

Oracle® Communications Billing and Revenue Management

Compatibility Matrix



Release 15.0

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The Oracle logo, consisting of a solid red square with the word "ORACLE" in white, uppercase, sans-serif font centered within it.

ORACLE®

Oracle Communications Billing and Revenue Management Compatibility Matrix, Release 15.0

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Preface

This guide describes the compatibility considerations and software and hardware requirements you should review when installing or upgrading the following Oracle Communications Billing and Revenue Management (BRM) Suite components:

- BRM server and clients
- Oracle Communications Billing Care (BC)
- Oracle Communications Business Operations Center (BOC)
- Oracle Communications Pricing Design Center (PDC)
- Oracle Communications Billing and Revenue Management Elastic Charging Engine (ECE)
- Oracle Communications Billing and Revenue Management Pipeline Configuration Center (PCC)
- Oracle Communications Billing and Revenue Management (BRM) cloud native deployment

Audience

This document is intended for system administrators responsible for product installations, upgrade planning, and patch set installations.

Documentation Accessibility

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Diversity and Inclusion

Oracle is fully committed to diversity and inclusion. Oracle respects and values having a diverse workforce that increases thought leadership and innovation. As part of our initiative to build a more inclusive culture that positively impacts our employees, customers, and partners, we are working to remove insensitive terms from our products and documentation. We are also mindful of the necessity to maintain compatibility with our customers' existing technologies and the need to ensure continuity of service as Oracle's offerings and industry standards evolve. Because of these technical constraints, our effort to remove insensitive terms is ongoing and will take time and external cooperation.

1

Supported Upgrades

Learn about the commonly supported upgrade paths for Oracle Communications Billing and Revenue Management (BRM) 15.0 Suite components.

Topics in this document:

- [Supported BRM Upgrades](#)
- [Supported ECE Upgrades](#)
- [Supported PDC Upgrades](#)

Supported BRM Upgrades

[Table 1-1](#) lists the supported BRM upgrade paths. This includes Billing Care and Pipeline Configuration Center.

Table 1-1 BRM Upgrade Path

Product Version	BRM 15.0.0	BRM 15.0.1
BRM 15.0.0	Not applicable	Yes
BRM 12.0 Patch Set 3 through 8	Yes	Yes
BRM 12.0 and 12.0 Patch Set 1 and 2	Yes	No

Supported ECE Upgrades

[Table 1-2](#) lists the supported upgrade paths for Elastic Charging Engine (ECE).

Table 1-2 ECE Upgrade Path

Product Version	ECE 15.0.0	ECE 15.0.1
ECE 15.0.0	Not applicable	Yes
ECE 12.0 Patch Set 8	Yes	Yes
ECE 12.0 Patch Set 3 through 7	No	Yes
ECE 12.0 and 12.0 Patch Set 1 and 2	No	No

Supported PDC Upgrades

[Table 1-3](#) lists the supported upgrade paths for Pricing Design Center (PDC).

Table 1-3 PDC Upgrade Path

Product Version	PDC 15.0.0	PDC 15.0.1
PDC 15.0.0	Not applicable	Yes
PDC 12.0 Patch Set 3 through 8	Yes	Yes
PDC 12.0 and 12.0 Patch Set 1 and 2	Yes	No

2

Common Software Compatibility

Learn about the common software that is compatible with Oracle Communications Billing and Revenue Management (BRM), Pricing Design Center (PDC), and Elastic Charging Engine (ECE) 15.0 servers and client systems.

Topics in this document:

- [Linux](#)
- [Database Clients](#)
- [Database Servers](#)
- [Compilers](#)
- [Web Browsers](#)
- [Security Assertion Markup Language \(SAML\)](#)
- [Java](#)

Linux

This section lists software compatible with a BRM implementation on Linux.

Operating System Versions for Non-Cloud Native Deployments

- Oracle Linux 8.x, where x is 7 or later (with critical patch updates)
- Red Hat Enterprise Linux (RHEL) 8.x, where x is 7 or later (with critical patch updates)

About Critical Patch Updates

You should install all critical patch updates as soon as possible. To download critical patch updates, find out about security alerts, and enable email notifications about critical patch updates, see "[Critical Patch Updates, Security Alerts and Bulletins](#)" on the Oracle website.

Database Clients

This section lists the database clients that are compatible with a BRM implementation on Linux.

- Oracle Database 19c Client (19.x, where x is 20 or later)



Note:

Only 64-bit versions of the database client are supported.

Database Servers

This section lists the database servers that are compatible with a BRM implementation on Linux.

- Oracle Database Enterprise Edition 19c (19.x, where x is 20 or later)

Compilers

This section lists the compilers that are compatible with BRM suite.

- gcc version 12.2.1

Web Browsers

[Table 2-1](#) lists the web browsers that are compatible with the BRM suite.

Table 2-1 Supported Web Browsers

Web Browser	Version
Mozilla Firefox	For 15.0.0: <ul style="list-style-type: none"> • 109+ For 15.0.1: <ul style="list-style-type: none"> • 115+
Microsoft Internet Explorer	Not supported
Microsoft Edge	Default version with OS
Google Chrome	For 15.0.0: <ul style="list-style-type: none"> • 105+ For 15.0.1: <ul style="list-style-type: none"> • 122+
Apple Safari	For 15.0.0: <ul style="list-style-type: none"> • 16+ For 15.0.1: <ul style="list-style-type: none"> • 17+

Security Assertion Markup Language (SAML)

This section lists the version of Security Assertion Markup Language (SAML) compatible with the BRM suite.

- The SAML version 2.0 is optional for single sign-on configuration.

Java

[Table 2-2](#) lists the Java editions that are compatible with the BRM suite.

Table 2-2 Supported Java Editions

Product	Version	Notes
Oracle Java Platform, Standard Edition (Java SE)	Java 8u401	Not applicable

3

External Applications Compatibility

Learn about the external applications compatible with Oracle Communications Billing and Revenue Management (BRM), Pricing Design Center (PDC), and Elastic Charging Engine (ECE) 15.0.1 servers and client systems.

Topics in this document:

- [Additional External Applications Compatibility](#)

Additional External Applications Compatibility

[Table 3-1](#) provides the compatibility information for other external applications you need to create a complete customer management and billing system for your business.

Table 3-1 Additional External Applications Compatibility

Product	Version
Oracle Identity and Access Management	12.2.1.4.0
Oracle Analytics Publisher Note: Business Intelligence Publisher has been renamed to Oracle Analytics Publisher.	For 15.0.0: <ul style="list-style-type: none">• 2023 (7.0) For 15.0.1: <ul style="list-style-type: none">• 2024 (7.6)
Oracle Unified Directory	12.2.1.4.0
Paymentech 120-Byte Batch Processing Format Specification	3.0.0 Revision 15.3
Paymentech Online Processing Format Specification	Version 7.4 Revision 15.3
Vertex Communications Tax Q Series	3.02
Vertex Sales Tax Q Series	10

4

BRM Prerequisite Software Compatibility

Learn about the software compatible with Oracle Communications Billing and Revenue Management (BRM) 15.0 server and client systems.

Topics in this document:

- [Windows](#)
- [Additional BRM Software Requirements](#)
- [About Critical Patch Updates](#)

See "System Requirements" in *BRM Installation Guide* for hardware and information requirements.

Note:

- BRM 15.0 server components do not support any 32-bit server operating systems.
- Character Sets: BRM 15.0 supports AL32UTF8 as its default character set. It also continues to support the UTF8 character set for backward compatibility. The Unicode character set AL32UTF8 is recommended for all new BRM 15.0 deployments.
- All BRM clients are supported on Linux in addition to Windows.
- This section applies to non-cloud native deployments only. For cloud native deployments, the BRM container images include all required prerequisites.

Windows

This section lists software compatible with BRM clients on Windows.

- Windows 8.1 Enterprise
- Windows 10
- Windows 11

Additional BRM Software Requirements

[Table 4-1](#) provides the compatibility information for other applications you need to create a complete customer management and billing system for your business.

**Note:**

Oracle does not provide any third-party software mentioned in the table below. You must obtain and install the required third-party software before using the product.

Table 4-1 Required Third-Party Software for BRM

Product	Version	Notes
Apache Kafka Client	For 15.0.0: <ul style="list-style-type: none">• 3.5.0 For 15.0.1: <ul style="list-style-type: none">• 3.6.1	Not applicable
Apache Tomcat	For 15.0.0: <ul style="list-style-type: none">• 9.0.82 For 15.0.1: <ul style="list-style-type: none">• 9.0.85	Not applicable
Oracle WebLogic Server	12.2.1.4.0	Compatible version with Oracle Linux/RHEL 8.x
Perl (64-bit)	For 15.0.0: <ul style="list-style-type: none">• 5.38.0 For 15.0.1: <ul style="list-style-type: none">• 5.38.2	Not applicable

About Critical Patch Updates

You should install all critical patch updates as soon as possible. To download critical patch updates, find out about security alerts, and enable email notifications about critical patch updates, see "Critical Patch Updates, Security Alerts and Bulletins" on the Oracle website.

5

ECE Prerequisite Software Compatibility

Learn about the software compatible with Oracle Communications Billing and Revenue Management Elastic Charging Engine (ECE) 15.0.

Topics in this document:

- [Additional ECE Software Requirements](#)

See "ECE System Requirements" in *ECE Installation Guide* for hardware and information requirements.

 **Note:**

This section applies to non-cloud native deployments only. For cloud native deployments, the BRM container images include all required prerequisites.

Additional ECE Software Requirements

[Table 5-1](#) lists the required third-party software for ECE 15.0.

 **Note:**

Oracle does not provide any third-party software mentioned in the table below. You must obtain and install the required third-party software before using the product.

Table 5-1 Required Third-Party Software for ECE 15.0

Product	Version	Notes
Groovy	2.4.21	The ECE software package does not include Groovy. Installing Groovy is a prerequisite for running ECE monitoring tools.
Oracle Coherence for Java Libraries	For 15.0.0: <ul style="list-style-type: none">• 12.2.1.4.13 For 15.0.1: <ul style="list-style-type: none">• 12.2.1.4.22	The ECE software package does not include Oracle Coherence libraries.
Apache Kafka Clients	For 15.0.0: <ul style="list-style-type: none">• 3.5.1 For 15.0.1: <ul style="list-style-type: none">• 3.6.1	Not applicable.

[Table 5-2](#) lists the JAR files that are required during ECE installation.

Table 5-2 Required JAR Files

File	Description
coherence-login.jar	This file is available in the Oracle Coherence package.
coherence-work.jar	This file is available in the Oracle Coherence package.
coherence.jar	This file is available in the Oracle Coherence package.
com.oracle.weblogic.bean gen.general.api.jar	This file is available in the Oracle WebLogic Server client package.
groovy-all-2.4.21.jar	Download this file from the following page on the Apache Groovy website in the "Maven Repository" section: http://groovy-lang.org/install.html
kvclient-20.3.26.jar	(Optional) You need this file only if you use Oracle NoSQL Database. This file is available in the Oracle NoSQL Database package.
ojdbc8.jar	Download this file from the following page: https://www.oracle.com/database/technologies/appdev/jdbc-downloads.html
wlthint3client.jar	This file is available in the Oracle WebLogic Server client package. Note: If you choose to use two JMS providers, both WebLogic Server and another provider, ensure that you do the following after installation on the driver machine: <ul style="list-style-type: none"> • Copy the other JMS provider's client JARs to the <i>ECE_home/occeserver/lib</i> directory. • Rename the other JMS provider JAR file to wlthint3client.jar. • (When using the other JMS provider to publish ECE notification events) Update the <i>ECE_home/occeserver/JMSQueueConfiguration.xml</i> file to specify the InitialContextFactory and protocol information of the other JMS provider.
xdb6.jar	Download this file from the following page: https://www.oracle.com/database/technologies/appdev/jdbc-downloads.html

6

BRM Cloud Native Deployment Software Compatibility

Learn about the software compatible with the Oracle Communications Billing and Revenue Management (BRM) cloud native deployment package. This package uses Kubernetes, Helm, and Linux for containerization and orchestration.

Topics in this document:

- [Mandatory BRM Cloud Native System Requirements](#)
- [Optional BRM Cloud Native System Requirements for Monitoring](#)
- [Optional BRM Cloud Native System Requirements for Log File Management](#)
- [Additional Notes](#)

Caution:

- Your system administrator is responsible for ensuring that all installed software dependencies are kept up to date wherever possible. Oracle supports software versions where the software vendor declares backward compatibility to the version certified with BRM, and the upgrade is a minor version increment (A.B.C to A.B.D).

System administrators should adopt this policy for software dependencies for which upgrades are generally related to security rather than focusing on functionality.

- Oracle does not provide support for any prerequisite third-party software installation or configuration. The customer should manage any installation or configuration issues related to non-Oracle prerequisite software.

Mandatory BRM Cloud Native System Requirements

The BRM Docker images require the third-party software listed in [Table 6-1](#).

Note:

Oracle does not provide any third-party software mentioned in the table below. You must obtain and install the required third-party software before using the product.

Table 6-1 Mandatory BRM Cloud Native System Requirements

Software	Version
Kubernetes	For 15.0.0: <ul style="list-style-type: none"> • 1.26.x • 1.27.x • 1.28.x • 1.29.x • 1.30.x • 1.31.x For 15.0.1: <ul style="list-style-type: none"> • 1.29.x • 1.30.x • 1.31.x
Helm	For 15.0.0: <ul style="list-style-type: none"> • 3.12.0 when using Kubernetes 1.26.x or 1.27.x • 3.14.0 when using Kubernetes 1.28.x or 1.29.x • 3.16.0 when using Kubernetes 1.30.x or 1.31.x For 15.0.1: <ul style="list-style-type: none"> • 3.14.0 when using Kubernetes 1.29.x • 3.16.0 when using Kubernetes 1.30.x or 1.31.x
WebLogic Kubernetes Operator	For 15.0.0: <ul style="list-style-type: none"> • 4.0.6 when using Kubernetes 1.26.x • 4.1.4 when using Kubernetes 1.27.x • 4.1.8 when using Kubernetes 1.28.x • 4.2.3 when using Kubernetes 1.29.x • 4.2.8 when using Kubernetes 1.30.x • 4.2.13 when using Kubernetes 1.31.x For 15.0.1: <ul style="list-style-type: none"> • 4.2.3 when using Kubernetes 1.29.x • 4.2.8 when using Kubernetes 1.30.x • 4.2.13 when using Kubernetes 1.31.x

Optional BRM Cloud Native System Requirements for Monitoring

Table 6-2 lists the software that validates the sample Grafana dashboards included in BRM cloud native for monitoring the system.

Table 6-2 Optional BRM Cloud Native System Requirements for Monitoring

Software	Version
WebLogic Monitoring Exporter	For 15.0.0: <ul style="list-style-type: none"> • 2.1.4 For 15.0.1: <ul style="list-style-type: none"> • 2.1.9

Table 6-2 (Cont.) Optional BRM Cloud Native System Requirements for Monitoring

Software	Version
Prometheus	For 15.0.0: • 2.40.0 For 15.0.1: • 2.48.1
Prometheus Operator	For 15.0.0: • 0.60.1 For 15.0.1: • 0.70.0
Prometheus Alert Manager	For 15.0.0: • 0.24.0 For 15.0.1: • 0.26.0
Prometheus JMX Exporter Java Agent	0.19.0
Grafana	10.0.1

Optional BRM Cloud Native System Requirements for Log File Management

Table 6-3 lists the software that validates the BRM log files collected by the sample Fluentd configuration included in BRM cloud native.

Table 6-3 Optional BRM Cloud Native System Requirements for Log File Management

Software	Version
Fluentd	For 15.0.0: • 1.14.6 For 15.0.1: • 1.16.3

Additional Notes

Oracle Kubernetes Platforms

- BRM cloud native is certified on the Container Engine for Kubernetes (OKE), Oracle Communications Cloud Native Environment, Oracle Linux Cloud Native Environment (provided the version requirements listed in this document are satisfied).

Third-Party Kubernetes Platforms

- BRM 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, BRM cloud native is certified on any container platform based on a CNCF-certified Kubernetes, provided the version requirements listed in this document are satisfied.

OCI Search with OpenSearch

BRM cloud native is compatible with OCI Search with OpenSearch. See "[Search with OpenSearch](#)" on the Oracle website for more details.

Operating System for Kubernetes Nodes

- BRM supports any Linux version that is supported by your chosen Kubernetes platform.