

Oracle® Communications Service Controller

Release Notes

Release 6.1

E29456-01

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This document provides release notes for Oracle Communications Service Controller 6.1.

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New Features

This section describes new features and feature enhancements in this release of Service Controller.

Sample Applications

To help developers build their own applications on top of Service Controller, Service Controller is provided with a set of sample applications:

- Local Number Portability (LNP)
- Ring Back Tone (RBT)
- Screening
- Location Service
- Presence

Installation of the sample applications is optional. To install the sample applications, select the sample applications in the installation wizard, in the **Available Product Components** screen.

For more information see the discussion on sample applications in *Oracle Communications Service Broker SIP Developer's Guide*.

Session Tracing Tool

The session tracing tool lets you trace an individual session when it runs through the Service Controller's components.

For more information, see the discussion about tracing sessions in *Oracle Communications Service Broker System Administrator's Guide*.

Unified Configuration MBeans Naming Convention

The name of all of the Service Controller's configuration MBeans have been unified. Configuration MBeans have been renamed as follows:

MBeans of type=com.convergin are now of type=oracle.axia.cm.ConfigurationMBean
MBean attributes are now represented by individual MBeans
Hyphens (-) and underscores (_) have been replaced by capital letters.

Examples:

```
remote_system_reconnect_period is now remoteSystemReconnectPeriod  
info-keep-alive-interval is now infoKeepAliveInterval  
announcement-info-table is now announcementInfoTable  
x_wcs_additional_header_content is now xwcsAdditionalHeaderContent
```

IM-UIX-USSD Module

A new network-facing module was added, IM-UIX-USSD SMPP, that enables Service Controller to send USSD messages to Short Message Service Centers (SMSCs) through the Short Message Peer-to-Peer Protocol (SMPP).

For more information, see the discussion on configuring the IM-UIX-USSD SMPP module, in *Oracle Communications Service Broker Modules Configuration Guide*.

SMS Support in IM-SSF CAP3

The IM-SSF CAP3 module now supports SMSs, and you can configure how IM-SSF CAP3 handles SMS messages.

For more information, see the chapter about IM-SSF CAP3 in *Oracle Communications Service Broker Modules Configuration Guide*.

Orchestration Logic No Longer Requires an Initial Condition Node

When you build an orchestration logic in the Orchestration Studio, you are no longer required to start the orchestration logic with a Condition node.

Orchestration Logic Supports Merging Conditional Routes

In the Orchestration Studio, a node (IM or Condition) can be added that accepts a flow from two other different nodes. This allows merging conditional routes, that were previously split, back to a single flow.

For more information about merging conditional routes, see "Building an Orchestration Logic Flow" in *Oracle Communications Service Broker Orchestration User's Guide*.

Routing Based on Parameters in the Headers and Body of an Incoming Message

Criteria in the orchestration logic can now be based on any parameter in the message, including parameters in either the header or body of the message. You specify the parameter that needs to be matched using an XPath expression. The structure of messages of the various supported protocols is described in XSD files provided by the Service Controller installation.

For more information about checking parameters in the body of messages, see the discussion on building orchestration logic with the Orchestration Studio in *Oracle Communications Service Broker Orchestration User's Guide*.

Improved SIP SSU Configuration Screens

The SIP SSU configuration screens now provide a more convenient way to configure SIP network access points.

For more information about configuring SIP network access points, see the chapter about the SIP SSU in *Oracle Communications Service Broker Signaling Server Units Configuration Guide*.

SS7 SSU Monitoring

You can now configure runtime MBeans and notifications for monitoring the SS7 SSU. Monitoring is available for both the SIGTRAN SS7 SSU, and the TDM SS7 SSU.

See *Oracle Communications Service Broker Signaling Service Units Configuration Guide* for more information.

Exchanging Charging Information with a SIP Application Using a Charging Info Body

ChargingInfo in the body of SIP messages is now supported. This allows exchange of charging information between Service Controller and SIP applications, in addition to the already supported XER representation of CAP charging operations.

For more information about using a ChargingInfo body, see the discussion on developing a SIP charging application in *Oracle Communications Service Broker SIP Developer's Guide*.

T7 and T9 SIP Timers Support in IM-SCF CAP and IM-SSF CAP

In addition to the ability to specify T7 and T9 SIP timers in IM-ASF and R-IM-ASF using the Administration Console, you can now specify these timers in the IM-SCF and IM-SSF configuration using configuration MBeans.

For more information on configuring T7 and T9 timers, see the chapters about the IM-SCF module and IM-SSF module, in *Oracle Communications Service Broker Modules Configuration Guide*.

CAP PlayTone and PromptAndCollect Support on MSCML

In previous releases, SIP applications could place a XER or BER representation of the CAP PlayTone operation and the CAP PromptAndCollect operation, inside SIP INFO messages. In this release, MSCML representation is also supported.

For more information on using MSCML for sending a CAP PlayTone operation or a CAP PromptAndCollect operation, see the discussion on how applications can play tones or play announcements in *Oracle Communications Service Broker SIP Developer's Guide*.

Realtime Configuration Changes in the SS7 SSU

Managed servers no longer need to be restarted when making configuration changes in the SS7 SSU, except for the following configuration parameters:

- SSU SS7 SIGTRAN general parameters
- M3UA parameters
- SCCP general parameters
- Routing parameters

For more information, see the chapter on the SS7 SSU for SIGTRAN in *Oracle Communications Service Broker Signaling Server Units Configuration Guide*.

Availability of a Remote Subsystem

You can now obtain the status of a remote subsystem using the `SsuRemoteSubSystemRuntimeMBean`.

For more information, see the discussion on monitoring the signaling domain in *Oracle Communications Service Controller Implementation Guide*.

Backward Compatibility of SIP URI and Tel URI Format

When Service Controller receives a session, Service Controller can transfer the calling number to a SIP application using either the SIP URI or Tel URI formats. By default, Service Controller uses the Tel URI format. However, if your SIP application expects a SIP URI, you can configure Service Controller to use the SIP URI format.

For more information, see the discussion on setting the format for specifying a phone number in the header of a SIP message in *Oracle Communications Service Broker SIP Developer's Guide*.

Support of Service Mode Option by Multi-domain Deployments

If you create a multi-domain deployment with separate processing and signaling domains, you can choose whether to turn service continuity on or off. Previously, the service mode option was available only for unified domains.

Note: Turning service continuity off improves performance significantly.

Standalone Administration Console is Not Supported

Previously, you could run the Administration Console in a standalone mode which appeared as a Java client. The standalone mode is no longer supported. The Administration Console is now available in a Web-browser mode only.

Support for 64-bit Operating Systems

Service Controller can now be installed only on a 64-bit operating systems. Previously Service Controller could be installed on either 32-bit or 64-bit operating systems.

Support for Multiple Domain Type Combinations

When creating a domain, you can now choose any combination of domain types: Service Controller, Policy Controller, Online Mediation Controller. Previously, you

could select either a single product or a pre-defined combination of products such as Service Controller and Online Mediation Controller.

Installation of Only an Administration Console or a Managed Server

The Service Controller installer now enables you to install on a host only an Administration Server or only one managed server. This new feature simplifies setting up redundant, highly-available computer tiers.

Previously, on a given host you were required to install both the Administration Server and a managed server.

Installation Modes Consolidated

The console installation mode is no longer supported because of its similarity to silent installation. Previously, there were three Service Controller installation modes: graphical wizard, console (interactive), and silent (response file).

XML Configuration Data for Software Bundles Updates are Now Stored in a Separate JAR File

Previously, XML configuration data for a software bundle was stored inside the JAR file of the bundle that owns the configuration.

Now only the initial XML configuration data is stored inside the software bundle, and subsequent configuration updates are stored in a separate JAR file in the domain. Decoupling the software bundle and configuration changes for that bundle simplifies software upgrading, patching, and configuration versioning.

New Configuration Versioning Architecture

Service Controller configuration versioning is now achieved by storing a copy of each version of the configuration JAR in an archive. This enhancement is seen on the file system: *domains/archive*.

Enhanced Configuration Validation

Previously, configuration validation was performed differently if made through online or offline mode.

Now Service Controller validates the current configuration if made through either online or offline mode.

Configurable SNMP Traps

The Administration Console now displays GUI panels that enable users to define their own mappings from JMX notifications to SNMP traps. Any JMX notification generated by the Service Controller managed servers can be mapped to an SNMP trap.

Components Version Updates

[Table 1](#) lists components that have been upgraded in this release.

Table 1 Components Version Updates

Name	Old Version Number	New Version Number
Berkeley Database	4.1.16	4.1.21
JDK	Java SE 6 update 30	Java SE 6 update 35
JRockit JDK	JRockit 28.2.0	JRockit 28.2.5
Oracle Coherence	Coherence 3.7.1.1	Coherence 3.7.1.6

For more information on software requirements, see *Oracle Communications Service Broker Installation Guide*.

Weighted Load Strategy to Distribute Messages along Network Entities

To distribute messages among different network entities that share the same alias, Service Controller Signaling Service Units (SSU) use the weighted load strategy. This strategy determines a peer that receives a message based on the weight that you assign to the peer. The weight determines a relative share of the traffic that the peer should receive.

For more information about the weighted load strategy, see chapters dedicated to specific SSUs in *Oracle Communications Service Broker Signaling Server Units Configuration Guide*.

Enhanced Overload Protection

Service Controller overload protection is now enhanced as follows:

- Any runtime MBean can be configured as Key Overload Indicators.
- The Administration Console GUI panels have been changed. Under **Platform** and **Interworking Module** settings: Expand **Platform** then **OCSB** then **Processing Tier** then **Tier Management** and then **Monitoring, Overload Protection, and Overload and Tracing**
- A new SystemStatusRuntimeMBean is available to poll the status of the system. It has these attributes: CurrentLoadState, ExceededThresholds, and ForceOverload

Servers IP Address Configuration Available in the Administration Console

You can now specify whether you want to use IP unicasting or multicasting for communication between servers in domains using the Administration Console.

For more information on specifying the communication method, see "Managing Clusters" in *Oracle Communications Service Broker System Administrator's Guide*.

Changing the Content Type in the Resulting XLS Transformation

SM-PME now supports writing an XSL transformation that changes the content type of a body in the transformation result using the <Content-Type-Result> element. If you do not specify this element, then the content type of the body in the transformation result is the same as in the original message.

For more information about using the <Content-Type-Result> element, see the discussion on changing a Content Type in SM-PME in *Oracle Communications Service Broker Modules Configuration Guide*.

Fixes in This Release

Table 2 lists the known problems that have been fixed in Service Controller release 6.1.

Table 2 Fixes in This Release

Service Request (SR) Number	BugDB Number	Description
N/A	8941118	When an outage is resolved, a subset of the cluster may be forcefully shutdown to avoid messing up the state of the remaining cluster. Any sessions on the shutdown servers will be lost. These servers will need to be restarted manually.
NA	12844880	The batch operation and database configuration scripts of the SVC and VPN applications used the Java executable referenced by your system PATH variable. If that path was incorrect you had to set the path to the Java executable file in these scripts manually. This problem has been fixed and scripts no longer have to be changed manually.
NA	12903091	When the web Administration Console was accessed, occasionally, the two main user interface tabs, Platform and Studio , did not show. This problem is now solved.
NA	12919123, 12919135	The SVC Social Voice group phone conference feature occasionally exhibited a problem when members are called to join the conference. Normally conference members pick up the phone when it rings and hear a recorded message telling them to press the number 5 and then the pound sign (#) to join the conference. Occasionally the callee did not hear the "press 5#" message and they could immediately interact with the conference in session. However, if the callee did not press 5 within 15 seconds the call was automatically disconnected.
NA	13594669	In order to run a Service Controller implementation with the SVC and VPN applications co-deployed, you had to use a hosted domain. The domain creation script failed for other domain types. SVC and VPN can now be co-deployed also in a non hosted domain.
NA	13551191	When selected a different tab other than the default in the top most tab pane in the Administration Console, and then selected a tab within it, and going back and forth on the navigation tree, caused the tab to be displayed without content. This problem is now solved.
NA	13509468	Configuration fields in the Administration Console of type Boolean no longer use text input fields, but rather a clear selection between True and False .
NA	13422985	All menu items are now displayed correctly when first starting the Administration Console user interface and the Orchestration Studio user interface
NA	13570563	The entry fields for editing the credentials in the Administration Console are now open for edit when in Lock and Edit state.

Table 2 (Cont.) Fixes in This Release

Service Request (SR) Number	BugDB Number	Description
NA	13514438	When creating an SSL enabled domain, the creation script now prompts for the SSL keystore password only once.
NA	13681498	When implementing a single unified hosted domain for VPN and SVC, the axia.domain.host property is now set correctly with the correct URL.
NA	13242166	Password characters are no longer shown in clear text when creating a processing domain of the SVC and VPN applications.
NA	12809541, 12857070	On certain hardware, primarily SPARC running on Solaris operating system, an exception was thrown and printed to the standard output when the Administration Console was started. This problem is now solved.

Known Issues

This section describes known software problems and workarounds, if any.

Netra 6000 High Availability Manager is Disabled

The Service Broker Netra 6000 High Availability Manager is disabled in this release of Service Controller.

Error Presented When Installing Service Controller on Solaris

The following error may be presented when you are installing Service Controller on Solaris:

```
ERROR: Unable to convert from "UTF-8" to "ISO8859-1" for NLS!
```

```
Bus Error (core dumped)
```

This indicates that the SUNWuiu8 package is missing.

To install SUNWuiu8:

1. Make sure you can access the Sailors operating system CD from the machine.
2. Log in to the server.
3. On the CD, change directory to **Product**.
4. As root user, execute the command:

```
paged -d . SUNWuiu8
```

SIP URLs Cannot be Used if DNS Resolution is not Set Up in the Network

SIP URLs cannot be used if DNS resolution is not set up in the network.

Ideally, you use SIP URLs to configure the addresses of SIP network entities. However, in a network where DNS Resolution is not enabled, SIP URLs cannot be resolved into IP addresses.

If your network does not provide DNS resolution, then you must use only IPs to specify the addresses of SIP network entities.

Proxy SIP Application Servers are not Supported

Service Controller orchestrates SIP services provided by SIP application servers acting as either Back-to-Back User Agent (B2BUA) or Redirection Server (RDS). It does not support SIP Application Servers that act as proxy servers.

To work around this problem, always implement your SIP application as either B2BUA or RDS.

Diameter Rf and Ro for SVC and VPN are Disabled

The Diameter Rf and Ro charging capabilities of the SVC and VPN applications are disabled in this release. Please ignore documentation and code references to these capabilities.

Oracle Berkeley DB not Supported for SVC and VPN

BugDB number: 13109855

The Service Controller Social Voice Communicator and VPN features do not support Oracle Berkeley DB for persistent storage. When implementing VPN or SVC, you must use Oracle Database for persistence.

Authentication Credentials not Supported for the Web Services SSU

BugDB number: 13244144

The Web Services SSU does not support adding authentication credentials to outgoing messages. As a result, Balance Manager features that invoke the Balance Manager SOAP API do not work if you enable client authentication requirements for the API.

M3UA Parameter not Documented

BugDB number: 13117202

The configuration parameter that enables M3UA routes to share traffic when set up in ANSI mode is not documented.

The configuration parameter is available only through MBeans; use the **SlsRange** attribute of the **SsuSigtran** MBean to specify the maximum number of SLSs sharing traffic load. Possible values are 32 or 256.

Redundant Element Added in the Orchestration Logic When Defining a Sequence of Conditions in the Orchestration Studio

BugDB number: 15935431, 16085320

When using the Orchestration Studio, if you create an orchestration logic with two or more concatenated conditions, a redundant <SPT> element with an x-wcs-history value in the <Header> element is automatically added in the iFC, causing the sequence of conditions to fail. Example of the redundant element:

```
<SPT>  
<Group>99</Group>
```

```
<ConditionNegated>1</ConditionNegated>
<SIPHeader>
<Header>x-wcs-history</Header>
</SIPHeader>
</SPT>
```

To work around this problem, edit the iFC format of the orchestration logic, and remove the redundant <SPT> element.

Orchestration Doesn't Work Properly after Upgrade

BugDB number: 15910341

Orchestration does not work as expected after upgrading Service Controller to release 6.1. This happens because the upgrade changes the value of the **By Service Key** field in the SM-LSS.

To work around this, manually reconfigure the value of the **By Service Key** field after the upgrade, to be the same as it was before the upgrade. If the value of the **By Service Key** field was -1 before the upgrade, then after the upgrade clear this field.

Problem to Disable Backward Compatibility

BugDB number: 15842296

Disabling backward compatibility using configuration MBeans doesn't work. Setting the `systemprop.ocsb.backward.compatibility` property using the `setDomainProperty` operation of the `axia.api.management.ds.DomainServiceMBean` to false, doesn't take affect.

To work around this use JConsole to rename the `systemprop.ocsb.backward.compatibility` domain property to a different name. This way, in the absence of this property, Service Controller will adopt the default behavior which is to disable backward compatibility.

Monitoring Configuration Does Not Migrate Properly Upon Upgrade

BugDB number: 15829551

The monitoring configuration in the processing tier does not migrate properly upon upgrading.

To work around this, manually configure the monitoring and notifications parameters after upgrades.

New Button Disabled in the IM Management Tab

BugDB number: 14745009

In the Administration Console, in the **IM Management** tab, in some rare scenarios the buttons may appear in a different order, and some may appear disabled when they should be enabled.

To work around this, select again the **IM Management** node in the navigation tree.

Orchestration Logic Not Saved in the LSS Profile

BugDB number: 16077687

When using the Orchestration Studio to create an orchestration logic, the logic cannot be saved in a new LSS profile, but only in the default profile.

To be able to save orchestration logic in other LSS profiles than the default profile, edit the profile and set some text in the OLP Data field. Then go the Orchestration Studio, select the new profile that you just created, create an orchestration logic, and save it.

Orchestration Studio Does Not Function Upon Reload of Orchestration Logic that Has No SPTs

BugDB number: 16077627

The Orchestration Studio does not function when reloading an orchestration logic that has no SPTs in it.

To work around this, in the LSS, edit the profile and erase its orchestration logic (OLP Data field). Save the changed profile and restart the Administration Console.

SM-PME Runtime MBeans are Disabled

BugDB number: 16044802

The runtime MBeans for monitoring SM-PME are disabled in this release.

Wrong Description of SsuRemotePointCodeRuntimeMBean and SsuLocalPointCodeRuntimeMBean in the JavaDoc

BugDB number: 16134371

The possible return values of SsuRemotePointCodeRuntimeMBean and SsuLocalPointCodeRuntimeMBean are wrongly described in *Oracle Communications Service Broker Configuration and Runtime MBean Java API Reference*.

The correct return values of SsuRemotePointCodeRuntimeMBean are:

- 0 - Inactive
- 1 - Active

The correct return values of SsuLocalPointCodeRuntimeMBean are:

- 0 - Inactive
- 1 - Active

VPN in IN Environments Can Display an Unexpected Phone Number to Callers

BugDB number: 14681259

This problem applies to a caller using the VPN feature to make an OnNet-to-OnNet call if VPN is used in an IN environment. The expected behavior is that the callee's short number is displayed in the caller's CLI. Instead, the callee's public number is displayed.

The workaround for this problem is to set the **mtcSupressionPrefix** parameter to none (null string) in the SP (Service Provider) configuration.

Documentation Updates

This section covers the major updates to the documentation set:

Service Controller Implementation Guide

Oracle Communications Service Broker Service Controller Implementation Guide was added, describing Service Controller's use cases and how to set them up.

Configuration Guides

Oracle Communications Service Broker Processing Domain Configuration Guide was renamed to *Oracle Communications Service Broker Modules Configuration Guide*, and now contains reference information about configuring the various Service Controller modules. It no longer contains information on other components in the processing domain, such as the Orchestration Engine.

Oracle Communications Service Broker Signaling Domain Configuration Guide was renamed to *Oracle Communications Service Broker Signaling Server Units Configuration Guide*.

Orchestration User's Guide

Oracle Communications Service Broker Orchestration Studio User's Guide was renamed to *Oracle Communications Service Broker Orchestration User's Guide*. It now consolidates all the information about orchestration: concepts, administration, and about using the Orchestration Studio.

Service Controller Protocol Implementation Conformance Statement (PICS)

A Service Controller Protocol Implementation Conformance Statement (PICS) is added, providing statement about the Service Controller's compliance with SIP and SS7 protocols.

JavaDoc Consolidated

JavaDoc for:

- Platform MBean Java API Reference
- Modules MBean Java API Reference
- SVC and VPN MBean Java API Reference

has been added and consolidated into one single set.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc>.

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