

Oracle® Fusion Middleware

Release Notes for Oracle Coherence



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Preface

Release Notes for Oracle Coherence summarizes the release information related to new and updated features, known issues and their workarounds, deprecated and removed functionality, and more.

This preface includes the following topics:

- [Audience](#)
- [Documentation Accessibility](#)
- [Diversity and Inclusion](#)
- [Related Documents](#)
- [Conventions](#)

Audience

This document is intended for users of Oracle Coherence.

Documentation Accessibility

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

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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.

Related Documents

For more information, see the following documents in the Oracle Coherence documentation set:

- *Administering Oracle Coherence*
- *Administering HTTP Session Management with Oracle Coherence*Web*
- *Developing Applications with Oracle Coherence*
- *Developing Oracle Coherence Applications for Oracle WebLogic Server*
- *Developing Remote Clients for Oracle Coherence*
- *Installing Oracle Coherence*
- *Integrating Oracle Coherence*
- *Managing Oracle Coherence*
- *Securing Oracle Coherence*
- *Java API Reference for Oracle Coherence*
- *.NET API Reference for Oracle Coherence*
- *C++ API Reference for Oracle Coherence*
- *REST API for Managing Oracle Coherence*

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

1

Introduction

You can use the Oracle Coherence Release Notes to learn about important production information such as Coherence certifications, support, and licensing. This chapter contains the following sections:

- [Latest Release Information](#)
- [Purpose of this Document](#)
- [System Requirements and Specifications](#)
- [Certification Information](#)
- [Product Documentation](#)
- [Oracle Support](#)
- [Licensing Information](#)
- [Downloading and Applying Required Patches](#)

Latest Release Information

This document is accurate at the time of publication. Oracle will update the release notes periodically after the software release. You can access the latest information and additions to these release notes at [Oracle Help Center](#).

Purpose of this Document

This document contains the release information for Oracle Coherence.

Oracle recommends you review its contents before installing, or working with the product.

System Requirements and Specifications

Oracle Coherence follows the Fusion Middleware system requirements and certifications for production environments. For more information, see <https://www.oracle.com/middleware/technologies/fusion-certification.html>.

For system requirements for installations of development environments, visit:

- Coherence for Java — *Installing Oracle Coherence for Java*.
- C++ Client — *Installing the C++ Client Distribution*.
- .Net Client — *Installing the .NET Client Distribution*.

Certification Information

To see versions of platforms and related software for which Oracle Coherence is certified and supported, go to <https://www.oracle.com/middleware/technologies/fusion-certification.html>.

Product Documentation

For complete documentation on Oracle Coherence, go to [Oracle Help Center](#).

Oracle Support

Oracle customers that have purchased support have access to electronic support through [My Oracle Support](#).

Licensing Information

Detailed information regarding license compliance for Oracle Fusion Middleware is available at Licensing Information.

Downloading and Applying Required Patches

To download and install the latest software patch:

1. Log in to [My Oracle Support](#) to download the latest software patches.
2. Click the **Patches & Updates** tab.
3. Under the Patch Search tab, select **Product or Family (Advanced Search)**, and select the **Include all patches in a product family** check box.
4. Enter **Oracle Coherence** as the product, select the platform and release, and click **Search**.

A list of currently available patches for Oracle Coherence is returned.

5. Select the required patch and click **Download**.

You can check the README file in the patch distribution for up-to-date information on the software fixes provided by the patch.

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What's New in this Release

Learn about the features, enhancements, and changes made to Oracle Coherence. Oracle updates the release notes periodically after the software release. This document is accurate at the time of publication.

This chapter includes the following sections:

- [New Features](#)
- [Breaking Changes](#)
- [Deprecated Features](#)

New Features

This section contains new features for Oracle Coherence that are organized by release.

New and Improved for 15c (15.1.1.0.0)

- **Jakarta 9.1 Support** - For detailed information, see Jakarta EE 9.1 Compatibility in *Installing Oracle Coherence*.
- **Vector Storage and Search** - For more information, see Storing and Searching Vectors in Coherence in *Developing Applications with Oracle Coherence*.
Coherence 15.1.1 adds support for the optimized storage of dense vector embeddings within the Coherence cluster, and the ability to perform similarity searches across those embeddings in parallel, using Coherence aggregators. It also allows users to create HNSW and Binary Quantization-based vector indices, which can significantly improve search performance.
- **Coherence RAG**
Coherence RAG builds on the core Vector DB and Lucene indexing functionality, and adds higher level APIs that allow you to easily integrate similarity or hybrid search results with remote LLMs in order to implement end-to-end RAG solution using Generative AI. It also provides support for massively parallel ingestion and vectorization of document content from multiple document sources, including custom ones, and seamless integration with local and remote embedding, re-ranking and chat models.

Coherence RAG allows you to utilize hundreds, or even thousands of CPU core to perform vector embeddings creation at the speed comparable, or even faster, than when running on a GPU, and will take the advantage of the GPUs as well, if they are available.
- **Lucene Full-Text Indexing**
Coherence 15.1.1 also adds support for partitioned Lucene full-text indices, and parallel search across those indices, with sophisticated re-ranking of the results that ensures that the best possible matches are returned to the client.
- **OpenTelemetry support for Coherence*Extend for Java** - For more information, see Distributed Tracing in *Developing Applications with Oracle Coherence*.
Coherence 15.1.1 adds OpenTelemetry support to remote Extend and gRPC Java clients as well, allowing users to trace the requests within Coherence application truly end-to-end: from a remote client, all the way to the external data store that is used to ultimately store

the data, if one is present, or Coherence storage layer, including built-in disk persistence, if not.

Breaking Changes

Learn about updates in Coherence 15.1.1.0.0 that introduce potentially incompatible changes between Coherence releases.

- [Jakarta EE 9.1 Compatibility](#)

Jakarta EE 9.1 Compatibility

Coherence 15.1.1.0.0 has migrated to Jakarta EE 9.1 from Jakarta EE 8, importing types in jakarta packages instead of javax packages. For detailed information on the impact of this migration, see Jakarta EE 9.1 Compatibility in *Installing Oracle Coherence*.

Deprecated Features

Learn about the deprecated and no longer supported features of Oracle Coherence.

- [NIO Memory Manager](#)

NIO Memory Manager

The NIO Memory Manager has been removed in 15.1.1.0.0. Note that the NIO backing map implementation which stores information in memory-mapped files (NIO File Manager) is still valid.

Use the `JournalBinaryStore` class instead. The `JournalBinaryStore` class implements the binary store used by flash journals and RAM journals in the Elastic Data feature. See *Journaling Overview* in *Developing Applications with Oracle Coherence*.

3

Known Issues and Workarounds

Learn about the known issues at the time of release.

4

Bugs Fixed and Enhancements in This Release

Learn about the bugs fixed and enhancements in this release.