

**Oracle® Communications
Subscriber Data Management**

Interface Change Description

Release 9.3

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ORACLE®

Oracle® Communications Interface Change Description, Release 9.3

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Table of Contents

1.0 INTRODUCTION	4
1.1 Purpose	4
1.2 References	4
1.3 Acronyms	4
2.0 GLOBAL CHANGES	5
2.1 Global Per-Subscriber Provisioning Changes:	5
2.2 Global System Provisioning Changes:	5
2.3 Features impacting System configuration or operation:	5
2.4 Features impacting other interfaces:	5
3.0 HLR APPLICATION SPECIFIC FEATURES	6
3.1 Changes impacting Per-Subscriber provisioning interface	6
3.2 Changes impacting System Configuration:	6
3.3 Service Node configuration Changes impacting SS7 protocol interface:	6
4.0 SIP APPLICATION SPECIFIC FEATURES	7
4.1 Features impacting the XML provisioning interface	7
4.2 Changes impacting WebCI or BlueCLI or operation of existing features:	7
4.3 Changes impacting SIP protocol interface:	7
5.0 HSS APPLICATION SPECIFIC FEATURES	8
5.1 Features impacting the XML provisioning interface	8
5.2 Changes impacting WebCI or BlueCLI or operation of existing features:	8
5.3 Changes impacting Diameter protocol interface:	8
6.0 AAA APPLICATION SPECIFIC FEATURES	9
6.1 Features impacting the XML provisioning interface	9
6.2 Changes impacting WebCI or BlueCLI or operation of existing features:	9
6.3 Changes impacting RADIUS protocol interface:	9
7.0 SPR APPLICATION SPECIFIC FEATURES	10
7.1 Features impacting the XML provisioning interface	10
7.2 Features impacting the RESTful provisioning interface	10
7.3 Features impacting the ISIS provisioning interface	10
7.4 Changes impacting WebCI or BlueCLI or operation of existing features:	11
7.4.1 HSS SPR Configuration	11
7.4.2 SPR	11
7.4.3 Accessing SPR provisioning logs	11
7.5 Changes impacting Diameter protocol interface:	11
8.0 CHANGES IN ALARMS	12
8.1 Removed Alarms	12
8.2 New Alarms	12
8.3 Changed Alarms	12
9.0 CHANGES TO COUNTERS	13
9.1 New Counters	13
10.0 ERRORS	14
10.1 New errors	14

1.0 INTRODUCTION

1.1 PURPOSE

The purpose of this document is to allow current operators planning to upgrade from release 9.0 to plan the adaptation of their current operations to the new Release 9.3 interfaces.

Releases 9.1 and 9.2 were focused on HLR and LTE-HSS support only.

Note that Release 9.3 is focused on SPR.

SDM Release 9.3 aims to deliver the following key areas:

1. SPR Database Extraction Tool.
2. SPR Provisioning Logging mechanism.
3. Provisioning row and field level data for DynamicQuota and State data.
4. Handling multiple Quota instances with the same name.

This document describes the interface changes introduced in the Release 9.3 of the SDM product.

This document also lists the existing features configuration (or operation) that was modified by release 9.3 features.

Unless specified in this document, all new features introduced in a new release are turned off by default. Please refer to the Reference Manual for description and configuration information for these new features. Unless there is an impact on the configuration or operation of existing features, new features included in a given release are NOT detailed nor listed in this document.

Note that if provisioning templates are used by a provisioning system, the requests used for the template definitions MUST also be modified accordingly.

1.2 REFERENCES

N/A

1.3 ACRONYMS

N/A

2.0 GLOBAL CHANGES

This section contains the description of changes included in **release 9.3** that are NOT application specific. In other words, all systems upgraded to release 9.3 will be impacted by the modifications described in this section.

2.1 GLOBAL PER-SUBSCRIBER PROVISIONING CHANGES:

There are no global per subscriber provisioning changes impacting the XML provisioning interface in release 9.3.

2.2 GLOBAL SYSTEM PROVISIONING CHANGES:

This section contains the description of feature changes impacting the WebCI and/or CLI but that do NOT impact the per-subscriber provisioning interface.

Note that new WebCI pages or new feature configuration is NOT included in this section.

2.3 FEATURES IMPACTING SYSTEM CONFIGURATION OR OPERATION:

There are changes to the SPR. These are detailed in the following sections:

- 7.0 SPR application specific features.

2.4 FEATURES IMPACTING OTHER INTERFACES:

3.0 HLR APPLICATION SPECIFIC FEATURES

This section contains the description of feature changes included in release 9.3 that that are specific to the HLR application.

There are no changes to this section because release 9.3 focused on SPR only.

3.1 CHANGES IMPACTING PER-SUBSCRIBER PROVISIONING INTERFACE

None in 9.3.

3.2 CHANGES IMPACTING SYSTEM CONFIGURATION:

None in 9.3.

3.3 SERVICE NODE CONFIGURATION CHANGES IMPACTING SS7 PROTOCOL INTERFACE:

None in 9.3.

4.0 SIP APPLICATION SPECIFIC FEATURES

This section contains the description of feature changes included in release 9.3 that that are specific to the SIP application.

4.1 FEATURES IMPACTING THE XML PROVISIONING INTERFACE

None in 9.3.

4.2 CHANGES IMPACTING WEBCI OR BLUECLI OR OPERATION OF EXISTING FEATURES:

None in 9.3.

4.3 CHANGES IMPACTING SIP PROTOCOL INTERFACE:

None in 9.3.

5.0 HSS APPLICATION SPECIFIC FEATURES

This section contains the description of feature changes included in release 9.3 that that are specific to the HSS application.

5.1 FEATURES IMPACTING THE XML PROVISIONING INTERFACE

None in 9.3.

5.2 CHANGES IMPACTING WEBCI OR BLUECLI OR OPERATION OF EXISTING FEATURES:

None in 9.3.

5.3 CHANGES IMPACTING DIAMETER PROTOCOL INTERFACE:

None in 9.3.

6.0 AAA APPLICATION SPECIFIC FEATURES

This section contains the description of feature changes included in release 9.3 that that are specific to the AAA application.

6.1 FEATURES IMPACTING THE XML PROVISIONING INTERFACE

None in 9.3.

6.2 CHANGES IMPACTING WEBCI OR BLUECLI OR OPERATION OF EXISTING FEATURES:

None in 9.3.

6.3 CHANGES IMPACTING RADIUS PROTOCOL INTERFACE:

None in 9.3.

7.0 SPR APPLICATION SPECIFIC FEATURES

This section contains the description of feature changes included in release 9.3 that that are specific to the SPR application.

Examples were added to the following sections:

- SPR Subscriber Provisioning (XML)
 - SPR Subscriber Quota provisioning (XML)
 - SPR Subscriber State provisioning (XML)
 - SPR Subscriber DynamicQuota provisioning (XML)

- SPR Subscriber Provisioning (XML-REST)
 - SPR Subscriber Quota provisioning (XML-REST)
 - SPR Subscriber State provisioning (XML-REST)
 - SPR Subscriber DynamicQuota provisioning (XML-REST)

7.1 FEATURES IMPACTING THE XML PROVISIONING INTERFACE

Examples were added to:

- SPR Subscriber Provisioning (XML)
 - SPR Subscriber Quota provisioning (XML)
 - SPR Subscriber State provisioning (XML)
 - SPR Subscriber DynamicQuota provisioning (XML)

7.2 FEATURES IMPACTING THE RESTFUL PROVISIONING INTERFACE

Examples were added to:

- SPR Subscriber Provisioning (XML-REST)
 - SPR Subscriber Quota provisioning (XML-REST)
 - SPR Subscriber State provisioning (XML-REST)
 - SPR Subscriber DynamicQuota provisioning (XML-REST)

7.3 FEATURES IMPACTING THE ISIS PROVISIONING INTERFACE

This interface is no longer being used.

7.4 CHANGES IMPACTING WEBCI OR BLUECLI OR OPERATION OF EXISTING FEATURES:

7.4.1 HSS SPR Configuration

In the HSS SPR Configuration a number of new attributes have been added to dynamically configure SPR logging provisioning and retrieval requests.

To switch the SPR Provisioning Log feature on and off:

- ProvLogEnabled Flag
 - 0= Off. The SPR provisioning logging feature is disabled. Does not log provisioning requests processed by the SPR.
 - 1= On. All provisioning requests by the SPR are logged.

To log attempts to retrieve subscriber profile information:

- ProvLogSelectEnabledFlag
 - 0=Off. Does not log attempts to retrieve subscriber profile information.
 - 1=On. Logs attempts to retrieve subscriber profile information.

To define maximum values:

- ProvLogMaxFileSize: The maximum size per log file.
- ProvLogNumRotatedFiles: The maximum number of log files kept for rotation.

7.4.2 SPR

A new table has been added to the database.

- DbxConfig

This table defines the attributes to configure the Database Extraction Tool.

7.4.3 Accessing SPR provisioning logs

To access and view the SPR provisioning logs:

In the CLI type `cd /blue/var/log/csv` and `more.provlog.csv` to access the current log.

7.5 CHANGES IMPACTING DIAMETER PROTOCOL INTERFACE:

None in 9.3.

8.0 CHANGES IN ALARMS

This section describes which alarms have been added, removed and changed in release 9.3 compared to release 9.2. For detailed Alarm information please refer to the SDM Alarm Dictionary.

8.1 REMOVED ALARMS

No alarms were removed in release 9.3.

8.2 NEW ALARMS

The following alarms were added:

The following Framework Alarms were added for the SPR Database Extraction Tool feature:

No.	Name	Description	Severity
4115	ToolStart	The Database extraction tool has been started.	Warning
4116	ToolComplete	The Database extraction tool has completed an extraction.	Warning
4117	ToolInterrupted	The Database extraction tool was interrupted.	Warning
4121	DbConnectionError	The Database extraction tool failed to connect to the database server.	Warning
4122	ExtractDataError	The Database extraction tool failed to extract data.	Warning
4123	OutputFileError	The Database extraction tool failed to open an output file.	Warning
4124	OutputDirError	The Database extraction tool failed to create an output directory.	Warning
4125	ArgumentMissing	The Database extraction tool detected a missing input argument.	Warning
4126	DiskThresholdCrossed	The Database extraction tool was interrupted because a storage threshold was crossed.	Warning
4127	CpuSystemThresholdCrossed	The Database extraction tool was interrupted because an overall CPU usage threshold was crossed.	Warning
4128	CpuDbThresholdCrossed	The Database extraction tool interrupted because a database CPU usage threshold was crossed.	Warning
4129	RemoteHostTransferFailed	The Database extraction tool failed to transfer data to the remote host.	Warning

8.3 CHANGED ALARMS

None in 9.3.

9.0 CHANGES TO COUNTERS

This section describes which counters have been added, removed and changed in release 9.3 compared to release 9.2. For detailed counter information please refer to the SDM Performance Measurements document.

9.1 NEW COUNTERS

None in 9.3.

10.0 ERRORS

This section describes which errors have been added, removed and changed in release 9.3 compared to release 9.2. For detailed error information please refer to the SDM Monitoring, Maintaining and Troubleshooting Reference Manual.

10.1 NEW ERRORS

The following new errors were added to Framework Error Notifications for the SPR Database Extraction Tool feature:

ID	Notification Name	Description
4106	AlreadyStarted	Database extraction tool is already started. No config change is allowed
4107	NotStarted	Database extraction tool is not started yet
4108	InternalFailed	Database extraction tool experienced an internal failure
4109	StillRunning	Database extraction tool is still running
4110	KeyNotSupported	Database extraction tool does not support service key provided
4111	MixServiceNotSupported	Database extraction tool does not support mix services (pool and non-pool)
4112	InvalidHostIp	Database extraction tool detects invalid remote host IP
4113	MissingRangeValue	Database extraction tool requires range value
4114	MissingHostAuth	Database extraction tool requires remote host authentication data (user and password)
4118	ServiceListEmpty	Database extraction tool detects empty service list table