Oracle® Communications Order and Service Management

Release Notes

Release 7.5

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Release Notes

This document provides release notes for Oracle Communications Order and Service Management (OSM) release 7.5.

New Features (Cloud Native and Traditional Deployments)

This release includes the following new features and enhancements that apply to both cloud native and traditional deployments of OSM release 7.5:

For new features and enhancements in OSM cloud native, see "New Features in OSM Cloud Native".

For new features and enhancements in OSM traditional, see "New Features in OSM Traditional Deployment".

Data Change Dependency Re-evaluation in Revision Order

This release augments the existing Data Change Dependency mechanism for dynamic orchestration to add an automatic re-evaluation of the dependency conditions when a revision to an in-flight order is received. This reevaluation will use the new data in the revision order processing. For details about this change, see *OSM Concepts* and *OSM Modeling Guide*.

Single Sign-on (SSO) and Single Logout (SLO) Support Using SAML 2.0

This release introduces a new method for you to sign on and log out of your OSM instance. With this release, OSM supports the Single Sign-on (SSO) and the Single Logout (SLO) authentication service and the centralized management of the human user "roles" used to authorize access to specific OSM capabilities.

Single sign-on (SSO) is a session and user authentication service that enables you to use one set of login credentials (a username and password) to access all participating applications across your organization.

If your organization uses Single Sign-on (SSO) for authenticating users, you can now set up OSM with SSO and SLO using SAML 2.0.

Single logout (SLO) is complementary to SSO and lets you log out from all participating applications that you had logged into using SSO. When you log out of one of the applications using SSO, you will be logged out of other applications that use the authentication from the identity provider (IDP). SSO and SLO are based on SAML assertion token.

For details about configuring SSO and SLO for OSM, see *OSM Security Guide*.

New Features in OSM Cloud Native

This release includes the following new features and enhancements in OSM Cloud Native release 7.5.

- Enhanced REST Interaction Metrics
- Management and Processing of TMF Orders
- REST-based Interaction with External Systems (OSM REST Automator)
- New User Interface for Order Operations and Managing Fallout Orders
- Low-Code Milestone Management using OSM Model-driven Milestone
- Simplified OSM Fallout Management using Fallout Exceptions
- OSM Exposure through Kubernetes Ingress
- Simplified Fluentd Logging
- Additional OSM Tooling for Migration

Also see "New Features (Cloud Native and Traditional Deployments)" that lists new features and enhancements that are applicable to both cloud native and traditional deployments of OSM.

Enhanced REST Interaction Metrics

This release enhances the set of metrics and tags generated for incoming and outgoing REST interactions through the Hosted specifications or the System Interaction specifications. A new sample Grafana Dashboard is offered to showcase

these metrics in an operational context. For details, see *OSM Cloud Native Deployment Guide*.

Management and Processing of TMF Orders

With this release, OSM natively supports processing of orders compliant with the TMF622 Product Ordering and TMF641 Service Ordering TMForum Open API standards. This includes exposing a REST API as well as generating REST-based outbound events, as per the standards. Cartridge developers can build their cartridges using all the capabilities of OSM, while OSM validates incoming order payloads and generates outgoing TMF events automatically. OSM also automatically calculates TMF order states and order item states based on the success or failure of order processing.

OSM's implementation has been awarded the TMForum's conformance certification for TMF622 and TMF641.

Also, with this release, OSM offers its own extensions to these TMF standards, written in line with the TMF630 REST API Design Guidelines. These extensions offer advanced order processing features like revision, suspend and resume or in-progress order and abort of in-progress order, in a highly auditable and sustainable manner.

In addition, OSM supports customer extensions to these standards, provided those extensions themselves adhere to TMF630. These customer extensions can be layered on top of OSM extensions to add data fields to the order. Once these extensions are registered with OSM as a "Hosted API", OSM automatically extends validation, eventing, and state calculation to the extended specification. OSM also extends the TMForum versioning to allow for additional versioning of OSM extensions and customer extensions.

Cartridges built to process TMF orders are called TMF cartridges. To distinguish these from the other Orchestration cartridges, the latter are now referred to as Freeform cartridges.

See the following guides for details:

- *OSM Concepts*
- *OSM Modeling Guide*
- *REST API Reference for Oracle Communications Order and Service Management Cloud Native*

REST-based Interaction with External Systems (OSM REST Automator)

A common order processing requirement is to be able to interact with another system that exposes a REST API towards OSM. In this release, OSM fulfills this requirement in a scalable and sustainable manner. By associating an automation plugin with a "System Interaction", a cartridge automation plugin can generate and receive payloads that are part of such a REST-based interaction. A System Interaction is an Open API specification that describes the remote REST API and allows OSM to connect to the remote system, authenticate itself, invoke REST operations using a plugin provided payload, pass synchronous REST responses back to the plugin, and even wait for

asynchronous events (by exposing an event reception REST API dynamically) to pass back to the plugin. All incoming and outgoing payloads are automatically validated as per the System Interaction.

OSM offers this REST Automator in a manner that does not impact its order processing throughput capacity regardless of the latency of the remote system's synchronous responses. System Interaction configuration (including data about the remote systems) is specification-driven, allowing Configuration as Code practices for improved traceability and auditability. Cartridge developers can focus on preparing outbound payloads and processing response payloads, while OSM handles connectivity, security, schema validation and transient HTTP errors.

This capability is available for both TMF cartridges and Freeform cartridges.

See *OSM Concepts* and *OSM Modeling Guide* for further details.

Simplified OSM Fallout Management using Fallout Exceptions

When order processing reaches a condition where it requires human intervention (for example, unexpected response from an external system), the typical requirement is to stop further processing along that line, make the problem visible and allow the user to undertake corrective action.

OSM offers a new fallout management feature leveraging Fallout Exceptions. When automation code detects a fallout situation, it can now call an automation API to register a fallout exception. This halts the task and makes the exception's details available via user interface and REST API. Corrective actions can be applied via the user interface (for example, retry the task).

OSM manages the fallout exception's lifecycle, clearing the exception automatically when processing progresses. Fallout Exception records continue to be available via REST API until the associated order is purged.

With this feature, cartridge developers can leverage a powerful and simple mechanism to seek manual intervention without complicated execution state manipulation or artificial manual tasks. Solution designers can integrate this fallout with the larger ecosystem by using the REST API to search for fallout exceptions and obtain details like state, location (order ID, order component, and so on), error messages, and timestamps.

This capability is available for both TMF cartridges and Freeform cartridges.

See *OSM Concepts* and *OSM Modeling Guide* for more details.

New User Interface for Order Operations and Managing Fallout Orders

This release introduces the new Order Operations and Fallout Management user interface. This modern user interface provides dashboards for monitoring order volumes and for managing fallout orders.

The Order Operations dashboard displays TMF order metrics in a bar chart and a line graph. The metrics are displayed for a duration the user specifies. The dashboard also displays Key Performance Indicators (KPIs) and alerts.

For more details about the dashboards, see *OSM Order Operations and Fallout Management User's Guide*.

Low-Code Milestone Management using OSM Model-driven Milestone

In-flight orders often need to signal progress to other systems using solution-specific milestones.

This release introduces a feature to accomplish this in a low-code fashion - Model Driven Milestone. Cartridge developers and solution designers can specify the desired milestones, the states to reach them, and who to notify using configuration, instead of dispersed across process flow and XQuery code. Cartridge developers can use the graphical cartridge development environment to create and manage this configuration easily. OSM checks if milestone conditions have been reached, and then acts on it (including sending milestone message), while the order continues to run as per the defined cartridge flow.

This capability is supported for Freeform (non-TMF) cartridges.

For more information about Model Driven Milestones, see *OSM Modeling Guide*.

OSM Exposure through Kubernetes Ingress

With this release, the OSM cloud native toolkit introduces the use of the standard Kubernetes Ingress object, as the default, to expose OSM services via an Ingress Controller. This provides the solution designer with the flexibility to choose any Ingress Controller that supports the standard Ingress object and provides the functionality OSM describes in detailed documentation.

Traefik as an Ingress Controller continues to be supported with its Custom Resource Definition objects in lieu of Ingress objects. It is however, deprecated as of this release.

See *OSM Cloud Native Deployment Guide* for more details.

Simplified Fluentd Logging

This release of OSM supports Fluentd logging of OSM's WebLogic-based components, managed by the cloud native toolkit.

You can enable Fluentd logging by configuring the specification files. Elastic Search details must be provided via Kubernetes secret. Fluentd runs as sidecar containers to the main OSM containers.

This capability reduces the customization burden for OSM cloud native deployments, removing the need to arrange for persistent storage for logs or of managing custom sidecar containers. OSM supports Fluentd uptake of logs from its microservice

components (OSM Gateway and Run-time UX) through the regular Kubernetes pod or container logs.

See *OSM Cloud Native Deployment Guide* for more details about this capability.

Additional OSM Tooling for Migration

In earlier releases, when migrating an OSM solution from a traditional OSM system to a cloud native environment, at the time of cutover, important information related to ongoing orders and future-dated orders are held in unconsumed JMS messages. As part of the migration, this information needs to be made available to the cloud native environment.

With this release, OSM introduces tooling as part of the CNTK to achieve this, greatly reducing the quantity and complexity of manual work. The tools export JMS messages from the traditional OSM system and import them into the OSM cloud native system, utilizing WLST (WebLogic Scripting Tool) and the Jython scripting language.

See *OSM Cloud Native Deployment Guide* for more details about this capability.

New Features in OSM Traditional Deployment

This release includes the following new features and enhancements in OSM 7.5 traditional deployment:

- New Modern OSM Installer
- Automated Gathering of Data for Resolution of Service Requests

Also see "New Features (Cloud Native and Traditional Deployments)" that lists new features and enhancements that are applicable to both traditional and cloud native deployments of OSM.

New Modern OSM Installer

This release introduces a new and modern installer for installing OSM.

In the download package, the installer is provided in RPM format for Linux, and in zip format for Solaris.

The installer is built with Java 8 and uses a command line interface, which is pipeline-friendly. The installer provides the ability to centralize installation tools on one host, and then deploy to multiple remote OSM environments. The interactive installation process captures the configuration details that you provide. These captured details are then saved in a properties file for each OSM instance. To modify your configuration, you only have to modify the values in the properties file and run the scripts provided with the installer. The validation mechanism ensures that all prerequisites have been installed and set up for integration with the OSM instance.

For more details about the installer, see *OSM Installation Guide*.

Automated Gathering of Data for Resolution of Service Requests

This release provides scripts that automatically gather data about your OSM system.

The SR data gathering scripts automate the difficult and time-consuming task of gathering logs, AWR reports, GC logs and other critical system data before they can be uploaded to an SR, improving Oracle's response time.

For more details about the scripts, see *OSM System Administrator's Guide*.

Fixes in This Release

OSM release 7.5 includes fixes and enhancements from the patch sets included in OSM release 7.4.

In addition, OSM release 7.5 includes fixes and enhancements from the following patch sets:

- Order and Service Management 7.3.0 patches up to and including 7.3.0.2.1 (patch number 29774162)
- Order and Service Management 7.3.1 patches up to and including 7.3.1.0.17 (patch number 34163045)
- Order and Service Management 7.3.5 patches up to and including 7.3.5.1.32 (patch number 35605157)
- Order and Service Management 7.4.0 patches up to and including 7.4.0.0.14 (patch number 35958208)
- Order and Service Management 7.4.1 patches up to and including 7.4.1.0.16 (patch number 36445614)

Known Problems

For known problems in this release of OSM traditional, see the patch readme.

For details about known issues and resolutions in OSM cloud native, see the Known Issues section in *OSM Cloud Native Deployment Guide*.

Order-to-Activate Cartridge Compatibility

To install or upgrade the Order-to-Activate cartridges, you must ensure compatibility between the following:

- OSM software version and Order-to-Activate cartridge version
- OSM Order-to-Activate cartridge version and Oracle Application Integration Architecture (Oracle AIA) Order to Cash Integration Pack for OSM version

For Order-to-Activate cartridge compatibility information, see *Order-to-Activate Cartridge Product Compatibility Matrix* (in the **OSM Cartridges for Oracle Application Integration Architecture** section of the OSM documentation) on the Oracle Help Center website:

http://docs.oracle.com/en/industries/communications/order-service-management/index.html

Deprecated and Removed Features

This section lists the deprecated and removed features in OSM releases.

Deprecated Features in OSM 7.5

This section lists deprecated features in OSM 7.5.

Operating Systems Deprecated

The following operating systems are no longer certified:

- HP-UX Itanium
- IBM AIX
- Microsoft Windows

To better serve the majority of the customer base, Oracle now provides native support for Oracle Linux using DNF, which uses RPM packaging. Oracle also offers a generic packaging (using ZIP) that is certified for Solaris.

Design Studio, including the OSM SDK, remain certified for Windows.

Traefik as Ingress Controller Deprecated

In this release, support for Traefik as Ingress controller has been deprecated. While OSM supports the use of Traefik as Ingress Controller, it is recommended to use an Ingress Controller that supports the generic Kubernetes API with added annotations for behavior essential to OSM. See *OSM Cloud Native Deployment Guide* and *OSM Compatibility Matrix* for details about the recommended and supported Ingress controllers.

Deprecated Features in OSM 7.4.1

This section lists the deprecated and removed features in OSM 7.4.1.

Application Management Pack (AMP) Deprecated

Support for Application Management Pack (AMP) has been deprecated. However, you can still use AMP with traditional deployments of OSM. Oracle recommends using Prometheus metrics for both traditional and cloud native deployments of OSM.

Deprecated Features in OSM 7.4

The following features have been deprecated or removed from the feature set in the OSM 7.4 release:

Pie and Gantt Charts Removed

The Pie and Gantt Charts in the Process History pages have been removed from the Task Web client.

Deprecated Features in OSM 7.3.5

The following features have been deprecated or removed from the feature set in the OSM 7.3.5 release:

Customer Asset Manager and Account Manager Modules Removed

The Customer Asset Manager and Account Manager modules have been removed. Oracle recommends that you use corresponding functionality in Oracle Configure, Price, Quote (CPQ) Cloud for your hybrid cloud solution.

Product Specification (was Product Class) Deprecated

The Product Specification entity (which was renamed from the Product Class entity in OSM 7.2.4), is deprecated. Existing entities are supported for backward compatibility, but new OSM product specifications (product classes) cannot be created. This functionality is replaced by the Product entity in the conceptual model.

Deprecated Features in OSM 7.3.1

The following feature has been deprecated from the feature set in the OSM 7.3.1 release.

Product Specification (was Product Class) Deprecated

The Product Specification entity (which was renamed from the Product Class entity in OSM 7.2.4), is deprecated. Existing entities are supported for backward compatibility, but new OSM product specifications (product classes) cannot be created. This functionality is replaced by the Product entity in the conceptual model.

Deprecated Features in OSM 7.3

The following features have been either deprecated or removed from the feature set permanently in the OSM 7.3 release.

Legacy Dispatch Mode for Automation Plug-ins Removed

OSM 7.3 no longer supports automation plug-ins that have been built and deployed in Legacy dispatch mode. Only Optimized dispatch mode is supported.

Oracle Scripter Client Removed

Because the Reporting Interface is now installed by the OSM installer, the Oracle Scripter thick client is no longer necessary and has been removed.

Administrator Application Removed

Because the administrative functions previously performed by the Administrator Application are now located in the Order Management Web client, the Administrator Application is no longer necessary and has been removed.

Removed Support for Custom Order Update Orchestration Plan XQuery

The oracle.communications.ordermanagement.orchestration.generation.CreateOrder parameter has been removed from the oms-config.xml file. This parameter was internal only and has now been removed.

Removed Support for Command-Line Passwords in XML Import/Export

It is no longer possible to pass an unencrypted password as a command-line argument to the XML Import/Export tool scripts. The -p db_password and the -clientpassword xmlAPI_password command-line arguments have been removed. In addition, the database.password and weblogic.password options in the build.properties file should not be included, and if they are included they will not be used. You must either use encrypted passwords in the config.xml file (using the EncryptPassword utility) or interactively provide the unencrypted password when prompted.

Product Specification (was Product Class) Deprecated

The Product Specification entity (which was renamed from the Product Class entity in OSM 7.2.4), is deprecated. Existing entities are supported for backward compatibility, but new OSM Product Specifications (Product Classes) cannot be created. This functionality is replaced by the Product entity in the conceptual model.

Deprecated Features in OSM 7.2.4 and OSM 7.2.4.1

The following features have either been deprecated or have been removed from the feature set permanently in the OSM 7.2.4 and OSM 7.2.4.1 releases.

Removal of JumpTo Menu Action in Order Management Client

In the data tab of Order Management Web Client, the JumpTo menu action to move quickly to specific data is removed. Order items of large orders can be displayed in a table layout as of 7.2.0.3 (see knowledge article [Doc ID 1490196.1] for details), which saves screen space. This legacy method of navigating a large order without scrolling is no longer necessary.

Removed Support for Custom Order Update Orchestration Plan XQuery

The oracle.communications.ordermanagement.orchestration.generation.CreateOrder parameter has been removed from the oms-config.xml file. This parameter specified the default orchestration plan XQuery to create an order update. This parameter was not intended to be end-user adjustable, and has now been removed.

Improved Security in XML Import/Export

It is no longer possible to pass an unencrypted password as a command-line argument to the XML Import/Export tool scripts. The -p db_password and the -clientpassword xmlAPI_password command-line arguments have been removed. In addition, the database.password and weblogic.password options in the build.properties file should not be included, and if they are included they will not be used. You must either use encrypted passwords in the config.xml file (using the EncryptPassword utility) or interactively provide the unencrypted password when prompted.

Legacy Build-and-Deploy Dispatch Mode

Prior to OSM 7.0.3, when you built and deployed a cartridge that included automation plug-ins, OSM ran each automation plug-in in that cartridge in its own separate EAR file; this method of building and deploying automation plug-ins is now referred to as the Legacy build-and-deploy mode. Legacy mode simply refers to the manner in which automation plug-ins were deployed and executed prior to OSM 7.0.3.

You can now build and deploy a cartridge in Design Studio using the Optimized build-and-deploy mode, the current default mode; this mode improves the performance of processing of automated tasks and improves the performance of build and deployment of cartridges with automated tasks.

The Legacy build-and-deploy mode is deprecated, and it may be removed in a future release.

Deprecated Features in OSM 7.2.2

The following features have been deprecated or removed from the feature set in the OSM 7.2.2 release:

Support for HP-UX Itanium Ended

OSM is no longer supported on the HP-UX Itanium operating system. See *OSM Installation Guide* for details on supported operating systems.

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.

Access to Oracle Support

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info or visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs if you are hearing impaired.

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