

Oracle® Communications Order and Service Management

Compatibility Matrix

Release 7.4.1

F35760-19

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OSM Software Compatibility

This document lists the software compatible with Oracle Communications Order and Service Management (OSM).

See the following sections for details:

- [OSM Common Software Compatibility](#)
- [OSM Cloud Native Deployment Software Compatibility](#)
- [OSM Traditional Deployment Software Compatibility](#)

OSM Common Software Compatibility

This section describes the software required to support the Oracle Communications Order and Service Management (OSM) cloud native and traditional deployment.

Table 1-1 Supported Common Software for OSM Cloud Native Deployment Package 7.4.1.0.x (x >= 1) and Traditional Deployment

Software	Version	Notes
Ant	1.10.x (x >= 0)	<p>Cloud Native: Optional. Ant is required for direct ant-based integration with the various tools in the OSM SDK including the XMLIE tool for cloud native cartridge management. To ensure the tools function correctly, all copies of Ant in use on the SDK host must have the same version number. Ant is not required if the tools in OSM SDK are invoked via scripts provided in the SDK.</p> <p>Traditional: Ant is required for using various tools in the OSM SDK including OSM cartridge management tools. To ensure the tools function correctly, all copies of Ant in use must have the same version number.</p>
Grafana	<p>Cloud Native: 9.x (x >= 4.3)</p> <p>Traditional: 7.x (x >=5.5)</p>	<p>Optional. This is for monitoring purposes.</p>
Java	<p>Cloud Native: 8 update 441 (Recommended) Earlier versions, starting with 8 update 281, are also certified.</p> <p>Traditional: 8 update 441 (Recommended) - For Linux, Solaris and Windows Earlier versions, starting with 8 update 281, are also certified. 8.0 SR6 FP20 or later (For AIX) 8.0.21 or later (For HP-UX) 7 update 371 (Recommended) - For Linux, Solaris and Windows JRE 7.0 SR10 FP674 or later (For AIX) JRE 7.0.32 or later (For HP-UX).</p>	<p>Cloud Native: Recommended versions for OSM cloud native as per the manifest file. See "OSM Cloud Native Manifest File". If you use G1 GC, then do not use Java 8 update 371 and update 381.</p> <p>Traditional: Java 7 is certified for launching the installer only.</p>

Table 1-1 (Cont.) Supported Common Software for OSM Cloud Native Deployment Package 7.4.1.0.x (x >= 1) and Traditional Deployment

Software	Version	Notes
Oracle Communications Service Catalog and Design - Design Studio application only	7.4.1 or later	This is the evolution of Oracle Communications Design Studio.
Oracle Database (installed as Container Database)	<p>Cloud Native: Oracle Database 19c</p> <p>Traditional: Oracle Database 19c</p> <p>Note: The following database versions are not certified for OSM cloud native. These database versions have reached the end of their support lifecycle. Oracle strongly recommends that you upgrade to an actively supported database version.</p> <p>12c R2 (12.2.0.1) 12c R1 (12.1.0.2)</p>	<p>Enterprise Edition or Oracle OCI Database Service: Enterprise Edition High Performance / Oracle Grid Infrastructure.</p> <p>Enterprise Edition Extreme Performance may be needed for High Availability (RAC) and Disaster Recovery. Refer to OCI documentation for details on each edition.</p> <p>The database should not be installed on a Microsoft Windows system for a production environment. Microsoft Windows can be used for development, demonstration, and test environments.</p>
Oracle Database Release Updates (RU), revisions and patches	<p>Cloud Native: 19.25.0.0.0 (Recommended) Earlier patches for Oracle Database 19c are also supported.</p> <p>Traditional: 19.25.0.0.0</p> <p>Note: The following database versions have reached the end of their support lifecycle. Oracle strongly recommends that you upgrade to an actively supported database version.</p> <p>12c R2 (12.2.0.1) 12c R1 (12.1.0.2)</p>	Although earlier CPUs are supported, Oracle recommends the latest available CPU to avoid security issues. In addition, apply the overlay patches listed in " Database Overlay Patches " and any other required patches when available.
Oracle Fusion Middleware Infrastructure	12.2.1.4	<p>Traditional: Fusion Middleware Infrastructure is included in the OSM software media pack. It includes Oracle WebLogic Server, Oracle Coherence, and Oracle Application Development Framework (ADF).</p>

Table 1-1 (Cont.) Supported Common Software for OSM Cloud Native Deployment Package 7.4.1.0.x (x >= 1) and Traditional Deployment

Software	Version	Notes
Oracle Fusion Middleware Patches	<p>January 2025 CPU and overlay patches (Highly Recommended)</p> <p>Earlier CPUs, starting with January 2021 CPU and overlay patches are also certified.</p>	<p>Install the patches listed in "Critical Patch Updates and Overlay Patches."</p> <p>Cloud Native: See "OSM Cloud Native Manifest File." Considering the critical fixes delivered with the April 2024 CPU, Oracle highly recommends uptaking the April 2024 CPU or later.</p> <p>Traditional: Patch 29448643 is included in Fusion Middleware 12.2.1.4 and need not be applied again. If you see non-WLS deserialization issues where a value of 100 is not sufficient, then increase the value using the system property as per the following workaround: Set the "-Dweblogic.oif.serialFilter=maximumDepth=1000" flag in JAVA_OPTIONS for the managed servers.</p>
Oracle Instant Client	<p>19.25.0.0.0 (Recommended)</p> <p>Earlier versions, up to 19.8.0.0.0 are also supported. Versions between 19.8.0.0.0 and 19.17.0.0.0 are not supported.</p>	<p>Cloud Native: Recommended versions as per the manifest file. See "OSM Cloud Native Manifest File".</p> <p>Traditional: Optional Used for copying default partition statistics to the partitions for improving performance. Oracle recommends using the latest available version.</p>

Table 1-1 (Cont.) Supported Common Software for OSM Cloud Native Deployment Package 7.4.1.0.x (x >= 1) and Traditional Deployment

Software	Version	Notes
Oracle Linux	9.x (x >= 3) 8.x (x >= 2)	<p>Cloud Native: Recommended versions as per the manifest file. See "OSM Cloud Native Manifest File".</p> <p>Oracle Linux is specific to the OSM container images, not for the Kubernetes worker nodes.</p> <p>Traditional: Oracle products certified on Oracle Linux are also supported on Red Hat Enterprise Linux due to implicit compatibility between both distributions. Oracle does not run any additional testing on Red Hat Enterprise Linux products.</p> <p>Oracle recommends the latest available update, because later updates may provide modest performance gains.</p> <p>Note: Oracle Applications are developed and tested on Oracle Linux, which is optimized for performance, stability and security.</p>
Oracle WebLogic Monitoring Exporter	<p>Cloud Native: 2.0.5 or later</p> <p>Traditional: 1.3.0</p>	<p>See WME documentation on GitHub: https://github.com/oracle/weblogic-monitoring-exporter. This is required only if you want to view metrics for the WebLogic server in Prometheus.</p> <p>Note: WME is supported for OSM 7.4.1.0.2 and higher.</p>
Prometheus	<p>Cloud Native: 2.x (x >= 41.0)</p> <p>Traditional: 2.x (x >= 26.0)</p>	<p>Optional.</p> <p>This is for monitoring purposes.</p>
Web Browsers	Google Chrome 88 or later Mozilla Firefox ESR 78.7 or later Microsoft Edge Chromium 87 or later	These apply to Order Management web client and Task web client.

OSM Cloud Native Deployment Software Compatibility

This section lists the software compatible with the Oracle Communications Order and Service Management (OSM) cloud native deployment package.

 **Note:**

The software listed here are required for OSM cloud native, in addition to the software listed in [OSM Common Software Compatibility](#).

See the following sections:

- [Recommended Cloud Native Technology Stack](#)
- [Supported Kubernetes Technology Stack](#)

This section lists software versions compatible with the OSM cloud native deployment.

Recommended Cloud Native Technology Stack

The following table lists the recommended versions of the software in the Kubernetes technology stack supported with OSM cloud native deployments.

 **Note:**

Oracle recommends that if you use any of the components listed in this table, then use only the versions of other components listed in this table.

Table 1-2 Recommended Versions of Technology Stack for OSM Cloud Native Deployment Package 7.4.1.0.x (x >= 1)

Software	Version	Notes
Kubernetes	1.31.x (x >= 1) 1.30.x (x >= 1) 1.29.x (x >= 1) 1.28.x (x >= 2) 1.27.x (x >= 2) 1.26.x (x >= 2) 1.25.x (x >= 4)	See " Container Platforms for OSM Cloud Native " for further details.

Table 1-2 (Cont.) Recommended Versions of Technology Stack for OSM Cloud Native Deployment Package 7.4.1.0.x (x >= 1)

Software	Version	Notes
CRI-O	1.31.x (x >= 0) 1.30.x (x >= 0) 1.29.x (x >= 0) 1.28.x (x >= 2) 1.27.x (x >= 1) 1.26.x (x >= 2) 1.25.x (x >= 1)	CRI-O is required only in Kubernetes runtime environments.
Docker	19.03.x (x >= 11)	Docker is recommended for building images. It is not used as a container engine.
Helm	3.9.0 or later	Not applicable.
Ingress Controller	Ingress Controller version that conforms to your Kubernetes version standard API.	Use any Ingress Controller that conforms to your Kubernetes version Ingress API and provides annotations needed for OSM as documented in the KM Doc ID 2980164.1. This is applicable for 7.4.1.0.13 and later.
Kubernetes Cluster Networking Interface (CNI)	OSM cloud native is certified for the same CNI plugins and versions specified by the WebLogic Kubernetes Operator version listed in this table.	See " WebLogic Kubernetes Operator Documentation " for further details.
Oracle WebLogic Kubernetes Operator	4.2.x (x >= 2) 4.1.x (x >= 2) when using Kubernetes versions upto 1.28x 4.0.x (x >= 8) when using Kubernetes versions upto 1.26x	For WKO versions 4.0.8 and later, see the KM article (<i>OSM CN- Weblogic Kubernetes Operator (WKO) 4.x installation for OSM 7.4.1 CN</i> (Doc ID 2985407.1)) on My Oracle Support. Also, see the documentation about WKO at: https://oracle.github.io/weblogic-kubernetes-operator/ Note: WKO versions 4.2.5 and later are compatible with OSM 7.5.0.0.7 and later.
Podman	4.1.x (x >= 1)	Podman is an alternative to Docker for building images. Oracle recommends using Docker. The OSM cloud native image builder is configured to use Docker, by default. If Docker is not found, the image builder uses Podman.
Traefik	2.10.x (x >= 6) Chart version: 26.x (x >= 0.0)	This is a sample ingress controller and required only if you use Traefik as your ingress controller. For details, see: https://artifacthub.io/packages/helm/traefik/traefik

Earlier and Supported Versions of Kubernetes Technology Stack

The following tables list the versions of software in the Kubernetes technology stack that OSM supports, provided that each technology is still supported by the respective provider. Each version of a component listed in a table is compatible with the versions of the other components listed within that table only.

For software not listed in these tables, use the appropriate version in [Table 1-2](#).

 **Note:**

Oracle highly recommends uptaking the stack versions listed in [Table 1-2](#).

Table 1-3 Earlier and Supported Versions of Kubernetes Technology Stack for OSM Cloud Native Deployment Package 7.4.1.0.x (x >= 1)

Software	Version	Notes
Kubernetes	1.24.x (x >= 1) 1.23.x (x >= 4) 1.22.x (x >= 5)	See " Container Platforms for OSM Cloud Native " for further details.
CRI-O	1.24.x (x >= 1) 1.23.x (x >= 3) 1.22.x (x >= 3)	CRI-O is required only in Kubernetes runtime environments.
Docker	19.03.x (x >= 11)	Docker is recommended for building images. It is not used as a container engine.
Grafana	7.x (x >= 5.5)	Optional. This is for monitoring purposes.
Helm	3.x (x >= 4.1)	Not applicable.
Kubernetes Cluster Networking Interface (CNI)	OSM cloud native is certified for the same CNI plugins and versions specified by the WebLogic Kubernetes Operator version listed in this table.	See " WebLogic Kubernetes Operator Documentation " for further details.
Oracle WebLogic Kubernetes Operator	3.4.x (x >= 1) 4.0.x (x >= 5)	WKO 4.x is only supported against Kubernetes 1.23.x and later. WKO 4.x is not supported against Kubernetes 1.22.x. See WKO documentation. For 3.4.x, go to: https://oracle.github.io/weblogic-kubernetes-operator/3.4/ For 4.0.x, go to: https://oracle.github.io/weblogic-kubernetes-operator/
Podman	4.1.x (x >= 1)	Podman is an alternative to Docker for building images. Oracle recommends using Docker. The OSM cloud native image builder is configured to use Docker, by default. If Docker is not found, the image builder uses Podman.
Prometheus	2.x (x >= 26.0)	Optional. This is for monitoring purposes.

Table 1-3 (Cont.) Earlier and Supported Versions of Kubernetes Technology Stack for OSM Cloud Native Deployment Package 7.4.1.0.x (x >= 1)

Software	Version	Notes
Traefik	2.9.x (x >= 1)	This is a sample ingress controller and required only if you use Traefik as your ingress controller. For details, see: https://artifacthub.io/packages/helm/traefik/traefik
WebLogic Monitoring Exporter	2.0.5 or later	See WME documentation on GitHub: https://github.com/oracle/weblogic-monitoring-exporter . This is required only if you want to view metrics for the WebLogic server in Prometheus. Note: WME is supported for OSM 7.4.1.0.2 and higher.

Table 1-4 Earlier and Supported Versions of Kubernetes Technology Stack for OSM Cloud Native Deployment Package 7.4.1.0.x (x >= 1)

Software	Version	Notes
Kubernetes	1.18.x 1.17.x 1.16.x 1.15.x (x >= 7) 1.14.x (x >= 8)	See "Container Platforms for OSM Cloud Native" for further details.
Cluster Networking Interface (CNI)	Flannel 0.9.1-amd64 or later	Not applicable.
Docker	19.03.x (x >= 1) 18.09.x (x >= 1)	Not applicable.
Grafana	7.x (x >= 5.5)	Optional. This is for monitoring purposes.
Helm	3.x (x >= 1.3)	Not applicable.
Oracle WebLogic Kubernetes Operator	3.1.x	See the documentation about WKO at: https://oracle.github.io/weblogic-kubernetes-operator/
Prometheus	2.x (x >= 26.0)	Optional. This is for monitoring purposes.
Traefik	2.3.x (x >= 3)	For details, see: https://artifacthub.io/packages/helm/traefik/traefik
WebLogic Monitoring Exporter	1.3.0	See WME documentation on GitHub: https://github.com/oracle/weblogic-monitoring-exporter . Note: WME is supported for OSM 7.4.1.0.2 and higher.

OSM Cloud Native Manifest File

The OSM cloud native manifest file tracks updates and patches to the following software:

- Java
- Oracle Fusion Middleware, including patches
- Oracle Instant Client
- Oracle Linux

Oracle updates the manifest files to track Critical Patch Updates for all these components. You are encouraged to uptake the manifests as they are released.

To download the manifest file, see the "[OSM Cloud Native Manifest Files \(Doc ID 2721663.1\)](#)" knowledge article on My Oracle Support.

For information on how to use the manifest file to build your OSM cloud native images, see "Creating OSM Cloud Native Images" in *OSM Cloud Native Deployment Guide*.

Container Platforms for OSM Cloud Native

OSM cloud native is designed to be agnostic of the underlying cloud infrastructure. It relies on standard APIs, objects and configuration functions from the software products listed in this document. As such, OSM cloud native is certified on any container platform based on a CNCF-certified Kubernetes, provided the version requirements listed in this document are satisfied.

OSM cloud native has been tested on a standard "upstream" (kubernetes.io) deployment of Kubernetes on Linux VM and bare metal (private lab and IaaS). OSM cloud native has also been tested on Oracle OCI OKE platform with Oracle Multitenant Database via co-located Oracle Database Service (Bare Metal, VM, and ExaData). OSM cloud native includes specific support for OCI and OKE.

Other Kubernetes distributions and container platforms may impose their own operational, security and configuration requirements. These would have to be addressed as part of the uptake of OSM cloud native, with support from the third party provider.

An important requirement is the presence of an Oracle Multitenant Container Database in close network proximity to the platform, in an environment and configuration that is officially supported by Oracle.

OSM Traditional Deployment Software Compatibility

This section describes the software required to support the OSM components for traditional deployment.

 **Note:**

The software listed here are required for OSM traditional deployment, in addition to the software listed in [OSM Common Software Compatibility](#).

Table 1-5 Supported Software for OSM Traditional Deployment

Software	Version	Notes
Cloud IaaS Support	OCI Cloud Services (OCI Compute Shapes and OCI DB System Shapes) Amazon Web Services Elastic Computing EC2 Amazon Web Services Relational Database Service (RDS) Amazon Web Services Relational Database Service (RDS) Custom	Currently, RDS lacks the ability to control one-off patches and is not recommended for OSM production deployments. Oracle strongly recommends configuring an Active Data Guard standby database in the same Region but different AZ for high-availability.
HP-UX	11.31	Not applicable.
IBM AIX	7.x (x >= 1)	Not applicable.
Solaris	11.x (x >= 3)	Supported on Sparc platforms only.
Windows	Windows 10	For development, demonstration, and test environments. Not for production use.

 **Note:**

For all operating systems, check the Oracle Database documentation for any additional operating system patches required to support the database.

Oracle Application Integration Architecture for Communications Alignment

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>

This document contains information about compatibility between OSM software, OSM Order-to-Activate cartridges, and Oracle Application Integration Architecture (AIA) for Communications. The OSM Order-to-Activate cartridges are used with the Oracle Communications Order to Cash Integration Pack for Oracle Communications Order and Service Management.

For more information about the Order to Cash business process see *Oracle Communications Order to Cash Integration Pack Implementation Guide for Siebel CRM, Oracle Order and Service Management, and Oracle Billing and Revenue Management* in the Oracle Application Integration Architecture documentation.

Design Studio Installation and Version Compatibility

For Oracle Communications Design Studio plug-in installation information, see *Design Studio Installation Guide*.

Note:

If you need to build or re-build cartridges for OSM release 7.4.1, use the OSM release 7.4.1 SDK and the target OSM version as 7.4.0. In general, use the target OSM version that is closest to the OSM version.

Database Overlay Patches

This section lists database overlay patches. Apply these patches on top of the recommended latest available CPU.

The below table lists database 19.0.0.0 overlay patches.

Table 1-6 Database 19.0.0.0 Overlay Patches

Patch	Description	Details
27675947 This patch is included in 19c, but disabled by default.	ORA-23549: TABLE "SCHEMA"."TABLE" INVOLVED IN REFERENCE PARTITIONING.	Enables online table redefinition, which is required by OSM during upgrades. You need to connect with sysdba privileges and run the following on every database instance to enable the fix: <pre>alter system set "_fix_control"='27675947:ON' scope=BOTH;</pre>
35109397	ORA-600 [PMUOCPY2#3: UNHANDLED TYPE] - PMUOCPY2_COPY_RECUR	After a RMAN Backup and Restore cycle, the DB may get corrupt and you might see "Generic OMS Exception" in server logs while trying to open an order from OSM Task client. You need to apply this patch and recompile packages, package body, procedures and functions on all OSM schemas (ORDERMGMT,RULE & REPORT). Refer to DOCID 35109397.8 for more details

The below table lists database 12.2.0.1 overlay patches.

Table 1-7 Database 12.2.0.1 Overlay Patches

Patch	Description	Details
27675947	ORA-23549: TABLE "SCHEMA"."TABLE" INVOLVED IN REFERENCE PARTITIONING.	Enables online table redefinition which is required by OSM during upgrades. User needs to connect with sysdba privileges and run the following on every database instance to enable the fix: <pre>alter system set "_fix_control"='27675947:ON' scope=BOTH;</pre>
25994960	CARDINALITY MISESTIMATE FROM HYBRID HISTOGRAM	Create a HEIGHT BALANCED Histogram instead of HYBRID Histogram. To improve Cardinality Estimate On Query Plan (Doc ID 2295352.1).

 **Note:**

This database version has reached the end of its support lifecycle. Oracle strongly recommends that you upgrade to an actively supported database version.

The below table lists database 12.1.0.2 overlay patches.

Table 1-8 Database 12.1.0.2 Overlay Patches

Patch	Description	Details
14380605	HIGH LIBRARY CACHE LOCK,CURSOR: PIN S WAIT ON X AND LIBRARY CACHE: MUTEX X.	Library cache lock and pin usage is reduced when compiling most MERGE statements.
25335790	EXADATA:ORA-600 [KKSGAGETNOALLOC_INT0] ON ACTIVE DATABASE.	Despite bug title, this patch also applies to non-Exadata database systems. Required up to DATABASE PATCH SET UPDATE 12.1.0.2.180116.
22097775	EMPTY TABLE WITH COMPRESSED FK CAUSES ORA-02292 DURING DELETE ON PARENT TABLE.	If using index compression, this patch fixes foreign key issues as per ORA-02292. During Delete from Table Referenced by Child Table with Advanced Compression Foreign Key Index (Doc ID 2081229.1).
21752827	BUG 21752827 - STRP: ORA 600 [KKPAMREFGET: BAD OBJD].	Required when shrinking volatile tables using the procedure in Shrinking Volatile OSM Table Sizes to Increase OSM Performance (Doc ID 2268291.1).

Table 1-8 (Cont.) Database 12.1.0.2 Overlay Patches

Patch	Description	Details
25994960	CARDINALITY MISESTIMATE FROM HYBRID HISTOGRAM	Create a HEIGHT BALANCED Histogram instead of HYBRID Histogram. To improve Cardinality Estimate On Query Plan (Doc ID 2295352.1)

 **Note:**

This database version has reached the end of its support lifecycle. Oracle strongly recommends that you upgrade to an actively supported database version.

Critical Patch Updates and Overlay Patches

OSM is supported on all Oracle Critical Patch Updates. You should install the latest Critical Patch Updates and overlay patches as soon as possible. To download Critical Patch Updates, find out about security alerts, and enable email notifications about Critical Patch Updates, see the Oracle Technology Network website:

<https://www.oracle.com/security-alerts/>

Table 1-9 January 2025 CPU and Overlay Patches

Component	Patch Number
PSU for WLS	37453807
PSU Coherence (12.2.1.4.24)	37351860
ADF Bundle Patch	37388935
Additional Fix for ADF Bundle Patch	34809489
ADR for WebLogic Server	35965629
OPSS for WebLogic Server	36316422
WebLogic Opatch (13.9.4.2.18)	28186730
Fusion Middleware Platform SPU	36789759
Fusion Middleware Thirdparty Bundle Patch	37374672
JDBC 19.25 Bundle Patch	37258699
OSS 19C Bundle Patch	37297691
Cloning SPU for WLS/FMW 12.2.1.4.0	37056593
Fusion Middleware Control SPU	36946553
Oracle Web Services Manager (OWSM) Bundle Patch	37035947
Remote Diagnostic Agent (RDA) for WebLogic Server 12.2.1.4.0	37202255

Table 1-9 (Cont.) January 2025 CPU and Overlay Patches

Component	Patch Number
Fusion Middleware Compatibility Patch for JDK8	34065178
WebCenter Core Bundle Patch	37284722
Oracle Data Integrator Bundle Patch	37473676
Overlay patches	30319071 (User group association) 31169032 (Export JMS Messages) 31569708 (JMS Orphan Destination routing) 32262098 (3 JDBC Stores in Fusion application pod have no owner) 31676526 (ADB Wallet Dir Connection String Support) 30540494 (RCU creation with RAC for ADB) 30754186 (Improve efficiency for RCU SQL)

Table 1-10 October 2024 CPU and Overlay Patches

Component	Patch Number
PSU for WLS	37087476
PSU Coherence (12.2.1.4.23)	37049907
ADF Bundle Patch	37028738
Additional Fix for ADF Bundle Patch	34809489
ADR for WebLogic Server	35965629
OPSS for WebLogic Server	36316422
WebLogic Opatch (13.9.4.2.17)	28186730
Fusion Middleware Platform SPU	36789759
Fusion Middleware Thirdparty Bundle Patch	37103277
JDBC 19.24 Bundle Patch	36926636
OSS 19C Bundle Patch	37096063
Cloning SPU for WLS/FMW 12.2.1.4.0	37056593
Fusion Middleware Control SPU	36946553
Oracle Web Services Manager (OWSM) Bundle Patch	37035947
Remote Diagnostic Agent (RDA) for WebLogic Server 12.2.1.4.0	36851321
Fusion Middleware Compatibility Patch for JDK8	34065178
WebCenter Core Bundle Patch	36964687
Oracle Data Integrator Bundle Patch	37107206

Table 1-10 (Cont.) October 2024 CPU and Overlay Patches

Component	Patch Number
Overlay patches	30319071 (User group association) 31169032 (Export JMS Messages) 31569708 (JMS Orphan Destination routing) 32262098 (3 JDBC Stores in Fusion application pod have no owner) 31676526 (ADB Wallet Dir Connection String Support) 30540494 (RCU creation with RAC for ADB) 30754186 (Improve efficiency for RCU SQL) 36603199 (Cross domain transaction between Kubernetes domain and on-premises domain failing intermittently with rollback exception) 36627663 (RJVM Diagnostic Notification Messages in the Managed server logs)

Table 1-11 July 2024 CPU and Overlay Patches

Component	Patch Number
PSU for WLS	36805124
PSU Coherence (12.2.1.4.22)	36725924
ADF Bundle Patch	36700543
Additional Fix for ADF Bundle Patch	34809489
ADR for WebLogic Server	35965629
OPSS for WebLogic Server	36316422
WebLogic Opatch (13.9.4.2.16)	28186730
Fusion Middleware Platform SPU	33093748
Fusion Middleware Thirdparty Bundle Patch	36770738
Fusion Middleware Control SPU	34542329
Fusion Middleware JDBC	33791062
Oracle Web Services Manager (OWSM) Bundle Patch	36769312
Remote Diagnostic Agent (RDA) for WebLogic Server 12.2.1.4.0	36553894
Fusion Middleware Compatibility Patch for JDK8	34065178
WebCenter Core Bundle Patch	36741053
Oracle Data Integrator Bundle Patch	36799120

Table 1-11 (Cont.) July 2024 CPU and Overlay Patches

Component	Patch Number
Overlay patches	<p>36842950 (Merge Request on top of WLS PSU 12.2.1.4.240704 for bugs 27184424 28334768)</p> <p>36603199 (Cross domain transaction between Kubernetes domain and on-premises domain failing intermittently with rollback exception)</p> <p>30319071 (User group association)</p> <p>31169032 (Export JMS Messages)</p> <p>31569708 (JMS Orphan Destination routing)</p> <p>32262098 (3 JDBC Stores in Fusion application pod have no owner)</p> <p>35363703 (Fix for logging about non-existing managed servers in dynamic cluster. This is applicable only for Cloud Native and not for Traditional.)</p>

Table 1-12 April 2024 CPU and Overlay Patches

Component	Patch Number
PSU for WLS	36440005
PSU Coherence (12.2.1.4.21)	36410345
ADF Bundle Patch	36348444
Additional Fix for ADF Bundle Patch	34809489
ADR for WebLogic Server	35965629
OPSS for WebLogic Server	36316422
WebLogic Opatch (13.9.4.2.15)	28186730
Fusion Middleware Platform SPU	33093748
Fusion Middleware Thirdparty Bundle Patch	36468190
Fusion Middleware Control SPU	34542329
Fusion Middleware JDBC	33791062
Oracle Web Services Manager (OWSM) Bundle Patch	36402397
Remote Diagnostic Agent (RDA) for WebLogic Server 12.2.1.4.0	36187017
Fusion Middleware Compatibility Patch for JDK8	34065178
WebCenter Core Bundle Patch	36349529
Oracle Data Integrator Bundle Patch	36487966

Table 1-12 (Cont.) April 2024 CPU and Overlay Patches

Component	Patch Number
Overlay patches	28334768 (DMS Metric table) 27184424 (Stuck thread) 30319071 (User group association) 31169032 (Export JMS Messages) 31569708 (JMS Orphan Destination routing) 32262098 (3 JDBC Stores in Fusion application pod have no owner) 35363703 (Fix for logging about non-existing managed servers in dynamic cluster. This is applicable only for Cloud Native and not for Traditional.)

Table 1-13 January 2024 CPU and Overlay Patches

Component	Patch Number
PSU for WLS	36155700
PSU Coherence (12.2.1.4.20)	36068046
ADF Bundle Patch	36074941
Additional Fix for ADF Bundle Patch	34809489
ADR for WebLogic Server	35965629
OPSS for WebLogic Server	33950717
WebLogic Opatch (13.9.4.2.14)	28186730
Fusion Middleware Platform SPU	33093748
Fusion Middleware Thirdparty Bundle Patch	36086980
Fusion Middleware Control SPU	34542329
Fusion Middleware JDBC	33791062
Oracle Web Services Manager (OWSM) Bundle Patch	35868571
Remote Diagnostic Agent (RDA) for WebLogic Server 12.2.1.4.0	35671137
Fusion Middleware Compatibility Patch for JDK8	34065178
WebCenter Core Bundle Patch	36034300
Oracle Data Integrator Bundle Patch	35861909
Overlay patches	28334768 (DMS Metric table) 27184424 (Stuck thread) 30319071 (User group association) 31169032 (Export JMS Messages) 31569708 (JMS Orphan Destination routing) 32262098 (3 JDBC Stores in Fusion application pod have no owner)

Table 1-14 October 2023 CPU and Overlay Patches

Component	Patch Number
PSU for WLS	35893811
PSU Coherence (12.2.1.4.19)	35778804
ADF Bundle Patch	35735469
Additional Fix for ADF Bundle Patch	34809489
ADR for WebLogic Server	35476067
OPSS for WebLogic Server	33950717
WebLogic Opatch (13.9.4.2.14)	28186730
Fusion Middleware Platform SPU	33093748
Fusion Middleware Thirdparty Bundle Patch	35882299
Fusion Middleware Control SPU	34542329
Fusion Middleware JDBC	33791062
Oracle Web Services Manager (OWSM) Bundle Patch	35868571
Remote Diagnostic Agent (RDA) for WebLogic Server 12.2.1.4.0	35671137
Fusion Middleware Compatibility Patch for JDK8	34065178
WebCenter Core Bundle Patch	35751917
Oracle Data Integrator Bundle Patch	35861909
Overlay patches	28334768 (DMS Metric table) 27184424 (Stuck thread) 30319071 (User group association) 31169032 (Export JMS Messages) 31569708 (JMS Orphan Destination routing) 32262098 (3 JDBC Stores in Fusion application pod have no owner)

Table 1-15 July 2023 CPU and Overlay Patches

Component	Patch Number
PSU for WLS	35557681
PSU Coherence (12.2.1.4.18)	35505207
ADF Bundle Patch	35503128
ADR for WebLogic Server	33639718
OPSS for WebLogic Server	33950717
WebLogic Opatch (13.9.4.2.13)	28186730
Fusion Middleware Platform SPU	33093748
Fusion Middleware Thirdparty Bundle Patch	35547646
Fusion Middleware Control SPU	34542329
Fusion Middleware JDBC	33791062

Table 1-15 (Cont.) July 2023 CPU and Overlay Patches

Component	Patch Number
Oracle Web Services Manager (OWSM) Bundle Patch	35159582
Remote Diagnostic Agent (RDA) for WebLogic Server 12.2.1.4.0	35380810
Fusion Middleware Compatibility Patch for JDK8	34065178
WebCenter Core Bundle Patch	34549208
Oracle Data Integrator Bundle Patch	35597733
Overlay patches	28334768 (DMS Metric table) 27184424 (Stuck thread) 30319071 (User group association) 31169032 (Export JMS Messages) 31569708 (JMS Orphan Destination routing) 32262098 (3 JDBC Stores in Fusion application pod have no owner)

Table 1-16 April 2023 CPU and Overlay Patches

Component	Patch Number
PSU for WLS	35226999
PSU Coherence (12.2.1.4.17)	35122398
ADF Bundle Patch	35148842
ADR for WebLogic Server	33639718
OPSS for WebLogic Server	33950717
WebLogic Opatch (13.9.4.2.12)	28186730
Fusion Middleware Platform SPU	33093748
Fusion Middleware Thirdparty Bundle Patch	35162846
Fusion Middleware Control SPU	34542329
Fusion Middleware JDBC	32720458
Oracle Web Services Manager (OWSM) Bundle Patch	35159582
Remote Diagnostic Agent (RDA) for WebLogic Server 12.2.1.4.0	35035861
Fusion Middleware Compatibility Patch for JDK8	34065178
WebCenter Core Bundle Patch	34549208
Oracle Data Integrator Bundle Patch	35151900

Table 1-16 (Cont.) April 2023 CPU and Overlay Patches

Component	Patch Number
Overlay patches	28334768 (DMS Metric table) 27184424 (Stuck thread) 30319071 (User group association) 31169032 (Export JMS Messages) 31569708 (JMS Orphan Destination routing) 32262098 (3 JDBC Stores in Fusion application pod have no owner)

Table 1-17 January 2023 CPU and Overlay Patches

Component	Patch Number
PSU for WLS	34883826
PSU Coherence (12.2.1.4.14)	34845927
ADF Bundle Patch	34944256
ADR for WebLogic Server	33639718
OPSS for WebLogic Server	33950717
WebLogic Opatch (13.9.4.2.11)	28186730
Fusion Middleware Platform SPU	33093748
Fusion Middleware Thirdparty Bundle Patch	34879707
Fusion Middleware Control SPU	34542329
Fusion Middleware JDBC	32720458
Oracle Web Services Manager (OWSM) Bundle Patch	34839859
Remote Diagnostic Agent (RDA) for WebLogic Server 12.2.1.4.0	34801809
Fusion Middleware Compatibility Patch for JDK8	34065178
WebCenter Core Bundle Patch	34549208
Oracle Data Integrator Bundle Patch	34898600
Overlay patches	28334768 (DMS Metric table) 27184424 (Stuck thread) 30319071 (User group association) 31169032 (Export JMS Messages) 31569708 (JMS Orphan Destination routing) 32262098 (3 JDBC Stores in Fusion application pod have no owner)

Table 1-18 October 2022 CPU and Overlay Patches

Component	Patch Number
PSU for WLS	34653267
PSU Coherence (12.2.1.4.15)	34545596
ADF Bundle Patch	34535558
ADR for WebLogic Server	33639718
OPSS for WebLogic Server	33950717
WebLogic Opatch (13.9.4.2.10)	28186730
Fusion Middleware Platform SPU	33093748
Fusion Middleware Thirdparty Bundle Patch	34604561
Fusion Middleware Control SPU	34542329
Fusion Middleware JDBC	32720458
Oracle Web Services Manager (OWSM) Bundle Patch	34566592
Remote Diagnostic Agent (RDA) for WebLogic Server 12.2.1.4.0	34546887
Fusion Middleware Compatibility Patch for JDK8	34065178
WebCenter Core Bundle Patch	34549208
Overlay patches	31679103 (WLS restart due to deadlock in threads) 28334768 (DMS Metric table) 27184424 (Stuck thread) 30319071 (User group association) 31169032 (Export JMS Messages) 31569708 (JMS Orphan Destination routing) 32262098 (3 JDBC Stores in Fusion application pod have no owner)

Table 1-19 July 2022 CPU and Overlay Patches

Component	Patch Number
PSU for WLS	34236279
PSU Coherence (12.2.1.4.14)	34248976
ADF Bundle Patch	34247006
ADR for WebLogic Server	33639718
OPSS for WebLogic Server	32784652
WebLogic Opatch (13.9.4.2.10)	28186730
Fusion Middleware Platform SPU	33093748
Fusion Middleware Thirdparty Bundle Patch	34287807
Fusion Middleware Control SPU	30613424
Fusion Middleware JDBC	32720458

Table 1-19 (Cont.) July 2022 CPU and Overlay Patches

Component	Patch Number
Oracle Web Services Manager (OWSM) Bundle Patch	34341032
Remote Diagnostic Agent (RDA) for WebLogic Server 12.2.1.4.0	34212770
Fusion Middleware Compatibility Patch for JDK8	34065178
WebCenter Core Bundle Patch	34237409
Overlay patches	28334768 (DMS Metric table) 27184424 (Stuck thread) 30319071 (User group association) 31169032 (Export JMS Messages) 31569708 (JMS Orphan Destination routing) 32262098 (3 JDBC Stores in Fusion application pod have no owner) 32220849 (Support for JPS configuration params IN WDT MODEL for External LDAP)

Table 1-20 April 2022 CPU and Overlay Patches

Component	Patch Number
PSU for WLS	34012040
PSU Coherence (12.2.1.4.13)	33902201
ADF Bundle Patch	33958532
ADR for WebLogic Server	31544353
OPSS for WebLogic Server	33950717
WebLogic Opatch (13.9.4.2.8)	28186730
Fusion Middleware Platform SPU	33093748
Fusion Middleware Thirdparty Bundle Patch	34044738
Fusion Middleware Control SPU	30613424
Fusion Middleware JDBC	32720458
Oracle Web Services Manager (OWSM) Bundle Patch	33618954
Remote Diagnostic Agent (RDA) for WebLogic Server 12.2.1.4.0	34077658

Table 1-20 (Cont.) April 2022 CPU and Overlay Patches

Component	Patch Number
Overlay patches	33546536 (Oracle Web Services Manager SPU) 33903365 (Login fails after applying 1.80.331 JDK) 28334768 (DMS Metric table) 27184424 (Stuck thread) 30319071 (User group association) 30874677 (PSU Credential Encrypted) 31169032 (Export JMS Messages) 31569708 (JMS Orphan Destination routing) 32262098 (3 JDBC Stores in Fusion application pod have no owner)

Table 1-21 January 2022 CPU and Overlay Patches

Component	Patch Number
PSU for WLS	33727616
PSU Coherence (12.2.1.4.12)	33591019
ADF Bundle Patch	33697227
ADR for WebLogic Server	31544353
OPSS for WebLogic Server	32784652
Fusion Middleware Platform SPU	33093748
WebLogic Opatch (13.9.4.2.8)	28186730
Fusion Middleware Common Third Party SPU	33723124
Fusion Middleware Control SPU	30613424
Fusion Middleware JDBC	32720458
Overlay patches	28334768 (DMS Metric table) 27184424 (Stuck thread) 30319071 (User group association) 30874677 (PSU Credential Encrypted) 31169032 (Export JMS Messages) 31569708 (JMS Orphan Destination routing) 32262098 (3 JDBC Stores in Fusion application pod have no owner) 32220849 (SUPPORT FOR JPS CONFIGURATION PARAMS IN WDT MODEL FOR EXTERNAL LDAP)

Table 1-22 October 2021 CPU and Overlay Patches

Component	Patch Number
PSU for WLS	33416868
PSU Coherence (12.2.1.4.11)	33286160
ADF Bundle Patch	33313802
ADR for WebLogic Server	31544353
OPSS for WebLogic Server	32784652
Fusion Middleware Platform SPU	33093748
WebLogic Opatch (13.9.4.2.7)	28186730
Fusion Middleware Common Third Party SPU	32880070
Fusion Middleware Control SPU	30613424
Overlay patches	28334768 (DMS Metric table) 27184424 (Stuck thread) 30319071 (User group association) 30874677 (PSU Credential Encrypted) 31169032 (Export JMS Messages) 31569708 (JMS Orphan Destination routing) 32262098 (3 JDBC Stores in Fusion application pod have no owner) 32220849 (SUPPORT FOR JPS CONFIGURATION PARAMS IN WDT MODEL FOR EXTERNAL LDAP)

Table 1-23 July 2021 CPU and Overlay Patches

Component	Patch Number
PSU for WLS	33059296
PSU Coherence (12.2.1.4.10)	32973297
ADF Bundle Patch	33084721
ADR for WebLogic Server	31544353
OPSS for WebLogic Server	32784652
Fusion Middleware Platform SPU	33093748
WebLogic Opatch (13.9.4.2.6)	28186730
Fusion Middleware Common Third Party SPU	32880070
Fusion Middleware Control SPU	30613424

Table 1-23 (Cont.) July 2021 CPU and Overlay Patches

Component	Patch Number
Overlay patches	28334768 (DMS Metric table) 27184424 (Stuck thread) 30319071 (User group association) 30874677 (PSU Credential Encrypted) 31169032 (Export JMS Messages) 31569708 (JMS Orphan Destination routing) 32408938 (RJVM Forwarding support for WebLogic Server) 32262098 (3 JDBC Stores in Fusion application pod have no owner) 32220849 (SUPPORT FOR JPS CONFIGURATION PARAMS IN WDT MODEL FOR EXTERNAL LDAP)

Table 1-24 April 2021 CPU and Overlay Patches

Component	Patch Number
PSU for WLS	32698246
PSU Coherence	32816960 (This is the Post April CPU patch for Coherence 12.2.1.4 Cumulative Patch 9 (12.2.1.4.9)).
ADF Bundle Patch	32684757 (This is the Post April CPU patch for ADF Bundle Patch 12.2.1.4.200817).
ADR for WebLogic Server	31544353
OPSS for WebLogic Server	32784652
Fusion Middleware Platform SPU	32772437
WebLogic Opatch	28186730
Overlay patches	28334768 (DMS Metric table) 27184424 (Stuck thread) 30319071 (User group association) 30874677 (PSU Credential Encrypted) 31169032 (Export JMS Messages) 31569708 (JMS Orphan Destination routing) 30656708 (SAF to dynamic cluster)

Table 1-25 January 2021 CPU and Overlay Patches

Component	Patch Number
PSU for WebLogic Server	32253037
PSU Coherence	32124456
ADF Bundle Patch	31762739

Table 1-25 (Cont.) January 2021 CPU and Overlay Patches

Component	Patch Number
ADR for WebLogic Server	31544353
WebLogic Opatch	28186730
Overlay patches	28334768 (DMS Metric table) 27184424 (Stuck thread) 30319071 (User group association) 30874677 (PSU Credential Encrypted) 31169032 (Export JMS Messages) 31569708 (JMS Orphan Destination routing) 30656708 (SAF to dynamic cluster)

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