first name. This parameter is case sensitive.	N/A	N/A	S	O
LAST_NAME	The subscriber's last name. This parameter is case sensitive.	N/A	N/A	S	O
OFFICE_PHONE	The subscriber's office phone number.	N/A	N/A	S	O
SERVICE_PACKAGE	The list of service packages assigned to the users's domain or subdomain.	N/A	N/A	S	O
PUBLIC_CHARGE_ID	The 10 digit national dial plan associated with the subscriber.	N/A	N/A	S	O

Table 2–6 (Cont.) A_NT-MCS5200_3-0_ADD_MCS-USER

Parameter Name	Description	Range	Default Value	Type	Class
PASSWORD	The subscriber's password.	N/A	N/A	S	O
COS	The name of the class of service assigned to the domain and user.	N/A	N/A	S	O
RCOS	The name of the redirect class of service assigned to the domain and user.	N/A	N/A	S	O
HOME_PHONE	The subscriber's home phone number.	N/A	N/A	S	O
CELL_PHONE	The subscriber's cell phone number.	N/A	N/A	S	O
PICTURE		N/A	N/A	S	O
PAGER	The subscriber's pager number.	N/A	N/A	S	O
EMAIL	The subscriber's email address.	N/A	N/A	S	O
TIMEZONE	The time zone from which the subscriber usually accesses the system.	N/A	N/A	S	O
STATUS_REASON	The status value of this subscriber, for example, Active.	N/A	N/A	S	O
STATUS		N/A	N/A	S	O
PRIVATE_CHARGE_ ID	The subscriber's private charge ID.	N/A	N/A	S	O
LOCALE	The subscriber's location.	N/A	N/A	S	O
ALIASES	The subscriber's aliases that associate a PSTN phone number to a user name.	N/A	N/A	C	O
FAX	The subscriber's fax number.	N/A	N/A	S	O
DOMAIN	The SIP domain.	N/A	N/A	S	R

MML commands

MML Syntax :

```
OPI:addUser(String domain, User setUser)
```

Output Parameters
None

A_NT-MCS5200_3-0_ADD_MCS-USER-ROUTE

Add user route for inging devices. It is implemented by the Java method
**com.metasolv.cartridge.oss.nt_mcs5200_
sip30.prov.MCSRouteProvisioning.addUserRoute.**

Table 2–7   A_NT-MCS5200_3-0_ADD_MCS-USER-ROUTE

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The NE's logical ID.	N/A	N/A	S	R
USER_NAME	The subscriber's system name. Use only lowercase characters.	N/A	N/A	S	R
ROUTE_NAME	The user's route name	N/A	N/A	S	R
IS_ACTIVE	Activate the route	N/A	N/A	S	O
CONDITION	Routing condition	N/A	N/A	C	O
EXCEPTION	Routing exception	N/A	N/A	C	O
ROUTE_ACTION	Route action	N/A	N/A	S	R
CALL_DESTINATION	Destination of the call	N/A	N/A	C	O
TRIGGER_ACTION	Trigger action	N/A	N/A	C	R
REJECT_MESSAGE	Message for a reject action	N/A	N/A	S	O

MML commands

MML Syntax :

```
OPI:activateRoutes(String username, String[] routes)
```

Output Parameters
None

A_NT-MCS5200_3-0_ADD_MCS-USER-VMS

Register user with an existing voice mail server. It is implemented by the Java method **com.metasolv.cartridge.oss.nt_mcs5200_ sip30.prov.MCSVoiceMailServerProvisioning.addUserToVMS.**

Table 2–8   A_NT-MCS5200_3-0_ADD_MCS-USER-VMS

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The NE's logical ID.	N/A	N/A	S	R
DOMAIN	The SIP domain.	N/A	N/A	S	R
USER_NAME	The subscriber's system name. Use only lowercase characters.	N/A	N/A	S	R
VOICEMAIL_SERVER	Name of the voice mail server.	N/A	N/A	S	R
VOICEMAIL_ ADDRESS	The voicemail address.	N/A	N/A	S	R

MML commands

MML Syntax :

```
OPI:addUsersVoicemailServer(String domain, String username, UserVoicemailuvm);
```

Output Parameters

None

A_NT-MCS5200_3-0_ADD_MCS-USERS

Adds MCS users to the domain. It is implemented by the Java method **com.metasolv.cartridge.oss.nt_mcs5200_ sip30.prov.MCSUserProvisioning.addUsersToDomain.**

Table 2–9   A_NT-MCS5200_3-0_ADD_MCS-USERS

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The NE's logical ID.	N/A	N/A	S	R
USER	The MCS user.	N/A	N/A	C	R
DOMAIN	The SIP domain.	N/A	N/A	S	R

MML commands

MML Syntax :

```
addUsersToDomain(String domain, Users[] users)
```

Output Parameters

None

A_NT-MCS5200_3-0_DEACTIVATE_MCS-CLIR-FEAT

Deactivate CLIR feature. It is implemented by the Java method **com.metasolv.cartridge.oss.nt_mcs5200_ sip30.prov.MCSUserProvisioning.deactivateClir.**

Table 2–10   A_NT-MCS5200_3-0_DEACTIVATE_MCS-CLIR-FEAT

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The NE's logical ID.	N/A	N/A	S	R
USER_NAME	The subscriber's system name. Use only lowercase characters.	N/A	N/A	S	R

MML commands

MML Syntax :

```
None
```

Output Parameters

None

A_NT-MCS5200_3-0_DEACTIVATE_MCS-USER-ROUTES

Deactivate user routes. It is implemented by the Java method **com.metasolv.cartridge.oss.nt_mcs5200_ sip30.prov.MCSRouteProvisioning.deactivateUserRoutes.**

Table 2–11   A_NT-MCS5200_3-0_DEACTIVATE_MCS-USER-ROUTES

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The NE's logical ID.	N/A	N/A	S	R
USER_NAME	The subscriber's system name. Use only lowercase characters.	N/A	N/A	S	R
ROUTES	The user's route.	N/A	N/A	C	R

MML commands

MML Syntax :

```
deactivateRoutes(String username, String[] routes)
```

Output Parameters
None

A_NT-MCS5200_3-0_DEL_MCS-DEVICE

Deletes an MCS device from a domain. It is implemented by the Java method **com.metasolv.cartridge.oss.nt_mcs5200_ sip30.prov.MCSDeviceProvisioning.deleteDevice.**

Table 2–12   A_NT-MCS5200_3-0_DEL_MCS-DEVICE

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The NE's logical ID.	N/A	N/A	S	R
DOMAIN	The SIP domain.	N/A	N/A	S	R
MAC_ADDRESS	The machine, or MAC address.	N/A	N/A	S	R

MML commands

MML Syntax :

```
OPI:removeDevice(String domain, String macaddr)
```

Output Parameters
None

A_NT-MCS5200_3-0_DEL_MCS-DEVICES

Deletes multiple MCS devices from a domain. It is implemented by the Java method **com.metasolv.cartridge.oss.nt_mcs5200_ sip30.prov.MCSDeviceProvisioning.deleteDevices.**

Table 2–13   A_NT-MCS5200_3-0_DEL_MCS-DEVICES

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The NE's logical ID.	N/A	N/A	S	R
DOMAIN	The SIP domain.	N/A	N/A	S	R
MAC_ADDRESS	The machine, or MAC address.	N/A	N/A	C	R

MML commands

MML Syntax :

```
OPI:removeDevices(String domain, String[] macaddressess)
```

Output Parameters
None

A_NT-MCS5200_3-0_DEL_MCS-USER-BY-NAME

Deletes an MCS user by name. It is implemented by the Java method **com.metasolv.cartridge.oss.nt_mcs5200_ sip30.prov.MCSUserProvisioning.delUserByName.**

Table 2–14   A_NT-MCS5200_3-0_DEL_MCS-USER-BY-NAME

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The NE's logical ID.	N/A	N/A	S	R
USER_NAME	The subscriber's system name. Use only lowercase letters.	N/A	N/A	S	R

MML commands

MML Syntax :

```
OPI:removeUser(String username)
```

Output Parameters
None

A_NT-MCS5200_3-0_DEL_MCS-USER-ROUTE

Delete user route. It is implemented by the Java method **com.metasolv.cartridge.oss.nt_mcs5200_ sip30.prov.MCSRouteProvisioning.deleteRoute.**

Table 2–15   A_NT-MCS5200_3-0_DEL_MCS-USER-ROUTE

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The NE's logical ID.	N/A	N/A	S	R
USER_NAME	The subscriber's system name. Use only lowercase characters.	N/A	N/A	S	R
ROUTE_NAME	The user's route name	N/A	N/A	S	R

MML commands

MML Syntax :

```
OPI:deactivateRoutes(String username, String[] routes)
```

Output Parameters

None

A_NT-MCS5200_3-0_DEL_MCS-USERS-FROM-DOMAIN

Deletes users from the domain. It is implemented by the Java method **com.metasolv.cartridge.oss.nt_mcs5200_ sip30.prov.MCSUserProvisioning.delUsersByDomain.**

Table 2–16   A_NT-MCS5200_3-0_DEL_MCS-USERS-FROM-DOMAIN

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The NE's logical ID.	N/A	N/A	S	R
USER_NAME	The subscriber's system name. Use only lowercase letters.	N/A	N/A	C	R
DOMAIN	The SIP domain.	N/A	N/A	S	R

MML commands

MML Syntax :

```
OPI:removeUsers(String domain, String[] userNames)
```

Output Parameters

None

A_NT-MCS5200_3-0_MOD_MCS-DEVICE

Modifies an MCS device property. It is implemented by the Java method **com.metasolv.cartridge.oss.nt_mcs5200_ sip30.prov.MCSDeviceProvisioning.modifyDevice.**

Table 2–17   A_NT-MCS5200_3-0_MOD_MCS-DEVICE

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The NE's logical ID.	N/A	N/A	S	R
DOMAIN	The SIP domain.	N/A	N/A	S	R
LOCATION	Text describing the device's location.	N/A	N/A	S	O
TIME_FORMAT	The default time format.	N/A	N/A	S	O
CONTRAST	The telephone display contrast setting.	N/A	N/A	S	O
ALPHA	Enables alphanumeric dialing as the default dialing style.	N/A	N/A	S	O
MAC_ADDRESS	The machine, or MAC address.	N/A	N/A	S	R
LABEL	A user-defined text label that uniquely describes a device.	N/A	N/A	S	O
VOCODER		N/A	N/A	S	O
PSEIZ_TIMER	The time-out value for the first dialed digit.	N/A	N/A	S	O
USER_NAME	The subscriber's system name. Use only lowercase letters.	N/A	N/A	C	O
BEHIND_FIREWALL	This indicates whether there is a firewall or NAT between the telephone and the system.	N/A	N/A	S	O
CODECS		N/A	N/A	S	O
DATE_FORMAT	The default date format.	N/A	N/A	S	O
TIMEZONE	The timezone from which the subscriber usually accesses the system.	N/A	N/A	S	O
LOCALE	The subscriber's location.	N/A	N/A	S	O
IDLE_DISPLAY	The idle telephone display heading.	N/A	N/A	S	O
PACKET_TIME	The packet time in milliseconds.	N/A	N/A	S	O
PDIL_TIMER	The interdigit timeout.	N/A	N/A	S	O

MML commands

MML Syntax :

```
Device OPI:getDevice(String domain, String macaddrss);
OPI:modifyDevice(String domain, String macaddrss, Device device);
```

Output Parameters

None

A_NT-MCS5200_3-0_MOD_MCS-USER

Modifies an MCS user. It is implemented by the Java method
**com.metasolv.cartridge.oss.nt_mcs5200_
sip30.prov.MCSUserProvisioning.modifyUser.**

Table 2–18   A_NT-MCS5200_3-0_MOD_MCS-USER

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The NE's logical ID.	N/A	N/A	S	R
USER_NAME	The subscriber's system name. Use only lowercase letters.	N/A	N/A	S	R
NEW_USER_NAME	The subscriber's system name. Use only lowercase letters.	N/A	N/A	S	O
FIRST_NAME	The subscriber's first name. It is case sensitive.	N/A	N/A	S	O
LAST_NAME	The subscriber's last name. It is case sensitive.	N/A	N/A	S	O
OFFICE_PHONE	The subscriber's office phone number.	N/A	N/A	S	O
SERVICE_PACKAGE	The list of service packages available to the user's domain or subdomain.	N/A	N/A	S	O
PUBLIC_CHARGE_ID	The 10 digit national dial plan associated with each the subscriber.	N/A	N/A	S	O
PASSWORD	The subscriber's password.	N/A	N/A	S	O
COS	The name of the class of service assigned to the domain and user.	N/A	N/A	S	O
RCOS	The name of the redirect class of service assigned to the domain and user.	N/A	N/A	S	O
HOME_PHONE	The subscriber's home phone number.	N/A	N/A	S	O
CELL_PHONE	The subscriber's cell phone number.	N/A	N/A	S	O
PICTURE		N/A	N/A	S	O
PAGER	The subscriber's pager number.	N/A	N/A	S	O
EMAIL	The subscriber's email address.	N/A	N/A	S	O
TIMEZONE	The time zone from which the subscriber usually accesses the system.	N/A	N/A	S	O
STATUS_REASON	The status value of this subscriber, for example, Active.	N/A	N/A	S	O
STATUS		N/A	N/A	S	O
PRIVATE_CHARGE_ID	The subscriber's private charge ID.	N/A	N/A	S	O
LOCALE	The subscriber's location.	N/A	N/A	S	O
ALIASES	The subscriber's aliases that associate a PSTN phone number to a user name.	N/A	N/A	C	O
FAX	The subscriber's fax number.	N/A	N/A	S	O

MML commands

MML Syntax :

```
User OPI:getUser(String userName)
OPI:modifyUser(String userName, User newUser)
```

Output Parameters

None

A_NT-MCS5200_3-0_MOD_MCS-USER-ROUTE

Modify user route for inging devices. It is implemented by the Java method
**com.metasolv.cartridge.oss.nt_mcs5200_
sip30.prov.MCSRouteProvisioning.modifyUserRoute.**

Table 2–19   A_NT-MCS5200_3-0_MOD_MCS-USER-ROUTE

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The NE's logical ID.	N/A	N/A	S	R
USER_NAME	The subscriber's system name. Use only lowercase characters.	N/A	N/A	S	R
ROUTE_NAME	The user's route name	N/A	N/A	S	R
IS_ACTIVE	Activate the route	N/A	N/A	S	O
NEW_ROUTE_NAME	The user's new route name	N/A	N/A	S	O
CONDITION	Routing condition	N/A	N/A	C	O
EXCEPTION	Routing exception	N/A	N/A	C	O

MML commands

MML Syntax :

None

Output Parameters

None

A_NT-MCS5200_3-0_MOD_MCS-USER-VMS

Modifies the voice mail server data for a user. It is implemented by the Java method
**com.metasolv.cartridge.oss.nt_mcs5200_
sip30.prov.MCSVoiceMailServerProvisioning.modifyVMSForUser.**

Table 2–20   A_NT-MCS5200_3-0_MOD_MCS-USER-VMS

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The NE's logical ID.	N/A	N/A	S	R
DOMAIN	The SIP domain.	N/A	N/A	S	R
USER_NAME	The subscriber's system name. Use only lowercase characters.	N/A	N/A	S	R
VOICEMAIL_SERVER	The name of the voice mail server.	N/A	N/A	S	R
VOICEMAIL_ ADDRESS	The voicemail address.	N/A	N/A	S	R

MML commands

MML Syntax :

```
OPI:modifyUsersVoicemailServer(String domain, String username, UserVoicemail uvm);
```

Output Parameters
None

A_NT-MCS5200_3-0_QUERY_MCS-DEVICE

Queries an MCS device from a domain. It is implemented by the Java method **com.metasolv.cartridge.oss.nt_mcs5200_ sip30.prov.MCSDeviceProvisioning.queryDevice.**

Table 2–21   A_NT-MCS5200_3-0_QUERY_MCS-DEVICE

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The NE's logical ID.	N/A	N/A	S	R
DOMAIN	The SIP domain.	N/A	N/A	S	R
MAC_ADDRESS	The machine, or MAC address.	N/A	N/A	S	R

MML commands

MML Syntax :

```
Device OPI:getDevice(String domain, String macaddrss)
```

Output Parameters
LOCATION

TIME_FORMAT

CONTRAST

ALPHA

MAC_ADDRESS

LABEL

VOCODER

PSEIZ_TIMER

USER_NAME.1, USER_NAME.2, USER_NAME.3…etc (compound parameter)

BEHIND_FIREWALL

CODECS

DATE_FORMAT

TIMEZONE

LOCALE

IDLE_DISPLAY

PACKET_TIME

PDIL_TIMER

A_NT-MCS5200_3-0_QUERY_MCS-DEVICES

Retrieves all of the MCS devices from a domain. It is implemented by the Java method **com.metasolv.cartridge.oss.nt_mcs5200_ sip30.prov.MCSDeviceProvisioning.queryDevices.**

Table 2–22   A_NT-MCS5200_3-0_QUERY_MCS-DEVICES

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The NE's logical ID.	N/A	N/A	S	R
DOMAIN	The SIP domain.	N/A	N/A	S	R
MAC_ADDRESS	The machine, or MAC address.	N/A	N/A	C	R

MML commands

MML Syntax :

```
Device OPI:getDevices(String domain, String[] macadrs)
```

Output Parameters

The return values take a compound format as there are many devices:

DEVICE1.LOCATION

DEVICE1.TIME_FORMAT

DEVICE1.CONTRAST

DEVICE1.ALPHA

DEVICE1.MAC_ADDRESS

DEVICE1.LABEL….

……….

DEVIC2.LOCATION

DEVICE2.TIME_FORMAT

DEVICE2.CONTRAST

DEVICE2.ALPHA

DEVICE2.MAC_ADDRESS

DEVICE2.LABEL…

………etc

A_NT-MCS5200_3-0_QUERY_MCS-DEVICES-BY-DOMAIN

Queries devices by domain. It is implemented by the Java method **com.metasolv.cartridge.oss.nt_mcs5200_ sip30.prov.MCSDeviceProvisioning.queryDomainDevices.**

Table 2–23   A_NT-MCS5200_3-0_QUERY_MCS-DEVICES-BY-DOMAIN

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The NE's logical ID.	N/A	N/A	S	R
DOMAIN	The subscriber's domain.	N/A	N/A	S	R
START	The start position.	N/A	N/A	S	R
END	The end position.	N/A	N/A	S	R

MML commands

MML Syntax :

```
Device [] OPI:getDevicesInDomain(String domain, int start, int end)
```

Output Parameters

The return values take a compound format as there are many devices:

DEVICE1.LOCATION

DEVICE1.TIME_FORMAT

DEVICE1.CONTRAST

DEVICE1.ALPHA

DEVICE1.MAC_ADDRESS

DEVICE1.LABEL….

……….

DEVIC2.LOCATION

DEVICE2.TIME_FORMAT

DEVICE2.CONTRAST

DEVICE2.ALPHA

DEVICE2.MAC_ADDRESS

DEVICE2.LABEL…

………etc

A_NT-MCS5200_3-0_QUERY_MCS-DOMAIN

Queries an MCS domain by name. It is implemented by the Java method **com.metasolv.cartridge.oss.nt_mcs5200_ sip30.prov.MCSDomainProvisioning.queryDomain.**

Table 2–24   A_NT-MCS5200_3-0_QUERY_MCS-DOMAIN

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The NE's logical ID.	N/A	N/A	S	R
DOMAIN	The SIP domain.	N/A	N/A	S	R

MML commands

MML Syntax :

```
Domain OPI:getDomain(String domain)
```

Output Parameters

DOMAIN

COS

Domain parameters (labels to be identified during live testing)

A_NT-MCS5200_3-0_QUERY_MCS-DOMAIN-PROPS

Retrieves MCS domain properties. It is implemented by the Java method
**com.metasolv.cartridge.oss.nt_mcs5200_
sip30.prov.MCSDomainProvisioning.queryDomainProperties.**

Table 2–25   A_NT-MCS5200_3-0_QUERY_MCS-DOMAIN-PROPS

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The NE's logical ID.	N/A	N/A	S	R
PARAM_LABEL		N/A	N/A	S	R

MML commands

MML Syntax :

```
String[] OPI:getDomainParmValues(String parameter)
```

Output Parameters

Although labels will be returned by this query, they will not be identified until live
testing is

complete

A_NT-MCS5200_3-0_QUERY_MCS-SERVICE-PACKAGE

Retrieves a service package. It is implemented by the Java method
**com.metasolv.cartridge.oss.nt_mcs5200_
sip30.prov.MCSServiceProvisioning.queryServicePackage.**

Table 2–26   A_NT-MCS5200_3-0_QUERY_MCS-SERVICE-PACKAGE

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The NE's logical ID.	N/A	N/A	S	R
DOMAIN	The SIP domain.	N/A	N/A	S	R
SERVICE_PACKAGE	The list of service packages assigned to the user's domain or subdomain.	N/A	N/A	S	R

MML commands

MML Syntax :

```
None
```

Output Parameters

Although labels will be returned by this query, they will not be identified until live testing is

complete

A_NT-MCS5200_3-0_QUERY_MCS-SERVICE-PACKAGES

Retrieves all of the service packages from a domain. It is implemented by the Java method **com.metasolv.cartridge.oss.nt_mcs5200_sip30.prov.MCSServiceProvisioning.queryServicePackages.**

Table 2–27   A_NT-MCS5200_3-0_QUERY_MCS-SERVICE-PACKAGES

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The NE's logical ID.	N/A	N/A	S	R
DOMAIN	The SIP domain.	N/A	N/A	S	R

MML commands

MML Syntax :

```
None
```

Output Parameters
None

A_NT-MCS5200_3-0_QUERY_MCS-SERVICE-PARAM

Retrieves all of the service parameter properties. It is implemented by the Java method **com.metasolv.cartridge.oss.nt_mcs5200_sip30.prov.MCSServiceProvisioning.queryServiceParameter.**

Table 2–28   A_NT-MCS5200_3-0_QUERY_MCS-SERVICE-PARAM

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The NE's logical ID.	N/A	N/A	S	R
SERVICE_LABEL		N/A	N/A	S	R
DISPLAY_LABEL		N/A	N/A	S	R

MML commands

MML Syntax :

```
String[] OPI:.getServiceParmValues(String servicelabel, String displaylabel)
```

Output Parameters

Although labels will be returned by this query, they will not be identified until live testing is

complete.

A_NT-MCS5200_3-0_QUERY_MCS-SERVICES

Retrieves all of the domain services. It is implemented by the Java method **com.metasolv.cartridge.oss.nt_mcs5200_ sip30.prov.MCSServiceProvisioning.queryServices.**

Table 2–29   A_NT-MCS5200_3-0_QUERY_MCS-SERVICES

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The NE's logical ID.	N/A	N/A	S	R
DOMAIN	The SIP domain.	N/A	N/A	S	R

MML commands

MML Syntax :

```
Service[] OPI:getServicesByDomain(String domain)
```

Output Parameters

SERVICE_LABEL

Service parameters (these labels will be identified during live testing)

A_NT-MCS5200_3-0_QUERY_MCS-USER-BY-NAME

Queries a user by name. It is implemented by the Java method **com.metasolv.cartridge.oss.nt_mcs5200_ sip30.prov.MCSUserProvisioning.queryUserByName.**

Table 2–30   A_NT-MCS5200_3-0_QUERY_MCS-USER-BY-NAME

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The NE's logical ID.	N/A	N/A	S	R
USER_NAME	The subscriber's system name. Use only lowercase letters.	N/A	N/A	S	R

MML commands

MML Syntax :

```
User getUser(username)
```

Output Parameters

OFFICE_PHONE

SERVICE_PACKAGE

FIRST_NAME

PUBLIC_CHARGE_ID

PASSWORD

COS

USER_NAME

HOME_PHONE

CELL_PHONE

PICTURE

PAGER

LAST_NAME

EMAIL

TIMEZONE

STATUS_REASON

STATUS

PRIVATE_CHARGE_ID

LOCALE

IPCM_DISPLAY_NAME

IPCM

IPCM_REG_TIMER

ALIASES.1, ALIASES.2, ALIASES.3….etc (compound parameter)

FAX

A_NT-MCS5200_3-0_QUERY_MCS-USER-ROUTES

Gets the user route names. It is implemented by the Java method
**com.metasolv.cartridge.oss.nt_mcs5200_
sip30.prov.MCSRouteProvisioning.queryUserRoutes.**

Table 2–31   A_NT-MCS5200_3-0_QUERY_MCS-USER-ROUTES

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The NE's logical ID.	N/A	N/A	S	R
USER_NAME	The subscriber's system name. Use only lowercase characters.	N/A	N/A	S	R

MML commands

MML Syntax :

```
Route[] OPI:getRoutes(String username)
```

Output Parameters

ROUTES.1, ROUTES.2 …. and so on (returns the route name in compound format)

A_NT-MCS5200_3-0_QUERY_MCS-USER-VMS

Queries voice mail server data for a user. It is implemented by the Java method **com.metasolv.cartridge.oss.nt_mcs5200_ sip30.prov.MCSVoiceMailServerProvisioning.queryVMSForUser.**

Table 2–32   A_NT-MCS5200_3-0_QUERY_MCS-USER-VMS

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The NE's logical ID.	N/A	N/A	S	R
DOMAIN	The SIP domain.	N/A	N/A	S	R
USER_NAME	The subscriber's system name. Use only lowercase characters.	N/A	N/A	S	R

MML commands

MML Syntax :

```
UserVoicemail OPI:getUsersVoicemailServer(String domain, String username);
```

Output Parameters

VOICEMAIL_SERVER

VOICEMAIL_ADDRESS

A_NT-MCS5200_3-0_QUERY_MCS-USERS-BY-DOMAIN

Queries users by domain. It is implemented by the Java method **com.metasolv.cartridge.oss.nt_mcs5200_ sip30.prov.MCSUserProvisioning.queryUsersByDomain.**

Table 2–33   A_NT-MCS5200_3-0_QUERY_MCS-USERS-BY-DOMAIN

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The NE's logical ID.	N/A	N/A	S	R
DOMAIN	The subscriber's domain.	N/A	N/A	S	R
START	The start position.	N/A	N/A	S	R
END	The end position.	N/A	N/A	S	R

MML commands

MML Syntax :

```
User[] getUsersByDomain(String domain, int start, int end)
```

Output Parameters

Because multiple users are retrieved, data is returned in the following compound format:

USER1.OFFICE_PHONE

USER1.SERVICE_PACKAGE

USER1.FIRST_NAME

USER1.PUBLIC_CHARGE_ID

USER1.PASSWORD

USER1.COS……….

…………

USER2.OFFICE_PHONE

USER2.SERVICE_PACKAGE

USER2.FIRST_NAME

USER2.PUBLIC_CHARGE_ID

USER2.PASSWORD

USER2.COS……….

…………and so on

A_NT-MCS5200_3-0_QUERY_MCS-USERS-BY-STATUS

Queries domain users by status. It is implemented by the Java method
**com.metasolv.cartridge.oss.nt_mcs5200_
sip30.prov.MCSUserProvisioning.queryUsersByStatus.**

Table 2–34   A_NT-MCS5200_3-0_QUERY_MCS-USERS-BY-STATUS

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	The NE's logical ID.	N/A	N/A	S	R
STATUS	The subscriber's status.	N/A	N/A	S	R
DOMAIN	The subscriber's domain.	N/A	N/A	S	R
START	The start position.	N/A	N/A	S	R
END	The end position.	N/A	N/A	S	R

MML commands

MML Syntax :

```
User[] OPI:getUsersByStatus(String domain, String status, int start, int end)
```

Output Parameters

VOICEMAIL_SERVER

VOICEMAIL_ADDRESS

User Exit Types

User exit types allow cartridge developers and systems administrators to map ASDL
exit codes to one of the predefined base exit types. Base exit types determine the
product behavior. Cartridges map return codes and status values from a network
element to a user defined exit type.

Regular expressions (regex) are used to perform pattern searches on responses from network elements. The pattern is stored in "tbl_user_err" in the SARM database. The user exit type contains a regex pattern that is applied at runtime.

Regular expressions enable users to associate a series of responses to a specific base type. For example, a regular expression "6." can identify a pattern where any response with the character "6" followed by any number of characters will translate to base type of FAIL.

Regular expressions can also allow very specific searches within a response from a network element. Regular expressions are typically compiled before being executed. Compilation produces a binary version of the expression and ensures that the syntax of the regular expression is correct. This compilation occurs using SACT\SADT when user exit types are deployed into ASAP. If the syntax is deemed to be incorrect during compilation, SADT displays an error message and the deployment of the user exit type will fail.

For more information on pattern matching, refer to the *ASAP Developer's Guide* and the *ASAP System Administrator's Guide*.

Understanding User Exit Type XML Files

```
…
<userDefinedExitType>
<neDescriptor>
<softwareLoad>DYNAMIC_SL</softwareLoad>
<technology>DYNAMIC_VENDOR-DYNAMIC_TECH</technology>
</neDescriptor>
<searchPattern>SUCCESS.</searchPattern>...1
<userType>U_SUCCEED</userType>...2
<baseType>SUCCEED</baseType>...3
<description>The ASDL provisioning was successful</description>
</userDefinedExitType>
<userDefinedExitType>
<searchPattern>90.</searchPattern>
<userType>U_FAIL</userType>
<baseType>FAIL</baseType>
<description>The ASDL failed - fail the current order and stop
processing.</description>
</userDefinedExitType>
<userDefinedExitType>
<searchPattern>101-110[201-215]</searchPattern>...4
<userType>U_SOFT_FAIL</userType>
<baseType>SOFT_FAIL</baseType>
<description>The ASDL has encountered a soft failure. Processing will
continue.</description>
</userDefinedExitType>
<userDefinedExitType>
<searchPattern>801-850</searchPattern>...5
<userType>U_MINOR_ERROR</userType>
<baseType>SOFT_FAIL</baseType>
<description>The ASDL has encountered a soft failure. Processing will
continue.</description>
</userDefinedExitType>
<userDefinedExitType>
<searchPattern>251-275&&[^261-265]</searchPattern>...6
<userType>U_DELAYED_FAIL</userType>
<baseType>DELAYED_FAIL</baseType>
<description>The ASDL has failed during provisioning.</description>
</userDefinedExitType>
```

```
<userDefinedExitType>
<neDescriptor>
<softwareLoad>BCS36</softwareLoad>
<technology>NORTEL_DMS</technology>
<neVendor>Nortel</neVendor>
</neDescriptor>
<searchPattern>*.</searchPattern>
<userType>U_MAINTAIN</userType>
<baseType>MAINTENANCE</baseType>
<description>The ASDL will Wait until the NE comes out of Maintenance
Mode</description>
</userDefinedExitType>
```

The numbered elements highlighted in bold in the previous code sample are explained as follows:

1. Pattern searches accommodate situations in which responses from the device contain small variants that represent the same meaning. The user type contains an associated search pattern that is applied at runtime. Using regular expressions, you can default a series of responses. For example a regular expression "90." can specify a pattern where any response with the character "90" followed by any character will translate to base type of FAIL. If the regular expression is defined as "90*", then any response with the character "90" followed by any number of characters will translate to base type of FAIL.

2. The user type that the search pattern maps to.

3. The base type that maps to the user type.

4. 101 to 110 and 201 to 215 will translate to a base type of SOFT_FAIL

5. 801-850 will translate to a base type of SOFT_FAIL. Note that the user type differs from the previous range.

6. 251 to 275 but not 261 to 265 will translate to a base type of DELAYED_FAILURE.

The previous code sample shows some typical search pattern examples. Some additional examples follow:

- ^.*\b(one|two|three)\b.*$ = matches a complete line of text that contains any of the words "one", "two" or "three"

- ^(?=.*?\bone\b)(?=.*?\btwo\b)(?=.*?\bthree\b).*$ matches a complete line of text that contains all of the words "one", "two" and "three"

- "[^"\r\n]*" matches a single-line string that does not allow the quote character to appear inside the string.

- \b\d{1,3}\.\d{1,3}\.\d{1,3}\.\d{1,3}\b matches any IP address.

For more information on search patterns, refer to http://java.sun.com/j2se/1.4.2/docs/api/java/util/regex/Pattern.html.

For more information on user exit types, refer to the *ASAP Developer's Guide*.

User Defined ASDL Exit Types

The following table lists the user defined ASDL exit types.

Table 2–35   User Defined ASDL Exit Types

Search Pattern	User Type	Base Type	Description
Success	MCS5200_SUCCESS	SUCCEED	All is ok
((?s).)*Fail((?s).)*	MCS5200_OPR_ERROR	FAIL	Operation error
((?s).)*Protocol((?s).)*	MCS5200_PROTO_ERR	FAIL	Protocol error
((?s).)*Time limit((?s).)*	MCS5200_TIME_EXCEED	FAIL	Time limit exceeded
((?s).)*Size limit((?s).)*	MCS5200_SIZE_EXCEED	FAIL	Size limit exceeded
((?s).)*Inappropriate matching((?s).)*	MCS5200_NO_MATCH	FAIL	No proper error message mapped
((?s).)*Already exists((?s).)*	MCS5200_ENTRY_EXISTS	FAIL	Entry already exist
((?s).)*unknown((?s).)*	MCS5200_UNKNOWN	FAIL	Unknown match
((?s).)*Server down((?s).)*	MCS5200_SVR_DOWN	FAIL	Server down
((?s).)*Timeout((?s).)*	MCS5200_TIMEOUT	FAIL	Timeout
((?s).)*not found((?s).)*	MCS5200_NO_ENTITY	FAIL	No entity exists
((?s).)*Invalid((?s).)*	MCS5200_INVALID_PARM	FAIL	Invalid Parameter error
((?s).)*Connect error((?s).)*	MCS5200_CONN_ERR	FAIL	Connect error
((?s).)*Not Supported((?s).)*	MCS5200_NOT_SUPP	FAIL	Not Supported
((?s).)*No results((?s).)*	MCS5200_NO_RESULTS	FAIL	No results returned
((?s).)*validation((?s).)*	MCS5200_PROV_EXCEPT	FAIL	Exception due to cartridge validation errors
((?s).)*IO exception((?s).)*	MCS5200_IO_EXCEPT	FAIL	IO exception
((?s).)*No match((?s).)*	MCS5200_NO_MATCH	FAIL	No user exit type matched

UserExitType.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<serviceModel xmlns="http://www.metasolv.com/ServiceActivation/2003/ServiceModel">
    <userDefinedExitType>
        <neDescriptor>
            <softwareLoad>3-0<//softwareLoad>
            <technology>MCS5200<//technology>
            <neVendor>NT<//neVendor>
        <//neDescriptor>
        <searchPattern>Success<//searchPattern>
        <userType>MCS5200_SUCCESS<//userType>
        <baseType>SUCCEED<//baseType>
        <description>All is ok</description>
    <//userDefinedExitType>
    ....................
    <//serviceModel >
```

3

Service Definition

The Nortel_MCS5200_SIP_3_0 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 about the CSDL parameters in this cartridge. The following table lists and describes the type of parameter information that is included.

Table 3–1   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.
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 Guide*.

Table 3–1 (Cont.) ASDL Parameter Information

Item	Description
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 Administrator's Guide.*

CSDL Commands

This cartridge provides the following CSDL commands:

- C_NT-MCS5200_3-0_ACTIVATE_MCS-CLIR-FEAT
- C_NT-MCS5200_3-0_ACTIVATE_MCS-USER-ROUTES
- C_NT-MCS5200_3-0_ADD_MCS-DEVICE
- C_NT-MCS5200_3-0_ADD_MCS-DEVICES
- C_NT-MCS5200_3-0_ADD_MCS-USER
- C_NT-MCS5200_3-0_ADD_MCS-USER-ROUTE
- C_NT-MCS5200_3-0_ADD_MCS-USER-VMS
- C_NT-MCS5200_3-0_ADD_MCS-USERS
- C_NT-MCS5200_3-0_DEACTIVATE_MCS-CLIR-FEAT
- C_NT-MCS5200_3-0_DEACTIVATE_MCS-USER-ROUTES
- C_NT-MCS5200_3-0_DEL_MCS-DEVICE
- C_NT-MCS5200_3-0_DEL_MCS-DEVICES
- C_NT-MCS5200_3-0_DEL_MCS-USER-BY-NAME
- C_NT-MCS5200_3-0_DEL_MCS-USER-ROUTE
- C_NT-MCS5200_3-0_DEL_MCS-USERS-FROM-DOMAIN
- C_NT-MCS5200_3-0_MOD_MCS-DEVICE
- C_NT-MCS5200_3-0_MOD_MCS-USER
- C_NT-MCS5200_3-0_MOD_MCS-USER-ROUTE
- C_NT-MCS5200_3-0_MOD_MCS-USER-VMS
- C_NT-MCS5200_3-0_QUERY_MCS-DEVICE
- C_NT-MCS5200_3-0_QUERY_MCS-DEVICES
- C_NT-MCS5200_3-0_QUERY_MCS-DEVICES-BY-DOMAIN
- C_NT-MCS5200_3-0_QUERY_MCS-DOMAIN

- C_NT-MCS5200_3-0_QUERY_MCS-DOMAIN-PROPS

- C_NT-MCS5200_3-0_QUERY_MCS-SERVICE-PACKAGE

- C_NT-MCS5200_3-0_QUERY_MCS-SERVICE-PACKAGES

- C_NT-MCS5200_3-0_QUERY_MCS-SERVICE-PARAM

- C_NT-MCS5200_3-0_QUERY_MCS-SERVICES

- C_NT-MCS5200_3-0_QUERY_MCS-USER-BY-NAME

- C_NT-MCS5200_3-0_QUERY_MCS-USER-ROUTES

- C_NT-MCS5200_3-0_QUERY_MCS-USER-VMS

- C_NT-MCS5200_3-0_QUERY_MCS-USERS-BY-DOMAIN

- C_NT-MCS5200_3-0_QUERY_MCS-USERS-BY-STATUS

C_NT-MCS5200_3-0_ACTIVATE_MCS-CLIR-FEAT

Activate CLIR.

Table 3–2   C_NT-MCS5200_3-0_ACTIVATE_MCS-CLIR-FEAT

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_NT-MCS5200	The NE's logical ID.	N/A	N/A	S	R
USER_NAME	The subscriber's system name. Use only lowercase characters.	N/A	N/A	S	R

Mapping to ASDLs

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

Table 3–3   CSDL to ASDL Mapping

CSDL	ASDL
C_NT-MCS5200_3-0_ACTIVATE_MCS-CLIR-FEAT	A_NT-MCS5200_3-0_ACTIVATE_MCS-CLIR-FEAT

C_NT-MCS5200_3-0_ACTIVATE_MCS-USER-ROUTES

Activates user routes.

Table 3–4   C_NT-MCS5200_3-0_ACTIVATE_MCS-USER-ROUTES

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_NT-MCS5200	The NE's logical ID.	N/A	N/A	S	R
ROUTES	The user's route.	N/A	N/A	C	R
USER_NAME	The subscriber's system name. Use only lowercase characters.	N/A	N/A	S	R

Mapping to ASDLs

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

Table 3–5   CSDL to ASDL Mapping

CSDL	ASDL
C_NT-MCS5200_3-0_ACTIVATE_MCS-USER-ROUTES	A_NT-MCS5200_3-0_ACTIVATE_MCS-USER-ROUTES

C_NT-MCS5200_3-0_ADD_MCS-DEVICE

Adds an MCS SIP device to a domain.

Table 3–6   C_NT-MCS5200_3-0_ADD_MCS-DEVICE

Parameter Name	Description	Range	Default Value	Type	Class
ALPHA	Enables alphanumeric dialing as the default dialing style.	N/A	N/A	S	O
BEHIND_FIREWALL	This indicates whether there is a firewall / NAT between the telephone and the system.	N/A	N/A	S	O
CODECS		N/A	N/A	S	O
CONTRAST	The telephone display contrast setting.	N/A	N/A	S	O
DATE_FORMAT	The default date format.	N/A	N/A	S	O
DOMAIN	The MCS domain.	N/A	N/A	S	R
IDLE_DISPLAY	The idle telephone display heading.	N/A	N/A	S	O
LABEL	A user-defined text label that uniquely describes a device.	N/A	N/A	S	O
LOCALE	The subscriber's location.	N/A	N/A	S	O
LOCATION	Text describing the device's location.	N/A	N/A	S	O
MAC_ADDRESS	The machine, or MAC address.	N/A	N/A	S	R
NE_ID_NT-MCS5200	The NE's logical ID.	N/A	N/A	S	R
PACKET_TIME	The packet time in milliseconds.	N/A	N/A	S	O
PDIL_TIMER	The interdigit timeout.	N/A	N/A	S	O
PSEIZ_TIMER	The time-out value for the first dialed digit.	N/A	N/A	S	O
TIMEZONE	The time zone from which the subscriber usually accesses the system.	N/A	N/A	S	O
TIME_FORMAT	The default time format.	N/A	N/A	S	O
USER_NAME	The subscriber's system name. Use only lowercase letters.	N/A	N/A	C	O
VOCODER		N/A	N/A	S	O

Mapping to ASDLs

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

Table 3–7   CSDL to ASDL Mapping

CSDL	ASDL
C_NT-MCS5200_3-0_ADD_MCS-DEVICE	A_NT-MCS5200_3-0_ADD_MCS-DEVICE

C_NT-MCS5200_3-0_ADD_MCS-DEVICES

Adds MCS SIP devices to a domain.

Table 3–8   C_NT-MCS5200_3-0_ADD_MCS-DEVICES

Parameter Name	Description	Range	Default Value	Type	Class
DEVICE	The MCS device.	N/A	N/A	C	R
DOMAIN	The SIP domain.	N/A	N/A	S	R
NE_ID_NT-MCS5200	The NE's logical ID.	N/A	N/A	S	R

Mapping to ASDLs

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

Table 3–9   CSDL to ASDL Mapping

CSDL	ASDL
C_NT-MCS5200_3-0_ADD_MCS-DEVICES	A_NT-MCS5200_3-0_ADD_MCS-DEVICES

C_NT-MCS5200_3-0_ADD_MCS-USER

Adds an MCS SIP user to a domain.

Table 3–10   C_NT-MCS5200_3-0_ADD_MCS-USER

Parameter Name	Description	Range	Default Value	Type	Class
ALIASES	The subscriber's aliases that associate a PSTN phone number to a user name.	N/A	N/A	C	O
CELL_PHONE	The subscriber's cell phone number.	N/A	N/A	S	O
COS	The name of the class of service assigned to the domain and user.	N/A	N/A	S	O
DOMAIN	The SIP domain.	N/A	N/A	S	R
EMAIL	The subscriber's email address.	N/A	N/A	S	O
FAX	The subscriber's fax number.	N/A	N/A	S	O
FIRST_NAME	The subscriber's first name. This parameter is case sensitive.	N/A	N/A	S	O
HOME_PHONE	The subscriber's home phone number.	N/A	N/A	S	O
LAST_NAME	The subscriber's last name. This parameter is case sensitive.	N/A	N/A	S	O
LOCALE	The subscriber's location.	N/A	N/A	S	O
NE_ID_NT-MCS5200	The NE's logical ID.	N/A	N/A	S	R
OFFICE_PHONE	The subscriber's office phone number.	N/A	N/A	S	O
PAGER	The subscriber's pager number.	N/A	N/A	S	O
PASSWORD	The subscriber's password.	N/A	N/A	S	O
PICTURE		N/A	N/A	S	O
PRIVATE_CHARGE_ID	The subscriber's private charge ID.	N/A	N/A	S	O

Table 3–10   (Cont.) C_NT-MCS5200_3-0_ADD_MCS-USER

Parameter Name	Description	Range	Default Value	Type	Class
PUBLIC_CHARGE_ID	The 10 digit national dial plan associated with the subscriber.	N/A	N/A	S	O
RCOS	The name of the redirect class of service assigned to the domain and user.	N/A	N/A	S	O
SERVICE_PACKAGE	The list of service packages assigned to the users's domain or subdomain.	N/A	N/A	S	O
STATUS		N/A	N/A	S	O
STATUS_REASON	The status value of this subscriber, for example, Active.	N/A	N/A	S	O
TIMEZONE	The time zone from which the subscriber usually accesses the system.	N/A	N/A	S	O
USER_NAME	The subscriber's system name. Use only lowercase characters.	N/A	N/A	S	R

Mapping to ASDLs

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

Table 3–11   CSDL to ASDL Mapping

CSDL	ASDL
C_NT-MCS5200_3-0_ADD_MCS-USER	A_NT-MCS5200_3-0_ADD_MCS-USER

C_NT-MCS5200_3-0_ADD_MCS-USER-ROUTE

Add user route with ring call action.

Table 3–12   C_NT-MCS5200_3-0_ADD_MCS-USER-ROUTE

Parameter Name	Description	Range	Default Value	Type	Class
CALL_DESTINATION	Destination of the call	N/A	N/A	C	O
CONDITION	Routing condition	N/A	N/A	C	O
EXCEPTION	Routing exception	N/A	N/A	C	O
IS_ACTIVE	Activate the route	N/A	N/A	S	O
NE_ID_NT-MCS5200	The NE's logical ID.	N/A	N/A	S	R
REJECT_MESSAGE	Message for a reject action	N/A	N/A	S	O
ROUTE_ACTION	Route action	N/A	N/A	S	R
ROUTE_NAME	The user's route name	N/A	N/A	S	R
TRIGGER_ACTION	Trigger action	N/A	N/A	C	R
USER_NAME	The subscriber's system name. Use only lowercase characters.	N/A	N/A	S	R

Mapping to ASDLs

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

Table 3–13   CSDL to ASDL Mapping

CSDL	ASDL
C_NT-MCS5200_3-0_ADD_MCS-USER-ROUTE	A_NT-MCS5200_3-0_ADD_MCS-USER-ROUTE

C_NT-MCS5200_3-0_ADD_MCS-USER-VMS

Add a user to a voice mail server.

Table 3–14   C_NT-MCS5200_3-0_ADD_MCS-USER-VMS

Parameter Name	Description	Range	Default Value	Type	Class
DOMAIN	The SIP domain.	N/A	N/A	S	R
NE_ID_NT-MCS5200	The NE's logical ID.	N/A	N/A	S	R
USER_NAME	The subscriber's system name. Use only lowercase characters.	N/A	N/A	S	R
VOICEMAIL_ ADDRESS	The voicemail address.	N/A	N/A	S	R
VOICEMAIL_SERVER	Name of the voice mail server.	N/A	N/A	S	R

Mapping to ASDLs

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

Table 3–15   CSDL to ASDL Mapping

CSDL	ASDL
C_NT-MCS5200_3-0_ADD_MCS-USER-VMS	A_NT-MCS5200_3-0_ADD_MCS-USER-VMS

C_NT-MCS5200_3-0_ADD_MCS-USERS

Adds multiple users to an MCS SIP domain.

Table 3–16   C_NT-MCS5200_3-0_ADD_MCS-USERS

Parameter Name	Description	Range	Default Value	Type	Class
DOMAIN	The SIP domain.	N/A	N/A	S	R
NE_ID_NT-MCS5200	The NE's logical ID.	N/A	N/A	S	R
USER	The MCS user.	N/A	N/A	C	R

Mapping to ASDLs

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

Table 3–17   CSDL to ASDL Mapping

CSDL	ASDL
C_NT-MCS5200_3-0_ADD_MCS-USERS	A_NT-MCS5200_3-0_ADD_MCS-USERS

C_NT-MCS5200_3-0_DEACTIVATE_MCS-CLIR-FEAT

Dectivate CLIR.

Table 3–18   C_NT-MCS5200_3-0_DEACTIVATE_MCS-CLIR-FEAT

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_NT-MCS5200	The NE's logical ID.	N/A	N/A	S	R
USER_NAME	The subscriber's system name. Use only lowercase characters.	N/A	N/A	S	R

Mapping to ASDLs

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

Table 3–19   CSDL to ASDL Mapping

CSDL	ASDL
C_NT-MCS5200_3-0_DEACTIVATE_MCS-CLIR-FEAT	A_NT-MCS5200_3-0_DEACTIVATE_MCS-CLIR-FEAT

C_NT-MCS5200_3-0_DEACTIVATE_MCS-USER-ROUTES

Deactivates user routes.

Table 3–20   C_NT-MCS5200_3-0_DEACTIVATE_MCS-USER-ROUTES

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_NT-MCS5200	The NE's logical ID.	N/A	N/A	S	R
ROUTES	The user's route.	N/A	N/A	C	R
USER_NAME	The subscriber's system name. Use only lowercase characters.	N/A	N/A	S	R

Mapping to ASDLs

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

Table 3–21   CSDL to ASDL Mapping

CSDL	ASDL
C_NT-MCS5200_3-0_DEACTIVATE_ MCS-USER-ROUTES	A_NT-MCS5200_3-0_DEACTIVATE_ MCS-USER-ROUTES

C_NT-MCS5200_3-0_DEL_MCS-DEVICE

Deletes an MCS SIP device from a domain.

Table 3–22   C_NT-MCS5200_3-0_DEL_MCS-DEVICE

Parameter Name	Description	Range	Default Value	Type	Class
DOMAIN	The SIP domain.	N/A	N/A	S	R
MAC_ADDRESS	The machine, or MAC address.	N/A	N/A	S	R
NE_ID_NT-MCS5200	The NE's logical ID.	N/A	N/A	S	R

Mapping to ASDLs

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

Table 3–23   CSDL to ASDL Mapping

CSDL	ASDL
C_NT-MCS5200_3-0_DEL_MCS-DEVICE	A_NT-MCS5200_3-0_DEL_MCS-DEVICE

C_NT-MCS5200_3-0_DEL_MCS-DEVICES

Deletes multiple MCS SIP devices from a domain.

Table 3–24   C_NT-MCS5200_3-0_DEL_MCS-DEVICES

Parameter Name	Description	Range	Default Value	Type	Class
DOMAIN	The SIP domain.	N/A	N/A	S	R
MAC_ADDRESS	The machine, or MAC address.	N/A	N/A	C	R
NE_ID_NT-MCS5200	The NE's logical ID.	N/A	N/A	S	R

Mapping to ASDLs

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

Table 3–25   CSDL to ASDL Mapping

CSDL	ASDL
C_NT-MCS5200_3-0_DEL_MCS-DEVICES	A_NT-MCS5200_3-0_DEL_MCS-DEVICES

C_NT-MCS5200_3-0_DEL_MCS-USER-BY-NAME

Deletes MCS users by name.

Table 3–26   C_NT-MCS5200_3-0_DEL_MCS-USER-BY-NAME

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_NT-MCS5200	The NE's logical ID.	N/A	N/A	S	R
USER_NAME	The subscriber's system name. Use only lowercase letters.	N/A	N/A	S	R

Mapping to ASDLs

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

Table 3–27   CSDL to ASDL Mapping

CSDL	ASDL
C_NT-MCS5200_3-0_DEL_MCS-USER-BY-NAME	A_NT-MCS5200_3-0_DEL_MCS-USER-BY-NAME

C_NT-MCS5200_3-0_DEL_MCS-USER-ROUTE

Delete user route.

Table 3–28   C_NT-MCS5200_3-0_DEL_MCS-USER-ROUTE

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_NT-MCS5200	The NE's logical ID.	N/A	N/A	S	R
ROUTE_NAME	The user's route name	N/A	N/A	S	R
USER_NAME	The subscriber's system name. Use only lowercase characters.	N/A	N/A	S	R

Mapping to ASDLs

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

Table 3–29   CSDL to ASDL Mapping

CSDL	ASDL
C_NT-MCS5200_3-0_DEL_MCS-USER-ROUTE	A_NT-MCS5200_3-0_DEL_MCS-USER-ROUTE

C_NT-MCS5200_3-0_DEL_MCS-USERS-FROM-DOMAIN

Deletes MCS users by name.

Table 3–30   C_NT-MCS5200_3-0_DEL_MCS-USERS-FROM-DOMAIN

Parameter Name	Description	Range	Default Value	Type	Class
DOMAIN	The SIP domain.	N/A	N/A	S	R
NE_ID_NT-MCS5200	The NE's logical ID.	N/A	N/A	S	R
USER_NAME	The subscriber's system name. Use only lowercase letters.	N/A	N/A	C	R

Mapping to ASDLs

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

Table 3–31   CSDL to ASDL Mapping

CSDL	ASDL
C_NT-MCS5200_3-0_DEL_ MCS-USERS-FROM-DOMAIN	A_NT-MCS5200_3-0_DEL_ MCS-USERS-FROM-DOMAIN

C_NT-MCS5200_3-0_MOD_MCS-DEVICE

Modifies MCS SIP device properties.

Table 3–32   C_NT-MCS5200_3-0_MOD_MCS-DEVICE

Parameter Name	Description	Range	Default Value	Type	Class
ALPHA	Enables alphanumeric dialing as the default dialing style.	N/A	N/A	S	O
BEHIND_FIREWALL	This indicates whether there is a firewall or NAT between the telephone and the system.	N/A	N/A	S	O
CODECS		N/A	N/A	S	O

Table 3–32   (Cont.) C_NT-MCS5200_3-0_MOD_MCS-DEVICE

Parameter Name	Description	Range	Default Value	Type	Class
CONTRAST	The telephone display contrast setting.	N/A	N/A	S	O
DATE_FORMAT	The default date format.	N/A	N/A	S	O
DOMAIN	The SIP domain.	N/A	N/A	S	R
IDLE_DISPLAY	The idle telephone display heading.	N/A	N/A	S	O
LABEL	A user-defined text label that uniquely describes a device.	N/A	N/A	S	O
LOCALE	The subscriber's location.	N/A	N/A	S	O
LOCATION	Text describing the device's location.	N/A	N/A	S	O
MAC_ADDRESS	The machine, or MAC address.	N/A	N/A	S	R
NE_ID_NT-MCS5200	The NE's logical ID.	N/A	N/A	S	R
PACKET_TIME	The packet time in milliseconds.	N/A	N/A	S	O
PDIL_TIMER	The interdigit timeout.	N/A	N/A	S	O
PSEIZ_TIMER	The time-out value for the first dialed digit.	N/A	N/A	S	O
TIMEZONE	The timezone from which the subscriber usually accesses the system.	N/A	N/A	S	O
TIME_FORMAT	The default time format.	N/A	N/A	S	O
USER_NAME	The subscriber's system name. Use only lowercase letters.	N/A	N/A	C	O
VOCODER		N/A	N/A	S	O

Mapping to ASDLs

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

Table 3–33   CSDL to ASDL Mapping

CSDL	ASDL
C_NT-MCS5200_3-0_MOD_MCS-DEVICE	A_NT-MCS5200_3-0_MOD_MCS-DEVICE

C_NT-MCS5200_3-0_MOD_MCS-USER

Modifies MCS SIP user information.

Table 3–34   C_NT-MCS5200_3-0_MOD_MCS-USER

Parameter Name	Description	Range	Default Value	Type	Class
ALIASES	The subscriber's aliases that associate a PSTN phone number to a user name.	N/A	N/A	C	O
CELL_PHONE	The subscriber's cell phone number.	N/A	N/A	S	O
COS	The name of the class of service assigned to the domain and user.	N/A	N/A	S	O
EMAIL	The subscriber's email address.	N/A	N/A	S	O
FAX	The subscriber's fax number.	N/A	N/A	S	O

Table 3–34   (Cont.) C_NT-MCS5200_3-0_MOD_MCS-USER

Parameter Name	Description	Range	Default Value	Type	Class
FIRST_NAME	The subscriber's first name. It is case sensitive.	N/A	N/A	S	O
HOME_PHONE	The subscriber's home phone number.	N/A	N/A	S	O
LAST_NAME	The subscriber's last name. It is case sensitive.	N/A	N/A	S	O
LOCALE	The subscriber's location.	N/A	N/A	S	O
NEW_USER_NAME	The subscriber's system name. Use only lowercase letters.	N/A	N/A	S	O
NE_ID_NT-MCS5200	The NE's logical ID.	N/A	N/A	S	R
OFFICE_PHONE	The subscriber's office phone number.	N/A	N/A	S	O
PAGER	The subscriber's pager number.	N/A	N/A	S	O
PASSWORD	The subscriber's password.	N/A	N/A	S	O
PICTURE		N/A	N/A	S	O
PRIVATE_CHARGE_ID	The subscriber's private charge ID.	N/A	N/A	S	O
PUBLIC_CHARGE_ID	The 10 digit national dial plan associated with each the subscriber.	N/A	N/A	S	O
RCOS	The name of the redirect class of service assigned to the domain and user.	N/A	N/A	S	O
SERVICE_PACKAGE	The list of service packages available to the user's domain or subdomain.	N/A	N/A	S	O
STATUS		N/A	N/A	S	O
STATUS_REASON	The status value of this subscriber, for example, Active.	N/A	N/A	S	O
TIMEZONE	The time zone from which the subscriber usually accesses the system.	N/A	N/A	S	O
USER_NAME	The subscriber's system name. Use only lowercase letters.	N/A	N/A	S	R

Mapping to ASDLs

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

Table 3–35   CSDL to ASDL Mapping

CSDL	ASDL
C_NT-MCS5200_3-0_MOD_MCS-USER	A_NT-MCS5200_3-0_MOD_MCS-USER

C_NT-MCS5200_3-0_MOD_MCS-USER-ROUTE

Modify user route with ring call action.

Table 3–36   C_NT-MCS5200_3-0_MOD_MCS-USER-ROUTE

Parameter Name	Description	Range	Default Value	Type	Class
CONDITION	Routing condition	N/A	N/A	C	O
EXCEPTION	Routing exception	N/A	N/A	C	O
IS_ACTIVE	Activate the route	N/A	N/A	S	O
NEW_ROUTE_NAME	The user's new route name	N/A	N/A	S	O
NE_ID_NT-MCS5200	The NE's logical ID.	N/A	N/A	S	R
ROUTE_NAME	The user's route name	N/A	N/A	S	R
USER_NAME	The subscriber's system name. Use only lowercase characters.	N/A	N/A	S	R

Mapping to ASDLs

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

Table 3–37   CSDL to ASDL Mapping

CSDL	ASDL
C_NT-MCS5200_3-0_MOD_MCS-USER-ROUTE	A_NT-MCS5200_3-0_MOD_MCS-USER-ROUTE

C_NT-MCS5200_3-0_MOD_MCS-USER-VMS

Modifies voice mail server data.

Table 3–38   C_NT-MCS5200_3-0_MOD_MCS-USER-VMS

Parameter Name	Description	Range	Default Value	Type	Class
DOMAIN	The SIP domain.	N/A	N/A	S	R
NE_ID_NT-MCS5200	The NE's logical ID.	N/A	N/A	S	R
USER_NAME	The subscriber's system name. Use only lowercase characters.	N/A	N/A	S	R
VOICEMAIL_ ADDRESS	The voicemail address.	N/A	N/A	S	R
VOICEMAIL_SERVER	The name of the voice mail server.	N/A	N/A	S	R

Mapping to ASDLs

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

Table 3–39   CSDL to ASDL Mapping

CSDL	ASDL
C_NT-MCS5200_3-0_MOD_MCS-USER-VMS	A_NT-MCS5200_3-0_MOD_MCS-USER-VMS

C_NT-MCS5200_3-0_QUERY_MCS-DEVICE

Queries an MCS SIP device.

Table 3–40   C_NT-MCS5200_3-0_QUERY_MCS-DEVICE

Parameter Name	Description	Range	Default Value	Type	Class
DOMAIN	The SIP domain.	N/A	N/A	S	R
MAC_ADDRESS	The machine, or MAC address.	N/A	N/A	S	R
NE_ID_NT-MCS5200	The NE's logical ID.	N/A	N/A	S	R

Mapping to ASDLs

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

Table 3–41   CSDL to ASDL Mapping

CSDL	ASDL
C_NT-MCS5200_3-0_QUERY_MCS-DEVICE	A_NT-MCS5200_3-0_QUERY_MCS-DEVICE

C_NT-MCS5200_3-0_QUERY_MCS-DEVICES

Retrieves all MCS SIP devices from a domain.

Table 3–42   C_NT-MCS5200_3-0_QUERY_MCS-DEVICES

Parameter Name	Description	Range	Default Value	Type	Class
DOMAIN	The SIP domain.	N/A	N/A	S	R
MAC_ADDRESS	The machine, or MAC address.	N/A	N/A	C	R
NE_ID_NT-MCS5200	The NE's logical ID.	N/A	N/A	S	R

Mapping to ASDLs

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

Table 3–43   CSDL to ASDL Mapping

CSDL	ASDL
C_NT-MCS5200_3-0_QUERY_MCS-DEVICES	A_NT-MCS5200_3-0_QUERY_MCS-DEVICES

C_NT-MCS5200_3-0_QUERY_MCS-DEVICES-BY-DOMAIN

Queries devices by domain.

Table 3–44   C_NT-MCS5200_3-0_QUERY_MCS-DEVICES-BY-DOMAIN

Parameter Name	Description	Range	Default Value	Type	Class
DOMAIN	The subscriber's domain.	N/A	N/A	S	R
END	The end position.	N/A	N/A	S	R
NE_ID_NT-MCS5200	The NE's logical ID.	N/A	N/A	S	R
START	The start position.	N/A	N/A	S	R

Mapping to ASDLs

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

Table 3–45   CSDL to ASDL Mapping

CSDL	ASDL
C_NT-MCS5200_3-0_QUERY_ MCS-DEVICES-BY-DOMAIN	A_NT-MCS5200_3-0_QUERY_ MCS-DEVICES-BY-DOMAIN

C_NT-MCS5200_3-0_QUERY_MCS-DOMAIN

Queries an MCS SIP domain by name.

Table 3–46   C_NT-MCS5200_3-0_QUERY_MCS-DOMAIN

Parameter Name	Description	Range	Default Value	Type	Class
DOMAIN	The SIP domain.	N/A	N/A	S	R
NE_ID_NT-MCS5200	The NE's logical ID.	N/A	N/A	S	R

Mapping to ASDLs

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

Table 3–47   CSDL to ASDL Mapping

CSDL	ASDL
C_NT-MCS5200_3-0_QUERY_MCS-DOMAIN	A_NT-MCS5200_3-0_QUERY_MCS-DOMAIN

C_NT-MCS5200_3-0_QUERY_MCS-DOMAIN-PROPS

Retrieves domain properties and their parameters.

Table 3–48   C_NT-MCS5200_3-0_QUERY_MCS-DOMAIN-PROPS

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_NT-MCS5200	The NE's logical ID.	N/A	N/A	S	R
PARAM_LABEL		N/A	N/A	S	R

Mapping to ASDLs

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

Table 3–49   CSDL to ASDL Mapping

CSDL	ASDL
C_NT-MCS5200_3-0_QUERY_MCS-DOMAIN-PROPS	A_NT-MCS5200_3-0_QUERY_MCS-DOMAIN-PROPS

C_NT-MCS5200_3-0_QUERY_MCS-SERVICE-PACKAGE

Retrieves an MCS SIP service package.

Table 3–50   C_NT-MCS5200_3-0_QUERY_MCS-SERVICE-PACKAGE

Parameter Name	Description	Range	Default Value	Type	Class
DOMAIN	The SIP domain.	N/A	N/A	S	R
NE_ID_NT-MCS5200	The NE's logical ID.	N/A	N/A	S	R
SERVICE_PACKAGE	The list of service packages assigned to the user's domain or subdomain.	N/A	N/A	S	R

Mapping to ASDLs

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

Table 3–51   CSDL to ASDL Mapping

CSDL	ASDL
C_NT-MCS5200_3-0_QUERY_ MCS-SERVICE-PACKAGE	A_NT-MCS5200_3-0_QUERY_ MCS-SERVICE-PACKAGE

C_NT-MCS5200_3-0_QUERY_MCS-SERVICE-PACKAGES

Retrieves all of the MCS SIP service packages from a domain.

Table 3–52   C_NT-MCS5200_3-0_QUERY_MCS-SERVICE-PACKAGES

Parameter Name	Description	Range	Default Value	Type	Class
DOMAIN	The SIP domain.	N/A	N/A	S	R
NE_ID_NT-MCS5200	The NE's logical ID.	N/A	N/A	S	R

Mapping to ASDLs

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

Table 3–53   CSDL to ASDL Mapping

CSDL	ASDL
C_NT-MCS5200_3-0_QUERY_ MCS-SERVICE-PACKAGES	A_NT-MCS5200_3-0_QUERY_ MCS-SERVICE-PACKAGES

C_NT-MCS5200_3-0_QUERY_MCS-SERVICE-PARAM

Retrieves properties for an MCS SIP service parameter.

Table 3–54   C_NT-MCS5200_3-0_QUERY_MCS-SERVICE-PARAM

Parameter Name	Description	Range	Default Value	Type	Class
DISPLAY_LABEL		N/A	N/A	S	R
NE_ID_NT-MCS5200	The NE's logical ID.	N/A	N/A	S	R
SERVICE_LABEL		N/A	N/A	S	R

Mapping to ASDLs

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

Table 3–55   CSDL to ASDL Mapping

CSDL	ASDL
C_NT-MCS5200_3-0_QUERY_MCS-SERVICE-PARAM	A_NT-MCS5200_3-0_QUERY_MCS-SERVICE-PARAM

C_NT-MCS5200_3-0_QUERY_MCS-SERVICES

Retrieves all of the MCS SIP services from a domain.

Table 3–56   C_NT-MCS5200_3-0_QUERY_MCS-SERVICES

Parameter Name	Description	Range	Default Value	Type	Class
DOMAIN	The SIP domain.	N/A	N/A	S	R
NE_ID_NT-MCS5200	The NE's logical ID.	N/A	N/A	S	R

Mapping to ASDLs

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

Table 3–57   CSDL to ASDL Mapping

CSDL	ASDL
C_NT-MCS5200_3-0_QUERY_MCS-SERVICES	A_NT-MCS5200_3-0_QUERY_MCS-SERVICES

C_NT-MCS5200_3-0_QUERY_MCS-USER-BY-NAME

Queries users by name.

Table 3–58   C_NT-MCS5200_3-0_QUERY_MCS-USER-BY-NAME

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_NT-MCS5200	The NE's logical ID.	N/A	N/A	S	R
USER_NAME	The subscriber's system name. Use only lowercase letters.	N/A	N/A	S	R

Mapping to ASDLs

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

Table 3–59   CSDL to ASDL Mapping

CSDL	ASDL
C_NT-MCS5200_3-0_QUERY_MCS-USER-BY-NAME	A_NT-MCS5200_3-0_QUERY_MCS-USER-BY-NAME

C_NT-MCS5200_3-0_QUERY_MCS-USER-ROUTES

Gets user route names.

Table 3–60   C_NT-MCS5200_3-0_QUERY_MCS-USER-ROUTES

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_NT-MCS5200	The NE's logical ID.	N/A	N/A	S	R
USER_NAME	The subscriber's system name. Use only lowercase characters.	N/A	N/A	S	R

Mapping to ASDLs

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

Table 3–61   CSDL to ASDL Mapping

CSDL	ASDL
C_NT-MCS5200_3-0_QUERY_MCS-USER-ROUTES	A_NT-MCS5200_3-0_QUERY_MCS-USER-ROUTES

C_NT-MCS5200_3-0_QUERY_MCS-USER-VMS

Gets voice mail server data.

Table 3–62   C_NT-MCS5200_3-0_QUERY_MCS-USER-VMS

Parameter Name	Description	Range	Default Value	Type	Class
DOMAIN	The SIP domain.	N/A	N/A	S	R
NE_ID_NT-MCS5200	The NE's logical ID.	N/A	N/A	S	R
USER_NAME	The subscriber's system name. Use only lowercase characters.	N/A	N/A	S	R

Mapping to ASDLs

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

Table 3–63   CSDL to ASDL Mapping

CSDL	ASDL
C_NT-MCS5200_3-0_QUERY_MCS-USER-VMS	A_NT-MCS5200_3-0_QUERY_MCS-USER-VMS

C_NT-MCS5200_3-0_QUERY_MCS-USERS-BY-DOMAIN

Queries users by domain.

Table 3–64   C_NT-MCS5200_3-0_QUERY_MCS-USERS-BY-DOMAIN

Parameter Name	Description	Range	Default Value	Type	Class
DOMAIN	The subscriber's domain.	N/A	N/A	S	R
END	The end position.	N/A	N/A	S	R
NE_ID_NT-MCS5200	The NE's logical ID.	N/A	N/A	S	R
START	The start position.	N/A	N/A	S	R

Mapping to ASDLs

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

Table 3–65   CSDL to ASDL Mapping

CSDL	ASDL
C_NT-MCS5200_3-0_QUERY_ MCS-USERS-BY-DOMAIN	A_NT-MCS5200_3-0_QUERY_ MCS-USERS-BY-DOMAIN

C_NT-MCS5200_3-0_QUERY_MCS-USERS-BY-STATUS

Queries domain users by status.

Table 3–66   C_NT-MCS5200_3-0_QUERY_MCS-USERS-BY-STATUS

Parameter Name	Description	Range	Default Value	Type	Class
DOMAIN	The subscriber's domain.	N/A	N/A	S	R
END	The end position.	N/A	N/A	S	R
NE_ID_NT-MCS5200	The NE's logical ID.	N/A	N/A	S	R
START	The start position.	N/A	N/A	S	R
STATUS	The subscriber's status.	N/A	N/A	S	R

Mapping to ASDLs

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

Table 3–67   CSDL to ASDL Mapping

CSDL	ASDL
C_NT-MCS5200_3-0_QUERY_ MCS-USERS-BY-STATUS	A_NT-MCS5200_3-0_QUERY_ MCS-USERS-BY-STATUS

4

Configuring ASAP to Support Additional NE Instances

You can configure Oracle Communications ASAP (ASAP) to support the NTMCS5200 - NEP configuration using the Service Activation Configuration Tool (SACT). Refer to the *ASAP System Administrator's Guide* for more information.

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, copy the .sar file to the new directory and un-jar the sar file.

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 file, you must create a new sar file, then restart the cartridge using the new file.

Configuration XML File

Below is an example of the Activation.Configuration.XML file for the Nortel_MCS5200_SIP_3_0 cartridge.

```
<?xml version="1.0" encoding="UTF-8"?>
<activationConfig
xmlns="http://www.metasolv.com/ServiceActivation/2003/ActivationConfig"
xmlns:cfg="http://www.mslv.com/studio/activation/model/config"
xmlns:route="http://www.mslv.com/studio/activation/model/routing"
xmlns:sm="http://www.metasolv.com/ServiceActivation/2003/ServiceModel"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
     <connectionPool name="NTMCSPOL">
          <device name="NTMCS30_soap_dev1">
               <environment>DEVELOPMENT</environment>
               <lineType>GENERIC_MESSAGE_BASED_CONNECTION</lineType>
          </device>
     </connectionPool>
     <element name="NTMCS5200">
          <vendor>NT</vendor>
          <technology>MCS5200</technology>
          <softwareLoad>3-0</softwareLoad>
```

```
<nepServerName>$NEP</nepServerName>
<primaryPool>NTMCSPOL</primaryPool>
<maximumConnections>1</maximumConnections>
<dropTimeout>2</dropTimeout>
<spawnThreshold>10</spawnThreshold>
<killThreshold>8</killThreshold>
<routingElement name="NTMCS5200"/>
<communicationParameter>
     <label>HOST_IPADDR</label>
     <value>
          <value>127.0.0.1</value>
     </value>
     <description>The network IP Address for the NE host</description>
     <lineType>GENERIC_MESSAGE_BASED_CONNECTION</lineType>
</communicationParameter>
<communicationParameter>
     <label>MCS_URL</label>
     <value>
          <value>http://47.234.102.94:80/prov/services/OPI</value>
     </value>
     <description>service url</description>
     <lineType>GENERIC_MESSAGE_BASED_CONNECTION</lineType>
</communicationParameter>
<communicationParameter>
     <label>MCS_PROV_HOST</label>
     <value>
          <value>47.234.102.94</value>
     </value>
     <description>MCS provisioning server address</description>
     <lineType>GENERIC_MESSAGE_BASED_CONNECTION</lineType>
</communicationParameter>
<communicationParameter>
     <label>MCS_PROV_PORT</label>
     <value>
          <value>80</value>
     </value>
     <description>MCS provisioning server port</description>
     <lineType>GENERIC_MESSAGE_BASED_CONNECTION</lineType>
</communicationParameter>
<communicationParameter>
     <label>MCS_USER</label>
     <value>
          <value>Metasolv</value>
     </value>
     <description>MCS user</description>
     <lineType>GENERIC_MESSAGE_BASED_CONNECTION</lineType>
</communicationParameter>
<communicationParameter>
     <label>MCS_PASSWORD</label>
     <value>
          <value>iot789</value>
     </value>
     <description>MCS password</description>
     <lineType>GENERIC_MESSAGE_BASED_CONNECTION</lineType>
</communicationParameter>
<communicationParameter>
     <label>SRQ_LOG_ON</label>
     <value>
          <value>Y</value>
     </value>
```

```
                <description>Turn on cartridge logging in tbl_srq_log</description>
                <lineType>GENERIC_MESSAGE_BASED_CONNECTION</lineType>
            </communicationParameter>
        </element>
</activationConfig>
```