Oracle Activation 5.0™ Cartridge 1.0 for Ericsson MoIP (Message Over IP)

Ericsson MoIP (Message Over IP)Cartridge Guide

First Edition
August 2008

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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 Ericsson MoIP (Message Over IP) 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 Ericsson MoIP (Message Over IP) cartridge provides the ASAP service configuration and network element (NE) interface to activate Voicemail Subscriber services on ERIC-MOIP_5-0-HOST NEs.

Services, features, and options

Table 1:

Service	Service Description
Add subscriber.	Adds a voicemail subscriber and attributes to the Ericsson MoIP.
Delete subscriber.	Deletes a voicemail subscriber from the MoIP.
Query subscriber.	Queries voicemail subscriber on the MOIP.
Modify subscriber.	Modifies voicemail subscriber on the MOIP.
Verify subscriber.	Verifies that a subscriber exists.
Verify Subscriber.	Verifies the consitency of a subscriber.

Hardware and software requirements

The following sections contain the high-level software and hardware environment requirements for provisioning Voicemail Subscriber services using this cartridge, including:

- Network element (NE) interface
- ASAP version

Network element (NE) interface

This cartridge operates with the following:

- ERIC-MOIP_5-0-HOST NE with software load 5.0.

ASAP version

This cartridge was developed and tested using ASAP 4.7.x

For more information on the operating environment of this ASAP version, refer to the *ASAP 4.7.x Release Record*.

Connecting to the NE

The Ericsson MoIP (Message Over IP) cartridge interfaces with ERIC-MOIP_5-0-HOST NEs using the TCP/IP telnet protocol to connect to the NE.

Related documentation

This cartridge was developed according to the following Network Element Provisioning Specifications:

- North American ERIC-MOIP_5-0-HOST SERVORD Reference Manual volume 1 & 2

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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

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.

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

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

To unTAR the TAR file

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

   ```
   mkdir <repository dir>
   ```

2. Untar EricssonMoIP_5_0_X_R1_0_0.tar.

   ```
   tar xvf EricssonMoIP_5_0_X_R1_0_0.<buildId>.tar
   ```

3. Copy the resulting /ERICSSON_MOIP_5_0_VOICEMAIL_1_0 directory and its contents to the repository directory.

   ```
   cp -rf /ERICSSON_MOIP_5_0_VOICEMAIL_1_0 <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>
   /README
   /installCartridge
   /uninstallCartridge
   /ERICSSON_MOIP_5_0_VOICEMAIL_1_0.sar
```

Starting ASAP

Before installing 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 Administration 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 /ERICSSON_MOIP_5_0_VOICEMAIL_1_0. The script executes the following tasks:

- Configures the Ericsson MoIP (Message Over IP)-specific NE using the SACT.
- Deploys the Ericsson MoIP (Message Over IP) cartridge service model (only if the Ericsson MoIP (Message Over IP) service model is not yet deployed) using the Service Activation Deployment Tool (SADT).
- Copies the Ericsson MoIP (Message Over IP)-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 /ERICSSON_MOIP_5_0_VOICEMAIL_1_0. At the prompt, type:

   ```
   installCartridge ERICSSON_MOIP_5_0_VOICEMAIL_1_0.sar
   ```

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 Ericsson MoIP (Message Over IP) cartridge. This script is located under ERICSSON_MOIP_5_0_VOICEMAIL_1_0. The script executes the following tasks:

- Unconfigures Ericsson MoIP (Message Over IP)-specific NEs using the SACT.
- Undeploys the Ericsson MoIP (Message Over IP) cartridge service model (only if the Ericsson MoIP (Message Over IP) service model is already deployed) using the Service Activation Deployment Tool (SADT).
- Removes the Ericsson MoIP (Message Over IP)-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 /ERICSSON_MOIP_5_0_VOICEMAIL_1_0. At the prompt, type

   ```
   uninstallCartridge ERICSSON_MOIP_5_0_VOICEMAIL_1_0.<date>.<time>.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 ASAP.cfg 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 2: Loopback Mode Parameter Settings

Configuration Variable	Parameter Settings	Location
LOOPBACK_ON	1 (default setting)	ASAP.cfg

Live mode

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

Table 3: Live Mode Parameter Settings

Configuration Variable	Parameter Settings	Location
LOOPBACK_ON	0	ASAP.cfg

Communication parameters

The following are the list of parameters for the sample NE configuration XML used by SACT

Table 4: Communication parameters

DEV_ TYPE	HOST	DEVICE	PARAM_LABEL	PARAM_ VALUE	PARAM_DESC
T	ERIC-MOIP_5-0-HOST	COMMON_DEVICE_CFG	HOST_IPADDR	127.0.0.1	The network IP address for the network element.
T	ERIC-MOIP_5-0-HOST	COMMON_DEVICE_CFG	PORT	2400	The port to connect on the NE.
T	ERIC-MOIP_5-0-HOST	COMMON_DEVICE_CFG	HOST_USERID	User	Login user name.
T	ERIC-MOIP_5-0-HOST	COMMON_DEVICE_CFG	HOST_PASSWORD	Password	Password for the user.
T	ERIC-MOIP_5-0-HOST	COMMON_DEVICE_CFG	LOGIN_PROMPT	Login:	Login prompt for the NE.
T	ERIC-MOIP_5-0-HOST	COMMON_DEVICE_CFG	PASSWORD_PROMPT	password:	Password prompt for the NE.
T	ERIC-MOIP_5-0-HOST	COMMON_DEVICE_CFG	OPEN_TIMEOUT	5	Connection timeout in seconds.
T	ERIC-MOIP_5-0-HOST	COMMON_DEVICE_CFG	READ_TIMEOUT	2	Read timeout in seconds.

Table 4: Communication parameters

DEV_ TYPE	HOST	DEVICE	PARAM_LABEL	PARAM_ VALUE	PARAM_DESC
T	ERIC-MOIP_5-0-HOST	COMMON_DEVICE_CFG	PROMPT	Enter Command:	LOGIN provisioning prompt.
T	ERIC-MOIP_5-0-HOST	COMMON_DEVICE_CFG	CAI_PROMPT	CAI>:	CAI provisioning prompt.
T	ERIC-MOIP_5-0-HOST	COMMON_DEVICE_CFG	RESPONSE_LOG	TRUE	Flag enables/ disables response log.
T	ERIC-MOIP_5-0-HOST	COMMON_DEVICE_CFG	CAI_USERID	User	Login CAI user name.
T	ERIC-MOIP_5-0-HOST	COMMON_DEVICE_CFG	CAI_PASSWORD	Password	Password for CAI user.
T	ERIC-MOIP_5-0-HOST	COMMON_DEVICE_CFG	USE_LOGIN	FALSE	Flag to use login.
T	ERIC-MOIP_5-0-HOST	COMMON_DEVICE_CFG	USE_CAI_PROMPT	TRUE	Flag to use CAI prompt.

Modifying ERIC-MOIP_5-0-HOST.xml

Use the following procedure to modify ERIC-MOIP_5-0-HOST.xml.

To modify ERIC-MOIP_5-0-HOST.xml

1. Create a new source directory under /ERICSSON_MOIP_5_0_VOICEMAIL_1_0. You can give this directory any appropriate, meaningful name you want to.

   ```
   mkdir <new_source_directory>
   ```

2. Copy ERICSSON_MOIP_5_0_VOICEMAIL_1_0.sar to this new source directory.

   ```
   cp ERICSSON_MOIP_5_0_VOICEMAIL_1_0.sar /<new_source_directory>
   ```

3. Change directory to <new_source_directory>.

   ```
   cd <new_source_directory>
   ```

4. Un-jar ERICSSON_MOIP_5_0_VOICEMAIL_1_0.sar This extracts the contents of the sar file (see Figure 1 on page 12 for an example of the resulting file structure).

   ```
   jar xvf ERICSSON_MOIP_5_0_VOICEMAIL_1_0.sar
   ```

5. Edit <new_source_directory>/ERICSSON_MOIP_5_0_VOICEMAIL_1_0/common/application_config/ERIC-MOIP_5-0-HOST.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 ERICSSON_MOIP_5_0_VOICEMAIL_1_0.sar in /ERICSSON_MOIP_5_0_VOICEMAIL_1_0 (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 /ERICSSON_MOIP_5_0_VOICEMAIL_1_0 so you have a backup copy of it.
9. Copy the new sar file from <new_source_directory> to /ERICSSON_MOIP_5_0_VOICEMAIL_1_0.
10. Reinstall the cartridge (see "Installing the cartridge" on page 7 for installation instructions).

```
META-INF/activation-model.xml
Cisco/
   IOS_12_X
      VLAN/
         sample_wo/
         sarm/
            PLSQL/
         control/
            PLSQL/
         nep/
            PLSQL/
         java/
            lib/
            src
         cpp/
            lib/
         service_model/{at least one .xml file}
      common/
         sarm/
            PLSQL/
         control/
            PLSQL/
         nep/
            PLSQL/
         java/
            lib/
         cpp/
            lib/
         service_model/
         application_config/
         scripts/
```

Figure 1: File 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 /ERICSSON_MOIP_5_0_VOICEMAIL_1_0/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 Ericsson MoIP (Message Over IP) 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 /ERICSSON_MOIP_5_0_VOICEMAIL_1_0, copy the sar file to the new directory and un-jar the sar file, as described by Step 1 through Step 4 in "Modifying ERIC-MOIP_5-0-HOST.xml" on page 10.

2. Locate and view the sample work order files under ERICSSON_MOIP_5_0_VOICEMAIL_1_0/SampleWorkOrders.

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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 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 Administration Guide.*

ASDL Commands

This cartridge provides the following ASDL commands:

- A_ERIC-MOIP_5-0_ADD_SUBSCRIBER
- A_ERIC-MOIP_5-0_DEL_SUBSCRIBER
- A_ERIC-MOIP_5-0_MOD_SUBSCRIBER
- A_ERIC-MOIP_5-0_MOD_SUBSCRIBER-RB
- A_ERIC-MOIP_5-0_QRY_SUBSCRIBER
- A_ERIC-MOIP_5-0_QRY_SUBSCRIBER-RB
- A_ERIC-MOIP_5-0_VERIFY_SUBSCRIBER
- A_ERIC-MOIP_5-0_VERIFY_USER

A_ERIC-MOIP_5-0_ADD_SUBSCRIBER

This service adds a voice mail subscriber entry to the Ericsson MoIP with the given attributes. It is implemented by the Java method **com.metasolv.cartridge.oss.eric_moip_5_0.prov.MoipProvisioning.addSubscriber.**

Table 6: A_ERIC-MOIP_5-0_ADD_SUBSCRIBER

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	NE Logical ID.			S	R
TELEPHONENUMBER	Telephone number of the subscriber.			S	R
MAILHOST	Subscribers mail address.			S	O
MSLOCATION	Move the subscriber to another community or region.			S	O
COSDN	The class of service a subscriber should belong to.			S	R
MIN	The subscribers MIN number.			S	O
PAGER_NOTIFICATION_STRING	String containing the information needed to send a telephone number to the subscriber via a paging network.			S	O

Table 6: A_ERIC-MOIP_5-0_ADD_SUBSCRIBER

Parameter Name	Description	Range	Default Value	Type	Class
CUSTOMERID	Customer ID.			S	O
GIVENNAME	Given name of the subscriber.			S	O
SN	Surname of the subscriber.			S	O
MAILADDRESS	The subscribers email address.			S	O
UID	User id of the subscriber.			S	O
MAILBOX_PW	Mailbox, WEB and WAP password.			S	O
NOTIFICATION_NUMBER	The subscribers notification number.			S	O
FAX_NUMBER	The subscribers fax number.			S	O
LANGUAGE	Language.			S	O
GENDER	The subscribers gender.			S	O
DATEFORMAT	Date format.			S	O
TIMEFORMAT	Time format.			S	O
TIMEZONE	The subscribers time zone.			S	O
PIN	Password for PIN (Telephoneaccesspassword).			S	O
SMPPCENTER	SMSC identifier.			S	O
MMSCENTER	MMSC identifier.			S	O
FAMILY_MEMBERS	The subscribers that belong to a family mailbox group.			S	O

Table 6: A_ERIC-MOIP_5-0_ADD_SUBSCRIBER

Parameter Name	Description	Range	Default Value	Type	Class
DELIVERY_PROFILE	The delivery profiles allows a user to have different notification numbers for each notification type.			S	O
DISABLE_NOTIFICATION_TYPES	The notification types that should be disabled for the subscriber.			S	O
ADDRESSBOOK_SERVER	Set the addressbook server for the subscriber.			S	O
ATTENDANT_NUMBER	Coverage phonenumber for the subscriber.			S	O
AUTO_FORWARD_EMAIL_ADDRESS	Automatic forwarding email address.			S	O
MAILALTERNATEADDRESS	Alternative email address.			S	O
MAILEQUIVALENTADDRESS	Equivalent email address.			S	O
DISABLE_SERVICES	The user services that should be disabled for the subscriber.			S	O
MSG_CHARENCODING	The message character encoding set for a subscriber.			S	O
BADLOGINCOUNT	Failed login attempts for a subscriber.			S	O

MML Commands

CREATE:MOIPSUB:TELEPHONENUMBER,<tfn-number>:<attribute-name1>,<attribute-value1>:<attribute-name2>,<attribute-value2>…;

where

<tfn-number> = Telephone number of the subscriber.

<attribute-value> = Value for the attribute

<attribute-name> = Name of the attribute. Possible attribute names:

MSLOCATION

COSDN

MIN

PAGER_NOTIFICATION_STRING

CUSTOMERID

GIVENNAME

SN

MAILADDRESS

UID

MAILBOX_PW

PIN

NOTIFICATION_NUMBER

FAX_NUMBER

LANGUAGE

GENDER

DATEFORMAT

TIMEFORMAT

TIMEZONE

SMPPCENTER

MMSCENTER

FAMILY_MEMBERS

DELIVERY_PROFILE

DISABLE_NOTIFICATION_TYPES

ADDRESSBOOK_SERVER

ATTENDANT_NUMBER

AUTO_FORWARD_EMAIL_ADDRESS

MAILALTERNATEADDRESS

MAILEQUIVALENTADDRESS

DISABLE_SERVICES

MSG_CHARENCODING

BADLOGINCOUNT

Output parameters

ERMOIP_CREATE_ SUBSCRIBER _ERR_CODE= User Exit Type

A_ERIC-MOIP_5-0_DEL_SUBSCRIBER

This service deletes the given voice mail subcriber entry from the Ericsson MoIP. It is implemented by the Java method **com.metasolv.cartridge.oss.eric_moip_5_0.prov.MoipProvisioning.delSubscriber.**

Table 7: A_ERIC-MOIP_5-0_DEL_SUBSCRIBER

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	NE Logical ID.			S	R
TELEPHONENUMBER	Telephone number of the subscriber.			S	R

MML Commands

DELETE:MOIPSUB:TELEPHONENUMBER,<tfn-number>;

where

<tfn-number> = Telephone number of the subscriber

Output parameters

ERMOIP_DEL_SUBSCRIBER_ERR_CODE= User Exit Type

A_ERIC-MOIP_5-0_MOD_SUBSCRIBER

This service modifies a voice mail subscriber attributes in the Ericsson MoIP. It is implemented by the Java method **com.metasolv.cartridge.oss.eric_moip_5_0.prov.MoipProvisioning.modSubscriber.**

Table 8: A_ERIC-MOIP_5-0_MOD_SUBSCRIBER

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	NE Logical ID.			S	R
TELEPHONENUMBER	Telephone number of the subscriber.			S	R
MAILHOST	Subscribers mail address.			S	O
MSLOCATION	Move the subscriber to another community or region.			S	O
COSDN	The class of service a subscriber should belong to.			S	O
MIN	The subscribers MIN number.			S	O
PAGER_NOTIFICATION_STRING	String containing the information needed to send a telephone number to the subscriber via a paging network.			S	O
CUSTOMERID	Customer ID.			S	O
GIVENNAME	Given name of the subscriber.			S	O
SN	Surname of the subscriber.			S	O
MAILADDRESS	The subscribers email address.			S	O

Table 8: A_ERIC-MOIP_5-0_MOD_SUBSCRIBER

Parameter Name	Description	Range	Default Value	Type	Class
UID	User id of the subscriber.			S	O
MAILBOX_PW	Mailbox, WEB and WAP password.			S	O
NOTIFICATION_NUMBER	The subscribers notification number.			S	O
FAX_NUMBER	The subscribers fax number.			S	O
LANGUAGE	Language.			S	O
GENDER	The subscribers gender.			S	O
DATEFORMAT	Date format.			S	O
TIMEFORMAT	Time format.			S	O
TIMEZONE	The subscribers time zone.			S	O
PIN	Password for PIN (Telephoneaccesspassword).			S	O
SMPPCENTER	SMSC identifier.			S	O
MMSCENTER	MMSC identifier.			S	O
FAMILY_MEMBERS	The subscribers that belong to a family mailbox group.			C	O
DELIVERY_PROFILE	The delivery profiles allows a user to have different notification numbers for each notification type.			C	O
DISABLE_NOTIFICATION_TYPES	The notification types that should be disabled for the subscriber.			S	O

Table 8: A_ERIC-MOIP_5-0_MOD_SUBSCRIBER

Parameter Name	Description	Range	Default Value	Type	Class
ADDRESSBOOK_SERVER	Set the addressbook server for the subscriber.			S	O
ATTENDANT_NUMBER	Coverage phonenumber for the subscriber.			C	C
AUTO_FORWARD_EMAIL_ADDRESS	Automatic forwarding email address.			C	C
MAILALTERNATEADDRESS	Alternative mail address.			C	O
MAILEQUIVALENTADDRESS	Equivalent email address.			C	O
DISABLE_SERVICES	The user services that should be disabled for the subscriber.			S	O
MSG_CHARENCODING	The message character encoding set for a subscriber.			S	O
BADLOGINCOUNT	Failed login attempts for a subscriber.			S	O
USERSTATUS	Sets the user to active or inactive.			S	O
FIRST_TIME_LOGIN	Sets the subscriber's first time login string.			S	O
ADMININFO	Administrator greeting message.			S	O

MML Commands

SET:MOIPSUB:TELEPHONENUMBER,<tfn-number>:<attribute-name>,<new-value>:<attribute-name>,<new-value>:<attribute-name>,DEF,<new-value>:<attribute-name>,DEL,<new-value>…;

where

<tfn-number> = Telephone number of the subscriber.

<new-value> = Value for the attribute

<attribute-name> = Name of the attribute. Possible attribute names:

MSLOCATION

COSDN

MIN

PAGER_NOTIFICATION_STRING

CUSTOMERID

GIVENNAME

SN

MAILADDRESS

UID

MAILBOX_PW

PIN

NOTIFICATION_NUMBER

FAX_NUMBER

LANGUAGE

GENDER

DATEFORMAT

TIMEFORMAT

TIMEZONE

SMPPCENTER

MMSCENTER

DISABLE_NOTIFICATION_TYPES

ADDRESSBOOK_SERVER

ATTENDANT_NUMBER

AUTO_FORWARD_EMAIL_ADDRESS

DISABLE_SERVICES

MSG_CHARENCODING

BADLOGINCOUNT

Possible attribute names that can cause DEF or DEL:

FAMILY_MEMBERS

DELIVERY_PROFILE

MAILALTERNATEADDRESS

MAILEQUIVALENTADDRESS

ATTENDANT_NUMBER

AUTO_FORWARD_EMAIL_ADDRESS

Output parameters

ERMOIP_MOD_SUBSCRIBER_ERR_CODE= User Exit Type

A_ERIC-MOIP_5-0_MOD_SUBSCRIBER-RB

This service rollsback to modify a voice mail subscriber attributes in the Ericsson MoIP. It is implemented by the Java method **com.metasolv.cartridge.oss.eric_moip_5_0.prov.MoipProvisioning.modSubscriberRb.**

Table 9: A_ERIC-MOIP_5-0_MOD_SUBSCRIBER-RB

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	NE Logical ID.			S	R
TELEPHONENUMBER	Telephone number of the subscriber.			S	R
OLD_MAILHOST	Subscribers mail address.			S	O
OLD_MSLOCATION	Move the subscriber to another community or region.			S	O
OLD_COSDN	The class of service a subscriber should belong to.			S	O
OLD_MIN	The subscribers MIN number.			S	O

Table 9: A_ERIC-MOIP_5-0_MOD_SUBSCRIBER-RB

Parameter Name	Description	Range	Default Value	Type	Class
OLD_PAGER_NOTIFICATION_STRING	String containing the information needed to send a telephone number to the subscriber via a paging network.			S	O
OLD_CUSTOMERID	Customer ID.			S	O
OLD_GIVENNAME	Given name of the subscriber.			S	O
OLD_SN	Surname of the subscriber.			S	O
OLD_MAILADDRESS	The subscribers email address.			S	O
OLD_UID	User id of the subscriber.			S	O
OLD_MAILBOX_PW	Mailbox, WEB and WAP password.			S	O
OLD_NOTIFICATION_NUMBER	The subscribers notification number.			S	O
OLD_FAX_NUMBER	The subscribers fax number.			S	O
OLD_LANGUAGE	Language.			S	O
OLD_GENDER	The subscribers gender.			S	O
OLD_DATEFORMAT	Date format.			S	O
OLD_TIMEFORMAT	Time format.			S	O
OLD_TIMEZONE	The subscribers time zone.			S	O
OLD_PIN	Password for PIN (Telephoneaccesspassword).			S	O

Table 9: A_ERIC-MOIP_5-0_MOD_SUBSCRIBER-RB

Parameter Name	Description	Range	Default Value	Type	Class
OLD_SMPPCENTER	SMSC identifier.			S	O
OLD_MMSCENTER	MMSC identifier.			S	O
FAMILY_MEMBERS	The subscribers that belong to a family mailbox group.			C	O
DELIVERY_PROFILE	The delivery profiles allows a user to have different notification numbers for each notification type.			C	O
OLD_DISABLE_NOTIFICATION_TYPES	The notification types that should be disabled for the subscriber.			S	O
OLD_ADDRESSBOOK_SERVER	Set the addressbook server for the subscriber.			S	O
ATTENDANT_NUMBER	Coverage phonenumber for the subscriber.			S	C
AUTO_FORWARD_EMAIL_ADDRESS	Automatic forwarding email address.			S	C
MAILALTERNATEADDRESS	Alternative mail address.			C	O
MAILEQUIVALENTADDRESS	Equivalent email address.			C	O
OLD_DISABLE_SERVICES	The user services that should be disabled for the subscriber.			S	O
OLD_MSG_CHARENCODING	The message character encoding set for a subscriber.			S	O
OLD_BADLOGINCOUNT	Failed login attempts for a subscriber.			S	O

Table 9: A_ERIC-MOIP_5-0_MOD_SUBSCRIBER-RB

Parameter Name	Description	Range	Default Value	Type	Class
OLD_USERSTATUS	Sets the user to active or inactive.			S	O
OLD_FIRST_TIME_LOGIN	Sets the subscriber's first time login string.			S	O
OLD_ADMININFO	Administrator greeting message.			S	O

MML Commands

SET:MOIPSUB:TELEPHONENUMBER,<tfn-number>:<attribute-name>,<old-value>:<attribute-name>,<old-value>:<attribute-name>,DEF,<new-value>:<attribute-name>,DEL,<new-value>…;

where

<tfn-number> = Telephone number of the subscriber.

<old-value> = Old value for the attribute

<new-value> = Value for the attribute

<attribute-name> = Name of the attribute. Possible attribute names:

MSLOCATION

COSDN

MIN

PAGER_NOTIFICATION_STRING

CUSTOMERID

GIVENNAME

SN

MAILADDRESS

UID

MAILBOX_PW

PIN

NOTIFICATION_NUMBER

FAX_NUMBER

LANGUAGE

GENDER

DATEFORMAT

TIMEFORMAT

TIMEZONE

SMPPCENTER

MMSCENTER

DISABLE_NOTIFICATION_TYPES

ADDRESSBOOK_SERVER

ATTENDANT_NUMBER

AUTO_FORWARD_EMAIL_ADDRESS

DISABLE_SERVICES

MSG_CHARENCODING

BADLOGINCOUNT

Possible attribute names that can cause DEF or DEL:

FAMILY_MEMBERS

DELIVERY_PROFILE

MAILALTERNATEADDRESS

MAILEQUIVALENTADDRESS

ATTENDANT_NUMBER

AUTO_FORWARD_EMAIL_ADDRESS

Output parameters

ERMOIP_MOD_SUBSCRIBER_RB_ERR_CODE= User Exit Type

A_ERIC-MOIP_5-0_QRY_SUBSCRIBER

This service retrieves the attributes of a voice mail subscriber. It is implemented by the Java method **com.metasolv.cartridge.oss.eric_moip_5_0.prov.MoipProvisioning.qrySubscriber.**

Table 10: A_ERIC-MOIP_5-0_QRY_SUBSCRIBER

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	NE Logical ID.			S	R
TELEPHONENUMBER	Telephone number of the subscriber.			S	O
GIVENNAME	Given name of the subscriber.			S	O
SN	Surname of the subscriber.			S	O
UID	User id of the subscriber.			S	O
MAILADDRESS	The subscribers email address.			S	O
MIN	The subscribers MIN number.			S	O

MML Commands

GET:MOIPSUB[:TELEPHONENUMBER,<tfn-number>]

[:GIVENNAME,<Given Name>]

[:SN,<SN>]

[:UID,<UID>]

[:MAILADDRESS,<Mail Address>]

[:MIN,<MIN>];

where

<tfn-number> = Telephone number of the subscriber.

<Given Name> = First name of the subscriber.

<SN> = Last name of the subscriber.

<UID> = User id of the subscriber.

<Mail Address> = The subscriber e-mail address.

<MIN> = The subscribers MIN number.

Parameters inside brackets are optional parameters

Output parameters

ERMOIP_QRY_SUBSCRIBER_ERR_CODE= User Exit Type.

TELEPHONENUMBER

MAIL_HOST

MSLOCATION

COSDN

MIN

PAGER_NOTIFICATION_STRING

CUSTOMERID

GIVENNAME

SN

MAILADDRESS

UID

MAILBOX_PW

PIN

NOTIFICATION_NUMBER

FAX_NUMBER

LANGUAGE

GENDER

DATEFORMAT

TIMEFORMAT

TIMEZONE

SMPPCENTER

MMSCENTER

FAMILY_MEMBERS

DELIVERY_PROFILE

DISABLE_NOTIFICATION_TYPES

ADDRESSBOOK_SERVER

ATTENDANT_NUMBER

AUTO_FORWARD_EMAIL_ADDRESS

MAILALTERNATEADDRESS

MAILEQUIVALENTADDRESS

DISABLE_SERVICES

MSG_CHARENCODING

A_ERIC-MOIP_5-0_QRY_SUBSCRIBER-RB

This service retrieves the attributes of a voice mail subscriber for rollback functionality. It is implemented by the Java method **com.metasolv.cartridge.oss.eric_moip_5_0.prov.MoipProvisioning.qrySubscriberRb.**

Table 11: A_ERIC-MOIP_5-0_QRY_SUBSCRIBER-RB

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	NE Logical ID.			S	R
TELEPHONENUMBER	Telephone number of the subscriber.			S	R

MML Commands

GET:MOIPSUB:TELEPHONENUMBER,<tfn-number>;

where

<tfn-number> = Telephone number of the subscriber

Output parameters

ERMOIP_QRY_SUBSCRIBER_RB_ERR_CODE= User Exit Type.

OLD_MAILHOST

OLD_MSLOCATION

OLD_COSDN

OLD_MIN

OLD_PAGER_NOTIFICATION_STRING

OLD_CUSTOMERID

OLD_GIVENNAME

OLD_SN

OLD_MAILADDRESS

OLD_UID

OLD_MAILBOX_PW

OLD_PIN

OLD_NOTIFICATION_NUMBER

OLD_FAX_NUMBER

OLD_LANGUAGE

OLD_GENDER

OLD_DATEFORMAT

OLD_TIMEFORMAT

OLD_TIMEZONE

OLD_SMPPCENTER

OLD_MMSCENTER

OLD_DISABLE_NOTIFICATION_TYPES

OLD_ADDRESSBOOK_SERVER

OLD_ATTENDANT_NUMBER

OLD_AUTO_FORWARD_EMAIL_ADDRESS

OLD_DISABLE_SERVICES

OLD_MSG_CHARENCODING

OLD_BADLOGINCOUNT

OLD_USERSTATUS

OLD_FIRST_TIME_LOGIN

OLD_ADMININFO

A_ERIC-MOIP_5-0_VERIFY_SUBSCRIBER

This service verifies that a subscriber exists. It is implemented by the Java method **com.metasolv.cartridge.oss.eric_moip_5_0.prov.MoipProvisioning.verifySubscriber.**

Table 12: A_ERIC-MOIP_5-0_VERIFY_SUBSCRIBER

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	NE Logical ID.			S	R
TELEPHONENUMBER	Telephone number of the subscriber.			S	R
WAIT	Defines how 5 to 60 10 5 long time in seconds the provisioning interface will try to find the subscriber before returning a negative response.			S	O

MML Commands

VERIFY: TELEPHONENUMBER,<tfn-number>[,WAIT,<seconds>];

where

<tfn-number> = Telephone number of the subscriber.

<seconds> = The time to try to find the subscriber.

Parameters inside brackets are optional parameters.

Output parameters

ERMOIP_VERIFY_SUBSCRIBER_ERR_CODE= User Exit Type

A_ERIC-MOIP_5-0_VERIFY_USER

This service verifies the consistency of a subscriber. It is implemented by the Java method **com.metasolv.cartridge.oss.eric_moip_5_0.prov.MoipProvisioning.verifyUser**

Table 13: A_ERIC-MOIP_5-0_VERIFY_USER

Parameter Name	Description	Range	Default Value	Type	Class
MCLI	NE Logical ID.			S	R
TELEPHONENUMBER	Telephone number of the subscriber.			S	R

MML Commands

VERIFYUSER:TELEPHONENUMBER,<tfn-number>;

where

<tfn-number> = Telephone number of the subscriber

Output parameters

ERMOIP_VERIFY_USER_ERR_CODE= User Exit Type.

Verified OK:

All attributes are unique

All required attributes exists

All billingnumber entries exists

The COS is valid

The Greeting administrator is valid

Only digits in umpassword

Distributionlists:

mail=kompisar1@core.com

mail=kompisar12@core.com

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 Reference* and the ASAP Administration Guide.

Several different messages can occur while the user enters service orders. The switch provides error messages when the user enters a service order sequence. The switch also provides error messages when the user confirms a service order.

```
> CHF $ 7224272 1 SCA $ ACT $
This Local DN is not Unique
Please Use the Full National DN
7224272
*** Error ***
>
```

To configure the ASDL exit type for each error message, you can edit the error messages and the corresponding User defined ASDL Exit type mapped in the cartridge service model DMS100_UserDefined_Exit_Type.xml file.

The list of user defined exit types are given below:

Table 14:

Search Pattern	User Exit Type	Base Type	Description
((?s).)*RESP:0[;:]((?s).)*	ERMOIP_SUCCESS	SUCCEED	Success.
((?s).)*RESP:1[;:]((?s).)*	ERMOIP_OPR_ERROR	FAIL	Operations error.
((?s).)*RESP:2[;:]((?s).)*	ERMOIP_PROTOCOL_ERR	FAIL	Protocol error.
((?s).)*RESP:3[;:]((?s).)*	ERMOIP_TIME_EXCEED	FAIL	Time limit exceeded.

Table 14:

Search Pattern	User Exit Type	Base Type	Description
((?s).)*RESP:4[;:]((?s).)*	ERMOIP_SIZE_EXCEED	FAIL	Size limit exceeded.
((?s).)*RESP:5[;:]((?s).)*	ERMOIP_CMP_FALSE	FAIL	Compare false.
((?s).)*RESP:6[;:]((?s).)*	ERMOIP_CMP_TRUE	FAIL	Compare true.
((?s).)*RESP:7[;:]((?s).)*	ERMOIP_AUTH_NOSUP	FAIL	Auth Method not supported.
((?s).)*RESP:8[;:]((?s).)*	ERMOIP_AUTH_REQ	FAIL	Strong Auth required.
((?s).)*RESP:9[;:]((?s).)*	ERMOIP_PARTIAL_RSLT	FAIL	Partial result.
((?s).)*RESP:10[;:]((?s).)*	ERMOIP_REFERRAL	FAIL	Referral.
((?s).)*RESP:11[;:]((?s).)*	ERMOIP_ADMLT_EXCEED	FAIL	Admin limit exceeded.
((?s).)*RESP:12[;:]((?s).)*	ERMOIP_NO_CRT_EXT	FAIL	Unavailable critical extension.
((?s).)*RESP:13[;:]((?s).)*	ERMOIP_CONF_REQ	FAIL	Confidentiality required.
((?s).)*RESP:14[;:]((?s).)*	ERMOIP_SASL_INPRG	FAIL	Sasl bindin progress.
((?s).)*RESP:16[;:]((?s).)*	ERMOIP_NO_ATTR	FAIL	No such attribute.
((?s).)*RESP:17[;:]((?s).)*	ERMOIP_UNDEF_ATTR	FAIL	Undefined attribute type.
((?s).)*RESP:18[;:]((?s).)*	ERMOIP_NO_MATCH	FAIL	Inappropriate matching.
((?s).)*RESP:19[;:]((?s).)*	ERMOIP_CONS_VIOL	FAIL	Constraint violation.
((?s).)*RESP:20[;:]((?s).)*	ERMOIP_ATTRVAL_EXIST	FAIL	Attribute or value exists.

Table 14:

Search Pattern	User Exit Type	Base Type	Description
((?s).)*RESP:21[;:]((?s).)*	ERMOIP_INVLD_ATTR	FAIL	Invalid attribute syntax.
((?s).)*RESP:32[;:]((?s).)*	ERMOIP_NO_OBJ	FAIL	No such object.
((?s).)*RESP:33[;:]((?s).)*	ERMOIP_ALIAS_PROB	FAIL	Alias problem.
((?s).)*RESP:34[;:]((?s).)*	ERMOIP_INVLD_DN	FAIL	Invalid DN syntax.
((?s).)*RESP:36[;:]((?s).)*	ERMOIP_DEREF_PROB	FAIL	Alias dereferencing problem.
((?s).)*RESP:48[;:]((?s).)*	ERMOIP_INAPP_AUTH	FAIL	Inappropriate authentication.
((?s).)*RESP:49[;:]((?s).)*	ERMOIP_INVLD_CRED	FAIL	Invalid credentials.
((?s).)*RESP:50[;:]((?s).)*	ERMOIP_INSUF_RIGHTS	FAIL	Insufficient access rights.
((?s).)*RESP:51[;:]((?s).)*	ERMOIP_BUSY	RETRY	Busy.
((?s).)*RESP:52[;:]((?s).)*	ERMOIP_UNAVAIL	FAIL	Unavailable.
((?s).)*RESP:53[;:]((?s).)*	ERMOIP_UNWIL_PERF	FAIL	Unwilling to perform.
((?s).)*RESP:54[;:]((?s).)*	ERMOIP_LOOP_DET	FAIL	Loop detectd.
((?s).)*RESP:64[;:]((?s).)*	ERMOIP_NAM_VIOL	FAIL	Naming violation.
((?s).)*RESP:65[;:]((?s).)*	ERMOIP_OBJCLASS_VIOL	FAIL	Object class violation.
((?s).)*RESP:66[;:]((?s).)*	ERMOIP_NOALOW_NOLEAF	FAIL	Not allowed on nonleaf.

Table 14:

Search Pattern	User Exit Type	Base Type	Description
((?s).)*RESP:67[;:]((?s).)*	ERMOIP_NOALLOW_RDN	FAIL	Not allowed on RDN.
((?s).)*RESP:68[;:]((?s).)*	ERMOIP_ENTRY_EXISTS	FAIL	Entry already exists.
((?s).)*RESP:69[;:]((?s).)*	ERMOIP_MOD_PROHIBIT	FAIL	Object class mods prohibited.
((?s).)*RESP:71[;:]((?s).)*	ERMOIP_AFFECTS_DSAS	FAIL	Affects multiple dsas.
((?s).)*RESP:80[;:]((?s).)*	ERMOIP_OTHER	FAIL	Other.
((?s).)*RESP:5001[;:]((?s).)*	ERMOIP_DB_CONN_FAIL	FAIL	Connection to database failed.
((?s).)*RESP:5002[;:]((?s).)*	ERMOIP_INVLD_CREDNL	FAIL	Invalid credential.
((?s).)*RESP:5003[;:]((?s).)*	ERMOIP_INSUFF_PARM	FAIL	Insufficient parameters.
((?s).)*RESP:5004[;:]((?s).)*	ERMOIP_INVLD_CMD_SEQ	FAIL	Invalid command sequence.
((?s).)*RESP:5005[;:]((?s).)*	ERMOIP_UNSUP_CMD	FAIL	Unsupported command.
((?s).)*RESP:5006[;:]((?s).)*	ERMOIP_SUB_ALRD_EXT	FAIL	Subscription already exists/Data uniqueness violation.
((?s).)*RESP:5007[;:]((?s).)*	ERMOIP_TPN_ALRD_EXT	FAIL	Telephone number does already eist/ Data uniqueness violation.
((?s).)*RESP:5008[;:]((?s).)*	ERMOIP_SUB_NOT_DEF	FAIL	Subscriber is not defined.
((?s).)*RESP:5009[;:]((?s).)*	ERMOIP_OPER_TOUT	FAIL	Operation timed out.

Table 14:

Search Pattern	User Exit Type	Base Type	Description
((?s).)*RESP:5010[;:]((?s).)*	ERMOIP_VAL_ALRD_EXT	FAIL	Type or value already eists.
((?s).)*RESP:5011[;:]((?s).)*	ERMOIP_CNCUR_ACC_UID	FAIL	Failed to create a new subscription because of concurrent accessing of Unique Identifier Counter.
((?s).)*RESP:5012[;:]((?s).)*	ERMOIP_UNGET_VAL_UID	FAIL	Unable to get a valid Unique Identifier Counter.
((?s).)*RESP:5013[;:]((?s).)*	ERMOIP_MOD_ATTR_NALW	FAIL	Not allowed to modify attribute.
((?s).)*RESP:5014[;:]((?s).)*	ERMOIP_COS_NOT_FND	FAIL	Not possible to find the class of service.
((?s).)*RESP:5015[;:]((?s).)*	ERMOIP_SUB_NOT_REPL	FAIL	The Subscriber has not yet been replicated to a user directory server in the location of the subscriber's mailbox.
((?s).)*RESP:5016[;:]((?s).)*	ERMOIP_INVLD_PNUM	FAIL	Invalid phone number.
((?s).)*RESP:5017[;:]((?s).)*	ERMOIP_FXNM_ALRD_EXT	FAIL	Fax number already exist.
((?s).)*RESP:5018[;:]((?s).)*	ERMOIP_NOT_FND_MHOST	FAIL	Not possible to find the mailhost.
((?s).)*RESP:5020[;:]((?s).)*	ERMOIP_NOT_FND_SMSC	FAIL	Not possible to find the smscenter.
((?s).)*RESP:5021[;:]((?s).)*	ERMOIP_NOT_FND_MMSC	FAIL	Not possible to find the mmscenter.
((?s).)*RESP:5022[;:]((?s).)*	ERMOIP_NOT_FND_HOME	FAIL	Failed to execute verification, not possible to locate the home directory server for the subscriber.

Table 14:

Search Pattern	User Exit Type	Base Type	Description
((?s).)*RESP:5023[;:]((?s).)*	ERMOIP_UNSUPP_PARM	FAIL	Unsupported parameter.
((?s).)*RESP:5024[;:]((?s).)*	ERMOIP_LEN_SHORT	FAIL	Too few characters, three characters are minimum.
((?s).)*RESP:5025[;:]((?s).)*	ERMOIP_NALLD_SS_SRCH	FAIL	Not allowed substring search.
((?s).)*RESP:5026[;:]((?s).)*	ERMOIP_DEL_MBOX_FAIL	FAIL	Failed to delete mailbox.
((?s).)*RESP:5027[;:]((?s).)*	ERMOIP_ENCRY_PASS	FAIL	Couldn't encrypt the password.
((?s).)*RESP:5028[;:]((?s).)*	ERMOIP_INVLD_PASS	FAIL	The password isn't valid.
((?s).)*RESP:5029[;:]((?s).)*	ERMOIP_FMADD_NOT_EXT	FAIL	Partly failed, some added family members doesn't exist.
((?s).)*RESP:5030[;:]((?s).)*	ERMOIP_NO_MBOX_COS	FAIL	No family mailbox service in COS.
((?s).)*RESP:5031[;:]((?s).)*	ERMOIP_NO_MLINE_COS	FAIL	Partly failed, some added family members don't have multiline service in COS.
((?s).)*RESP:5032[;:]((?s).)*	ERMOIP_FM_NOT_EXT	FAIL	Partly failed, some family members doesn't exist.
((?s).)*RESP:5033[;:]((?s).)*	ERMOIP_NOT_ALWD_FM	FAIL	Not allowed to use a family member as a family group owner.
((?s).)*RESP:5034[;:]((?s).)*	ERMOIP_PWD_ENC_FAIL	FAIL	Failed to encrypt the password.
((?s).)*RESP:5035[;:]((?s).)*	ERMOIP_BLLNM_NOT_EXT	FAIL	Tried to delete a billingnumber that doesn't exists.

Table 14:

Search Pattern	User Exit Type	Base Type	Description
((?s).)*RESP:5036[;:]((?s).)*	ERMOIP_MAILBOX_LOCK	FAIL	The subscribers mailbox is locked.
((?s).)*RESP:5037[;:]((?s).)*	ERMOIP_FM_ALRD_EXT	FAIL	Some added family members already exists.
((?s).)*RESP:5038[;:]((?s).)*	ERMOIP_NMSUB_REACHED	FAIL	The maximum number of allowed subscribers for this mailhost has been reached.
((?s).)*RESP:5039[;:]((?s).)*	ERMOIP_INVLD_CHARSET	FAIL	Not possible to convert the character set.
((?s).)*RESP:5040[;:]((?s).)*	ERMOIP_FM_NOT_EXT_FM	FAIL	Partly failed, some family members doesn't exist as family members.
((?s).)*RESP:5041[;:]((?s).)*	ERMOIP_UNKN_CMD	FAIL	An unknown parameter was entered in the command.
((?s).)*RESP:5042[;:]((?s).)*	ERMOIP_FAIL_CHG_UID	FAIL	Failed to change uid on the subscribers mailbox.
((?s).)*RESP:5043[;:]((?s).)*	ERMOIP_INVD_VALUE	FAIL	Not valid value for the disabled notification types.
((?s).)*RESP:5044[;:]((?s).)*	ERMOIP_ADDBK_NOT_FND	FAIL	Not possible to find addressbook server.
((?s).)*RESP:5045[;:]((?s).)*	ERMOIP_NO_ADDBK_COS	FAIL	No addressbook service in COS.
((?s).)*RESP:5046[;:]((?s).)*	ERMOIP_ADDBK_NOT_SET	FAIL	Addressbook i server is not set either in the CAI command or configuration.
((?s).)*RESP:5047[;:]((?s).)*	ERMOIP_TIME_OUT	FAIL	The search has timed out, too much data is retrieved.
((?s).)*RESP:5048[;:]((?s).)*	ERMOIP_ACCESS_DENIED	FAIL	Access denied to perform this operation.

Table 14:

Search Pattern	User Exit Type	Base Type	Description
((?s).)*RESP:5049[;:]((?s).)*	ERMOIP_VL_NOT_EXT	FAIL	Tried to delete a value that doesn't exists.
((?s).)*RESP:5051[;:]((?s).)*	ERMOIP_INVLD_DATE	FAIL	Not a valid value for DateFormat.
((?s).)*RESP:5052[;:]((?s).)*	ERMOIP_DF_INVLD_DATE	FAIL	The default value for Dateformat in mur.config is not valid.
((?s).)*RESP:5053[;:]((?s).)*	ERMOIP_INLVD_PAR_VAL	FAIL	Invalid parameter value.
((?s).)*RESP:5054[;:]((?s).)*	ERMOIP_NOT_ALWD_GA	FAIL	Not allowed greeting administrator.
((?s).)*RESP:5055[;:]((?s).)*	ERMOIP_LOC_NOT_FOUND	FAIL	Not possible to find the location.
((?s).)*RESP:5056[;:]((?s).)*	ERMOIP_CLS_NOT_MATCH	FAIL	The class of service do not match location/mailhost.
((?s).)*RESP:5057[;:]((?s).)*	ERMOIP_NOT_ALWD_MBOX	FAIL	Not allowed mailhost.
((?s).)*RESP:5058[;:]((?s).)*	ERMOIP_GA_NOT_FOUND	FAIL	Not possible to find the greeting administrator.
((?s).)*RESP:5059[;:]((?s).)*	ERMOIP_VFYUSR_FAIL	FAIL	Verifyuser partly failed.
((?s).)*RESP:5999[;:]((?s).)*	ERMOIP_INTERNAL_ERR	FAIL	Internal error.
CAI>:	ERMOIP_LOOPBACK_OK	SUCCEED	Loopback succeed prompt.

Table 14:

Search Pattern	User Exit Type	Base Type	Description
((?s).)*Missing mandatory parameters - TELEPHONENUMBER, MAILHOST, MSLOCATION or COSDN((?s).)*	ERMOIP_PCE_MISSMPS	FAIL	The NE command was denied due to Provisioning cartridge Exception: Missing mandatory parameters: TELEPHONENUMBER, MAILHOST, MSLOCATION or COSDN.
((?s).)*Missing mandatory parameter - TELEPHONENUMBER((?s).)*	ERMOIP_PCE_MISSTN	FAIL	The NE command was denied due to Provisioning cartridge Exception: Missing mandatory parameter: TELEPHONENUMBER.
((?s).)*It is mandatory to set one of the following parameters: TELEPHONENUMBER, GIVENNAME, SURNAME, UID, MAILADDRESS or MIN((?s).)*	ERMOIP_PCE_SETPARM	FAIL	The NE command was denied due to Provisioning cartridge Exception: It is mandatory to set one of the following parameters: TELEPHONENUMBER, GIVENNAME, SURNAME, UID, MAILADDRESS or MIN.
((?s).)*IOException((?s).)	ERMOIP_IOEXCEPTION	RETRY_DIS	The NE command was denied due to IO exception.
((?s).)*TelnetException((?s).)*	ERMOIP_TELNETEXCEP	RETRY_DIS	The NE command was denied due to telnet exception.
((?s).)*Generic Exception((?s).)*	ERMOIP_GEN_EXPTION	FAIL	Generic exception.

4

Service Definition

The Ericsson MoIP (Message Over IP) 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 15: 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 15: 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 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 Administration Guide.*

CSDL Commands

This cartridge provides the following CSDL Commands:

- C_ERIC-MOIP_5-0_ADD_SUBSCRIBER
- C_ERIC-MOIP_5-0_DEL_SUBSCRIBER
- C_ERIC-MOIP_5-0_MOD_SUBSCRIBER
- C_ERIC-MOIP_5-0_QRY_SUBSCRIBER
- C_ERIC-MOIP_5-0_VERIFY_SUBSCRIBER
- C_ERIC-MOIP_5-0_VERIFY_USER

C_ERIC-MOIP_5-0_ADD_SUBSCRIBER

Adds a voice mail subscriber entry to the Ericsson MoIP with the given attributes.

Table 16: C_ERIC-MOIP_5-0_ADD_SUBSCRIBER

Parameter Name	Description	Range	Default Value	Type	Class
ADDRESSBOOK_SERVER	Set the addressbook server for the subscriber.			S	O
ATTENDANT_NUMBER	Coverage phonenumber for the subscriber.			S	O
AUTO_FORWARD_EMAIL_ADDRESS	Automatic forwarding email address.			S	O
BADLOGINCOUNT	Failed login attempts for a subscriber.			S	O
COSDN	The class of service a subscriber should belong to.			S	R
CUSTOMERID	Customer ID.			S	O
DATEFORMAT	Date format.			S	O
DELIVERY_PROFILE	The delivery profiles allows a user to have different notification numbers for each notification type.			S	O
DISABLE_NOTIFICATION_TYPES	The notification types that should be disabled for the subscriber.			S	O

Table 16: C_ERIC-MOIP_5-0_ADD_SUBSCRIBER

Parameter Name	Description	Range	Default Value	Type	Class
DISABLE_SERVICES	The user services that should be disabled for the subscriber.			S	O
FAMILY_MEMBERS	The subscribers that belong to a family mailbox group.			S	O
FAX_NUMBER	The subscribers fax number.			S	O
GENDER	The subscribers gender.			S	O
GIVENNAME	Given name of the subscriber.			S	O
LANGUAGE	Language.			S	O
MAILADDRESS	The subscribers email address.			S	O
MAILALTERNATEADDRESS	Alternative mail address.			S	O
MAILBOX_PW	Mailbox, WEB and WAP password.			S	O
MAILEQUIVALENTADDRESS	Equivalent email address.			S	O
MAILHOST	Subscribers mail address.			S	O
MIN	The subscribers MIN number.			S	O
MMSCENTER	MMSC identifier.			S	O
MSG_CHARENCODING	The message character encoding set for a subscriber.			S	O

Table 16: C_ERIC-MOIP_5-0_ADD_SUBSCRIBER

Parameter Name	Description	Range	Default Value	Type	Class
MSLOCATION	Move the subscriber to another community or region.			S	O
NE_ID_ERIC-MOIP	NE Logical ID.			S	R
NOTIFICATION_NUMBER	The subscribers notification number.			S	O
PAGER_NOTIFICATION_STRING	String containing the information needed to send a telephone number to the subscriber via a paging network.			S	O
PIN	Password for PIN (Telephoneaccesspassword).			S	O
SMPPCENTER	SMSC identifier.			S	O
SN	Surname of the subscriber.			S	O
TELEPHONENUMBER	Telephone number of the subscriber.			S	R
TIMEFORMAT	Time format.			S	O
TIMEZONE	The subscribers time zone.			S	O
UID	User id of the subscriber.			S	O

Mapping to ASDLs

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

Table 17: CSDL to ASDL Mapping

CSDL	ASDL
C_ERIC-MOIP_5-0_ADD_SUBSCRIBER	A_ERIC-MOIP_5-0_ADD_SUBSCRIBER

C_ERIC-MOIP_5-0_DEL_SUBSCRIBER

Deletes the given voice mail subcriber entry from the Ericsson MoIP.

Table 18: C_ERIC-MOIP_5-0_DEL_SUBSCRIBER

Parameter Name	Description	Range	Default Value	Type	Class
GIVENNAME	Given name of the subscriber.			S	O
MAILADDRESS	The subscribers email address.			S	O
MIN	The subscribers MIN number.			S	O
NE_ID_ERIC-MOIP	NE Logical ID.			S	R
SN	Surname of the subscriber.			S	O
TELEPHONENUMBER	Telephone number of the subscriber.			S	O
UID	User id of the subscriber.			S	O

Mapping to ASDLs

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

Table 19: CSDL to ASDL Mapping

CSDL	ASDL
C_ERIC-MOIP_5-0_DEL_SUBSCRIBER	A_ERIC-MOIP_5-0_QRY_SUBSCRIBER
C_ERIC-MOIP_5-0_DEL_SUBSCRIBER	A_ERIC-MOIP_5-0_DEL_SUBSCRIBER

C_ERIC-MOIP_5-0_MOD_SUBSCRIBER

Modifies a voice mail subscriber attributes in the Ericsson MoIP.

Table 20: C_ERIC-MOIP_5-0_MOD_SUBSCRIBER

Parameter Name	Description	Range	Default Value	Type	Class
ADDRESSBOOK_SERVER	Set the addressbook server for the subscriber.			S	O
ADMININFO	Administrator greeting message.			S	O
ATTENDANT_NUMBER	Coverage phonenumber for the subscriber.			S	C
AUTO_FORWARD_EMAIL_ADDRESS	Automatic forwarding email address.			S	C
BADLOGINCOUNT	Failed login attempts for a subscriber.			S	O
COSDN	The class of service a subscriber should belong to.			S	O
CUSTOMERID	Customer ID.			S	O
DATEFORMAT	Date format.			S	O

Table 20: C_ERIC-MOIP_5-0_MOD_SUBSCRIBER

Parameter Name	Description	Range	Default Value	Type	Class
DELIVERY_PROFILE	The delivery profiles allows a user to have different notification numbers for each notification type.			C	O
DISABLE_NOTIFICATION_TYPES	The notification types that should be disabled for the subscriber.			S	O
DISABLE_SERVICES	The user services that should be disabled for the subscriber.			S	O
FAMILY_MEMBERS	The subscribers that belong to a family mailbox group.			C	O
FAX_NUMBER	The subscribers fax number.			S	O
FIRST_TIME_LOGIN	Sets the subscriber's first time login string.			S	O
GENDER	The subscribers gender.			S	O
GIVENNAME	Given name of the subscriber.			S	O
LANGUAGE	Language.			S	O
MAILADDRESS	The subscribers email address.			S	O
MAILALTERNATEADDRESS	Alternative mail address.			C	O
MAILBOX_PW	Mailbox, WEB and WAP password.			S	O
MAILEQUIVALENTADDRESS	Equivalent email address.			C	O

Table 20: C_ERIC-MOIP_5-0_MOD_SUBSCRIBER

Parameter Name	Description	Range	Default Value	Type	Class
MAILHOST	Subscribers mail address.			S	O
MIN	The subscribers MIN number.			S	O
MMSCENTER	MMSC identifier.			S	O
MSG_CHARENCODING	The message character encoding set for a subscriber.			S	O
MSLOCATION	Move the subscriber to another community or region.			S	O
NE_ID_ERIC-MOIP	NE Logical ID.			S	R
NOTIFICATION_NUMBER	The subscribers notification number.			S	O
PAGER_NOTIFICATION_STRING	String containing the information needed to send a telephone number to the subscriber via a paging network.			S	O
PIN	Password for PIN (Telephoneaccesspassword).			S	O
SMPPCENTER	SMSC identifier.			S	O
SN	Surname of the subscriber.			S	O
TELEPHONENUMBER	Telephone number of the subscriber.			S	R
TIMEFORMAT	Time format.			S	O
TIMEZONE	The subscribers time zone.			S	O

Table 20: C_ERIC-MOIP_5-0_MOD_SUBSCRIBER

Parameter Name	Description	Range	Default Value	Type	Class
UID	User id of the subscriber.			S	O
USERSTATUS	Sets the user to active or inactive.			S	O

Mapping to ASDLs

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

Table 21: CSDL to ASDL Mapping

CSDL	ASDL
C_ERIC-MOIP_5-0_MOD_SUBSCRIBER	A_ERIC-MOIP_5-0_QRY_SUBSCRIBER-RB
	A_ERIC-MOIP_5-0_MOD_SUBSCRIBER

C_ERIC-MOIP_5-0_QRY_SUBSCRIBER

Retrieves the attributes of a voice mail subscriber.

Table 22: C_ERIC-MOIP_5-0_QRY_SUBSCRIBER

Parameter Name	Description	Range	Default Value	Type	Class
GIVENNAME	Given name of the subscriber.			S	O
MAILADDRESS	The subscribers email address.			S	O
MIN	The subscribers MIN number.			S	O
NE_ID_ERIC-MOIP	NE Logical ID.			S	R
SN	Surname of the subscriber.			S	O

Table 22: C_ERIC-MOIP_5-0_QRY_SUBSCRIBER

Parameter Name	Description	Range	Default Value	Type	Class
TELEPHONENUMBER	Telephone number of the subscriber.			S	O
UID	User id of the subscriber.			S	O

Mapping to ASDLs

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

Table 23: CSDL to ASDL Mapping

CSDL	ASDL
C_ERIC-MOIP_5-0_QRY_SUBSCRIBER	A_ERIC-MOIP_5-0_QRY_SUBSCRIBER

C_ERIC-MOIP_5-0_VERIFY_SUBSCRIBER

Verify that a subscriber exists.

Table 24: C_ERIC-MOIP_5-0_VERIFY_SUBSCRIBER

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_ERIC-MOIP	NE Logical ID.			S	R
TELEPHONENUMBER	Telephone number of the subscriber.			S	R
WAIT	Defines how 5 to 60 10 5 long time in seconds the provisioning interface will try to find the subscriber before returning a negative response.			S	O

Mapping to ASDLs

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

Table 25: CSDL to ASDL Mapping

CSDL	ASDL
C_ERIC-MOIP_5-0_VERIFY_SUBSCRIBER	A_ERIC-MOIP_5-0_VERIFY_SUBSCRIBER

C_ERIC-MOIP_5-0_VERIFY_USER

Verify the consistency of a subscriber.

Table 26: C_ERIC-MOIP_5-0_VERIFY_USER

Parameter Name	Description	Range	Default Value	Type	Class
NE_ID_ERIC-MOIP	NE Logical ID.			S	R
TELEPHONENUMBER	Telephone number of the subscriber.			S	R

Mapping to ASDLs

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

Table 27: CSDL to ASDL Mapping

CSDL	ASDL
C_ERIC-MOIP_5-0_VERIFY_USER	A_ERIC-MOIP_5-0_VERIFY_USER

5

Configuring ASAP to Support Additional NE Instances

You can configure ASAP to support the ERIC-MOIP_5-0-HOST - NEP configuration using the Service Activation Configuration Tool (SACT). Refer to the *ASAP Administration Guide* fore more information.

Below is an example of the Activation.Configuration.xml file for the Ericsson MoIP (Message Over IP) cartridge.

```
<?xml version="1.0" encoding="UTF-8"?>
<activationConfig xmlns="http://www.metasolv.com/ServiceActivation/
  2003/ActivationConfig" xmlns:cfg="http://www.mslv.com/studio/acti-
  vation/model/config" xmlns:route="http://www.mslv.com/studio/acti-
  vation/model/routing" xmlns:sm="http://www.metasolv.com/
  ServiceActivation/2003/ServiceModel" xmlns:xsi="http://www.w3.org/
  2001/XMLSchema-instance">
<connectionPool name="ERMP50PL">
   <device name="eric_moip_5_0_telnet_dev1">
      <environment/>
      <lineType>TELNET_CONNECTION</lineType>
   </device>
</connectionPool>
<element name="ERIC-MOIP_5-0-HOST">
   <vendor>ERIC</vendor>
   <technology>MOIP</technology>
   <softwareLoad>5-0</softwareLoad>
   <nepServerName>$NEP</nepServerName>
   <primaryPool>ERMP50PL</primaryPool>
   <maximumConnections>1</maximumConnections>
   <dropTimeout>2</dropTimeout>
   <spawnThreshold>10</spawnThreshold>
   <killThreshold>8</killThreshold>
   <routingElement name="ERIC-MOIP_5-0-HOST"/>
      <communicationParameter>
         <label>HOST_IPADDR</label>
         <value>
             <value>127.0.0.1</value>
         </value>
         <description>The network IP Address for the network ele
         ment.</description>
            <lineType>TELNET_CONNECTION</lineType>
      </communicationParameter>
      <communicationParameter>
         <label>HOST_PASSWORD</label>
         <value>
```

```
      <value>Password</value>
   </value>
   <description>Password for the User.</description>
   <lineType>TELNET_CONNECTION</lineType>
</communicationParameter>
<communicationParameter>
   <label>LOGIN_PROMPT</label>
   <value>
      <value>Login:</value>
   </value>
   <description>Login Prompt for the NE.</description>
   <lineType>TELNET_CONNECTION</lineType>
</communicationParameter>
<communicationParameter>
   <label>PASSWORD_PROMPT</label>
   <value>
      <value>password:</value>
   </value>
   <description>Password prompt for the NE.</description>
   <lineType>TELNET_CONNECTION</lineType>
</communicationParameter>
<communicationParameter>
   <label>OPEN_TIMEOUT</label>
   <value>
      <value>5</value>
   </value>
   <description>Connection timeout in seconds.</description>
   <lineType>TELNET_CONNECTION</lineType>
</communicationParameter>
<communicationParameter>
   <label>READ_TIMEOUT</label>
   <value>
      <value>2</value>
   </value>
   <description>Read timeout in seconds.</description>
   <lineType>TELNET_CONNECTION</lineType>
</communicationParameter>
<communicationParameter>
   <label>PROMPT</label>
   <value>
      <value>Enter Command:</value>
   </value>
   <description>LOGIN Provisioning prompt.</description>
   <lineType>TELNET_CONNECTION</lineType>
</communicationParameter>
<communicationParameter>
   <label>RESPONSE_LOG</label>
   <value>
      <value>TRUE</value>
   </value>
   <description>Flag enables/disables response log.</descrip
   tion>
   <lineType>TELNET_CONNECTION</lineType>
</communicationParameter>
<communicationParameter>
   <label>CAI_USERID</label>
   <value>
```

```
            <value>User</value>
         </value>
         <description>Login CAI user name.</description>
         <lineType>TELNET_CONNECTION</lineType>
      </communicationParameter>
      <communicationParameter>
         <label>CAI_PASSWORD</label>
         <value>
            <value>Password</value>
         </value>
         <description>Password for CAI User.</description>
         <lineType>TELNET_CONNECTION</lineType>
      </communicationParameter>
      <communicationParameter>
         <label>USE_LOGIN</label>
         <value>
            <value>FALSE</value>
         </value>
         <description>Flag to use login.</description
         <lineType>TELNET_CONNECTION</lineType>
      </communicationParameter>
      <communicationParameter>
         <label>USE_CAI_PROMPT</label>
         <value>
            <value>TRUE</value>
         </value>
         <description>Flag to use CAI prompt.</description>
         <lineType>TELNET_CONNECTION</lineType>
      </communicationParameter>
      <communicationParameter>
         <label>CAI_PROMPT</label>
         <value>
            <value>CAI&gt;:</value>
         </value>
         <description>CAI Provisioning prompt.</description>
         <lineType>TELNET_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 //Cisco_IOS_12_X, copy the .sar file to the new directory and un-jar the sar file, as described in "Loading a new XML file" on page 62.
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 "Loading a new XML file" on page 62 for directions on how to load a new XML file.

Appendix A

FAMILY_MEMBERS Compound Parameter

This parameter is used to define the subscribers that belong to a family mailbox group. The format of the compound structure is:

```
FAMILY_MEMBERS[i].ATTRIBUTE_VALUE
FAMILY_MEMBERS[i].OPERATION
```

Where i = 1 to n

ATTRIBUTE_VALUE = value to be defined or deleted

OPERATION = action to be performed i.e. DEF or DEL.

For example:

```
FAMILY_MEMBERS[1].ATTRIBUTE_VALUE = 766754321
FAMILY_MEMBERS[1].OPERATION = DEF
FAMILY_MEMBERS[2].ATTRIBUTE_VALUE = 766754322
FAMILY_MEMBERS[2].OPERATION = DEF
FAMILY_MEMBERS[2].ATTRIBUTE_VALUE = 766754323
FAMILY_MEMBERS[2].OPERATION = DEL
```

MML COMMAND:

```
FAMILY_MEMBERS,DEF,766754321,DEF,766754322,DEL,766754323;
```

DELIVERY_PROFILE Compound Parameter

The delivery profile allows a user to have different notification numbers for each notification type. The format of the compound structure is:

```
DELIVERY_PROFILE[i].ATTRIBUTE_VALUE
DELIVERY_PROFILE[i].OPERATION
Where i = 1 to n
ATTRIBUTE_VALUE = value to be defined or deleted
OPERATION = action to be performed i.e. DEF or DEL.
```

For example:

DELIVERY_PROFILE[1].ATTRIBUTE_VALUE = 888222;MMS;M

DELIVERY_PROFILE[1].OPERATION = DEF

DELIVERY_PROFILE[2].ATTRIBUTE_VALUE = 070123456;SMS;M

DELIVERY_PROFILE[2].OPERATION = DEL

MML COMMAND:

DELIVERY_PROFILE,DEF,"888222;MMS;M",DEL,"070123456;SMS;M";

MAILALTERNATEADDRESS Compound Parameter

Alternative mail address. The format of the compound structure is:

MAILALTERNATEADDRESS[i].ATTRIBUTE_VALUE

MAILALTERNATEADDRESS[i].OPERATION

Where i = 1 to n

ATTRIBUTE_VALUE = value to be defined or deleted

OPERATION = action to be performed i.e. DEF or DEL.

For example:

MAILALTERNATEADDRESS[1].ATTRIBUTE_VALUE = kalle@mobeon.com

MAILALTERNATEADDRESS[1].OPERATION = DEF

MAILALTERNATEADDRESS[2].ATTRIBUTE_VALUE = pelle@mobeon.com
MAILALTERNATEADDRESS[2].OPERATION = DEL

MML COMMAND:

MAILALTERNATEADDRESS,DEF,kalle@mobeon.com,DEL,pelle@mobeon.com;

MAILEQUIVALENTADDRESS Compound Parameter

Equivalent email address. The format of the compound structure is :

MAILEQUIVALENTADDRESS[i].ATTRIBUTE_VALUE

MAILEQUIVALENTADDRESS[i].OPERATION

Where i = 1 to n

ATTRIBUTE_VALUE = value to be defined or deleted

OPERATION = action to be performed i.e. DEF or DEL.

For example:

MAILEQUIVALENTADDRESS[1].ATTRIBUTE_VALUE = kalle@mobeon.com

MAILEQUIVALENTADDRESS[1].OPERATION = DEF

MAILEQUIVALENTADDRESS[2].ATTRIBUTE_VALUE = pelle@mobeon.com
MAILEQUIVALENTADDRESS[2].OPERATION = DEL

MML COMMAND:

```
MAILEQUIVALENTADDRESS,DEF,kalle@mobeon.com,DEL,pelle@mobeon.com;
```

ATTENDANT_NUMBER

This parameter is used to define the automatic forwarding email address. The format of the compound structure is:

ATTENDANT_NUMBER [i].ATTRIBUTE_VALUE

ATTENDANT_NUMBER [i].OPERATION

Where i = 1 to n

ATTRIBUTE_VALUE = value to be defined or deleted

OPERATION = action to be performed i.e. DEF or DEL.

For example:

ATTENDANT_NUMBER [1].ATTRIBUTE_VALUE = 5510100969

ATTENDANT_NUMBER [1].OPERATION = DEF

ATTENDANT_NUMBER [2].ATTRIBUTE_VALUE = 5510100970

ATTENDANT_NUMBER [2].OPERATION = DEF

ATTENDANT_NUMBER [3].ATTRIBUTE_VALUE = 5510100971

ATTENDANT_NUMBER [3].OPERATION = DEL

MML COMMAND:

ATTENDANT_NUMBER,DEF, 5510100969,DEF, 5510100970,DEL, 5510100971;

AUTO_FORWARD_EMAIL_ADDRESS Compound Parameter

This parameter is used to define the automatic forwarding email address. The format of the compound structure is:

AUTO_FORWARD_EMAIL_ADDRESS [i].ATTRIBUTE_VALUE

AUTO_FORWARD_EMAIL_ADDRESS [i].OPERATION

Where i = 1 to n

ATTRIBUTE_VALUE = value to be defined or deleted

OPERATION = action to be performed i.e. DEF or DEL.

For example:

AUTO_FORWARD_EMAIL_ADDRESS [1].ATTRIBUTE_VALUE = 525510100969@mu.telcel1.com

AUTO_FORWARD_EMAIL_ADDRESS [1].OPERATION = DEF

AUTO_FORWARD_EMAIL_ADDRESS [2].ATTRIBUTE_VALUE = 525510100970@mu.telcel1.com

AUTO_FORWARD_EMAIL_ADDRESS [2].OPERATION = DEL

MML COMMAND:

AUTO_FORWARD_EMAIL_ADDRESS,DEF,525510100969@mu.telcel1.com,DEL,525510100969@mu.telcel1.com