

Oracle® Communications Service Broker

Release Notes

Release 6.0

E23534-02

March 2012

This document provides release notes for Oracle Communications Service Broker 6.0.

- [New Features](#)
- [Fixes in This Release](#)
- [Known Issues](#)
- [Documentation Updates](#)

New Features

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

This release of Service Broker includes five different sub-products, each targeting different solution scenarios:

- Service Controller
- Policy Controller
- Online Mediation Controller
- Social Voice Communicator
- Virtual Private Network

Service Controller contains all the features originally included in release 5.0.1 of Service Broker, whereas the other four sub-products leverage basic Service Broker functionality, each targeting different solution use cases.

This section describes each of the new sub-products, and new features in Service that are shared by all sub-products.

Service Controller

Service Controller provides delivery and orchestration of services for sessions across multiple networks, supporting different generations, technologies and access networks.

Service Controller supports all the features originally included in release 5.0.0.1 of Service Broker.

Online Mediation Controller

Online Mediation Controller provides network connectivity for Oracle Communications Billing and Revenue Management (BRM) and third party Online Charging Systems (OCSs).

Online Mediation Controller acts as a front end for OCSs, mediating network protocols, providing unified connectivity to multiple networks in the IMS domains, and supporting the Diameter and RADIUS protocols.

Online Mediation Controller also extends the OCS functionality traditionally associated with balance management and rating, with additional charging reliant features.

See *Oracle Communications Service Broker Online Mediation Controller Implementation Guide* for more information.

Policy Controller

Policy Controller implements network, subscriber, and service policies, providing control of data usage, quality of service and charging.

Using the Policy Controller you control the service experience of individual subscribers. The Policy Controller controls the bandwidth, quality of service, charging, and other service characteristics for each subscriber.

Policy Controller is a fully compliant 3GPP Policy and Charging Rule Function (PCRF), and includes the Policy Designer that you use to define how resources are allocated among your subscribers.

Policy Controller also includes an on-board Subscription Profile Repository (SPR).

Together with the Service Broker Online Mediation Controller and Oracle Communications BRM, Policy Controller provides a complete policy and charging management solution.

See *Oracle Communications Service Broker Policy Controller Implementation Guide* for more information.

Social Voice Communicator

Social Voice Communicator (SVC) is an application that you use to offer subscribers social communications services.

SVC provides a way to connect friends, colleagues, and family with social voice, voicemail, and other features.

See *Oracle Communications Service Broker SVC Implementation Guide* for more information.

Virtual Private Network

Virtual Private Network (VPN) is an application that you use to provide custom voice VPN services to subscribing organizations.

It makes traditional PBX-based VPN feature, such as private extension dialing, calling line identity presentation, and reduced charging rate, available to mobile device users even while away from their home office, city, or country.

VPN allows replacement of IN services running on end-of-life systems. It supports migration from legacy infrastructure and consolidation to IP-based services.

See *Oracle Communications Service Broker VPN Implementation Guide* for more information.

High Performance Single-Domain Deployment Topology

A new deployment topology implements a single unified (named "basic" in previous releases) domain in which servers maintain session state but do not distribute it across domain servers. Oracle recommends using the new deployment topology in systems give precedence to performance over service continuity.

See the discussion about deployment topologies in *Oracle Communications Service Broker Installation Guide* for more information.

Service Orchestration Studio

A new Orchestration Studio graphical user interface provides an intuitive way to construct orchestration logic.

With the Orchestration Studio, you drag and drop applications and conditions into a canvas to construct an orchestration flow and apply conditions for application invocation. At the background, the Orchestration Studio generates an iFC that you can use to assign for subscribers.

See *Oracle Communications Service Broker Orchestration Studio User's Guide*, for more information.

Enhanced Signaling Framework

All SSUs now support a consistent mechanism for:

- Inbound routing

SSUs dispatch initial incoming requests to internal processing modules, such as interworking module instances, running in Processing Domains.

Dispatching is based on values inside request parameters, according to configurable criteria, providing load sharing among Processing Servers and Processing Domains.

- Outbound routing

SSUs let you define alias addresses to network destinations, that internal processing modules, such as interworking modules instances, use to specify the address of external network destinations.

You can configure one alias to multiple network destinations, thereby supporting redundancy and load balancing between multiple instances of the same logical destination.

SSUs also monitors the availability of each destination, and avoid routing traffic to unavailable destinations.

Java Version Update

The versions of the JDK included with the Service Broker installation have been updated to the following:

- Java SE 6 update 26
- JRockit 28.1.5

For more information on installing the JDK and other software requirements, see *Oracle Communications Service Broker Installation Guide*.

Coherence 3.7.1.1

Service Broker is now aligned with Oracle Coherence Release 3.7.1.1.

See the *Oracle Coherence Release 3.7.1* documentation set for more information.

Oracle Database and Oracle Berkeley DB Persistence

Service Broker now provides integrated support for Oracle Database and Oracle Berkeley DB persistence. Service Broker features introduced in release 6.0 can use either mechanism for their data storage requirements. Storable data includes subscriber information, and Charging Data Records (CDRs) in degraded mode.

For more information about data persistence, see *Oracle Communications Service Broker Installation Guide*.

Degraded Mode

Degraded mode is an operating mode that ensures service continuity for end users if the Online Charging System (OCS) becomes unavailable. In degraded mode, Service Broker monitors the health of the external OCS. If the OCS becomes unavailable for any reason, Service Broker temporarily assumes the functions of the external OCS.

Degraded mode is supported by Online Mediation Controller.

See “Using Degraded Mode” in *Oracle Communications Service Broker Online Mediation Controller Implementation Guide*, for more information.

Event Notification Framework

An Event Notification Framework providing a way for Service Broker applications to trigger either external actions (by publishing events to external Operational Support Systems), or internal actions such as SMS sending or profile update.

See “Using the Event Notification Framework” in *Oracle Communications Service Broker Online Mediation Controller Implementation Guide*, for more information.

SMS User Interaction

A new SSU, SMPP SSU, supports SMPP network connectivity.

A new module, IM-UIX-SMS, acting as both application-facing and network-facing module, provides SMPP mediation, thereby enabling service delivery and service orchestration for SMPP sessions.

With the SMPP SSU and IM-UIX-SMS, application can now implement user interaction through SMS.

SMS user interaction is supported by Service Controller and Online Mediation Controller.

See *Oracle Communications Service Broker Concepts Guide* for more information about SMPP SSU and IM-UIX-SMS.

API for TCAP Application Implementation

A new network-facing module, IM-PSX-Plugin, provides TCAP mediation, thereby enabling extended TCAP operations support, beyond the operations already supported out-of-the-box by other interworking modules (IM-SCF, IM-SSF and IM-PSX).

IM-PSX-Plugin extends the range of functionality available for NGIN applications implemented on application servers (such as Oracle Communications Converged Application Server) over the SIP interface.

See *Oracle Communications Service Broker Concepts Guide* for more information.

Web Services Integration

A new SSU, the Web Service SSU, supports SOAP and REST network connectivity.

A new module, IM-WS, acting as both application-facing and network-facing module, provides SOAP and REST mediation to internal SAL, thereby enabling service delivery and service orchestration for web services requests.

With Web Services SSU and IM-WS, Service Broker integrates with web service servers and clients.

Web services are supported by Service Controller and Online Mediation Controller.

See *Oracle Communications Service Broker Concepts Guide* for more information.

RADIUS Authentication, Authorization and Accounting (AAA)

A new Signaling Server Unit (SSU), the RADIUS SSU, supports RADIUS Authentication, Authorization and Accounting (AAA) network connectivity.

A new network-facing module, R-IM-OFCF RADIUS, provides RADIUS accounting mediation to internal SAL, thereby enabling service delivery and service orchestration for RADIUS accounting requests.

RADIUS AAA enables standard OCSs to provide authentication, authorization and accounting services for to NASs.

RADIUS AAA is supported in Online Mediation Controller.

See *Oracle Communications Service Broker Concepts Guide* for more information.

Credential Store for Protecting System Passwords

The Credential Store feature has been added to Service Broker that you use to securely and conveniently encrypt and store system passwords, certificates, and keys required to interact with external nodes and services. Credential Store includes a credential file to store subscriber keys and credentials, and a master password file that Service Broker uses to decrypt the credentials. You can select the encryption algorithm your implementation requires and locate these credentials anywhere in Service Broker. For ease of management, credentials for all Service Broker bundles in a domain are stored in a single file.

For details see “Using Credential Store to Secure Subscriber Credentials” in *Oracle Communications Service Broker System Administrator’s Guide*.

Orchestration Logic Extensions

Service orchestration logic now supports new orchestration capabilities, extending orchestration logic beyond the iFC standard. Those capabilities are available with the Orchestration Studio.

See *Oracle Communications Service Broker Orchestration Studio User’s Guide*, for more information.

Non Subscriber-Specific Pre and Post Orchestration Logic

The Orchestration Engine now supports non subscriber-specific orchestration logic that you can invoke before and after the Orchestration Engine executes subscriber-specific orchestration logic.

See “Configuring Pre-Orchestration and Post-Orchestration with Java MBeans” in *Oracle Communications Service Broker Processing Domain Configuration Guide*, for more information.

Fixes in This Release

This section describes known problems from the previous release that have been resolved in this release.

Table 1 Fixes in This Release

SR Number	BugDB ID	Description
N/A	10356789	Support for SNMP-based monitoring is now enabled. For information on SNMP support in Service Broker, see <i>Oracle Communications Service Broker Release 6.0 System Administrator’s Guide</i> .
N/A	11771345	When you managed IMs in the Administration Console of the Processing Domain, the buttons (New, Delete and Activate) at the bottom of the screen used to remain active even after you committed changes. This problem is now fixed.
N/A	11866404	The product installation directories are now correctly stated in <i>Oracle Communications Service Broker Release 6.0 Installation Guide</i> .
N/A	11866417	File permissions for the JDK executable files included in the Service Broker installation are now correctly set. You do not need to manually modify the permissions of the JVM or other JDK executable files after installation.
N/A	12665716	The SS7 SSU was not supporting load sharing among M3UA routes in ANSI mode. The SS7 SSU now supports a new configuration parameter enabling this. The configuration parameter is available through MBeans. The SlsRange attribute of the SsuSigtran MBean specifies the maximum number of SLSs sharing traffic load. Possible values are 32 or 256.

Table 1 (Cont.) Fixes in This Release

SR Number	BugDB ID	Description
N/A	12678322	<p>The SS7 SSU was not sharing traffic load correctly between the two GTT entities. It was always sending messages to the secondary GTT point code, even if the operation mode was set to load-sharing.</p> <p>This problem is now fixed.</p>
N/A	12701426	Service Broker now supports the Diameter Ro Requested-Action AVP, fixing an exception caused when this AVP was set in the past.
N/A	12704769	IM-OCF-Ro now supports the 3GPP-MS-TimeZone AVP, fixing an exception thrown when this AVP was set in the past.
N/A	12704900	When interacting with an OCF, Service Broker now supports multiple Result-Code AVPs on CCAs, including Result-Code AVPs inside grouped AVPs.
N/A	12706248, 12705742	IM-OCF-Ro now forwards the location information and diversion information provided in the AVPs 3GPP-SGSN-MCC-MNC, 3GPP-User-Location-Info, and 3GPP2-BSID, inside the proprietary x-wcs-location-information and x-wcs-diversion-information headers, not only on initial CCR, but also on update and termination CCR.
N/A	12771496	<p>The JVM parameters passed in the startup scripts for the Administration Console and managed server have been modified. The modification is intended to help prevent out-of-memory errors.</p> <p>For Java JDK (with the HotSpot JVM), the default JVM start parameters are now:</p> <ul style="list-style-type: none"> ■ Administration Console: -Xmx512m -XX:MaxPermSize=128m ■ Managed server: -Xmx1024m -XX:MaxPermSize=128m <p>For Oracle JRockit or other JVMs, the JVM start parameters are now:</p> <ul style="list-style-type: none"> ■ Administration Console: -Xmx512m ■ Managed server: -Xmx1024m
N/A	12794163	When interacting with an OCF, Service Broker now supports delivery of multiple Used-Service-Units AVPs to the OCF.
N/A	12823363	In NG-IN solutions, when mediating SIP to CAP, Service Broker no longer converts the pound sign (#) in SIP contact headers to 'E'. It now correctly converts the pound sign to 'B'.
N/A	12846011	In the SS7 SSU, the remote signaling point code status no longer toggles to 'unavailable' when the point code is available. Therefore, the attribute Status of the SsuRemotePointCode RuntimeMBean is now reporting the accurate remote point code status.
N/A	12859228	IM-SCF mapping of Diameter Ro reasons to CAP Release Cause is now handled correctly.

Table 1 (Cont.) Fixes in This Release

SR Number	BugDB ID	Description
N/A	12885846	IM-ASF-SIP was converting international Nature of Address (NOA), that is the '+' sign, in the Contact SIP header to space, thereby corrupting the number in the SIP URI. This problem is now fixed.
N/A	12931508	In a TDM deployment with two Signaling Servers SSU servers, each installed with a Dialogic HD card, there is no longer a problem to set up the link between the two cards required for failover.
N/A	12953591	The SIGTRAN SS7 stack no longer crashes in ANSI mode, when configured to route with GT and does not include local point codes to the calling and called party addresses.
N/A	12976605	In NG-IN solutions, mediating CAP to SIP, Service Broker was not forwarding Call Information Report from the SSP to the SIP AS, in the following cases: <ul style="list-style-type: none">■ Calling party hangs up during call setup, while ringing■ Called party is not available This problem is now fixed.
3-4478114741	13023536	The configuration for IM-SCF INAP has been updated with a parameter to define the serviceInteractionIndicators parameter inside the ConnectToResource operation.
N/A	13080809	Service Broker now supports standard string values inside the SIP play parameter, in addition to the already supported numeric values.
3-4919722961	13386697	SIP INVITE requests now allow the application server to add the Additional Calling Party to the CWA.
N/A	13576712	SM-PME support has been added to the Object Body of SAL events. SM-PME now supports manipulation of IN ChargingInfo and AccountingInfo. Doesn't allow manipulations of Object body on SAL events.

Known Issues

This section describes known issues in this release.

Table 2 Known Issues Common to Several or All Packages

BugDB ID	Package	Description
N/A	All	The Service Broker Netra 6000 High Availability Manager is disabled in this release of Service Broker.

Table 2 (Cont.) Known Issues Common to Several or All Packages

BugDB ID	Package	Description
N/A	All	<p>The following error may be presented when you are installing Service Broker on Solaris:</p> <p>ERROR: Unable to convert from "UTF-8" to "ISO8859-1" for NLS!</p> <p>Bus Error (core dumped)</p> <p>This indicates that the SUNWuiu8 package is missing.</p> <p>To install SUNWuiu8:</p> <ol style="list-style-type: none"> 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
N/A	All	<p>The following error may be presented when installing Service Broker on Solaris:</p> <p>SEVERE:OUI-10036:Could not create the inventory location. You may not have permission to write to this location.</p> <p>SEVERE:OUI-10180:Invalid Operating System group name specified.</p> <p>To avoid this, ensure that <i>Oracle_home</i> is set to a directory with read and write privileges.</p>
N/A	Service Controller	<p>SIP URLs cannot be used if DNS resolution is not set up in the network.</p> <p>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.</p> <p>If your network does not provide DNS resolution, then you must use only IPs to specify the addresses of SIP network entities.</p>
N/A	Service Controller	<p>Service Broker does not support the "tel" URL schema in the request URI, To and From header.</p> <p>To work around this you should use SIP URLs only.</p>
N/A	Service Controller	<p>Service Broker 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.</p> <p>To work around this problem, always implement your SIP application as either B2BUA or RDS.</p>
8941118	All	<p>If a network outage occurs on the network interface that handles cluster communication, the affected Service Broker servers may not recover automatically when the outage is resolved.</p> <p>The affected managed servers need to be manually restarted while there still is a network outage in order to maintain cluster consistency.</p> <p>To avoid this scenario, ensure that the computers have redundant network interface cards and the switches are redundant.</p>

Table 2 (Cont.) Known Issues Common to Several or All Packages

BugDB ID	Package	Description
9307160	All	<p>The stand-alone Administration Console is not supported on Solaris 64 bit architectures with a 64 bit JVM.</p> <p>Use the web Administration Console when running Service Broker in this environment.</p>
11825282, 13075127	Service Controller	<p>The first time you add a server to the Default Route of a Diameter node, the new server is inserted in the second row of the Servers table. The added server is therefore not effective.</p> <p>To work around this, you have to remove the first empty row from the table:</p> <ol style="list-style-type: none"> 1. Select the first row with the empty server name. 2. Click the Remove button <p>The first empty row is removed and replaced by the server that you added previously. The server is now effective.</p> <p>This problem does not recur when you add additional servers to the server table of the Default Route.</p>
12809541, 12857070	All	<p>On certain hardware, primarily SPARC running a Solaris operating system, an exception is thrown and printed to the standard output when the Administration Console is started.</p> <p>The console recovers and is fully functional when started even with this error. This exception can be ignored.</p>
N/A	VPN and SVC	<p>The Service Broker SVC and VPN application Diameter Rf and Ro charging capabilities are disabled in this release. Please Ignore documentation and code references to these capabilities.</p>
12844880	VPN and SVC	<p>The batch operation and database configuration scripts use the Java executable referenced by your system PATH variable. If this is incorrect you need to set the path to the Java executable file in these scripts manually.</p> <p>The scripts use this default Java executable file location: JAVA_CMD=java. If this is incorrect, you need to do one of the following so the scripts execute correctly:</p> <ul style="list-style-type: none"> ■ Set your system PATH variable to the Java executable location on your system, or ■ Edit JAVA_CMD value in these scripts, adding the correct Java path for your implementation: <ul style="list-style-type: none"> ■ Oracle_home/ocsb/admin_console/utils/bulkloader/common.sh ■ Oracle_home/ocsb/admin_console/create_db_table.sh
12903091	All	<p>Occasionally, when the web Administration Console is accessed, the two main user interface tabs, Platform and Studio, do not show.</p> <p>Refresh or resize the browser window. The web page is rendered again and shows the main tabs.</p>
12906136	Online Mediation Controller	<p>The balance amount returned by the check balance operation through the IVR interface does not indicate whether the amount is a positive or negative value.</p>

Table 2 (Cont.) Known Issues Common to Several or All Packages

BugDB ID	Package	Description
12919123, 12919135	SVC	The SVC Social Voice group phone conferencing feature occasionally exhibits 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 does not hear the "press 5#" message and they can immediately interact with the conference in session. However, if the callee does not press 5 within 15 seconds the call is automatically disconnected. The work-around is to press 5# to join the conference even if the message does not play.
13109855	VPN and SVC	The Service Broker 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.
13242166	VPN and SVC	You are prompted for an administrator password when created a Processing Domain for the VPN and SVC features. The password characters are shown in clear text when you enter them, so be sure to obscure the screen from others, or do this in a secure environment where others cannot see the password as you enter it.
13244144	Online Mediation Controller	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.
13107155	Online Mediation Controller	IM-OCF-PCP was inadvertently omitted from the overview in the <i>Oracle Communications Service Broker Concepts Guide</i> . See the discussion about IM-OCF-PCP in <i>Oracle Communications Service Broker Processing Domain Configuration Guide</i> .
13102950, 13117202	Service Controller	A new configuration parameter was added to enable M3UA routes share traffic when set up in ANSI mode. The new configuration is not documented. The configuration parameter is available only through MBeans; use the SIsRange attribute of the SsuSigtran MBean to specify the maximum number of SLSs sharing traffic load. Possible values are 32 or 256.
13594669	VPN and SVC	Hosted Domains required for a co-deployed SVC/VPN implementation. In order to run a Service Broker implementation with the SVC and VPN features co-deployed, you must use a hosted domain. The domain creation script fails for other domain types.
13598591	Online Mediation Controller	R-IM-OFCF RADIUS and IM-OFCF PCP have configuration options to allow tunneling of XER of messages. Do not use these configuration options. The AccountingInfo is available for SM-PME so there is no limitation on the functionality.
13598573	Online Mediation Controller	R-IM-OCF Ro, IM-OCF Ro, and IM-OFCF PCP have configuration option to allow tunneling of XER of messages. Do not use these configuration options. The ChargingInfo is available for SM-PME so there is no limitation on the functionality.

Table 2 (Cont.) Known Issues Common to Several or All Packages

BugDB ID	Package	Description
13598528	Online Mediation Controller	<p>R-IM-OCF has a configuration how the charging service should be activated; External or None. The default is None.</p> <p>The None option tunnels the information.</p> <p>The External option means that the R-IM-OCF looks at allocation/requests and requests the network to monitor usage. The additional functionality available by this configuration is that an application can request thresholds for announcements and other services.</p> <p>In a network that uses multiple MSCC in requests and responses the External option is not supported and will damage the messages passed.</p>
13593646	Online Mediation Controller	<p>In IM-OCF-PCP, a default value for the AVP carry_over_avps is not provided.</p> <p>The work-around to add default values is to add the following to the file config_imocfpcp.module.xml:</p> <pre><carry_over_avps></carry_over_avps></pre> <p>The file is located in the bundle com.convergin.wcs.osgi.im.ocf.pcp-2.0.1.jar</p>
13551191	All	<p>When selecting a different tab other than the default in the top most tab pane in the Administration Console, and then selecting a tab within it, and going back and forth on the navigation tree causes the tab to be displayed without content.</p> <p>The work-around for this is to re-open the tab using the navigation tree.</p>
13509468	All	<p>Some configuration fields in the Administration Console of type Boolean are using text input fields instead of radio-buttons.</p> <p>The work-around is to enter True or False in the text field.</p>
13422985	All	<p>Some menu items are not displayed correctly when first starting the Administration Console UI and the Orchestration Studio UI.</p> <p>The work-around is to resize the UI window.</p>
13570563	All	<p>The entry fields to edit the credentials in the Administration Console are sometimes not open for edit, even though in Lock and Edit state.</p> <p>The work-around for this is to cancel the editing and use Lock and Edit again.</p>
13514438	All	<p>The create domain creation script prompts for the SSL keystore password several times when creating an SSL enabled domain.</p> <p>The user needs to provide the password several times.</p>
13262544	Policy Controller	<p>In the Policy Designer UI the tool icons for Add, Remove, and Edit disappears when an item is selected in a bucketset when using Chrome or Internet Explorer.</p> <p>The work-around is to use Firefox or to first click another tab and then click the BucketSets tab again.</p>

Table 2 (Cont.) Known Issues Common to Several or All Packages

BugDB ID	Package	Description
12868674	Online Mediation Controller	<p>AVP Attributes defined in vendor specific dictionaries can not be handled. This also includes custom dictionary specified through the Administration Console.</p> <p>To work around this, specify a vendor format in the custom dictionary as part of the vendor description:</p> <p>VENDOR vendor_name vendor_id format=1,1</p> <p><i>vendor_name</i> is the name of the vendor.</p> <p><i>vendor_id</i> is the ID of the vendor (integer value).</p> <p>Example: VENDOR ACompany 311 format=1,1</p>
13681498	VPN and SVC	<p>When implementing a single unified hosted domain for VPN and SVC, the axia.domain.host property is set incorrectly with a wrong URL. As a result, the domain servers cannot access the configuration and they fail to start.</p> <p>To work around this either avoid using a hosted domain for VPN and SVC, or correct the URL in the axia.domain.host property to point the the web server hosting the domain configuration.</p> <p>To change the axia.domain.host property, invoke the operation setDomainProperty on the MBean DomainServiceMBean. See the chapter "Using Java MBeans to Configure a Domain" in <i>Oracle Communications Service Broker System Administrator's Guide</i> for more information on the axia.domain.host property and how to set it.</p>

Documentation Updates

The following changes have been made to the documentation:

- A new book has been added, describing the Policy Controller. See *Oracle Communications Service Broker Policy Controller Implementation Guide*.
- A new book has been added, describing the Online Mediation Controller. See *Oracle Communications Service Broker Online Mediation Controller Implementation Guide*.
- A new book has been added, describing the Subscriber Store which serves the Online Mediation Controller and the Policy Controller. See *Oracle Communications Service Broker Subscriber Store User's Guide*.
- A new book has been added, describing the new Orchestration Studio. See *Oracle Communications Service Broker Orchestration Studio User's Guide*.
- A new book has been added, describing the Virtual Private Network. See *Oracle Communications Service Broker VPN Implementation Guide*.
- A new book has been added, describing the Social Voice Communicator. See *Oracle Communications Service Broker SVC Implementation Guide*.
- A new book has been added, describing how Service Broker is secured. See *Oracle Communications Service Broker Security Guide*.
- Oracle Communications Service Broker Configuration Guide has been split into two books:
 - *Oracle Communications Service Broker Signaling Domain Configuration Guide*
 - *Oracle Communications Service Broker Processing Domain Configuration Guide*

- A new JavaDoc has been added to describe the Policy Controller and Online Mediation Controller configuration MBeans. See *Oracle Communications Service Broker Policy and Charging MBean Java API Reference*.
- A new JavaDoc has been added to describe the SVC and VPN configuration MBeans. See *Oracle Communications Service Broker SVC and VPN MBean Java API Reference*.
- A new JavaDoc has been added to describe the SAL API that you can use to implement applications in the Service Broker environment. See *Oracle Communications Service Broker SAL Java API Reference*.
- The document *Oracle Communications Service Broker SIP Developer's Guide for GSM* is delivered separately from the main documentation in this release.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at
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