

## **Oracle® Fusion Middleware**

Licensing Information

Release 12c (12.1.2)

**E41349-05**

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Program Documentation, under the terms of your Oracle licensing agreement, which is intended to help you understand the features, functionality, and options available for Oracle Programs and the licenses required to use them.

Oracle Fusion Middleware Licensing Information, Release 12c (12.1.2)

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# Preface

This document, which is part of the Program Documentation under the terms of your Oracle licensing agreement, is intended to help you understand the features, functionality, and options available for Oracle Programs and the licenses required to use them. Oracle offers a variety of licensing options that determine your rights to run the Oracle Programs. Restricted use products identified in this document that are not provided with the particular Program you have licensed from Oracle may be obtained from [www.edelivery.oracle.com](http://www.edelivery.oracle.com) or from media provided by Oracle. If you have a question about your licensing needs, please contact your Oracle sales representative, contact the License Management Services representative listed at this URL:

<http://www.oracle.com/us/corporate/license-management-services/index.html>

or refer to the resources listed in "Related Documents" for more information."

Oracle Fusion Middleware is available in multiple editions, each suitable for different development and deployment scenarios. Oracle also offers several application server options and packs that enhance the capabilities of Oracle Fusion Middleware for specific application requirements. *Oracle Fusion Middleware Licensing Information* provides information on these optional application server products and their licensing requirements.

This Preface contains these topics:

- [Intended Audience](#)
- [Documentation Accessibility](#)
- [Related Documents](#)
- [Conventions](#)

## Intended Audience

This book is intended for all purchasers of Oracle Fusion Middleware.

## 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 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.

## Related Documents

For more information, see these Oracle resources:

- *Oracle Fusion Middleware Concepts* for information on the features new to this release of Oracle Fusion Middleware
- *Software Investment Guide* for information about Oracle's pricing and licensing policies, available at:  
<http://www.oracle.com/us/corporate/pricing/software-investment-guide/index.html>

## Conventions

The following text conventions are used in this document:

Convention	Meaning
<b>boldface</b>	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.



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## Oracle Fusion Middleware and the 12c Release

This Oracle Fusion Middleware licensing documentation covers the licensable products of the underlying components that have been released under 12.1.1. or 12.1.2 (as described in <http://docs.oracle.com/middleware/home/index.html>).

For licensing information of previous Fusion Middleware releases, please refer to Oracle Fusion Middleware Licensing Information, 11g Release 1 (11.1.1) documentation ([http://docs.oracle.com/cd/E28280\\_01/doc.1111/e14860/toc.htm](http://docs.oracle.com/cd/E28280_01/doc.1111/e14860/toc.htm)).



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# Application Server Products

This chapter describes the application server product family, and the features available with this product family. It contains the following sections:

- [Section 2.1, "Oracle TopLink and Application Development Framework"](#)
- [Section 2.2, "Oracle WebLogic Server"](#)
- [Section 2.3, "Oracle Internet Application Server"](#)
- [Section 2.4, "Oracle GlassFish Server"](#)
- [Section 2.5, "Oracle Web Tier"](#)
- [Section 2.6, "Oracle Coherence"](#)
- [Section 2.7, "WebLogic Server Management Pack Enterprise Edition"](#)

## 2.1 Oracle TopLink and Application Development Framework

Oracle TopLink and Application Development Framework can be separately licensed, independently of any Oracle WebLogic Server or Oracle Internet Application Server edition.

The license for Oracle TopLink and Application Development Framework includes:

- Oracle TopLink
- Application Development Framework
- Oracle MapViewer
- [Oracle Entitlements Server Basic](#)

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**Note:** The developer tools used with the Application Development Framework—for example, Oracle JDeveloper—are freely available for download from the Developer Tools page at <http://www.oracle.com/technetwork/developer-tools/index.html>.

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### 2.1.1 Oracle MapViewer

Oracle MapViewer provides API, and libraries for developing and running interactive geospatial web mapping applications. It is optimized for use with geospatial content in an Oracle Spatial database. It includes an EAR that must be deployed in a Java EE server and client libraries for Java and JavaScript based development.

Oracle MapViewer is included in Oracle TopLink and Application Development Framework and in all editions of Oracle Internet Application Server and Oracle Weblogic Server via the inclusion of Oracle Toplink and Application Development Framework.

## 2.1.2 Mobility Support in Application Development Framework

Application Development Framework (ADF) enables enterprise applications to support delivery to multiple screens, including desktop browsers, but also mobile browser and native mobile applications.

Mobile ADF includes three technology paths, and each is covered under the Oracle TopLink and Application Development Framework license.

- ADF Faces Rich Client Components. This includes a comprehensive set of components which can be used to develop desktop browser and tablet browser applications.
- ADF Mobile Browser. This includes components that are optimized for mobile phone browsers.
- ADF Mobile. This includes a framework and runtime for developing hybrid mobile applications which install onto the mobile devices. Note, with the resulting application the Oracle TopLink and Application Development Framework licensing terms still apply. Furthermore, all hardware and software pre-requisites for developing ADF Mobile applications, as outlined in the Mobile Developer Guide for Oracle Application Development Framework, must be met. Third party mobile SDKs must be provisioned separately, and Oracle does not assist in obtaining nor compensate for these third party mobile SDKs.

## 2.2 Oracle WebLogic Server

Oracle WebLogic Server is available in three editions with different functional capabilities, each suitable for different kinds of applications and different development and deployment scenarios. Oracle also offers several application server options, packs, and other products that enhance the capabilities of Oracle WebLogic Server for specific purposes. This section describes the licensing editions of Oracle WebLogic Server.

[Table 2-1](#) introduces the Oracle WebLogic Server licensing options.

**Table 2–1 Oracle WebLogic Server Licensing Editions**

Licensing Edition	High Level Functionality	Features Included
Standard Edition	<p>The WebLogic Server Standard Edition includes:</p> <ul style="list-style-type: none"> <li>■ Core WebLogic application server, with Administration Console, Configuration Wizard, and Upgrade Framework</li> <li>■ Oracle TopLink and Application Development Framework (includes MapViewer, for details see <a href="#">Oracle TopLink and Application Development Framework</a>)</li> <li>■ Oracle JDeveloper</li> <li>■ Oracle Enterprise Pack for Eclipse</li> <li>■ Oracle Security Developer Tools</li> <li>■ Java SE. For details on Java SE Editions, see <a href="http://www.oracle.com/technetwork/java/javase/terms/products/index.html">http://www.oracle.com/technetwork/java/javase/terms/products/index.html</a>.</li> <li>■ Oracle Web Tier</li> <li>■ Oracle Enterprise Manager Fusion Middleware Control<sup>1</sup></li> </ul>	<p>Includes:</p> <ul style="list-style-type: none"> <li>■ Java EE</li> <li>■ High performance JMS messaging</li> <li>■ HTTP Pub-Sub Server</li> <li>■ WebLogic JDBC Drivers, WebLogic Server Clients, and WebLogic and Apache Web Server Plug-Ins</li> <li>■ <a href="#">Oracle WebLogic Management Framework</a> (included through Oracle Web Tier)</li> </ul>
Enterprise Edition	<p>Includes all of the Standard Edition functionality, plus:</p> <ul style="list-style-type: none"> <li>■ Clustering support</li> <li>■ Oracle Virtual Assembly Builder</li> <li>■ Oracle Java SE Advanced (restricted for WebLogic Server. Java SE is included for client applications that access these server components).</li> <li>■ Oracle WebLogic Software Kit for Oracle Database Appliance</li> </ul>	<p>All Standard Edition features, plus:</p> <ul style="list-style-type: none"> <li>■ Whole-server migration and service migration</li> <li>■ Oracle Virtual Assembly Builder (OVAB) enables rapid configuration and provisioning of multi-tier application topologies onto virtualized and cloud environments.</li> </ul>

**Table 2–1 (Cont.) Oracle WebLogic Server Licensing Editions**

Licensing Edition	High Level Functionality	Features Included
WebLogic Suite	Includes all of the Enterprise Edition functionality, plus: <ul style="list-style-type: none"> <li>▪ Oracle Coherence Enterprise Edition</li> <li>▪ Oracle Forms, Reports, Portal and Discoverer</li> <li>▪ Oracle Enterprise Manager Pack for Oracle Coherence</li> <li>▪ Oracle Java SE Suite (restricted for WebLogic Server, Oracle Containers for J2EE and Coherence. Java SE is included for client applications that access these server components)</li> </ul>	All Enterprise Edition features, plus: <ul style="list-style-type: none"> <li>▪ Application data management provided by Oracle Coherence Enterprise Edition. Includes: fault-tolerant data caching, data management, write-behind, transactions, analytics and events. For license details, see <a href="#">Section 2.6, "Oracle Coherence."</a></li> <li>▪ High performance, low latency JDK with deterministic garbage collection for Java EE applications running on WebLogic Server with JRockit Real Time. JRockit Real Time is included in Java SE Suite. For details on Java SE Editions, see <a href="http://www.oracle.com/technetwork/java/javase/terms/products/index.html">http://www.oracle.com/technetwork/java/javase/terms/products/index.html</a>.</li> <li>▪ Management tooling for monitoring, administering, and provisioning Oracle Coherence with Oracle Enterprise Manager Management Pack for Oracle Coherence. For complete license details, see the Oracle Enterprise Manager Licensing Information document available at <a href="http://www.oracle.com/technetwork/oem/grid-control/documentation/index.html">http://www.oracle.com/technetwork/oem/grid-control/documentation/index.html</a>.</li> </ul> Also includes Oracle Internet Application Server Enterprise Edition, which contains: <ul style="list-style-type: none"> <li>▪ Oracle Internet Directory</li> <li>▪ Oracle Single Sign-On</li> <li>▪ Oracle Discoverer</li> <li>▪ Oracle Reports Services</li> <li>▪ Oracle Forms Services</li> <li>▪ Oracle WebLogic Server</li> <li>▪ Oracle Containers for J2EE</li> <li>▪ Oracle Portal</li> <li>▪ Oracle Web Cache</li> <li>▪ Oracle Directory Integration Platform</li> </ul> For license details about Oracle Internet Application Server Enterprise Edition, see <a href="#">Section 2.3, "Oracle Internet Application Server."</a>

<sup>1</sup> This is the stand alone Oracle Fusion Middleware Control console for a single domain and not Oracle Enterprise Manager Cloud Control which is Oracle's comprehensive multi-domain WLS management solution. See [Section 2.7, "WebLogic Server Management Pack Enterprise Edition"](#) for details in regards to multi-domain management through Oracle Enterprise Manager Cloud Control.

## 2.2.1 Installation of Oracle WebLogic Product Editions

Oracle WebLogic Server does not provide installation programs that correspond directly to each available edition. For example, depending on the edition licensed, you may need to run one or more of the following individual installers:

- Oracle WebLogic Server
- Oracle Web Tier
- Oracle Coherence

- Oracle JRockit
- Oracle JDeveloper
- Oracle TopLink
- Oracle Business Intelligence
- SOA Suite for Oracle Middleware
- Oracle Virtual Assembly Builder

In addition, many installers contain multiple components that may be installed all together or individually, and each installation component has a minimum license requirement. The following table identifies the minimum edition requirements for each installation option available from the Oracle WebLogic Server installation programs.

**Table 2–2 Installation Programs Required for WebLogic Product Editions**

Licensing Edition	Corresponding Installation Programs
Standard Edition	<p>Standard Edition encompasses the following installation programs:</p> <ul style="list-style-type: none"> <li>■ WebLogic Server net or package installer, and Apache plug-ins (optional). This installer includes the core JEE 5 application server, Administration Console, Configuration Wizard and Upgrade Framework, WebLogic and third-party JDBC drivers, JMS, WebLogic Server clients, Web server plug-ins, and Xquery Support, WebLogic Server examples, Oracle Enterprise Pack for Eclipse, WebLogic SIP Server<sup>1</sup>, and Sun or Oracle JRockit JDKs (depending on platform).</li> <li>■ Oracle JDeveloper installer</li> <li>■ Oracle TopLink installer</li> <li>■ Oracle Web Tier installer</li> </ul>
Enterprise Edition	<p>The installation programs for Enterprise Edition include all those for Standard Edition, plus the installers for:</p> <ul style="list-style-type: none"> <li>■ Oracle JRockit Mission Control</li> <li>■ Oracle Virtual Assembly Builder (OVAB)</li> </ul> <p><b>Note:</b> Adding cluster support does not require an additional installation procedure.</p>
WebLogic Suite	<p>The installation programs for WebLogic Suite include all those for Enterprise Edition, plus:</p> <ul style="list-style-type: none"> <li>■ Oracle Identity Management</li> <li>■ Oracle Enterprise Manager Cloud Control 12c (to obtain features of Oracle Enterprise Management Pack for Oracle Coherence)</li> <li>■ Oracle Enterprise Manager Pack for Oracle Coherence</li> <li>■ Oracle JRockit</li> <li>■ Oracle Portal, Forms, Reports and Discoverer</li> </ul>

<sup>1</sup> Usage rights to WebLogic SIP Server require a license for Oracle Communications Converged Application Server. For details, see [Section 2.2.2.4, "WebLogic SIP Server."](#)

## 2.2.2 Licensing Considerations for Additional Features

Certain Oracle WebLogic Server editions contain features that have additional licensing considerations.

### 2.2.2.1 WebLogic for Oracle Internet Application Server

The entitlement for WebLogic Server Basic from Internet Application Server Enterprise Edition is superseded by the unrestricted full use capabilities of WebLogic Server Enterprise Edition included in WebLogic Suite.

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**Note:** When Oracle Internet Application Server is licensed independently of WebLogic Suite, a constrained WebLogic license, called [WebLogic Server Basic](#), is included. However, when Oracle Internet Application Server is licensed as part of WebLogic Suite, an unrestricted license of WebLogic Server Enterprise Edition is included.

This does not imply that two licenses of WebLogic Server Enterprise are provided within WebLogic Suite, but rather that the rights to WebLogic Server included in Internet Application Server are expanded to the unrestricted use of WebLogic Server Enterprise Edition included in WebLogic Suite.

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### 2.2.2.2 Management Features

Note the following license considerations for management features:

- Oracle Enterprise Manager Fusion Middleware Control is included with WebLogic Server Standard Edition, WebLogic Server Enterprise Edition, and WebLogic Suite Edition.<sup>1</sup>
- Unrestricted use of the WebLogic Server Administration Console, the WebLogic Scripting Tool, and WebLogic JMX is available in all WebLogic Server editions.
- WebLogic Server Standard Edition, WebLogic Server Enterprise Edition, and WebLogic Suite work with Oracle Enterprise Manager Cloud Control, which is Oracle's integrated enterprise information technology (IT) management product line providing the industry's only complete, integrated, and business-driven enterprise cloud management solution.<sup>2</sup>

### 2.2.2.3 High Availability Features

Oracle WebLogic Server provides several features and tools to support the deployment of highly available and scalable applications, including the following:

- WebLogic Server clusters, which provide scalability and reliability for your applications by distributing the work load among multiple instances of WebLogic Server.
- Work Managers, which prioritize work based on rules you define and by monitoring actual run time performance statistics. Work Managers can be used to provide overload protection, such as detecting, avoiding, and recovering from

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<sup>1</sup> This is the stand alone Oracle Fusion Middleware Control console for a single domain and not Oracle Enterprise Manager Cloud Control which is Oracle's comprehensive multi-domain WLS management solution. See [Section 2.7, "WebLogic Server Management Pack Enterprise Edition"](#) for details in regards to multi-domain management through Oracle Enterprise Manager Cloud Control.

<sup>2</sup> Licensed through [WebLogic Server Management Pack Enterprise Edition](#).



excess workload. They may be applied globally to a WebLogic Server domain or to a specific application or component.

- WebLogic Server persistent store, which is a built-in, high-performance storage solution for WebLogic Server subsystems and services that require persistence. For example, it can store persistent JMS messages or temporarily store messages sent using the Store-and-Forward feature. The persistent store supports persistence to a file-based store or to a JDBC-enabled database.
- Network channels, which facilitate the effective use of network resources by segregating network traffic into channels based on the type of traffic.
- Store-and-forward services, which enable WebLogic Server to deliver messages reliably between applications that are distributed across WebLogic Server instances. If the message destination is not available at the moment the messages are sent, either because of network problems or system failures, then the messages are saved on a local server instance and are forwarded to the remote destination once it becomes available.
- Oracle Database Real Application Cluster (RAC) integration, which is provided by WebLogic Server via multi data sources, a collection of data sources representing each node in an Oracle Database RAC treated logically as one data source by the application layer, and GridLink data sources, an integration with Oracle Database RAC that requires only one data source per Oracle Database RAC within WebLogic Server.

A multi data source is an abstraction around a group of data sources that provides load balancing or failover processing at the time of connection requests, between the data sources associated with the multi data source.

Some WebLogic Server high availability features require special licensing considerations, which are described in the following sections.

**2.2.2.3.1 WebLogic Server Standard Edition** A Standard Edition license provides unlimited access to most high availability features in WebLogic Server, with the exception of Cluster Support. With a Standard Edition license, no restrictions are placed on the following<sup>3</sup>:

- The number of Managed Server instances that may be configured in a WebLogic domain
- Use of the Apache HTTP Server Plug-In to perform load balancing among non-clustered Managed Server instances using the `WebLogicCluster` plug-in configuration parameter

**2.2.2.3.2 Cluster Support** Cluster Support is provided in all WebLogic Server Enterprise Edition and WebLogic Suite Edition licenses, and includes the following capabilities:

- Application failover

When an application component becomes unavailable for any reason, a copy of the failed object finishes the job. In case of hardware or other failures, session state is available to other cluster nodes that can resume the work of the failed node.

- Cluster management and administration

<sup>3</sup> For Oracle Enterprise Performance Management products, Oracle WebLogic Server Standard Edition additionally supports the non-runtime usage of clustering for functional/organizational grouping of managed servers. No other clustering features as defined in [Section 2.2.2.3.2, "Cluster Support"](#) are supported.

Creating a cluster of Managed Servers enables management and administration of these clustered servers as a single entity. Cluster management and administration features are provided for configuration, application deployment, and monitoring purposes.

- Automatic and manual migration of a clustered server instance from one computer to another using Server Migration

Using Service Migration, the uninterrupted availability of singleton services — services that must run on only a single server instance at any given time, such as JMS and the JTA transaction recovery system — is ensured when the hosting server instance fails.

- Load balancing

Incoming requests can be routed to a WebLogic Server instance in the cluster based on the volume of work being processed.

The following types of objects can be clustered in a WebLogic Server deployment:

- Servlets
- Java Server Pages
- Enterprise JavaBeans
- Remote Method Invocation (RMI) objects
- Java Messaging Service (JMS) destinations. Note:
  - A connection factory and a destination can be targeted to different WebLogic Server instances.
  - Foreign servers and distributed destinations may be used across multiple WebLogic Server instances.

### 2.2.2.3.3 High Availability Considerations for Oracle WebLogic Server Middle-Tier Instances

There are several ways that you can make WebLogic Server instances highly available. Each of these high availability models has specific licensing implications. These considerations are similar to the licensing considerations for the high availability features of the Oracle Database.

- **Backup:** In this type of recovery, WebLogic Server data/files of the primary server are stored on storage devices, such as tape media, and customers are **not** required to purchase additional licenses.
- **Failover (also known as Active/Passive or Cold Failover Cluster):** In this type of recovery, WebLogic Server nodes are configured in an *Active/Passive Cluster*; the first installed node acts as a primary node. If the primary node fails, one of the nodes in the cluster acts as the primary node. In this type of environment Oracle permits licensed Oracle WebLogic Server customers to run the WebLogic Server on an unlicensed spare computer for up to a total of ten separate days in any given calendar year. Any other use requires the environment to be fully licensed. Additionally, the same metric (that is, processor-based, or named user based) must be used when licensing the WebLogic Server in a failover environment.
- **Remote Mirroring:** This method involves copying the WebLogic Server software to the secondary site and copying the changes in the primary WebLogic Server configuration and data to the secondary site. This can be accomplished through techniques such as storage based remote mirroring or host based mirroring. In the event of a failure at the primary site, the Oracle WebLogic Server on the secondary site is run using the remote storage. In this environment, Oracle WebLogic Server must be fully licensed at the primary site, and if it is ever installed and/or run at

the secondary site, it must also be fully licensed there. Additionally, the same metric (that is, processor-based, or named user based) must be used to license both WebLogic Server domains.

**2.2.2.3.4 Database Integration** WebLogic Server JDBC multi data sources, also known as GridLink for RAC, are available in WebLogic Server Standard Edition, WebLogic Server Enterprise Edition, and WebLogic Suite.

Use of WebLogic Server GridLink data sources, known as Active GridLink for RAC, is an entitlement available only as part of licensing WebLogic Suite or Exalogic Elastic Cloud Software.

Table 2–3 lists and describes the license restricted Oracle WebLogic Server GridLink data source XML configuration elements.

**Table 2–3 GridLink Data Source (Active GridLink for RAC) Configuration Detail**

Data Source Configuration	Description
<fan-enabled>	Enables Fast Application Notification (FAN) event awareness of WebLogic Server
<ons-node-list>	Identifies list of Oracle Notification Service (ONS) nodes
<ons-wallet-file>	Identifies file defining SSL keys for ONS

For more information about configuring GridLink data sources within WebLogic Server, see "Using GridLink Data Sources" in *Configuring and Managing JDBC Data Sources for Oracle WebLogic Server*.

**2.2.2.3.5 Oracle WebLogic Software Kit for Oracle Database Appliance** Oracle WebLogic Software Kit (the "Kit") for Oracle Database Appliance includes a restricted use of Oracle Traffic Director with WebLogic Server and integration software for WebLogic Server, both specific for Oracle Database Appliance (ODA).

The Oracle WebLogic Software Kit (the "Kit") for Oracle Database Appliance is limited to use with Oracle Database Appliance. The Oracle Traffic Director portion of the Kit is limited to High Availability Virtual IP, Access Manager WebGate, Origin server load balancing to WebLogic Server, and content caching on Oracle Database Appliance.

#### 2.2.2.4 WebLogic SIP Server

WebLogic SIP Server is included in all editions of Oracle WebLogic Server; however, you must license Oracle Communications Converged Application Server (OCCAS) in order to have usage rights to SIP Server.

#### 2.2.2.5 Apache Derby

Apache Derby is an all-Java open source RDBMS that is included in the WebLogic Server distribution solely in support of WebLogic Server evaluation, either in the form of custom trial applications or through packaged sample applications provided with WebLogic Server. Use of Derby is subject to the terms of the Apache License, Version 2.0, available at the following URL:

<http://www.apache.org/licenses/>

#### 2.2.2.6 Java SE

Note the following Java SE considerations. For full details on Java SE Editions, see <http://www.oracle.com/technetwork/java/javase/terms/products/index.html>.

**2.2.2.6.1 Java SE** Java SE includes the Java Development Kit (JDK), the Java Runtime Environment (JRE) and the JRockit JDK.

**2.2.2.6.2 Oracle Java SE Advanced** Oracle Java SE Advanced includes Java SE plus additional features for mission critical enterprise client and server deployments of Java such as JRockit Mission Control and Flight Recorder.

Oracle Java SE Advanced is included in WebLogic Server Enterprise Edition. Oracle Java SE and all components associated with it are restricted for use with WebLogic Server. Java SE is included with WebLogic Server Enterprise Edition for the sole purpose of enabling client applications to access WebLogic Server Enterprise Edition components.

**2.2.2.6.3 Oracle Java SE Suite** Oracle Java SE Suite includes Oracle Java SE Advanced plus additional features for soft real-time and virtualization such as JRockit Real Time.

Oracle Java SE Suite is included in WebLogic Suite. Oracle Java SE and all components associated with it are restricted for use with WebLogic Server, Oracle Containers for J2EE and Coherence. Java SE is included with WebLogic Suite for the sole purpose of enabling client applications to access WebLogic Suite components.

### 2.2.2.7 Standalone WebLogic Clients

The licenses for WebLogic Server Standard Edition, WebLogic Server Enterprise Edition, and WebLogic Suite Edition provide unrestricted use of the client JAR files bundled with WebLogic Server for creating standalone clients that access applications hosted on WebLogic Server.

The client JARs and other resources provided in Oracle WebLogic Server for creating standalone clients, and the key features they support, are listed in [Table 2-4](#):

**Table 2-4 Client JAR files and Other Resources Provided for Standalone Clients**

Client Type	Bundled Resources	Key Features
WebLogic Full Client (T3)	wlfullclient.jar	Supports the following: <ul style="list-style-type: none"> <li>▪ Most Java EE and WebLogic-specific features</li> <li>▪ Clustering, SSL</li> <li>▪ JMS and JMS SAF clients</li> </ul>
WebLogic Thin Client (T3)	wlthint3client.jar	Supports the following: <ul style="list-style-type: none"> <li>▪ Oracle WebLogic's T3 protocol for Remote Method Invocation (RMI), including RMI over HTTP</li> <li>▪ Access to JMX, JNDI, and EJB resources available in WebLogic Server</li> <li>▪ Transaction initiation and termination using JTA</li> <li>▪ WebLogic client JMS features</li> <li>▪ Client-side clustering</li> <li>▪ JAAS authentication and JSSE SSL</li> </ul>

**Table 2–4 (Cont.) Client JAR files and Other Resources Provided for Standalone Clients**

Client Type	Bundled Resources	Key Features
WebLogic-IIOP	wlfullclient.jar	<ul style="list-style-type: none"> <li>■ Supports most WebLogic-specific features</li> <li>■ Supports clustering, SSL</li> <li>■ Faster and more scalable than IIOP thin clients</li> <li>■ Not ORB-based</li> <li>■ Does not support WebLogic Server JMS</li> </ul>
Java EE Application Client (Thin Client)	wlclient.jar	<ul style="list-style-type: none"> <li>■ Clustering, SSL, many Java EE features, including security and transactions</li> <li>■ Uses CORBA 2.4 ORB</li> </ul>
JMS Thin Client	wljmsclient.jar wlclient.jar	<ul style="list-style-type: none"> <li>■ Thin client functionality</li> <li>■ WebLogic JMS, except for client-side XML selection for multicast sessions and JMSHelper class methods</li> <li>■ SSL</li> </ul>
JMS SAF Client — for using store-and-forward services	wlsafclient.jar wljmsclient.jar wlclient.jar	<ul style="list-style-type: none"> <li>■ Locally stores messages on the client and forwards them to server-side JMS destinations when the client is connected</li> <li>■ Supports SSL</li> </ul>
JMS C Client	wlfullclient.jar or wljmsclient.jar wlclient.jar	<ul style="list-style-type: none"> <li>■ C client applications that can access WebLogic JMS applications and resources</li> <li>■ Supports SSL</li> </ul>
JMS .NET Client	WebLogic.Messaging.dll dynamic library	Microsoft .NET client applications, written in C# that can access WebLogic JMS applications and resources
JMX Client	wljmxclient.jar	Accesses WebLogic Server MBeans
Web Services Client	wseeclient.jar	Invokes Web Service

### 2.2.2.8 Other WebLogic Server Clients

The licenses for WebLogic Server Standard Edition, WebLogic Server Enterprise Edition, and WebLogic Suite provide unrestricted use of the clients listed and described in [Table 2–5](#) for the licensed WebLogic Server installation.

**Table 2–5 Other Clients Not Restricted for Use with the Licensed WebLogic Server**

Client Type	Key Features
WebLogic Scripting Tool (WLST)	Client for configuring WebLogic Server instances
Web server plug-ins for WebLogic Server	Client for Apache HTTP Server, Microsoft Internet Information Server, Oracle HTTP Server, and Oracle iPlanet Web Server

## 2.2.3 Restricted-Use Licensing

The following restricted-use licenses are included with Oracle WebLogic Server in the editions and products indicated.

### 2.2.3.1 Oracle Database License Requirements

WebLogic Suite includes Oracle Internet Application Server Enterprise Edition, which includes a restricted-use license of the Oracle Database. See [Section 2.3.3, "Restricted-Use Licensing"](#) for details.

### 2.2.3.2 Oracle Internet Application Server Requirements

See [Section 2.3.3, "Restricted-Use Licensing,"](#) for details about restricted-use licenses included with WebLogic Suite Edition.

### 2.2.3.3 Oracle JDeveloper License Requirements

Oracle JDeveloper bundles UDDI client libraries from the HP SOA Systinet Registry. Such libraries and UDDI client functionality are licensed only to the end user for the purpose of connecting to and communicating with the Oracle Service Registry.

### 2.2.3.4 Oracle Java SE Advanced and Oracle Java SE Suite

WebLogic Server EE includes a restricted use license for Oracle Java SE Advanced . Oracle Java SE and all components associated with it are restricted for use with WebLogic Server. Java SE is included with WebLogic Server Enterprise Edition for the purpose of enabling client applications to access WebLogic Server Enterprise Edition components.

WebLogic Suite includes a restricted use license for Oracle Java SE Suite. Oracle Java SE and all components associated with it are restricted for use with WebLogic Server, Oracle Containers for J2EE and Coherence. Java SE is included with WebLogic Suite for the sole purpose of enabling client applications to access WebLogic Suite components.

For details on Java SE Editions, see

<http://www.oracle.com/technetwork/java/javase/terms/products/index.html>.

## 2.2.4 Oracle WebLogic Server Optimizations for Exalogic Elastic Cloud Software

The following sections describe the Oracle Weblogic Server optimizations for Exalogic Elastic Cloud software:

- [Section 2.2.4.1, "Input/ Output and Work Manager Optimizations for Exalogic Elastic Cloud Software"](#)
- [Section 2.2.4.2, "JDBC and Data Source Optimizations for Exalogic Elastic Cloud Software"](#)
- [Section 2.2.4.3, "Cluster State Replication Optimizations for Exalogic Elastic Cloud Software"](#)
- [Section 2.2.4.4, "Socket Direct Protocol for Exalogic Elastic Cloud Software"](#)
- [Section 2.2.4.5, "Server and Service Migration Performance Optimizations for Exalogic Elastic Cloud Software"](#)
- [Section 2.2.4.6, "Java Server Page Factory Caching Optimizations for Exalogic Elastic Cloud Software"](#)

- [Section 2.2.4.7, "Oracle HTTP Client Optimizations for Exalogic Elastic Cloud Software"](#)

Exalogic Elastic Cloud Software optimizations for WebLogic Server are not available with the WebLogic Server Basic license. To have rights to these capabilities, one must be running a full use license of WebLogic Server.

### 2.2.4.1 Input/ Output and Work Manager Optimizations for Exalogic Elastic Cloud Software

Exalogic Elastic Cloud Software can be configured with input/output and Work Manager optimizations for WebLogic Server [Table 2–6](#) lists and describes the MBean attributes for configuring WebLogic Server with these options that are restricted to Exalogic Elastic Cloud Software licenses.

**Table 2–6 Exalogic Elastic Cloud Software Configuration Enabled in WebLogic Server**

MBean Attribute <sup>1</sup>	Description
<code>KernelMBean.ScatteredReadsEnabled=true</code>	Increases efficiency during I/O in environments with high network throughput.
<code>KernelMBean.GatheredWritesEnabled=true</code>	Increases efficiency during I/O in environments with high network throughput.
<code>KernelMBean.AddWorkManagerThreadsByCpuCount</code>	Increases efficiency of the self-tuning thread pool by aligning it with the Exalogic processor architecture threading capabilities
<code>ServerMBean.useConcurrentQueueForRequestManager=true</code>	Lockless request manager enables higher concurrency and efficiency in processing on Exalogic systems, especially for JMS use cases.

<sup>1</sup> For more information about these MBeans, see the Oracle WebLogic Server MBean Reference.

### 2.2.4.2 JDBC and Data Source Optimizations for Exalogic Elastic Cloud Software

Exalogic Elastic Cloud Software can be configured with optimized JDBC connections and improved Oracle Database Real Application Cluster connectivity within WebLogic Server. [Table 2–7](#) lists and describes the Oracle JDBC features that are restricted to Exalogic Elastic Cloud Software licenses. Note, as stated in [Section 2.2.4.4, "Socket Direct Protocol for Exalogic Elastic Cloud Software,"](#) that WebLogic Server data sources using a JDBC connection string with the protocol portion being set to SDP (`PROTOCOL=SDP`) are restricted to Exalogic Elastic Cloud Software.

**Table 2–7 Exalogic Elastic Cloud Software Oracle JDBC Options**

Option	Description
<code>oracle.jdbc.enableJavaNetFastPath</code>	Enables the Oracle JDBC driver to reduce data copies and fragmentation.

Exalogic Elastic Cloud Software includes the right to WebLogic Server GridLink data sources, known as Active GridLink for RAC. The definitions of the XML configuration elements available in GridLink data sources for the Exalogic Elastic Cloud Software entitlement are described in [Section 2.2.2.3.4, "Database Integration."](#)

### 2.2.4.3 Cluster State Replication Optimizations for Exalogic Elastic Cloud Software

Exalogic Elastic Cloud Software can be configured for optimized state replication with WebLogic Server. Specifically one-way RMI for state replication and multi-channel replication are restricted to Exalogic Elastic Cloud Software.



For information about configuring these cluster state replication optimizations, see "Enabling Cluster-Level Session Replication Enhancements" in *Oracle Fusion Middleware Exalogic Enterprise Deployment Guide*.

[Table 2–8](#) lists and describes the WebLogic Server cluster state replication MBeans that are restricted to Exalogic Elastic Cloud.

**Table 2–8 Exalogic Elastic Cloud Software MBeans for State Replication**

MBean	Description
<code>ServerMBean.setReplicationPorts(String ports)</code>	Enables the configuration of multiple replication channels per server within a WebLogic Server cluster.
<code>ClusterMBean.setOneWayRmiForReplicationEnabled(boolean enable)</code>	Enables state replication to be set directionally to one-way only
<code>ClusterMBean.setSessionLazyDeserializationEnabled(boolean enable)</code>	Increases efficiency with session replication.

#### 2.2.4.4 Socket Direct Protocol for Exalogic Elastic Cloud Software

Exalogic Elastic Cloud can be configured to utilize socket direct protocol (SDP) as a high performance protocol for WebLogic Network Channels and JDBC connectivity.

WebLogic Server data sources using a JDBC connection string with the SDP protocol (for example, `(PROTOCOL=SDP)`) are restricted to Exalogic Elastic Cloud Software. For information about configuring SDP based WebLogic Server data sources see "Enable Socket Direct Protocol for a Grid Link Data Source" in *Configuring and Managing JDBC Data Sources for Oracle WebLogic Server*.

[Table 3-4](#) lists and describes Oracle WebLogic Server SDP features that are restricted to Exalogic Elastic Cloud Software licenses.

**Table 2–9 Exalogic Elastic Cloud Software WebLogic MBean Configuration Options**

MBean Attribute	Description
<code>NetworkAccessPointMBean.SDPEnabled</code>	Specifies whether the network channel supports the socket direct protocol.

For more information about the `NetworkAccessPointMBean.SDPEnabled` attribute, see the *Oracle WebLogic Server MBean Reference*.

#### 2.2.4.5 Server and Service Migration Performance Optimizations for Exalogic Elastic Cloud Software

Exalogic Elastic Cloud Software can be configured with WebLogic Server to enable more rapid failure detection and failover for migration of pinned services such as JMS and JTA Transaction Recovery Services, or migration of migratable servers hosting such services.

[Table 2–10](#) lists and describes the WebLogic Server cluster MBeans that are restricted to Exalogic Elastic Cloud.

**Table 2–10 Exalogic Elastic Cloud Software WebLogic MBean Configuration Options**

MBean	Description
<code>ClusterMBean.memberDeathDetectorEnabled=true</code>	Enables faster detection of failed singleton services to improve server and service migration performance.



### 2.2.4.6 Java Server Page Factory Caching Optimizations for Exalogic Elastic Cloud Software

Exalogic Elastic Cloud Software can be configured with WebLogic Server to use JSP factory caching and improve scalability of Web applications built on the JSP Servlet engine (OJSP) utilized by Fusion Middleware products and Fusion Middleware applications running on WebLogic Server.

These optimizations are enabled when Exalogic domain-level enhancements are enabled as described in "Enabling Exalogic-Specific Enhancements in Oracle WebLogic Server 11g Release 1". They can also be controlled by enabling the init parameter `jsp_factory_caching` (default `false`).

### 2.2.4.7 Oracle HTTP Client Optimizations for Exalogic Elastic Cloud Software

Exalogic Elastic Cloud Software can be configured with WebLogic Server to optimize Oracle HTTP client connection management to improve performance of Web applications built with Fusion Middleware products running on WebLogic Server.

These optimizations are enabled when Exalogic domain-level enhancements are enabled as described in "Enabling Exalogic-Specific Enhancements in Oracle WebLogic Server 11g Release 1."

## 2.3 Oracle Internet Application Server

Oracle Internet Application Server is available in three editions with different functional capabilities, each suitable for different kinds of applications and different development and deployment scenarios. Oracle also offers several application server options, packs, and other products that enhance the capabilities of Oracle Internet Application Server for specific purposes. This section describes the licensing editions of Oracle Internet Application Server.

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**Note:** All editions of the products Oracle Internet Application Server and Oracle Forms and Reports Server include rights to WebLogic Server Basic. WebLogic Server Basic is only for running components provided within these products such as Forms, Reports, Discoverer and Portal. It can also be used for custom Java applications such as those developed for Oracle Containers for J2EE. Products outside of Oracle Internet Application Server and Oracle Forms and Reports that have licensing dependencies on any edition of Oracle Internet Application Server or Oracle Forms and Reports do not have the right to run those products on WebLogic Server Basic unless stated specifically within their licensing documentation. For complete details about WebLogic Server Basic, see [Appendix A, "WebLogic Server Basic."](#)

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[Table 2–11](#) introduces the Oracle Internet Application Server licensing options.

**Table 2–11 Oracle Internet Application Server Editions**

Licensing Edition	High-Level Functionality	Included Features
Standard Edition	<p>Oracle Internet Application Server Standard Edition includes:</p> <ul style="list-style-type: none"> <li>■ Oracle HTTP Server</li> <li>■ Oracle TopLink and Application Development Framework (includes MapViewer, for details see <a href="#">Oracle TopLink and Application Development Framework</a>)</li> <li>■ Oracle Portal</li> <li>■ Oracle Web Cache</li> <li>■ Java SE. For details on Java SE Editions, see <a href="http://www.oracle.com/technetwork/java/javase/terms/products/index.html">http://www.oracle.com/technetwork/java/javase/terms/products/index.html</a>.</li> <li>■ WebLogic Server Basic (see <a href="#">Appendix A</a>)</li> </ul> <p><b>Note:</b> In Oracle Fusion Middleware 10g Release 2 and Release 3, Oracle Internet Application Server includes the licensing rights to Oracle Containers for J2EE (OC4J) as the J2EE container. In future releases of Oracle Fusion Middleware, customers of Oracle Internet Application Server continue to have rights to the OC4J 10g Release 2 and Release 3 (the terminal release of OC4J).</p> <p>Oracle Internet Application Server also includes the Oracle Security Developer Tools.</p> <p>Oracle Internet Application Server Standard Edition, in addition to the components listed above, also includes the following:</p> <ul style="list-style-type: none"> <li>■ Oracle Internet Directory</li> <li>■ Oracle Single Sign-On</li> <li>■ Oracle Directory Services Manager</li> </ul> <p><b>Note:</b> In Oracle Fusion Middleware 10g Release 2, Oracle Internet Application Server includes the licensing rights to Oracle Single Sign-On. In Oracle Fusion Middleware 11g, customers of Oracle Internet Application Server continue to have rights to Oracle Single Sign-On 10g Release 2. In Oracle Fusion Middleware 11g, customers of Oracle Internet Application Server additionally have the rights to Oracle Access Manager Basic as described in <a href="#">Appendix B, "Oracle Access Manager Basic"</a></p> <p>In Oracle Fusion Middleware 10g Release 2, Oracle Internet Application Server Standard Edition includes limited use licenses for Oracle Internet Directory and Oracle Single Sign-On. The full use licenses for these products are available in Oracle Internet Application Server Enterprise Edition, and also in Oracle Identity and Access Management Suite Plus.</p>	<ul style="list-style-type: none"> <li>■ mod_ossll</li> <li>■ mod_oradav</li> <li>■ mod_fastcgi</li> <li>■ mod_rewrite</li> <li>■ Proxy Plug-In</li> <li>■ XML Developer Kit</li> <li>■ Oracle Security Developer Tools</li> <li>■ Oracle Enterprise Manager Fusion Middleware Control</li> <li>■ Java Authentication and Authorization Service (JAAS) Provider</li> <li>■ Data Direct JDBC drivers for Oracle and non-Oracle databases</li> <li>■ mod_plsql</li> <li>■ mod_osso</li> <li>■ mod_perl</li> <li>■ Perl Interpreter</li> <li>■ DBI/DBD data access libraries</li> <li>■ Oracle Content Management SDK</li> <li>■ Oracle Repository Creation Utility</li> </ul>

**Table 2–11 (Cont.) Oracle Internet Application Server Editions**

Licensing Edition	High-Level Functionality	Included Features
Enterprise Edition	<p>Oracle Internet Application Server Enterprise Edition includes all of the Standard Edition functionality, plus:</p> <ul style="list-style-type: none"> <li>■ Oracle Internet Directory</li> <li>■ Oracle Single Sign-On</li> <li>■ Oracle Discoverer</li> <li>■ Oracle Reports Services</li> <li>■ Oracle Forms Services</li> <li>■ Oracle Directory Services Manager</li> </ul> <p>In addition to the components listed above, Oracle Internet Application Server Enterprise Edition includes the rights to the following components from Oracle Fusion Middleware 10g Release 2:</p> <ul style="list-style-type: none"> <li>■ Oracle Delegated Administration Services</li> <li>■ Oracle Directory Integration Platform</li> <li>■ Oracle Single Sign-On</li> </ul> <p>Oracle Internet Application Server Enterprise Edition includes full use licenses for Oracle Internet Directory.</p> <p><b>Note:</b> In Oracle Fusion Middleware 10g Release 2, Oracle Internet Application Server includes the licensing rights to Oracle Single Sign-On. In Oracle Fusion Middleware 11g, customers of Oracle Internet Application Server continue to have rights to Oracle Single Sign-On 10g Release 2. In Oracle Fusion Middleware 11g, customers of Oracle Internet Application Server additionally have the rights to Oracle Access Manager Basic as described in <a href="#">Appendix B, "Oracle Access Manager Basic"</a></p> <p><b>Note:</b> If you license Oracle Internet Application Server Enterprise Edition, some Identity Management and Access Management components will be from earlier releases of Oracle Fusion Middleware 10g.</p>	<p>All Standard Edition features, plus:</p> <ul style="list-style-type: none"> <li>■ Oracle Identity Management features</li> <li>■ Business Intelligence features</li> <li>■ Application Interconnect Toolkit</li> <li>■ Technology Adapters and Oracle Enterprise Service Bus</li> <li>■ Oracle B2B</li> </ul> <p>See <a href="#">Section 2.3.2.2.2, "Oracle Identity Management,"</a> for details about Identity Management features.</p>

### 2.3.1 Oracle Internet Application Server Editions and Installation Types

When you install Oracle Internet Application Server, you will have the choice of several installation types. Each installation type provides a specific set of components and features.

Oracle Internet Application Server editions do not map directly to these product installation types. It is important to understand how these two concepts relate to each other. [Table 2–12](#) lists the minimum edition requirements for each installation type.

In each case, the minimum edition listed is the edition required to install the installation type. However, the minimum edition may not enable you to use everything included in that installation type. For example, you can install Portal, Forms, Reports and Discoverer from an installation type, but the Standard Edition license does not cover the usage of Oracle Forms, Reports and Discoverer. These restrictions are detailed in [Table 2–13](#).

**Table 2–12** *Edition Requirements for Installation Types of Oracle Internet Application Server*

<b>Installation Type</b>	<b>Oracle Internet Application Server Minimum Edition Required</b>
Web Tier	Standard Edition
WebLogic Server	Standard Edition
JDeveloper	Standard Edition
TopLink	Standard Edition
Oracle Identity Management	Standard Edition
Portal, Forms, Reports and Discoverer	Standard Edition
Integration, Oracle B2B	Enterprise Edition
Repository Creation Utility	Standard Edition

[Table 2–13](#) lists the installation types available with each of the Oracle Internet Application Server editions, along with any exceptions or restrictions associated with each edition-installation pair.

**Table 2–13** *Installation Types Included with Editions of Oracle Internet Application Server*

<b>Edition</b>	<b>Installation Types</b>	<b>Exceptions</b>
Standard Edition	Web Tier WebLogic Server JDeveloper TopLink Portal, Forms, Reports and Discoverer Repository Creation Utility	Upgrade to Enterprise Edition if you need: <ul style="list-style-type: none"> <li>■ Portal, Forms, Reports and Discoverer</li> <li>■ Oracle Single Sign-On</li> <li>■ Oracle Internet Directory</li> </ul> See also <a href="#">Section 2.3.3, "Restricted-Use Licensing."</a>
Enterprise Edition	Web Tier WebLogic Server JDeveloper TopLink Portal, Forms, Reports and Discoverer Integration, Oracle B2B Repository Creation Utility	If you use Discoverer Plus and/or Discoverer Viewer, you need at least one license of Discoverer Administrator, which is included in Oracle Developer Suite.  For Integration installations, all packaged application, legacy system, and B2B adapters are licensed separately.  See also <a href="#">Section 2.3.3, "Restricted-Use Licensing."</a>

## 2.3.2 Licensing Considerations for Additional Features

Certain Oracle Application Server features have additional licensing considerations. This section contains the following subsections:

- [Section 2.3.2.1, "Management Features"](#)
- [Section 2.3.2.2, "Security Features"](#)
- [Section 2.3.2.3, "High Availability Features"](#)

- [Section 2.3.2.4, "Adapters"](#)

### 2.3.2.1 Management Features

Note the following license considerations for management features:

- Oracle Enterprise Manager Fusion Middleware Control is included with all editions of Oracle Application Server.
- Oracle Application Server Enterprise Edition can be managed by Oracle Enterprise Manager Cloud Control, which is Oracle's integrated enterprise information technology (IT) management product line providing the industry's only complete, integrated, and business-driven enterprise cloud management solution.

### 2.3.2.2 Security Features

Oracle Application Server provides a number of features to ensure security between the client and the application server, and between the application server and the database.

**2.3.2.2.1 Oracle Advanced Security** Oracle Advanced Security ensures that communication over the Oracle SQL\*Net Protocol is encrypted and secure. It also provides strong authentication services between the application server and the database. As part of a "secure by default" architecture, Oracle Advanced Security is installed with Oracle Fusion Middleware by default. This ensures that the client components required for secure communication and strong authentication between the application server and an Oracle database are present. However, if you want to configure and use the secure communication and authentication services provided by Oracle Advanced Security, you must also license Oracle Advanced Security with the Oracle database with which the application server communicates.

**2.3.2.2.2 Oracle Identity Management** The Oracle Identity Management license that is included in Oracle Internet Application Server Enterprise Edition includes the following:

- Oracle Internet Directory
- Oracle Directory Integration Platform
- Oracle Delegated Administration Services
- Oracle Directory Services Manager
- Oracle Single Sign-On
- Oracle Access Manager Basic

For more information, see [Appendix B, "Oracle Access Manager Basic"](#)

A restricted use license for some of the Oracle Identity Management features is included with the application server for specific purposes. For more information, see [Section 2.3.3, "Restricted-Use Licensing."](#)

### 2.3.2.3 High Availability Features

Oracle Internet Application Server has several high availability features that require special licensing considerations. These considerations are similar to the licensing considerations for the high availability features of the Oracle Database. These considerations are described in [Section 2.2.2.3.3, "High Availability Considerations for Oracle WebLogic Server Middle-Tier Instances."](#) There are further high availability restrictions for Oracle Internet Application Server based on the limited use license of WebLogic Server Basic, described in [Appendix A, "WebLogic Server Basic."](#)

### 2.3.2.4 Adapters

See *Oracle Fusion Middleware Adapters* in the 11g R1 Licensing Documentation ([http://docs.oracle.com/cd/E28280\\_01/doc.1111/e14860/adapters.htm#BABBGCGE](http://docs.oracle.com/cd/E28280_01/doc.1111/e14860/adapters.htm#BABBGCGE)) for a description of Fusion Middleware Adapters. Technology adapters are included in all Oracle Internet Application Server editions. Other adapters require separate licensing.

## 2.3.3 Restricted-Use Licensing

The following restricted-use licenses are included with Oracle Internet Application Server in the editions and products indicated.

### 2.3.3.1 Standard Edition

- Oracle Single Sign-On is provided only for use with Oracle Portal.
- Oracle Internet Directory is provided for use with Oracle Single Sign-On and with application server components to:
  - Provision, store, and manage users and groups, along with their associated security credentials and privileges
  - Synchronize data with third party directory services
  - Store other component-specific metadata
- Oracle Advanced Security Option is included, with use limited strictly to the Oracle Java SSL Library.
- The Oracle Database (Enterprise Edition) is provided only for use with the Oracle Repository Creation Utility database schema for storing product metadata.

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**Notes:** During installation, you can choose to install the product metadata into an existing, licensed database. Choosing this option has the following licensing implications:

- The restricted use license does not apply to the use of the existing database as the Oracle Repository Creation Utility database schema.
  - If the computer on which your existing database is running does not run any other Oracle Application Server installations, there is no Oracle Internet Application Server license requirement for that computer.
  - Installing the Oracle Repository Creation Utility database schema into your existing database may increase the number of users accessing that database, and may thus affect your database license needs. You need to make sure that you have the appropriate number of database licenses to ensure compliance.
- 
- 

### 2.3.3.2 Enterprise Edition

- Oracle Advanced Security Option is included, with use limited strictly to the Oracle Java SSL Library.
- The Oracle Database (Enterprise Edition) is provided only for use with the Oracle Repository Creation Utility database schema for storing product metadata.

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**Notes:** During installation, you can choose to install the Oracle Repository Creation Utility database schema into an existing, licensed database. Choosing this option has the following licensing implications:

- The restricted use license does not apply to the use of the existing database for the Oracle Repository Creation Utility database schema.
  - If the computer on which your existing database is running does not run any other Oracle Fusion Middleware installations, there is no Oracle Internet Application Server license requirement for that computer.
  - Installing the Oracle Repository Creation Utility database schema into your existing database may increase the number of users accessing that database, and may thus affect your database license needs. You need to make sure that you have the appropriate number of database licenses to ensure compliance.
- 

### 2.3.3.3 Oracle Database License Requirements: Oracle Internet Application Server (Standard Edition, Enterprise Edition) and WebLogic Suite

Storing any data other than the Oracle Repository Creation Utility database schema in the Oracle Application Server Infrastructure database requires a full use license of the Oracle Database (Standard Edition, Standard Edition One, or Enterprise Edition).

**2.3.3.3.1 Full Use License of Oracle Database Standard Edition or Standard Edition One** Some examples of the kinds of data that require the purchase of a full use license for the Oracle Database Standard Edition or Standard Edition One include:

- Documents or any other objects stored in the Oracle Database under Oracle Content Management SDK
- Documents or any kind of content stored in the Portal Repository
- Oracle Integration B2B
- Any BPEL Process Manager process instance data, which includes using Oracle Database as the dehydration store
- Any LDAP data related to the use of Oracle Internet Directory as a general purpose LDAP directory
- Any other custom data that is created or updated by an application

**2.3.3.3.2 Full Use License of Oracle Database Enterprise Edition** Two kinds of data require the purchase of a full use license of the Oracle Database Enterprise Edition:

- Any Oracle Portal that leverages the VPD functionality of the database for hosting
- Any LDAP data related to the use of an Oracle Internet Directory LDAP Directory, and database replication is used

**2.3.3.3.3 When is a Full Use License of Oracle Database Not Required?** The following scenarios do not require the purchase of a full use license of the Oracle Database when you purchase Oracle Internet Application Server:

- If you are only using Oracle Web Cache

- If you are using Oracle Business Intelligence Discoverer only against a non-Oracle database
- If you are using Oracle Reports Services only against a non-Oracle database

## 2.4 Oracle GlassFish Server

Oracle GlassFish Server is a Java EE server infrastructure that comes with a rich administrative console and scripting infrastructure for developing and deploying Java EE applications. It is available as a standalone product.

When you license Oracle GlassFish Server, it includes:

- Java EE Server infrastructure
- Java SE. For details on Java SE Editions, see <http://www.oracle.com/technetwork/java/javase/terms/products/index.html>.
- Oracle GlassFish Message Queue
- Oracle GlassFish Server HTTP load balancer plug-in
- GlassFish Server Control
- Oracle TopLink — for JPA 2.0 persistence infrastructure
- asadmin — the command line interface to Oracle GlassFish Server
- HADB — for Oracle GlassFish 2.x releases, enabling additional quality of service support for state management

Oracle GlassFish Server is part of the Oracle Fusion Middleware application grid portfolio and is ideally suited for applications requiring lightweight infrastructure with the most up-to-date implementation of enterprise Java, Java EE 6, and Java Web Services infrastructure.

Oracle GlassFish Server can also be managed with Oracle Enterprise Manager Cloud Control 12c, which is Oracle's integrated enterprise information technology (IT) management product line providing the industry's only complete, integrated, and business-driven enterprise cloud management solution. Management of Oracle GlassFish Server with Cloud Control is separately licensed; see [Section 2.7, "WebLogic Server Management Pack Enterprise Edition"](#).

### 2.4.1 Java SE

Java SE includes the Java Development Kit (JDK), the Java Runtime Environment (JRE) and the JRockit JDK.

For full details on Java SE Editions, see

<http://www.oracle.com/technetwork/java/javase/terms/products/index.html>.

## 2.5 Oracle Web Tier

Oracle Web Tier is a high performance Web server infrastructure consisting of the following components:

- Oracle HTTP Server



Oracle HTTP Server is an Apache based web server that provides a HTTP listener for Oracle WebLogic Server and the framework for hosting static pages, dynamic pages, and applications over the web.

Oracle HTTP Server includes the following extensions:

- mod\_oss
- proxy plug-in
- mod\_oradav
- mod\_fastcgi
- mod\_rewrite
- mod\_plsql
- mod\_osso
- mod\_perl
- Oracle iPlanet Web Server  
Oracle iPlanet Web Server is the former Sun Java System Web Server, and delivering a single, secure infrastructure for all Web technologies and applications.
- Oracle iPlanet Web Proxy Server  
Oracle iPlanet Web Proxy Server solves the problems of network congestion and slow response time and provides control over network resources without burdening end users or network administrators.
- Oracle Web Cache  
Oracle Web Cache is a content-aware server accelerator, or reverse proxy, for the web tier that improves the performance, scalability, and availability of Web sites running on any web server or application server, such as Oracle HTTP Server and Oracle WebLogic Server. Oracle Web Cache can serve large numbers of client requests, offloading this process from the application server.
- [Oracle WebLogic Management Framework](#) (Appendix D)

## 2.6 Oracle Coherence

Oracle Coherence is an in-memory data grid solution that enables you to scale applications by providing fast access to frequently used data.

This section contains the following topics:

- [Section 2.6.1, "Oracle Coherence Standard and Enterprise Edition"](#)
- [Section 2.6.2, "Oracle Coherence Grid Edition"](#)
- [Section 2.6.3, "Java SE with Oracle Coherence"](#)
- [Section 2.6.4, "Oracle TopLink with Oracle Coherence"](#)
- [Section 2.6.5, "Coherence Optimizations for Exalogic Elastic Cloud Software"](#)
- [Section 2.6.6, "Management Pack for Oracle Coherence"](#)
- [Section 2.6.7, "Feature Availability in Coherence Server Editions"](#)
- [Section 2.6.8, "Feature Availability in Coherence Client Editions"](#)

## 2.6.1 Oracle Coherence Standard and Enterprise Edition

This section includes the following topics:

- [License Model](#)
- [Client Access to Enterprise and Standard Edition Clusters](#)

### 2.6.1.1 License Model

The licensing model for Coherence Enterprise and Standard Edition provides for homogeneous peer-to-peer deployments within the cluster. That means that every member node in the Coherence cluster needs to be licensed with the same Server Edition of Coherence. For Example, every cluster member node in the Enterprise Edition cluster must be running and be properly licensed for Coherence Enterprise Edition. Standard and Enterprise Edition licensing does not distinguish between Cache Clients<sup>4</sup> and Cache Servers<sup>5</sup>. With Standard and Enterprise Editions Cache Clients must be licensed with the appropriate Server Edition license.

### 2.6.1.2 Client Access to Enterprise and Standard Edition Clusters

For enabling access to the Enterprise or Standard Edition clusters by clients that are not members of the cluster using TCP/IP (through Extend/TCP) Coherence Data Clients may be used. An unlimited number of Coherence Data Client licenses are included at no additional charge with every license of Coherence Enterprise or Standard Edition. Data Clients are also multi-language clients. Currently Java, C++ or .NET (C#) Data Clients are available. Coherence Data Clients connect to the Coherence cluster through one or more specially configured cluster member node called an Extend Proxy. All Extend Proxy nodes must also be properly licensed with appropriate Server Edition licenses. Coherence Data Clients are able to access (put, get, query) data in the Coherence Cluster and make invocation service requests using standard Coherence APIs, but they do not have the ability to sign up to be notified of the changes to the data in the grid. Further, Data Clients do not have the ability to use Near Caches or Continuous Query, as those capabilities also rely on the ability to receive notifications of data change from the cluster.

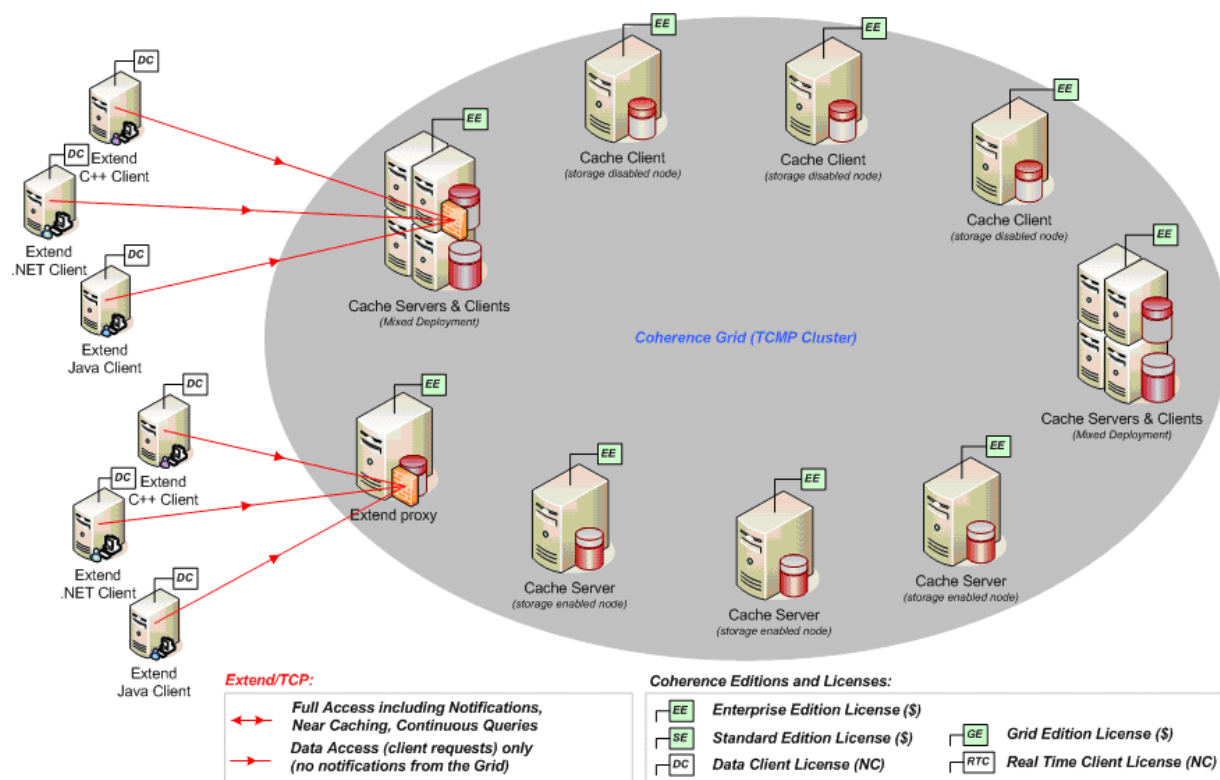
[Figure 2–1](#) shows what an Enterprise or a Standard Edition deployment may look like from the licensing perspective.

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<sup>4</sup> *Cluster member configured as a Cache Client* is a storage-disabled cluster member; that is, one with the `local-storage` attribute for all partitioned cache services set to false.

<sup>5</sup> *Cluster member configured as a Cache Server* is a storage-enabled cluster member; that is, one with the `local-storage` attribute for all or some of the partitioned cache services set to true.

Figure 2–1 Oracle Coherence Standard or Enterprise Edition Deployment



This figure shows what an Enterprise or a Standard Edition deployment may look like from the licensing perspective.

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## 2.6.2 Oracle Coherence Grid Edition

Grid Edition licensing includes the unlimited use of Real Time Clients which may be of the following two types:

- Real Time Cluster Member Client
- Real Time Extend/TCP Client

### 2.6.2.1 Real Time Cluster Member Client

Real Time Cluster Member Clients may be part of the Grid Edition Cluster and have all the capabilities of the Grid Edition except those associated with managing partitioned data and those associated with being an Extend Proxy. In other words they may be thought of as Grid Edition nodes configured to have all their partitioned cache services storage-enabled attribute set to false and unable to host connections from Extend/TCP Clients.

Real Time Cluster Member Clients are always Java clients.

Real Time Cluster Member Client nodes may not be configured as Extend Proxy for other Real Time Clients (only Server Edition nodes may be configured as Proxy Servers for use by multi-language Data Clients and Real Time Extend/TCP Clients).

### 2.6.2.2 Real Time Extend/TCP Client

Real Time Extend/TCP Clients connect to the Coherence cluster over TCP/IP through one or more specially configured cluster member node called an Extend Proxy. All Extend Proxy nodes must also be properly licensed with the Grid Edition licenses.

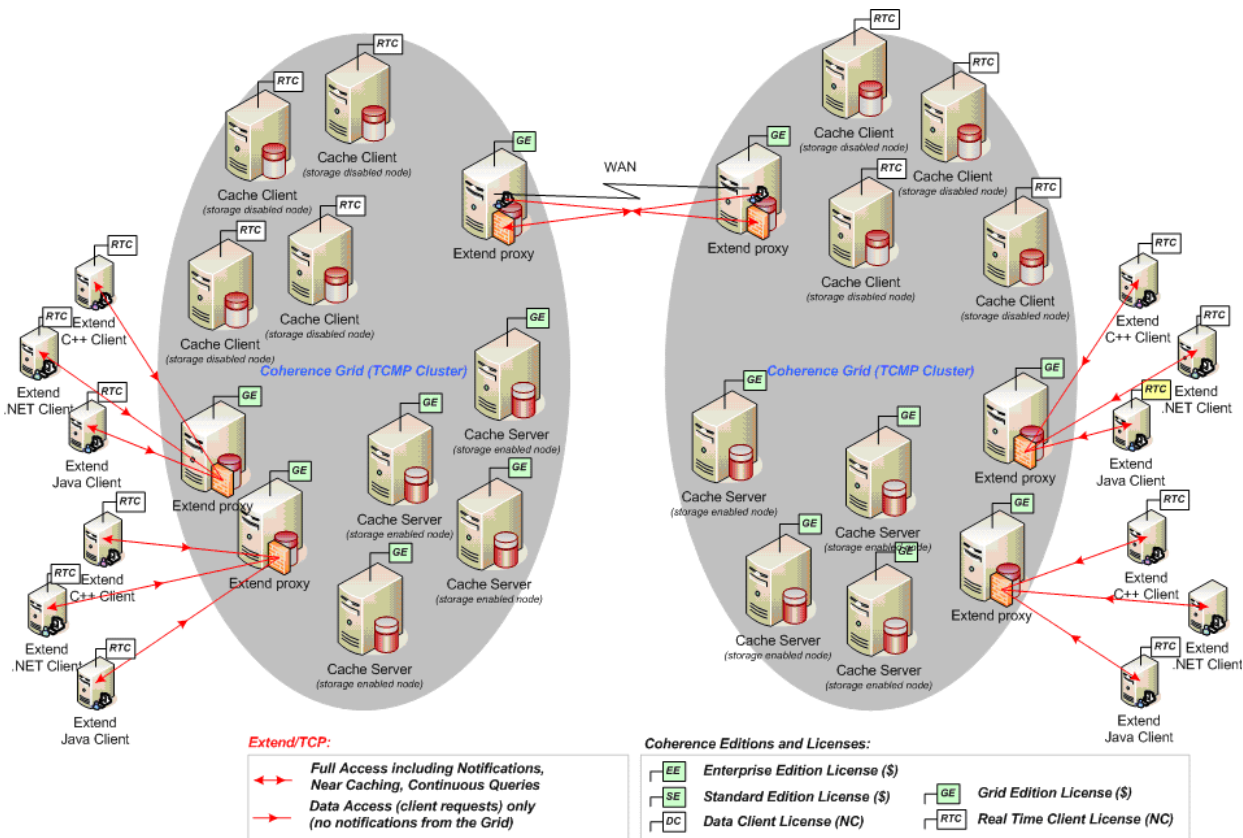
Real Time Extend/TCP Clients are multi-language clients and currently Java, .NET (C#) and C++ Real Time Extend/TCP Clients are available.

In contrast to the Data Clients, Real Time Extend/TCP Clients have the ability to sign up for notifications for events taking place in the Grid and can take advantage of Coherence Near Caches and Continuous Queries.

Under the Grid Edition licensing model, unlimited number of Real Time Client licenses is included at no additional charge with every license of Coherence Grid Edition.

Figure 2-2 shows what a Grid Edition deployment may look like from the licensing perspective.

Figure 2-2 Oracle Coherence Grid Edition Deployment



This figure shows what a Grid Edition deployment may look like from the licensing perspective.

\*\*\*\*\*

### 2.6.3 Java SE with Oracle Coherence

Java SE is included in all licenses of Oracle Coherence Standard Edition, Oracle Coherence Enterprise Edition and Oracle Coherence Grid Edition. Java SE is restricted to running applications hosted on components within these products.

For details on Java SE Editions, see

<http://www.oracle.com/technetwork/java/javase/terms/products/index.html>.

### 2.6.4 Oracle TopLink with Oracle Coherence

A restricted use license for Oracle TopLink and Application Development Framework (see [Section 2.1, "Oracle TopLink and Application Development Framework"](#)) restricted to use TopLink with Coherence is included in all licenses of Oracle Coherence Enterprise Edition and Oracle Coherence Grid Edition.

### 2.6.5 Coherence Optimizations for Exalogic Elastic Cloud Software

Exalogic Elastic Cloud Software can be configured with Coherence to optimize point-to-point communications in Coherence clusters and to optimize Coherence\*Web caching performance.

The entitlement to the following options is available only when Coherence is licensed with Exalogic Elastic Cloud Software:

- For Coherence cluster optimized point-to-point communications on Exalogic the use of the reliable transport options `imb` and `sdmb`.
- For Coherence\*Web caching performance optimizations on Exalogic use Coherence\*Web `OptimizeModifiedSessions` as described in the Coherence\*Web Context Parameters Documentation.

### 2.6.6 Management Pack for Oracle Coherence

Management Pack for Oracle Coherence provides comprehensive monitoring and management capabilities for Coherence. This pack provides complete cluster visibility by supplying detailed metrics of various cluster artifacts and their interdependencies. You can monitor more than one Coherence cluster from a single console.

Enterprise Manager provides out-of-the-box support for metric alerts, enabling users to proactively monitor cluster health. Various performance charts show real-time and historical performance trends. Enterprise Manager automates the mundane tasks of setting up Coherence software and creating a cluster on distributed machines. Enterprise Manager also enables users to start and stop new nodes in an already monitored Coherence cluster. Similarly, users can also start and stop the entire cluster.

For complete license details about Management Pack for Oracle Coherence, see "Oracle Middleware Enterprise Management" in *Oracle Enterprise Manager Licensing Information*. This document is available from the Oracle Enterprise Manager Documentation page at <http://www.oracle.com/technetwork/oem/grid-control/documentation/index.html>.

### 2.6.7 Feature Availability in Coherence Server Editions

[Table 2-14](#) lists the features available in the following Coherence Server editions:

- Standard Edition, formerly known as Caching Edition, an application caching solution
- Enterprise Edition, formerly known as Application Edition, an application data management solution
- Grid Edition, formerly known as Data Grid Edition, an enterprise-wide data management solution

**Table 2–14 Coherence Server Editions**

Category	Feature	Standard Edition	Enterprise Edition	Grid Edition
General	Fault-tolerant data caching	Y	Y	Y
General	Data management including write-behind, transactions, analytics and events	NA	Y	Y
Connectivity	Embedded Data Client and Real Time Client functionality <sup>1</sup>	Y	Y	Y
Connectivity	TCMP cluster technology <sup>2,3</sup>	Y	Y	Y
Connectivity	Support for cross-platform Data Clients	Y	Y	Y
Connectivity	Multicast-free operation (WKA)	NA	Y	Y
Security	Network traffic encryption	Y	Y	Y
Security	Java Authentication & Authorization Service (JAAS)	Y	Y	Y
Management & Monitoring	Management host <sup>4</sup>	Y	Y	Y
Management & Monitoring	Manageable through clustered JMX	NA	Y	Y
Management & Monitoring	<a href="#">Oracle WebLogic Management Framework</a>	NA	Y	Y
Caching	Local cache, Near cache, continuous query cache, real-time events	Y	Y	Y
Caching	Fully replicated data management	Y	Y	Y
Caching	Partitioned data management	Y	Y	Y
Caching	Data source integration through read-through/write-through caching	Y	Y	Y
Caching	Elastic Data	NA	NA	Y
Caching	GoldenGate HotCache	NA	NA	Y
Integration	TopLink integration	Y	Y	Y
Integration	Hibernate integration	Y	Y	Y
Integration	HTTP session management for application servers	NA	Y	Y
Integration	BEA Portal "p13n cache" integration	NA	Y	Y
Analytics	Parallel InvocableMap and QueryMap <sup>5</sup>	NA	Y	Y
Transactions	Write-behind caching	NA	Y	Y
Transactions	J2CA Resource Adapter	NA	Y	Y
Compute Grid	InvocationService	NA	Y	Y

**Table 2–14 (Cont.) Coherence Server Editions**

Category	Feature	Standard Edition	Enterprise Edition	Grid Edition
Compute Grid	WorkManager	NA	Y	Y
Enterprise Data Grid	WAN support <sup>6</sup>	NA	NA	Y
Enterprise Data Grid	Support for cross-platform Real Time Clients	NA	NA	Y

<sup>1</sup> Coherence TCMP clusters must be homogeneous with respect to the Coherence Edition. A TCMP cluster of one type (for example, Caching Edition) may connect to a TCMP cluster of another type (for example, Grid Edition) as a Data Client or as a Real Time Client, but this requires server-side licenses. The connection type is configurable and defaults to Real Time Client.

<sup>2</sup> Coherence Editions may not be mixed within the context of a single TCMP-based cluster. Integration of different Edition types is accomplished through Coherence\*Extend (with each cluster acting as either a Data Client or a Real Time Client).

<sup>3</sup> Oracle's cluster-aware wire protocol (TCMP) provides detailed knowledge of the entire cluster that enables direct server access for lower latency and higher throughput, faster failover/failback/rebalancing, and the ability for any participating member to act as a service provider (for example, data management, remote invocation, management and monitoring, and so on).

<sup>4</sup> Supports integration with a local MBeanServer. This, with local JMX "agents", allows this node to provide management and monitoring features. Clustered JMX support adds the ability for this node to manage and monitor remote nodes as well.

<sup>5</sup> Parallel support for InvocableMap and QueryMap will result in server-side execution whenever possible, minimizing data transfer, allowing use of indexing, and parallelizing execution across the cluster. Without parallel support, the operations will retrieve the full dataset to the client for evaluation (which may be very inefficient).

<sup>6</sup> Grid Edition is required for WAN and other deployments that implement cluster-to-cluster interconnects, including any deployment where responsibility for data and/or processing spans more than one data center and activities are coordinated between those data centers using any form of Coherence-provided messaging or connectivity, such as deployments that feature two or more TCMP clusters interconnected by Coherence\*Extend.

## 2.6.8 Feature Availability in Coherence Client Editions

Table 2–15 lists the features available in the following Coherence Client Editions: note that the Data Client may be used with all Coherence Server Editions. The Real Time Client may only be used with Grid Edition. Extend/TCP is an abbreviation for Coherence\*Extend configured for transport over TCP/IP.

- Data Client — The Data Grid client for use anywhere. May be used with all Coherence Server Editions
- Real Time Client configured as an Extend/TCP client — The real time desktop client. May be used only with Coherence Grid Edition.
- Real Time Client configured as a Compute Client — The server-class client providing key manageability, monitoring, Quality of Service, and performance capabilities. May be used only with Coherence Grid Edition.

**Table 2–15 Coherence Client Editions**

Category	Feature	Data Client	Real Time Client (Extend/TCP)	Real Time Client (Compute)
General	Access to data and services on the data grid	Y	Y	Y
General	Real time synchronization with the data grid	NA	Y	Y
API Language	Java	Y	Y	Y
API Language	.NET	Y	Y	NA
API Language	C++	Y	Y	NA
Client API	Data transformation (PIFPOF / ExternalizableLite / XmlBean)	Y	Y	Y
Client API	InvocationService <sup>1</sup>	Y	Y	Y



**Table 2–15 (Cont.) Coherence Client Editions**

Category	Feature	Data Client	Real Time Client (Extend/TCP)	Real Time Client (Compute)
Client API	NamedCache (core)	Y	Y	Y
Client API	NamedCache (with ObservableMap real time events)	NA	Y	Y
Client API	MemberListener	NA	NA	Y
Connectivity	Coherence*Extend client <sup>2</sup>	Y	Y	Y
Connectivity	Multicast-free operation <sup>3</sup>	Y	Y	Y
Connectivity	TCMP cluster technology <sup>4</sup>	NA	NA	Y
Security	Network traffic encryption	Y	Y	Y
Security	Java Authentication & Authorization Service (JAAS)	NA	NA	Y
Caching	Local cache	NA	Y	Y
Caching	Near cache	NA	Y	Y
Caching	Continuous query cache	NA	Y	Y
Caching	Fully replicated cache	NA	NA	Y
Transactions	Local transactions	NA	NA	Y
Integration	Hibernate integration	NA	NA	Y
Integration	HTTP session management for application servers	NA	NA	Y
Integration	BEA Portal "p13n cache" integration	NA	NA	Y
Management & Monitoring	Management host	NA	NA	Y
Management & Monitoring	Manageable through clustered JMX	NA	NA	Y
Compute Grid	InvocationService	NA	NA	Y
Compute Grid	WorkManager	NA	NA	Y

<sup>1</sup> Data Client and Real Time Client (Extend/TCP) invocations are executed by the Extend Proxy Server they are connected to.

<sup>2</sup> For Data Clients and Real Time Clients (Extend/TCP), Coherence\*Extend is used to extend the core TCMP cluster to a greater ranging network, including desktops, other servers and WAN links. The Coherence\*Extend protocol is transported over TCP/IP.

<sup>3</sup> For Data Clients and Real Time Clients (Extend/TCP), Coherence\*Extend is used to extend the core TCMP cluster to a greater ranging network, including desktops, other servers and WAN links. The Coherence\*Extend protocol is transported over TCP/IP.

<sup>4</sup> Oracle's cluster-aware wire protocol (TCMP) provides detailed knowledge of the entire cluster that enables direct server access for lower latency and higher throughput, faster failover/failback/rebalancing, and the ability for any participating member to act as a service provider (for example, data management, remote invocation, management and monitoring, and so on).

## 2.7 WebLogic Server Management Pack Enterprise Edition

WebLogic Server Management Pack Enterprise Edition can be licensed for Internet Application Server Enterprise Edition, any edition of Oracle WebLogic Server, or Oracle GlassFish Server

This pack offers a complete, cost-effective, and easy-to-use solution for managing Oracle WebLogic Server, Oracle Application Server, and Oracle GlassFish Server. At a high level, this pack provides capabilities for application performance management, administration, business transaction management, configuration management, service level management, provisioning, and patch automation that span many of these middleware components.



For complete license details about WebLogic Server Management Pack Enterprise Edition, see "Oracle Middleware Enterprise Management" in Oracle Enterprise Manager Licensing Information. This document is available from the Oracle Enterprise Manager Documentation page at <http://www.oracle.com/technetwork/oem/grid-control/documentation/index.html>.



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## Exalogic Elastic Cloud Software

The Oracle Exalogic Elastic Cloud Software is the unique set of software components, tools, and documentation required to make the Exalogic Elastic Cloud Hardware functional and usable as a platform for Oracle's Fusion Middleware and business applications.

The Exalogic Elastic Cloud Software license also grants the right to use all supported features of the software and firmware installed on the Exalogic Elastic Cloud Hardware by Oracle at the time of manufacture. With the exception of WebLogic Server Standard Edition, no Oracle software product may be run on a processor that is licensed for, and running, the Exalogic Elastic Cloud Software using a "Standard Edition" license.

There are no supported means of operating the Exalogic Elastic Cloud Hardware that does not require use of the Exalogic Elastic Cloud Software, nor are there any supported approaches to "hard partitioning" that would allow customers to avoid licensing all of the physical processors for a given Exalogic Elastic Cloud Hardware compute node (server) that is powered on.

The principal components of the Exalogic Elastic Cloud Software are as follows:

- **Exalogic Base Image:** a collection of device drivers, device firmware, software libraries and configuration files that allow other software products to make use of the Exalogic Elastic Cloud Hardware and ensure the optimal performance and reliability of the system. Portions of this software extend the Oracle Linux and Oracle Solaris bootable operating system images that are required to operate the Exalogic Elastic Cloud hardware.
- **Oracle Traffic Director:** an optimized software load balancer feature providing a highly available, high performance routing, caching and network traffic shaping capability for Exalogic.
- **Oracle Virtual Assembly Builder:** enables rapid configuration and provisioning of multi-tier application topologies onto virtualized and cloud environments.

Oracle Virtual Assembly Builder includes the following restricted use licenses:

- Restricted Use License Oracle WebLogic Enterprise Edition restricted to WebLogic Server to be used as a host to provide Java EE runtime environment for Oracle Virtual Assembly Builder Deployer in Exalogic Control
- Restricted Use License Oracle Coherence Enterprise Edition to be used for persistence, state management architecture and high availability for Oracle Virtual Assembly Builder Deployer functionality in Exalogic Control
- **Exalogic System Utilities:** A collection of utilities that are used to configure and validate the configuration, physical state, firmware and software of the Exalogic system.

Oracle Exalogic Elastic Cloud Software also includes a license-restricted set of features that enables improved performance and reliability of Fusion Middleware products. For information about using these optimizations on the Exalogic Elastic Cloud, see "Enabling Exalogic-Specific Enhancements in Oracle WebLogic Server 11g Release 1" in *Exalogic Elastic Cloud Enterprise Deployment Guide*:

[http://docs.oracle.com/cd/E18476\\_01/doc.220/e18479/optimization.htm](http://docs.oracle.com/cd/E18476_01/doc.220/e18479/optimization.htm)

Oracle Exalogic Elastic Cloud Software has the following performance optimization entitlements for each Fusion Middleware product identified below:

## 3.1 Oracle WebLogic Server

- Section 2.2.4.1, "Input/ Output and Work Manager Optimizations for Exalogic Elastic Cloud Software"
- Section 2.2.4.2, "JDBC and Data Source Optimizations for Exalogic Elastic Cloud Software"
- Section 2.2.4.3, "Cluster State Replication Optimizations for Exalogic Elastic Cloud Software"
- Section 2.2.4.4, "Socket Direct Protocol for Exalogic Elastic Cloud Software"
- Section 2.2.4.5, "Server and Service Migration Performance Optimizations for Exalogic Elastic Cloud Software"
- Section 2.2.4.6, "Java Server Page Factory Caching Optimizations for Exalogic Elastic Cloud Software"
- Section 2.2.4.7, "Oracle HTTP Client Optimizations for Exalogic Elastic Cloud Software"

## 3.2 Oracle Coherence

- Section 2.6.5, "Coherence Optimizations for Exalogic Elastic Cloud Software"

## 3.3 Oracle Tuxedo

- Section 4.4.1, "Tuxedo Optimization for Inter-node Communication"
- Section 4.4.2, "Socket Direct Protocol for Exalogic Elastic Cloud Software"
- Section 4.4.3, "Tuxedo Optimization for Lock Mechanism"

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# Oracle Tuxedo Licensing

This chapter describes licensing for Oracle Tuxedo and its add-on products. It contains the following sections:

- [Section 4.1, "The Oracle Tuxedo Product Family"](#)
- [Section 4.2, "Oracle Tuxedo"](#)
- [Section 4.3, "Add-on Products for Oracle Tuxedo"](#)
- [Section 4.4, "Oracle Tuxedo Optimizations for Exalogic Elastic Cloud Software"](#)

## 4.1 The Oracle Tuxedo Product Family

The Oracle Tuxedo product family provides infrastructure for building C/C++/COBOL based, high performance, transactional applications in heterogeneous environment that extend from the Web to the Enterprise. Using Oracle Tuxedo, users can develop, manage, and deploy distributed applications independently of the underlying hardware, operating system, network, and database environment.

Oracle Tuxedo product family consists of several products. It includes Oracle Tuxedo and several add-on products. All products in Tuxedo product family are individually licensed. All add-on products are described in [Section 4.3, "Add-on Products for Oracle Tuxedo"](#).

## 4.2 Oracle Tuxedo

Oracle Tuxedo provides the foundation for the Oracle Tuxedo product family. Oracle Tuxedo consists of many server and client components as listed below.

### 4.2.1 Tuxedo Server Components

The license for Oracle Tuxedo provides unrestricted use of the following server component software included with Tuxedo for creating applications hosted on Tuxedo:

- Oracle Application-to-Transaction Monitor Interface (ATMI) server software
- Oracle Common Object Request Broker Architecture (CORBA) C++ server software
- Oracle SNMP Agent software
- Oracle Tuxedo Administration Console software
- Link-Level Encryption (LLE) and Secure Sockets Layer (SSL) encryption software

## 4.2.2 Standalone Tuxedo Clients

The license for Oracle Tuxedo provides unrestricted use of the following client software bundled with Tuxedo for creating standalone clients that access applications hosted on Tuxedo:

- Oracle ATMI Workstation (/WS) client software
- Oracle CORBA C++ client software-includes the C++ client Object Request Broker (ORB) and the environmental objects
- Tuxedo.NET Workstation client software

Oracle Tuxedo installer can be used to install server and client components listed above.

## 4.3 Add-on Products for Oracle Tuxedo

The Oracle Tuxedo product family consists of following add-on products. Some of these products are included in the Oracle Tuxedo installer, however Oracle Tuxedo license does not extend to these add-on products. Each add-on product must be separately licensed prior to use.

**Table 4–1 Add-on Products for Oracle Tuxedo**

Product Option	Description
Oracle Tuxedo Jolt	Provides Java-based client API to access the Oracle Tuxedo application services extending functionality of existing Tuxedo applications to Intranet- and Internet-wide availability. The Jolt client API can be used in standalone mode or from within an application server, such as Oracle WebLogic server.
Oracle Service Architecture Leveraging Tuxedo (SALT)	Enables access to Tuxedo services as Web services as well as enables Tuxedo applications to access Web services hosted outside of Tuxedo domain. SALT provides easy to use, configuration driven model, without requiring any programming.
Oracle Tuxedo System and Applications Monitor Plus (TSAM Plus)	<p>Monitors and manages system servers, application servers, and application transactions. Major functionality of Oracle TSAM Plus is as follows:</p> <ul style="list-style-type: none"> <li>■ Performance monitoring and diagnostics: manage across multiple domains, improve performance and availability; diagnose application problems</li> <li>■ Operations automations: manage application life cycle; dynamically provision applications and dynamically scale up/out</li> <li>■ Service level agreement for business services</li> </ul> <p>You must run a TSAM Plus agent on each computer that you want to monitor and manage using TSAM Plus Manager. Each TSAM Plus agent must be licensed. You can run one or more instances of the TSAM Plus Manager and its Console without any additional licenses.</p> <p>Includes a plugin for Oracle Enterprise Manager Cloud Control (OEM CC) 12c to manage Oracle Tuxedo systems and applications. When using OEM CC, each monitored Tuxedo node must be licensed.</p>
Oracle Tuxedo Mainframe Adapters (SNA and TCP)	Provide bi-directional and transactional connectivity between Tuxedo and CICS/IMS services running on IBM or Unisys mainframes. These adapters support automatic data conversion to and from HOST formats.
Oracle Tuxedo JCA Adapter	<p>Enables bi-directional access between Tuxedo services and Java EE application servers, such as Oracle WebLogic Server.</p> <p>Tuxedo JCA Adapter is licensed on the computer where the Java EE application server is running.</p>
Oracle Tuxedo Application Rehosting Workbench	Helps simplify and accelerate mainframe application rehosting by automating code and data migration.

**Table 4–1 (Cont.) Add-on Products for Oracle Tuxedo**

<b>Product Option</b>	<b>Description</b>
Oracle Tuxedo Application Runtime (ART) for CICS and Batch	Supports IBM mainframe applications rehosted to Oracle Tuxedo. It provides a combination of APIs and services that allows OLTP and Batch mainframe applications to run unchanged, preserving investment in business logic and data.
Oracle Tuxedo Application Runtime (ART) for Batch	Enables rehosting of mainframe batch applications to Oracle Tuxedo running on open systems. Supports JCL converted by ART Workbench and provides required JES services, JCL functions, and standard utilities, which allows batch applications run unchanged, preserving investment in business logic and data, reducing cost and risk of migration. Supports VSAM files, flat files, GDGs, DB2 UDB, DB2Connect, and Oracle DB. Provides CLI shell for batch operations and relies on TSAM/EM for Batch monitoring and operations Web UI. Provides CICS integration with ART for CICS and IMS integration with ART for IMS (to run IMS BMP jobs).
Oracle Tuxedo Application Runtime (ART) for IMS	Supports IBM IMS TM mainframe applications rehosted to Oracle Tuxedo. It provides an IMS-compatible programming model and required services that allow TP and Batch mainframe applications to run unchanged, preserving investment in business logic and data, reducing cost and risk of migration.
Oracle Tuxedo Message Queue	Enterprise messaging product that offers rich messaging functionality, such as store-and-forward, asynchronous queue operations, publish and subscribe, filtering, notification and delivery interest points, reliable message delivery, dynamic queue alias, undelivered message action. Oracle Tuxedo Message Queue must be licensed on all nodes where it is installed.

## 4.4 Oracle Tuxedo Optimizations for Exalogic Elastic Cloud Software

The following section describe the Oracle Tuxedo optimizations for Exalogic Elastic Cloud Software:

- [Section 4.4.1, "Tuxedo Optimization for Inter-node Communication"](#)
- [Section 4.4.2, "Socket Direct Protocol for Exalogic Elastic Cloud Software"](#)
- [Section 4.4.3, "Tuxedo Optimization for Lock Mechanism"](#)

### 4.4.1 Tuxedo Optimization for Inter-node Communication

Exalogic Elastic Cloud Software can be configured with Tuxedo to optimize inter-node communication within a Tuxedo domain. These optimizations are enabled when Exalogic domain-level enhancements are enabled as described in *Oracle Tuxedo on Oracle Exalogic User's Guide*.

### 4.4.2 Socket Direct Protocol for Exalogic Elastic Cloud Software

Exalogic Elastic Cloud can be configured to utilize socket direct protocol (SDP) as a high performance protocol for Tuxedo Network Channels and Oracle Database connectivity. For information about configuring SDP based Tuxedo Network Channels and Oracle Database connections, see *Oracle Tuxedo on Oracle Exalogic User's Guide*.

### 4.4.3 Tuxedo Optimization for Lock Mechanism

Exalogic Elastic Cloud Software can be configured with Tuxedo to self-tune bulletin board lock mechanism in a Tuxedo domain. This optimization is enabled when enhancement is enabled as described in *Oracle Tuxedo on Oracle Exalogic User's Guide*.





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## Java SE Products

This chapter provides links to licensing information for the Java Platform product family. It contains the following sections:

- [Section 5.1, "Oracle Java SE Advanced"](#)
- [Section 5.2, "Oracle Java SE Suite"](#)

### 5.1 Oracle Java SE Advanced

Licensing Information for Java SE products, including Oracle Java SE Advanced, is available at the following location

<http://www.oracle.com/technetwork/java/javase/documentation/index.html>

### 5.2 Oracle Java SE Suite

Licensing information for Java SE products, including Oracle Java SE Suite, is available at the following location:

<http://www.oracle.com/technetwork/java/javase/documentation/index.html>



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## Data Integration Technology

This chapter describes the licensing for Data Integration products. It contains the following sections:

- Section 6.1, "Oracle Data Integrator Enterprise Edition"
- Section 6.2, "Oracle Data Integration Suite"
- Section 6.3, "Oracle Enterprise Data Quality"
- Section 6.4, "Oracle Application Adapters for Data Integration"
- Section 6.5, "Oracle Application Adapters for Warehouse Builder"
- Section 6.6, "Oracle GoldenGate"
- Section 6.7, "Oracle GoldenGate for Non Oracle Database"
- Section 6.8, "Oracle GoldenGate for Mainframe"
- Section 6.9, "Oracle GoldenGate for Teradata Replication Services"
- Section 6.10, "Oracle GoldenGate Application Adapters"
- Section 6.11, "Oracle GoldenGate Veridata"
- Section 6.12, "Oracle Data Service Integrator"
- Section 6.13, "Management Pack for Oracle Data Integrator"
- Section 6.14, "Management Pack for Oracle GoldenGate"

### 6.1 Oracle Data Integrator Enterprise Edition

Oracle Data Integrator Enterprise Edition is a comprehensive software package for enabling scalable data integration in heterogeneous data environments. Oracle Data Integrator Enterprise Edition is separately licensed independent of any Oracle WebLogic Server edition, Oracle Business Intelligence Server Enterprise Edition, or Oracle Business Intelligence Suite Enterprise Edition. Therefore, to obtain high availability in Oracle Data Integrator Enterprise Edition, a separate license for the appropriate edition of Oracle WebLogic Server or Oracle Coherence is required.

Oracle Data Integrator Enterprise Edition includes the following components:

- Oracle Data Integrator (ODI) — a heterogeneous platform for data integration that includes design time components for modeling and mapping, and run-time components for executing bulk data movement and transformation. ODI includes Job Scheduler Services, Changed Data Capture components, and a complete set of Knowledge Modules for access to an unrestricted number of Source technologies.

- Oracle Warehouse Builder Enterprise ETL — an enterprise-class data integration platform for the Oracle Database that includes design time components for modeling and mapping, run-time components for executing bulk data movement and transformation, and administration components for managing the metadata repository.

Oracle Warehouse Builder Enterprise ETL extends the Oracle Database ETL features and includes the following functionality:

- Accessing sources and targets
  - Native support for heterogeneous databases, including the definition of new platform types, JDBC connectivity, knowledge modules, and code templates
  - Support for Exadata hybrid columnar compression
  - Transparent Data Encryption (TDE) support
  - External Table support for Data Pump imports and exports
  - External Table preprocessor support
  - Change Data Capture mappings in ET
  - Publishing and consuming web services, including integrating with process orchestration technologies such as Oracle BPEL Process Manager
  - Importing Cobol copybooks using the built-in wizard
  - Targeting XML files
- Data Guard certification and failover support
- Working with dimensional objects
  - Creating slowly changing dimensions, types 2 and 3
  - Storing data in OLAP cube-organized materialized views
  - Defining orphan management policies
- Designing and executing ETL jobs
  - Right-time data warehousing utilizing queues and real-time mappings
  - Reusing and embedding mapping code with pluggable mappings
  - Specifying the load order of multiple targets in a single mapping
  - Partitioning and parallelizing updates to tables by utilizing the data chunking feature
  - Scheduling ETL jobs using the built-in Schedule interface
  - Using advanced process flows features (activity templates, use of the following activities: Assign, Set Status, For Loop, While Loop, Route, Notification, EJB, Java Class, and Webservice)
  - Designing mappings to handle complex types using the following operators: varray iterator, construct object, and expand object
  - Rapidly moving large amounts of data with transportable modules
  - Using spatial transformations and streams transformations
  - Compiled PL/SQL code generation
  - Bulk code templates for Oracle --> Oracle, SQL Server --> Oracle, and DB2 --> Oracle

- Integrating with other products
  - Deploying metadata directly to Oracle Discoverer End User Layer
  - Deriving and deploying metadata to Oracle Business Intelligence Enterprise Edition
- Administering Warehouse Builder and its metadata repository
  - Support for database failover
  - Managing environments, including promoting from development to test to production, using the multiple configurations functionality
  - Interactively analyzing metadata lineage and impact and automatically propagating metadata change using the Metadata Dependency Manager
  - Extending the metadata repository using the following: user-defined objects, user-defined associations, user-defined modules, creating icon sets and custom icons
  - Hosting the OWB design repository in an Oracle Real Application Clusters (Oracle RAC) environment (executing in an Oracle RAC environment does not require this license)
  - Operating multiple databases with OWB repositories from a single Oracle home

For more information about Warehouse Builder functionality, see the Oracle Database 11.2 Documentation Library for Data Warehousing and Business Intelligence.

### 6.1.1 Restricted Use Licensing

Oracle Data Integrator Enterprise Edition includes a restricted use license for Oracle WebLogic Server Standard Edition restricted to use for running the Oracle Data Integrator Web Console. Any other use will trigger a Full Use License.

## 6.2 Oracle Data Integration Suite

Oracle Data Integration Suite is a comprehensive software bundle for enabling scalable, highly-accessible data integration in any heterogeneous data environment. It can be separately licensed, independent of any Oracle Internet Application Server edition.

Oracle Data Integration Suite includes:

- Oracle Data Integrator Enterprise Edition
- Hyperion Data Relationship Management (up to maximum of 2,000 records per processor)

### 6.2.1 Restricted-Use Licensing

Oracle Data Integration Suite includes restricted-use licenses for the following components:

- Oracle WebLogic Suite is included as host for only ODI Suite components including run-time components to provide Java run-time environment as well as configuration and administration components used for the setup and management of these run-time components.

- Oracle BPEL Process Manager is included for use with Oracle Data Integrator and/or Hyperion Data Relationship Management as endpoints.
- Oracle Service Bus is included for use with Oracle Data Integrator and/or Hyperion Data Relationship Management as endpoints.

## 6.3 Oracle Enterprise Data Quality

Oracle Enterprise Data Quality is a broad-based data quality platform. It includes the following products:

- [Section 6.3.1, "Oracle Enterprise Data Quality Profiling for Oracle Data Integrator"](#)
- [Section 6.3.2, "Oracle Enterprise Data Quality Batch Processing for Oracle Data Integrator"](#)
- [Section 6.3.3, "Oracle Enterprise Data Quality Address Verification Server for Oracle Data Integrator"](#)

### 6.3.1 Oracle Enterprise Data Quality Profiling for Oracle Data Integrator

Oracle Enterprise Data Quality Profiling for Oracle Data Integrator enables business users to assess the quality, completeness, and usability of their data through interactive exploration and discovery. This can be used to determine appropriate data quality rules to be applied to the data.

### 6.3.2 Oracle Enterprise Data Quality Batch Processing for Oracle Data Integrator

Oracle Enterprise Data Quality Batch Processing for Oracle Data Integrator is a data quality platform that enables data parsing, standardization, match, merge, de-duplication, householding and name and address cleansing, as well as broad applicability to other data domains.

### 6.3.3 Oracle Enterprise Data Quality Address Verification Server for Oracle Data Integrator

Oracle Enterprise Data Quality Address Verification Server for Oracle Data Integrator cleanses and standardizes addresses and verifies them against reference data to determine if they are valid postal addresses.

## 6.4 Oracle Application Adapters for Data Integration

Oracle Application Adapters for Data Integration provide specific software components for reverse-engineering metadata and extracting bulk data from various ERP software applications. Each unique Application Adapter for Data Integration is licensed separately, but must be used with Oracle Data Integrator Enterprise Edition and the Data Integrator component.

Application Adapters for Data Integration are available for PeopleSoft, JD Edwards, E-Business Suite, Siebel, and SAP Applications. Each Application Adapter for Data Integration is licensed separately.

## 6.5 Oracle Application Adapters for Warehouse Builder

Oracle Application Adapters for Warehouse Builder provide specific software connectors for reverse-engineering metadata and extracting bulk data from various ERP software applications. Each unique Application Adapter for Warehouse Builder is

licensed separately. Any use of Application Adapters for Warehouse Builder, including customers constructing their own application adapters for Warehouse Builder using documented APIs, requires a license for Oracle Data Integrator Enterprise Edition.

Application Adapters for Warehouse Builder are available for PeopleSoft, SAP, Siebel, and E-Business Suite.

## 6.6 Oracle GoldenGate

Oracle GoldenGate is a log-based, real-time change data capture (CDC) software platform that moves high volumes of transactional data between databases with very low latency, and allows logical data replication. A typical environment includes a capture, pump, and delivery process. Each of these processes can run on most of the popular operating systems. You can replicate all or a portion of your data, and you can even manipulate the data within any of these processes not only for heterogeneous environments but also different database schemas.

Oracle GoldenGate for Oracle can be used in conjunction with Oracle GoldenGate for Non Oracle Database and/or with Oracle GoldenGate for Mainframe and/or with Oracle GoldenGate for Teradata Replication Services in order to achieve heterogeneous replication to an Oracle database from another third party database or from an Oracle database to another third party database.

Oracle GoldenGate for Oracle and Non Oracle Database 12c Release 1 is currently available for the database platforms below:

- Oracle 11.2.0.4 and 12.1 on Unix and Linux
- Sybase on Windows, UNIX, and Linux
- MySQL on Windows, UNIX, and Linux

A detailed certification matrix is available from Oracle Support Services under the certifications tab;

The license for Oracle GoldenGate includes the ability to capture database transactions from Oracle Database and deliver database transactions to Oracle Database. It also includes a full use license for Oracle Active Data Guard and a full use license for XStream. Note that the capture and deliver features of Oracle GoldenGate work with any edition of the Oracle Database, while Active Data Guard and XStream require Oracle Database Enterprise Edition.

When Oracle GoldenGate is used in an Oracle to Oracle environment, it includes the following components:

- XStream provides application programming interfaces (APIs) that enable client applications to receive real-time data changes from an Oracle database (using XStream Out APIs) and to send real-time data changes to an Oracle database (using XStream In APIs). These data changes can be shared between Oracle databases and other systems, such as file systems and non-Oracle databases.
- Oracle Active Data Guard enables a physical standby database to be opened as read-only while changes are applied to it from the primary database, enabling read-only reporting on the physical standby with minimal latency between reporting and production data. Oracle Active Data Guard also allows backup operations to be off-loaded to the standby database using fast incremental backups. Oracle Active Data Guard provides the additional benefit of high availability and disaster protection by quickly failing over to the standby database in the event of a planned or an unplanned outage at the production site.

For more information about Oracle Active Data Guard and XStream functionality, see the Oracle Database 11gR2 & 12c Documentation Library for High Availability.

A license to Oracle Golden Gate (OGG) includes a restricted-use license to Oracle GoldenGate Applications Adapters for JMS and Flat File (GGAA), with GGAA restricted to the JMS functionality used solely for enabling communication from OGG to separately-licensed Oracle Coherence Grid Edition deployments.

## 6.7 Oracle GoldenGate for Non Oracle Database

Oracle GoldenGate is a log-based, real-time change data capture (CDC) software platform that moves high volumes of transactional data between databases with very low latency, and allows logical data replication. A typical environment includes a capture, pump and delivery process. Each of these processes can run on most of the popular operating systems. You can replicate all or a portion of your data, and you can even manipulate the data within any of these processes not only for heterogeneous environments but also different database schemas.

The Oracle GoldenGate for Non Oracle Database product can be used in conjunction with Oracle GoldenGate, which supports Oracle Databases, and/or with Oracle GoldenGate for Mainframe, and/or with Oracle GoldenGate for Teradata Replication Services in order to achieve heterogeneous replication. For example, it is possible to use Oracle GoldenGate for Non Oracle Database to capture from a third party database and use Oracle GoldenGate to deliver to an Oracle database, or any other heterogeneous combination.

The license for Oracle GoldenGate for Non Oracle Database includes the ability to capture database transactions from supported non-Oracle open systems databases and deliver database transactions to supported non-Oracle open systems databases.

## 6.8 Oracle GoldenGate for Mainframe

Oracle GoldenGate is a log-based, real-time change data capture (CDC) software platform running on HP NonStop databases (Enscribe, SQL/MX, and SQL/MP) and DB2 running on z/OS that replicates high volumes of transactional data between homogeneous and heterogeneous database environments. All of the data or a portion of the data can be replicated, and you can even manipulate the data for not only heterogeneous environments but also unequal database schemas too.

The Oracle GoldenGate for Mainframe product can be used in conjunction with Oracle GoldenGate, which supports Oracle Databases, and/or with Oracle GoldenGate for Non Oracle Database, and/or with Oracle GoldenGate for Teradata Replication Services in order to achieve heterogeneous replication. For example, it is possible to use Oracle GoldenGate for Non Oracle Database to capture from a third party database and use Oracle GoldenGate to deliver to an Oracle database, or any other heterogeneous combination.

The license for Oracle GoldenGate for Mainframe includes the ability to capture database transactions from supported mainframe platforms and deliver database transactions to supported mainframe platforms.

### 6.8.1 SyncFile

When Oracle GoldenGate for Mainframe is used in an HP NonStop environment for products that run on the Guardian operating system (Enscribe and SQL/MP), it includes SyncFile.



SyncFile is a component that manages non-database file duplication. For example, you may want to replicate configuration files, which are small and change infrequently. This is used for maintaining a secondary system that may have frequent database changes, but infrequent configuration file changes.

## 6.8.2 Database Platform Availability

Oracle GoldenGate for Mainframe 11g Release 2 is currently available for the following database platforms. Detailed certification matrix is available from Oracle Support Services.

- IBM DB2 database platform on z/OS
- IBM DB2 for i database platform (only for delivery from Windows using ODBC)

## 6.9 Oracle GoldenGate for Teradata Replication Services

Oracle GoldenGate is a log-based, real-time change data capture (CDC) software platform that moves high volumes of transactional data between databases with very low latency, and allows logical data replication. A typical environment includes a capture, pump, and delivery process. Each of these processes can run on most of the popular operating systems. You can replicate all or a portion of your data, and you can even manipulate the data within any of these processes not only for heterogeneous environments but also different database schemas.

The Oracle GoldenGate for Teradata Replication Services product can be used in conjunction with Oracle GoldenGate, which supports Oracle Databases, and/or with Oracle GoldenGate for Mainframe, and/or with Oracle GoldenGate for Teradata Replication Services in order to achieve heterogeneous replication. For example, it is possible to use Oracle GoldenGate for Teradata Replication Services to capture from a Teradata database and use Oracle GoldenGate to deliver to an Oracle database or any other heterogeneous combination. Oracle GoldenGate for Teradata Replication Services also allows homogeneous replication between a Teradata source and Teradata target.

The license for Oracle GoldenGate for Teradata Replication Services includes the ability to capture database transactions from Teradata databases and deliver database transactions to Teradata databases.

## 6.10 Oracle GoldenGate Application Adapters

The following components are licensed together as part of the Oracle GoldenGate 11g Release 2 Application Adapter for Base24:

- Oracle GoldenGate D24 — Allows transactional data to be synchronized bi-directionally in real time throughout the day. In the event of an outage on one system, the full transaction load is processed on the remaining systems, ensuring continuous availability.
- Oracle GoldenGate N24 — Coordinates the notification message to all BASE24 satellite processes once the file refresh process has completed. Coordination is available for bidirectional configurations as well as unidirectional without the need to modify BASE24.
- Oracle GoldenGate T24 — Does the following:
  - Resolves problems with moving tokenized or segmented data to other platforms and databases

- Reorganizes and reformats the transaction log (TLF and PTLF) tokens for all transaction types into a configurable order
- Also reorganizes and re-formats PBF and CAF segments into a defined flat structure that can be propagated into any supported database.

The following components are licensed together as part of the Oracle GoldenGate Application Adapter for JMS and Flat File:

- Oracle GoldenGate for Flat File — Used for file integration, predominantly for ETL, proprietary, or legacy applications. Oracle GoldenGate can write micro batches to disk to be consumed by tools that expect batch/file input. The data is formatted by Oracle GoldenGate to the specifications of the target application, for example, delimiter separated values, length delimited values, binary, etc. Near real-time feeds to these systems are accomplished by decreasing the time window for batch file rollover to minutes or even seconds.
- Oracle GoldenGate for Java — Allows customers to execute custom event handlers written in Java to process the transaction operations and metadata changes captured by Oracle GoldenGate on the source system. These custom Java handlers can apply these changes to a third-party Java API exposed by the target system.

### 6.10.1 Separately Licensed Adapters

Oracle GoldenGate Logger for Enscribe is licensed separately. This adapter provides the mechanism to capture changes on non-audited Enscribe platforms. Logger requires GGSLIB, an intercept library, that binds the Oracle GoldenGate application to the user's NonStop application. When an Enscribe operation (such as WRITE) executes, GGSLIB intercepts it and sends the record to Logger. Logger writes the records to the universal format log trail, which can then be processed like any other log-based source.

Each of the following application adapters for Oracle GoldenGate must also be licensed separately:

- Oracle GoldenGate for Application Adapter for Base24,
- Oracle GoldenGate Application Adapter for JMS and Flat File
- Oracle GoldenGate Application Adapter for Logger for Enscribe

## 6.11 Oracle GoldenGate Veridata

Oracle GoldenGate Veridata is a high-speed data comparison solution that identifies and reports data discrepancies between databases without interrupting ongoing business processes. Using Oracle GoldenGate Veridata, companies can audit and verify large volumes of data across a variety of business applications with certainty, and maintain reliable data synchronization.

## 6.12 Oracle Data Service Integrator

Oracle Data Service Integrator provides the ability to do the following:

- Create canonical data service components for SOA
- Perform federated query capabilities from databases, Web services, and other sources
- Execute multi-target database updates

Oracle Data Service Integrator supplies fine-grained security with data redaction, and is natively accessible from the Oracle Service Bus product.

Oracle Data Service Integrator is separately licensed as a standalone product.

### 6.12.1 Restricted-Use Licensing

Oracle Data Service Integrator includes a restricted-use license for Oracle WebLogic Server Enterprise Edition as host for only Oracle Data Service Integrator, including run-time components to provide Java run-time environment and HTTP support, as well as configuration and administration components used for the setup and management of these run-time components.

## 6.13 Management Pack for Oracle Data Integrator

Management Pack for Oracle Data Integrator leverages Oracle Enterprise Manager Cloud Control best-in-class application performance management, service level management and configuration management capabilities to provide a centralized management solution for Oracle Data Integrator Enterprise Edition.

For more licensing information please review the Enterprise Manager Licensing Documentation:

<http://www.oracle.com/technetwork/oem/grid-control/documentation/index.html>

## 6.14 Management Pack for Oracle GoldenGate

Management Pack for Oracle GoldenGate is a server-based product that features an intuitive graphical interface for centrally designing, configuring, managing, monitoring, and reporting on the Oracle GoldenGate processes implemented across the user's infrastructure. It includes Oracle GoldenGate Director, which allows organizations to easily monitor and manage their Oracle GoldenGate deployments.

### 6.14.1 Restricted-Use Licensing

A restricted-use license for Oracle WebLogic Server Standard Edition is included when you license Management Pack for Oracle GoldenGate. This restricted-use license permits Oracle WebLogic Server Standard Edition to be used only for hosting Java Enterprise Edition (Java EE) or Java application logic that is distributed as part of Management Pack for Oracle GoldenGate.



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## Base Oracle Enterprise Manager Cloud Control Functionality

The base installation of Oracle Enterprise Manager Cloud Control 12c includes several features free of charge with the purchase of any Oracle software license or Support contract. For the list of features that are included with the base functionality of Oracle Enterprise Manager Cloud Control 12c, refer to *Chapter 10: Base Enterprise Manager Functionality* in the Oracle Enterprise Manager Cloud Control 12c Licensing Information documentation available on the Oracle Technology Network (OTN) at the following URL:

[http://docs.oracle.com/cd/E24628\\_01/license.121/e24474/ch10\\_base\\_functionality.htm#BGBFJBHH](http://docs.oracle.com/cd/E24628_01/license.121/e24474/ch10_base_functionality.htm#BGBFJBHH)



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# WebLogic Server Basic

This appendix describes WebLogic Server Basic and the WebLogic Server functionality that is available in the WebLogic Server Basic license. The following topics are included:

- [Section A.1, "WebLogic Server Basic Overview"](#)
- [Section A.2, "Installation of WebLogic Server Basic"](#)
- [Section A.3, "Restricted Primary Services in WebLogic Server"](#)
- [Section A.4, "Restricted WebLogic Web Services Features"](#)
- [Section A.5, "Restricted Tooling Features"](#)
- [Section A.6, "Restricted APIs"](#)
- [Section A.7, "Feature Usage Measurement"](#)

## A.1 WebLogic Server Basic Overview

WebLogic Server Basic is a license-constrained version of WebLogic Server that is available in licenses for the following Oracle products:

- Oracle Internet Application Server Standard Edition
- Oracle Forms and Reports
- Oracle Business Intelligence Standard Edition

The license for each edition of Oracle Internet Application Server and for Oracle Forms and Reports enables the right to full use of the WebLogic Server Basic license.

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**Note:** All editions of the products Oracle Internet Application Server and Oracle Forms and Reports Server include rights to WebLogic Server Basic. WebLogic Server Basic is only for running components provided within these products such as Forms, Reports, Discoverer and Portal. It can also be used for custom Java applications such as those developed for Oracle Containers for J2EE. Products outside of Oracle Internet Application Server and Oracle Forms and Reports that have licensing dependencies on any edition of Oracle Internet Application Server or Oracle Forms and Reports do not have the right to run those products on WebLogic Server Basic unless stated specifically within their licensing documentation.

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The WebLogic Server Basic license includes usage rights, with the limitations summarized in [Table A-1](#), to the following WebLogic Server features:

- Core WebLogic application server
- Java Platform, Enterprise Edition (Java EE)
- WebLogic Server management tools, including the Administration Console and WebLogic Scripting Tool
- WebLogic JDBC Drivers, WebLogic Server Clients, and WebLogic and Apache Web Server Plug-Ins
- Basic JMS messaging, deployment, and high availability functionality
- Transactional business logic with persistence with support of JPA and EJB
- Basic WebLogic Server clustering support, including load balancing, failover, and cluster management

[Table A-1](#) summarizes the WebLogic Server features that have usage restrictions under the terms of the WebLogic Server Basic license.

**Table A-1 WebLogic Server Basic License Feature Constraints**

Feature Category	Summary of Restrictions in WebLogic Server Basic License
Primary services	<p>WebLogic Server provides a number of services to assist with the construction of production architectures that are restricted, or that may not be used, in the WebLogic Server Basic license. These services fall into the following categories:</p> <ul style="list-style-type: none"> <li>■ High availability features, such as whole server migration, service migration, custom Work Managers, and overload management</li> <li>■ Deployment services and features, such as application versioning; standalone deployment of JMS, JDBC, and WLDF modules; and FastSwap</li> <li>■ JMS messaging service features</li> <li>■ Services such as the WebLogic Diagnostics Framework, WebLogic SNMP agents, and the WebLogic Tuxedo Connector</li> </ul> <p>For details about these services and restrictions on their use, see <a href="#">Section A.3, "Restricted Primary Services in WebLogic Server."</a></p>
WebLogic Web Services	<p>Use of the following WebLogic Web Services features is not permitted in the WebLogic Server Basic license:</p> <ul style="list-style-type: none"> <li>■ Buffered Web Services</li> <li>■ Asynchronous Web Services</li> <li>■ Conversational Web Services</li> <li>■ JMS transport</li> </ul> <p>For information about these WebLogic Web Services features and restrictions on their use, see <a href="#">Section A.4, "Restricted WebLogic Web Services Features."</a></p>
Tooling	<p>Use of the following tooling features is not permitted in the WebLogic Server Basic license:</p> <ul style="list-style-type: none"> <li>■ Configuration Wizard, or the <code>pack</code> and <code>unpack</code> commands, for creating custom domains</li> <li>■ Domain Template Builder, or the <code>pack</code> and <code>unpack</code> commands, for creating domain or domain extension templates</li> <li>■ Recording WebLogic Server Administration Console operations as a series of WebLogic Scripting Tool (WLST) commands</li> <li>■ Extending the WebLogic Server Administration Console</li> </ul> <p>For details about these tooling features and restrictions on their use, see <a href="#">Section A.5, "Restricted Tooling Features."</a></p>



**Table A–1 (Cont.) WebLogic Server Basic License Feature Constraints**

Feature Category	Summary of Restrictions in WebLogic Server Basic License
APIs	<p>Use of the following APIs is not permitted in the WebLogic Server Basic license:</p> <ul style="list-style-type: none"> <li>■ Custom or CommonJ Work Manager usage outside the default WebLogic Server Work Manager</li> <li>■ WebLogic JMS client for Microsoft .NET and C</li> </ul> <p>For details about these APIs and restrictions on their use, see <a href="#">Section A.6, "Restricted APIs."</a></p>

## A.2 Installation of WebLogic Server Basic

To install WebLogic Server Basic, use any of the WebLogic Server package or net installers as described in *Oracle WebLogic Server Installation Guide*, as appropriate for your platform. Each installer includes the core Java EE application server, Administration Console, Configuration Wizard and Upgrade Framework, WebLogic and third-party JDBC drivers, JMS, WebLogic Server clients, Web server plug-ins, UDDI and Xquery Support, WebLogic Server examples, Oracle Enterprise Pack for Eclipse, and Sun or Oracle JRockit JDKs (depending on platform).

To install WebLogic Server Basic, use any of the WebLogic Server package or net installers as described in *Oracle WebLogic Server Installation Guide*, as appropriate for your platform. Each installer includes the core Java EE application server, Administration Console, Configuration Wizard and Upgrade Framework, WebLogic and third-party JDBC drivers, JMS, WebLogic Server clients, Web server plug-ins, UDDI and Xquery Support, WebLogic Server examples, Oracle Enterprise Pack for Eclipse, and Sun or Oracle JRockit JDKs (depending on platform).

For a description of the individual components of WebLogic Server that may be selectively installed, see *Oracle Fusion Middleware Getting Started With Installation for Oracle WebLogic Server*.

## A.3 Restricted Primary Services in WebLogic Server

The following sections describe the primary services in WebLogic Server that may not be used, or that have usage restrictions in, WebLogic Server Basic.

- [Section A.3.1, "High Availability Services"](#)
- [Section A.3.2, "Deployment Services and Features"](#)
- [Section A.3.3, "JMS Messaging Services"](#)
- [Section A.3.4, "Additional Primary Services"](#)

### A.3.1 High Availability Services

[Table A–2](#) lists and describes the high availability services that have restrictions, or that may not be used, in WebLogic Server Basic.

**Table A–2 Primary Services Restricted in WebLogic Server Basic License**

Feature	Description
Whole server migration	<p>Whole server-level migration enables a migratable server instance, and all of its services, to be migrated to a different physical computer. When a migratable server becomes unavailable for any reason, for example, if it hangs, loses network connectivity, or its host computer fails—migration is automatic. Upon failure, a migratable server is automatically restarted on the same computer if possible. If the migratable server cannot be restarted on the computer where it failed, it is migrated to another computer.</p> <p>In the license for WebLogic Server Basic, whole server migration is not permitted.</p> <p>For more information about this feature, see "Whole Server Migration" in <i>Oracle Fusion Middleware Using Clusters for Oracle WebLogic Server</i>.</p>
Service migration	<p>In a WebLogic Server cluster, most subsystem services are hosted homogeneously on all server instances in the cluster, enabling transparent failover from one server to another. In contrast, pinned services, such as JMS-related services, the JTA Transaction Recovery Service, and user-defined singleton services are hosted on individual server instances within a cluster—for these services, the WebLogic Server migration framework supports failure recovery with service migration, as opposed to failover. Service-level migration in WebLogic Server is the process of moving the pinned services from one server instance to a different available server instance within the cluster.</p> <p>In the license for WebLogic Server Basic, the configuration and execution of automatic service-level migration is not permitted.</p> <p>For more information about this feature, see "Service Migration" in <i>Oracle Fusion Middleware Using Clusters for Oracle WebLogic Server</i>.</p>
Managed Server cloning	<p>WebLogic Server provides the capability of cloning an existing Managed Server instance that is part of a cluster. This capability is typically used when an administrator wants to make a duplicate copy of an existing Managed Server.</p> <p>In the WebLogic Server Basic license, the use of the WebLogic Server Administration Console for cloning a Managed Server instance is not permitted.</p> <p>For information about how to clone a Managed Server instance, see "Clone machines" in <i>Oracle Fusion Middleware Oracle WebLogic Server Administration Console Help</i>.</p>
MAN and WAN state replication	<p>In addition to providing HTTP session state replication across servers within a cluster, WebLogic Server provides the ability to replicate HTTP session state across multiple clusters in a Metropolitan Area Networks (MAN) or in a Wide Area Network (WAN). This improves high-availability and fault tolerance by allowing clusters to be spread across multiple geographic regions, power grids, and Internet service providers.</p> <p>Resources within a MAN are often in physically separate locations, but are geographically close enough that network latency is not an issue. Network communication in a MAN generally has low latency and fast interconnect. Clusters within a MAN can be installed in physically separate locations which improves availability. Resources in a WAN are frequently spread across separate geographical regions. In addition to requiring network traffic to cross long distances, these resources are often separated by multiple routers and other network bottle necks. Network communication in a WAN generally has higher latency and slower interconnect.</p> <p>Slower network performance within a WAN makes it difficult to use a synchronous replication mechanism like the one used within a MAN. WebLogic Server provides failover across clusters in WAN by using an asynchronous data replication scheme.</p> <p>In the license for WebLogic Server Basic, the use of either the MAN and WAN state replication type is not permitted.</p> <p>For more information about this feature, see "Session State Replication Across Clusters in a MAN/WAN" in <i>Oracle Fusion Middleware Using Clusters for Oracle WebLogic Server</i>.</p>

**Table A–2 (Cont.) Primary Services Restricted in WebLogic Server Basic License**

Feature	Description
Singleton service	<p>Within an application, or as a standalone artifact, you can define a singleton service that can be used to perform tasks that you want to be executed on only one member of a cluster at any give time. A singleton service is active on exactly one server in the cluster at a time and processes requests from multiple clients. A singleton service is generally backed by private, persistent data, which it caches in memory. It may also maintain transient state in memory, which is either regenerated or lost in the event of failure. Upon failure, a singleton service must be restarted on the same server or migrated to a new server.</p> <p>In the license for WebLogic Server Basic, the configuration of either a standalone or application-provided singleton service is not permitted.</p> <p>For more information about singleton services, see "Service Migration" in <i>Oracle Fusion Middleware Using Clusters for Oracle WebLogic Server</i>.</p>
Cluster constraints deployment	<p>The default cluster deployment behavior ensures homogeneous deployment for all clustered server instances that can be reached at the time of deployment. However, if the Administration Server cannot reach one or more clustered servers due to a network outage, those servers do not receive the deployment request until the network connection is restored.</p> <p>It is possible to change WebLogic Server default deployment behavior for clusters by setting the <code>ClusterConstraintsEnabled</code> option when starting the WebLogic Server domain. This option enforces strict deployment for all servers configured in a cluster. A deployment to a cluster succeeds only if all members of the cluster are reachable and all can deploy the specified files.</p> <p>In the license for WebLogic Server Basic, the use of cluster constraints deployment is not permitted.</p> <p>For more information about cluster constraints deployment, see "Enforcing Consistent Deployment to All Configured Cluster Members" in <i>Oracle Fusion Middleware Deploying Applications to Oracle WebLogic Server</i>.</p>
Overload management	<p>WebLogic Server has features for detecting, avoiding, and recovering from overload conditions. WebLogic Server overload protection features help prevent the negative consequences—degraded application performance and stability—that can result from continuing to accept requests when the system capacity is reached.</p> <p>In the license for WebLogic Server Basic, the configuration of any overload protection scheme at either a cluster or server level is not permitted.</p> <p>For more information about overload management, see "Avoiding and Managing Overload" in <i>Oracle Fusion Middleware Configuring Server Environments for Oracle WebLogic Server</i>.</p>
Server ADMIN and STANDBY mode	<p>The series of states through which a WebLogic Server instance can transition is called the <i>server life cycle</i>. At any time, a WebLogic Server instance is in a particular operating state. Two states in which WebLogic Server can be started include the following:</p> <ul style="list-style-type: none"> <li>■ ADMIN — WebLogic Server is up and running, but available only for administration operations, allowing you to perform server and application-level administration tasks.</li> <li>■ STANDBY — WebLogic Server does not process any request; its regular Listen Port is closed. The Administration Port is open and accepts life cycle commands that transition the server instance to either the RUNNING or the SHUTDOWN state. Other administration requests are not accepted.</li> </ul> <p>Starting a server instance in STANDBY is a method of keeping it available as a "hot" backup, a useful capability in high-availability environments.</p> <p>In the license for WebLogic Server Basic, starting a WebLogic Server instance in either ADMIN or STANDBY state is not permitted.</p> <p>For more information about these operating states, see "Understanding Server Life Cycle" in <i>Oracle Fusion Middleware Managing Server Startup and Shutdown for Oracle WebLogic Server</i>.</p>

**Table A–2 (Cont.) Primary Services Restricted in WebLogic Server Basic License**

Feature	Description
GridLink data sources, also known as Active GridLink for RAC	<p>A single GridLink data source provides connectivity between WebLogic Server and an Oracle Database service targeted to an Oracle RAC cluster. It uses the Oracle Notification Service (ONS) to adaptively respond to state changes in an Oracle RAC instance.</p> <p>In the license for WebLogic Server Basic, the configuration and usage of GridLink data sources are not permitted.</p> <p>For more information about GridLink data sources, see "Using GridLink Data Sources" in <i>Configuring and Managing JDBC Data Sources for Oracle WebLogic Server</i>.</p>

### A.3.2 Deployment Services and Features

[Table A–3](#) lists and describes the deployment services and features that have restrictions, or that may not be used, in WebLogic Server Basic.

**Table A–3 WebLogic Deployment Features Restricted in WebLogic Server Basic License**

Feature	Description
Production redeployment	<p>Production redeployment strategy involves deploying a new version of an updated application alongside an older version of the same application. WebLogic Server automatically manages client connections so that only new client requests are directed to the new version. Clients already connected to the application during the redeployment continue to use the older version of the application until they complete their work, at which point WebLogic Server automatically retires the older application. This capability is supported by deploying the application in Administration mode, which makes it available only through a configured Administration channel.</p> <p>In the license for WebLogic Server Basic, deploying any application that uses a version identifier is not permitted.</p> <p>For more information about this feature, see "Distributing a New Version of a Production Application" in <i>Oracle Fusion Middleware Deploying Applications to Oracle WebLogic Server</i>.</p>
Application Administration mode	<p>Distributing an application copies deployment files to target servers and places the application in a prepared state. You can then start the application in Administration mode, which restricts access to the application to a configured Administration channel so you can perform final testing without opening the application to external client connections or disrupting connected clients. You can start an application in Administration mode with the <code>-adminmode</code> option. After performing final testing, you can either undeploy the application to make further changes, or start the application in Production mode to make it generally available to clients.</p> <p>In the license for WebLogic Server Basic, configuring any application to start in Administration mode is not permitted.</p> <p>For more information, see in "Administration Mode for Isolating Production Applications" in <i>Oracle Fusion Middleware Deploying Applications to Oracle WebLogic Server</i>.</p>

**Table A-3 (Cont.) WebLogic Deployment Features Restricted in WebLogic Server Basic License**

Feature	Description
Changing the order of deployment	<p>You can change the deployment order for a deployed application or standalone module by setting the <code>AppDeploymentMBean DeploymentOrder</code> attribute in the Administration Console (or programmatically using the <code>AppDeploymentMBean</code>). The <code>DeploymentOrder</code> attribute controls the load order of deployments relative to one another—modules with lower <code>DeploymentOrder</code> values deploy before those with higher values. By default, each deployment unit is configured with a <code>DeploymentOrder</code> value of 100. Deployments with the same <code>DeploymentOrder</code> value are deployed in alphabetical order using the deployment name. In all cases, applications and standalone modules are deployed after the WebLogic Server instance has initialized dependent subsystems.</p> <p>In the license for WebLogic Server Basic, deploying an application or module with a non-default deployment order setting is not permitted.</p> <p>For more information about deployment order, see "Changing the Order of Deployment at Server Startup" in <i>Oracle Fusion Middleware Deploying Applications to Oracle WebLogic Server</i>.</p>
FastSwap	<p>Java SE 6 introduced the ability to redefine a class at run time without dropping its <code>ClassLoader</code> or abandoning existing instances. This allows containers to reload altered classes without disturbing running applications, vastly speeding up iterative development cycles and improving the overall development and testing experiences. The usefulness of the Java EE dynamic class redefinition is severely curtailed, however, by the restriction that the shape of the class—its declared fields and methods—cannot change. The purpose of FastSwap is to remove this restriction in WebLogic Server, allowing the dynamic redefinition of classes with new shapes to facilitate iterative development.</p> <p>With FastSwap, Java classes are redefined in-place without reloading the <code>ClassLoader</code>, thereby having the decided advantage of fast turnaround times. This means that you do not have to wait for an application to redeploy and then navigate back to wherever you were in the Web page flow. Instead, you can make your changes, auto compile, and then see the effects immediately.</p> <p>In the license for WebLogic Server Basic, deploying an application in which FastSwap is enabled is not permitted.</p> <p>For more information about FastSwap, see "Using FastSwap Deployment to Minimize Redeployment" in <i>Oracle Fusion Middleware Deploying Applications to Oracle WebLogic Server</i>.</p>
WebLogic JMS and JDBC module deployment	<p>Standalone JDBC, JMS, and WLDF application modules can be deployed similar to standalone Java EE modules. For a standalone JDBC, JMS, or WLDF application module, the target list determines the WebLogic Server domain in which the module is available. JNDI names specified within an application module are bound as global names and available to clients. For example, if you deploy a standalone JDBC application module to a single-server target, applications that require resources defined in the JDBC module can only be deployed to the same server instance. You can target application modules to multiple servers, or to WebLogic Server clusters to make the resources available on additional servers.</p> <p>In the license for WebLogic Server Basic, the standalone deployment of WebLogic JDBC, JMS and WLDF modules is not permitted.</p> <p>For more information, see "Deploying JDBC, JMS, and WLDF Application Modules" in <i>Oracle Fusion Middleware Deploying Applications to Oracle WebLogic Server</i>.</p>

### A.3.3 JMS Messaging Services

[Table A-4](#) lists and describes the JMS messaging services and features that have restrictions, or that may not be used, in WebLogic Server Basic.

**Table A–4 JMS Messaging Services Features Restricted in WebLogic Server Basic License**

Feature	Description
Message Unit-of-Order	<p>Message Unit-of-Order is a WebLogic Server value-added feature that enables a standalone message producer, or a group of producers acting as one, to group messages into a single unit with respect to the processing order. This single unit is called a Unit-of-Order and requires that all messages from that unit be processed sequentially in the order they were created.</p> <p>In the license for WebLogic Server Basic, changing the default Unit-of-Order for a message producer is not permitted.</p> <p>For more information about this feature, see "Using Message Unit-of-Order" in <i>Oracle Fusion Middleware Programming JMS for Oracle WebLogic Server</i>.</p>
Unit-of-Work Message Groups	<p>Many applications need an even more restricted notion of a group than provided by the Message Unit-of-Order (UOO) feature. If this is the case for your applications, WebLogic JMS provides the Unit-of-Work (UOW) Message Groups, which allows applications to send JMS messages, identifying some of them as a group and allowing a JMS consumer to process them as such. For example, a JMS producer can designate a set of messages that need to be delivered to a single client without interruption, so that the messages can be processed as a unit. Further, the client will not be blocked waiting for the completion of one unit when there is another unit that is already complete.</p> <p>In the license for WebLogic Server Basic, changing the default value of the <code>UnitOfWorkHandlingPolicy</code> value for a JMS resource is not permitted.</p> <p>For more information about this feature, see "Using Unit-of-Work Message Groups" in <i>Oracle Fusion Middleware Programming JMS for Oracle WebLogic Server</i>.</p>
JMS Store-and-Forward agents	<p>The WebLogic Store-and-Forward (SAF) client provides a mechanism whereby standalone clients can reliably send JMS messages to server-side JMS destinations, even when the SAF client cannot reach the JMS destination due to a network connection failure (for example, a temporary blip or a network failure). While disconnected, messages sent by a SAF client are stored locally on the client and are forwarded to server-side JMS destinations once the client is reconnected.</p> <p>In the license for WebLogic Server Basic, configuring any SAF agents is not permitted.</p> <p>For more information about this feature, see "Configuring SAF for JMS Messages" in <i>Oracle Fusion Middleware Configuring and Managing Store-and-Forward for Oracle WebLogic Server</i>.</p>

### A.3.4 Additional Primary Services

[Table A–5](#) lists and describes additional services and components that have restrictions, or that may not be used, in WebLogic Server Basic.

**Table A–5 Additional Services Restricted in WebLogic Server Basic License**

Component or Feature	Description
WebLogic Diagnostics Framework	<p>The WebLogic Diagnostic Framework (WLDF) is a monitoring and diagnostic framework that defines and implements a set of services that run within WebLogic Server processes and participate in the standard server life cycle. Using WLDF, you can create, collect, analyze, archive, and access diagnostic data generated by a running server and the applications deployed within its containers. This data provides insight into the run-time performance of servers and applications and enables you to isolate and diagnose faults when they occur.</p> <p>In the license for WebLogic Server Basic, the use of WLDF is not permitted.</p> <p>For more information about the WebLogic Diagnostic Framework (WLDF), see "What Is the WebLogic Diagnostic Framework?" in <i>Oracle Fusion Middleware Configuring and Using the Diagnostics Framework for Oracle WebLogic Server</i>.</p>

**Table A–5 (Cont.) Additional Services Restricted in WebLogic Server Basic License**

Component or Feature	Description
WebLogic Server SNMP agents	<p>WebLogic Server SNMP agents query the WebLogic Server management system and communicate the results to managers over the SNMP protocol. The WebLogic Server management system exposes management data through a collection of managed beans (MBeans). When a WebLogic Server SNMP agent receives a request from a manager, it determines which MBean corresponds to the OID in the manager's request. Then it retrieves the data and wraps it in an SNMP response.</p> <p>In the license for WebLogic Server Basic, all SNMP agents must be disabled.</p> <p>For more information about WebLogic Server SNMP agents, see <i>Oracle Fusion Middleware SNMP Management Guide for Oracle WebLogic Server</i>.</p>
WebLogic Tuxedo Connector	<p>The Oracle WebLogic Tuxedo Connector provides interoperability between WebLogic Server applications and Tuxedo services. The connector allows WebLogic Server clients to invoke Tuxedo services and Tuxedo clients to invoke WebLogic Server Enterprise Java Beans (EJBs) in response to a service request.</p> <p>In the license for WebLogic Server Basic, use of Oracle WebLogic Tuxedo Connector is not permitted.</p> <p>For more information about WebLogic Tuxedo Connector, see <i>Oracle Fusion Middleware Tuxedo Connector Administration Guide for Oracle WebLogic Server</i>.</p>
WebLogic HTTP Publish-Subscribe Server	<p>An HTTP Publish-Subscribe Server is a mechanism whereby Web clients subscribe to channels and then publish messages to these channels using asynchronous messages over HTTP.</p> <p>In the license for WebLogic Server Basic, use of the WebLogic HTTP Publish-Subscribe Server is not permitted.</p> <p>For more information about this feature, see "Using the HTTP Publish-Subscribe Server" in <i>Oracle Fusion Middleware Developing Web Applications, Servlets, and JSPs for Oracle WebLogic Server</i>.</p>
Use of Work Managers to prioritize and optimize work	<p>WebLogic Server prioritizes work and allocates threads based on an execution model that takes into account administrator-defined parameters and actual run-time performance and throughput.</p> <p>Administrators can configure a set of scheduling guidelines and associate them with one or more applications, or with particular application components. For example, you can associate one set of scheduling guidelines for one application, and another set of guidelines for other applications. At run time, WebLogic Server uses these guidelines to assign pending work and enqueued requests to execution threads.</p> <p>In the license for WebLogic Server Basic, the creation of either global or application-specific Work Managers to modify the default work model is not permitted.</p> <p>For more information about Work Managers, see "Understanding Work Managers" in <i>Oracle Fusion Middleware Configuring Server Environments for Oracle WebLogic Server</i>.</p>

## A.4 Restricted WebLogic Web Services Features

Table A–6 describes the WebLogic Web Services features that are not available for use under the terms of the WebLogic Server Basic license.



**Table A–6 WebLogic Web Services Features Restricted in WebLogic Server Basic License**

Feature	Description
Buffered Web Services	<p>When a buffered operation is invoked by a client, the method operation goes on a JMS queue and WebLogic Server deals with it asynchronously. As with Web Service reliable messaging, if WebLogic Server goes down while the method invocation is still in the queue, it will be dealt with as soon as WebLogic Server is restarted. When a client invokes the buffered Web Service, the client does not wait for a response from the invoke, and the execution of the client can continue.</p> <p>In the license for WebLogic Server Basic, the use of buffered Web Services is not permitted.</p> <p>For more information about this feature, see "Creating Buffered Web Services" in <i>Oracle Fusion Middleware Programming Advanced Features of JAX-RPC Web Services for Oracle WebLogic Server</i>.</p>
Asynchronous Web Services	<p>When you invoke a Web Service synchronously, the invoking client application waits for the response to return before it can continue with its work. In cases where the response returns immediately, this method of invoking the Web Service is common. However, because request processing can be delayed, it is often useful for the client application to continue its work and handle the response later on, or in other words, use the asynchronous request-response feature of WebLogic Web Services.</p> <p>In the license for WebLogic Server Basic, the use of the asynchronous request-response feature is not permitted.</p> <p>For more information about this feature, see "Invoking a Web Service Using Asynchronous Request-Response" in <i>Oracle Fusion Middleware Programming Advanced Features of JAX-RPC Web Services for Oracle WebLogic Server</i>.</p>
Conversational Web Services	<p>A Web Service and the client application that invokes it may communicate multiple times to complete a single task. Also, multiple client applications might communicate with the same Web Service at the same time. Conversations provide a straightforward way to keep track of data between calls and to ensure that the Web Service always responds to the correct client.</p> <p>In the license for WebLogic Server Basic, the use of conversational Web Services is not permitted.</p> <p>For more information about this feature, see "Creating Conversational Web Services" in <i>Oracle Fusion Middleware Programming Advanced Features of JAX-RPC Web Services for Oracle WebLogic Server</i>.</p>
JMS transport	<p>WebLogic Web Services may be configured to use the JMS transport as an alternative to the HTTP/HTTPS connection protocol for use by WebLogic clients. Using JMS transport offers the following benefits: reliability, scalability, and quality of service. As with Web Service reliable messaging, if WebLogic Server goes down while the method invocation is still in the queue, it will be dealt with as soon as WebLogic Server is restarted. When a client invokes a Web Service, the client does not wait for a response from the invoke, and the execution of the client can continue.</p> <p>In the license for WebLogic Server Basic, the use or configuration of JMS transport in either WebLogic Web Services or WebLogic Web Services clients is not permitted.</p> <p>For more information about this feature, see "Using JMS Transport as the Connection Protocol" in <i>Oracle Fusion Middleware Programming Advanced Features of JAX-RPC Web Services for Oracle WebLogic Server</i>.</p>

## A.5 Restricted Tooling Features

Table A–7 describes the tooling features in WebLogic Server that are not available for use under the terms of the WebLogic Server Basic license.



**Table A-7 WebLogic Server Tooling Features Restricted in WebLogic Server Basic**

Feature	Description
Configuration Wizard, Domain Template Builder, and <code>pack</code> and <code>unpack</code> commands	<p>The Configuration Wizard guides you through the process of creating a domain for your target environment by selecting the WebLogic Server components to include in your domain, or by using domain templates. If required, you can also customize the domain to suit your environment by adding and configuring Managed Servers, clusters, and computer definitions, or customizing predefined JDBC data sources, and JMS file store directories.</p> <p>After you create a domain and add resources and applications to it, you can use the Domain Template Builder, or <code>pack</code> and <code>unpack</code> commands, to create a custom domain or domain extension template. These templates provides a convenient means to replicate a domain, or domain extension, throughout your environment.</p> <p>In the license for WebLogic Server Basic: none of the following are permitted:</p> <ul style="list-style-type: none"> <li>■ Use of the Configuration Wizard to create domains based on templates not supplied by Oracle</li> <li>■ Use of the Domain Template Builder to create custom domain or domain extension templates</li> <li>■ Use of the <code>pack</code> or <code>unpack</code> commands to create custom domains, domain extension, domain templates, or domain extension templates</li> </ul> <p>For more information about these tools, see the following:</p> <ul style="list-style-type: none"> <li>■ <i>Oracle WebLogic Server Creating WebLogic Domains Using the Configuration Wizard</i></li> <li>■ <i>Oracle WebLogic Server Creating Domain Templates Using the Domain Template Builder</i></li> <li>■ <i>Oracle WebLogic Server Creating Templates and Domains Using the Pack and Unpack Commands</i></li> </ul>
Recording Administration Console operations	<p>To help automate the task of configuring a domain, you can record your configuration actions in the WebLogic Server Administration Console as a series of WebLogic Scripting Tool (WLST) commands and then use WLST to replay the commands.</p> <p>In the license for WebLogic Server Basic, use of the Record element in the Administration Console tool bar is not permitted.</p> <p>For more information about this feature, see "Record WLST Scripts" in <i>Oracle Fusion Middleware Oracle WebLogic Server Administration Console Help</i>.</p>
Extending the Administration Console	<p>Administration Console extensions enable you to add content to the WebLogic Server Administration Console, replace content, and change the logos, styles and colors without modifying the files that are installed with WebLogic Server. For example, you can add content that provides custom monitoring and management facilities for your applications.</p> <p>In the license for WebLogic Server Basic, the modification or extension of the Administration Console is not permitted. This restriction is placed on making any additions or changes to the Administration Console using the console extension mechanism.</p> <p>For more information about this feature, see <i>Oracle Fusion Middleware Extending the Administration Console for Oracle WebLogic Server</i>.</p>

## A.6 Restricted APIs

[Table A-8](#) describes the APIs in WebLogic Server that have restricted use under the terms of the WebLogic Server Basic license.

**Table A–8 WebLogic Server APIs Restricted in WebLogic Server Basic**

API	Description
Use of CommonJ Work Manager for application initiated work	<p>WebLogic Server also provides a programmatic way of handling work from within an application. This is provided through the CommonJ API. WebLogic Server implements the <code>commonj.work</code> and <code>commonj.timers</code> packages of the CommonJ specification.</p> <p>In the license for WebLogic Server Basic, the use of CommonJ Work Manager for application initiated work is not permitted.</p> <p>For more information about this feature, see "Using CommonJ With WebLogic Server" in <i>Oracle Fusion Middleware Configuring Server Environments for Oracle WebLogic Server</i>.</p>
WebLogic JMS clients for Microsoft .NET and C	<p>The WebLogic JMS .NET client is a fully-managed .NET run-time library and application programming interface (API). It enables programmers to create .NET C# client applications that can access WebLogic Java Message Service (JMS) applications and resources.</p> <p>The WebLogic JMS C API is an application program interface that enables you to create C client applications that can access WebLogic JMS applications and resources. The C client application then uses the Java Native Interface (JNI), described at <a href="http://download.oracle.com/javase/1.5.0/docs/guide/jni/index.html">http://download.oracle.com/javase/1.5.0/docs/guide/jni/index.html</a>, to access the client-side Java JMS classes</p> <p>In the license for WebLogic Server Basic, the use of WebLogic JMS clients for .NET and C is not permitted.</p> <p>For more information about the WebLogic JMS .NET client, see <i>Oracle Fusion Middleware Using the WebLogic JMS Client for Microsoft .NET for Oracle WebLogic Server</i>. For more information about the WebLogic JMS C API, see "WebLogic JMS C API" in <i>Oracle Fusion Middleware Programming JMS for Oracle WebLogic Server</i>.</p>

## A.7 Feature Usage Measurement

It is the end user's responsibility to ensure that the features available in WebLogic Server Basic are used in accordance with the terms of the license agreement. This section explains how the appropriate usage of license-restricted features can be easily measured, or how their usage can be prevented, to help ensure that each installation of WebLogic Server Basic is used in accordance with the terms of the license agreement.

To help with determining that WebLogic Server is being used in accordance with the WebLogic Server Basic license, a WLST script is available from My Oracle Support that you can download and run. This script is described in the following My Oracle Support article:

Doc ID: **885587.1**

Subject: **WebLogic Server Basic Feature Usage Measurement Script**

This script measures the features of a WebLogic Server installation and generates a report that provides data about the usage or configuration of restricted WebLogic Server features defined by WebLogic Server Basic. Not every license-restricted feature is measured by this script, so its coverage is not exhaustive. But it can simplify feature usage measurement of most restricted features. (None of the data gathered by this script is transmitted or reported anywhere, and the use of this script is not mandatory. It is provided only as a convenience.) You can log in to My Oracle Support at the following URL to obtain this script:

<https://support.oracle.com/CSP/ui/flash.html>

For each license-restricted feature in WebLogic Server Basic, [Table A–9](#) provides the following information:

- A description of the specific license restriction associated with the feature. If the feature can be disabled by a specific configuration setting, this table identifies that setting.
- Whether the measurement script can confirm that the feature is being used in accordance with the WebLogic Server Basic license.

**Table A-9 Methods of Determining License Compliance**

Feature	Restriction and Method of Measurement
Whole server migration	<p>This feature may not be used.</p> <p>Whole server migration must be disabled.</p> <p>You can confirm that whole server migration is disabled in a domain either by viewing Migratable Targets in the Administration Console or by examining the values of the following MBean attributes:</p> <ul style="list-style-type: none"> <li>■ <code>ServerMBean::AutoMigrationEnabled</code></li> <li>■ <code>ClusterMBean::MigrationBasis</code></li> </ul> <p>You can obtain the values of these attributes by running the measurement script.</p>
Service migration	<p>This feature may not be used.</p> <p>Make sure that none of the following services are configured in the domain:</p> <ul style="list-style-type: none"> <li>■ Server Migration framework</li> <li>■ User defined Singleton Services</li> <li>■ Migratable targets with migration policy other than manual</li> <li>■ Clustered EJB Timers</li> <li>■ JTA Transaction Recovery service</li> </ul> <p>You can determine whether these services are configured by running the measurement script.</p>
MAN/WAN state replication	<p>The use of either of these replication types is not permitted.</p> <p>You can confirm that these replication types are not configured by running the measurement script.</p>
Managed Server cloning	<p>You may not enable the <b>Clone</b> attribute, which is available in the Administration Console by navigating to the <b>Environment &gt; Machines</b> page.</p>
Singleton services	<p>Configuring either a standalone or application-provided singleton service is not permitted.</p> <p>You can confirm that no singleton services are configured by running the measurement script.</p>
GridLink data sources (also known as Active GridLink for RAC)	<p>By validating the within the JDBC data source configuration files the elements <code>&lt;fan-enabled&gt;</code>, <code>&lt;ons-node-list&gt;</code> and <code>&lt;ons-wallet-file&gt;</code> are not configured.</p>
Cluster constraints deployment	<p>Setting the <code>ClusterConstraintsEnabled</code> option in a cluster is not permitted.</p> <p>You can confirm that this feature is not in use by running the measurement script.</p>

**Table A-9 (Cont.) Methods of Determining License Compliance**

Feature	Restriction and Method of Measurement
Overload management	<p>Configuring any of the following overload protection schemes at either a cluster or server level is not permitted:</p> <ul style="list-style-type: none"> <li>■ Limiting requests in the thread pool. You may not change the value of the <b>Shared Capacity For Work Managers</b> attribute in the Administration Console from the default value of 65536.</li> <li>■ Limiting HTTP sessions. You may not use <code>&lt;max-in-memory-sessions&gt;</code> in the <code>&lt;session-descriptor&gt;</code> element of the Web application deployment descriptor file.</li> <li>■ Exiting on "Out of Memory" exceptions. You may not configure this, either in the Administration Console or by editing the <code>config.xml</code> file.</li> <li>■ Stuck thread handling. You may not configure WebLogic Server to exit if all application threads are stuck.</li> </ul> <p>You can confirm this feature is not used by running the measurement script.</p>
Server ADMIN and STANDBY mode	<p>You may not use the ADMIN or STANDBY parameters in the command to start a WebLogic Server instance.</p> <p>You can confirm that neither of these states is enabled by running the measurement script.</p>
Production redeployment	<p>Deploying an application in which a version identifier is specified, either indirectly through the <code>manifest.mf</code> file or directly through the <code>weblogic.Deployer</code> utility, is not permitted.</p> <p>You can confirm this feature is not used by running the measurement script.</p>
Application Administration mode	<p>You may not use the <code>-adminmode</code> option to start any application hosted in a WebLogic Server instance.</p> <p>You can confirm this feature is not used by running the measurement script.</p>
Changing the order of deployment	<p>This feature may not be used.</p> <p>Do not change the value of the Deployment Order attribute, which can be set in the Administration Console or in the <code>DeploymentOrder</code> attribute of the <code>AppDeploymentMBean</code>.</p> <p>You can confirm this feature is not used by running the measurement script.</p>
FastSwap	<p>This feature may not be used.</p> <p>Make sure the <code>&lt;fast-swap&gt;true&lt;/fast-swap&gt;</code> element is not present in the <code>weblogic-application.xml</code> file.</p> <p>You can confirm this feature is not used by running the measurement script.</p>
Deploying standalone JMS, JDBC, and WLDF modules	<p>The deployment of standalone JMS, JDBC, or WLDF modules is not permitted. This restriction encompasses both module-level targeting as well as sub-module targeting.</p> <p>You can confirm this feature is not used by running the measurement script.</p>

**Table A-9 (Cont.) Methods of Determining License Compliance**

<b>Feature</b>	<b>Restriction and Method of Measurement</b>
Message Unit-of-Order	Configuring a JMS resource in which the default Unit-of-Order for a message producer is changed from the default value of None is not permitted.  You can confirm this feature is not used by running the measurement script.
Unit-of-Work Message Groups	Configuring a JMS resource to set the value of <code>UnitOfWorkHandlingPolicy</code> to anything other than the default value of <code>Pass-Through</code> is not permitted.  You can confirm this feature is not used by running the measurement script.
JMS Store-and-Forward agents	Configuring any store and forward agents is not permitted.  You can confirm this feature is not used by running the measurement script.
WebLogic Diagnostics Framework	The WebLogic Diagnostics Framework may not be configured.  You can confirm this feature is not used by running the measurement script.
WebLogic Server SNMP agents	All SNMP agents must be disabled.  You can confirm this feature is not used by running the measurement script.
WebLogic Tuxedo Connector	This component may not be used.
WebLogic HTTP Publish-Subscribe Server	The installation of this component is not permitted.
Use of custom Work Managers to prioritize and optimize work	This feature may not be used.  You can confirm that no custom Work Managers are configured in the domain by examining the value of the <code>WorkManagerMBean</code> . Note that the Console Work Manager is permitted in the WebLogic Server Basic license. This configuration MBean is accessed in the run-time tree or configuration tree, depending on how the Work Manager is accessed by an application: <ul style="list-style-type: none"> <li>■ If a Work Manager is defined at the module level, the <code>WorkManagerRuntimeMBean</code> is available through the corresponding <code>ComponentRuntimeMBean</code>.</li> <li>■ If a Work Manager is defined at the application level, then <code>WorkManagerRuntimeMBean</code> is available through the <code>ApplicationRuntimeMBean</code>.</li> <li>■ If a Work Manager is defined globally in the domain, each application creates its own instance of the Work Manager. Each application has its own corresponding <code>WorkManagerRuntimeMBean</code> available at the application level.</li> </ul>
Buffered Web Services	Using the buffered Web Services feature of WebLogic Web Services is not permitted. None of the following tasks involving the use of this feature are permitted by the WebLogic Server Basic license: <ul style="list-style-type: none"> <li>■ Configuring a WebLogic Server instance for buffered Web Services</li> <li>■ Implementing or deploying a buffered Web Service</li> <li>■ Implementing a client that invokes a buffered Web Service</li> </ul>

**Table A-9 (Cont.) Methods of Determining License Compliance**

<b>Feature</b>	<b>Restriction and Method of Measurement</b>
Asynchronous Web Services	Using the asynchronous request-response feature of WebLogic Web Services is not permitted. None of the following tasks involving the use of this feature are permitted by the WebLogic Server Basic license: <ul style="list-style-type: none"> <li>■ Configuring a WebLogic Server instance so that asynchronous Web Services may be deployed on it</li> <li>■ Implementing or deploying clients that invoke Web Services asynchronously</li> </ul>
Conversational Web Services	Implementing or deploying a Web Service that uses the conversational Web Service feature of WebLogic Web Services is not permitted.
JMS transport	Configuring or using the JMS transport feature of WebLogic Web Services as a connection protocol for invoking Web Services is not permitted. None of the following tasks involving the use of this feature are permitted by the WebLogic Server Basic license: <ul style="list-style-type: none"> <li>■ Configuring the JMS transport Web Service in a WebLogic domain</li> <li>■ Using the @WLJmsTransport JWS annotation in a Web Service</li> <li>■ Creating Web Service clients that use the JMS transport</li> </ul>
Configuration Wizard, or the pack and unpack commands, for creating custom domains	Only domain templates and domain extension templates provided by Oracle may be used to create WebLogic domains. The use of these tools to create custom domains, create custom domain extension templates, or modify an existing domain through a custom domain extension template, is not permitted.
Domain Template Builder, or the pack and unpack commands, for creating domain or domain extension templates	The following tools may not be used: <ul style="list-style-type: none"> <li>■ Domain Template Builder</li> <li>■ pack command</li> <li>■ unpack command</li> </ul>
Recording WebLogic Server Administration Console operations as a series of WebLogic Scripting Tool (WLST) commands	You may not use this feature in the Administration Console.
Extending the WebLogic Server Administration Console	You may not modify the WebLogic Server Administration Console through using the console extension feature.
Custom or CommonJ Work Manager usage outside the default WebLogic Server Work Manager	Any use of the CommonJ API in deployed applications is not permitted.
WebLogic JMS client for Microsoft .NET and C	Neither JMS client may be used.

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## Oracle Access Manager Basic

For licensing information for Oracle Access Manager Basic please refer to Oracle Fusion Middleware Licensing Information, 11g Release 1 (11.1.1) documentation:

[http://docs.oracle.com/cd/E28280\\_01/doc.1111/e14860/oam\\_basic.htm#CHDBECDJ](http://docs.oracle.com/cd/E28280_01/doc.1111/e14860/oam_basic.htm#CHDBECDJ)





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## Oracle Entitlements Server Basic

For licensing information for "Oracle Entitlements Server Basic" please refer to Oracle Fusion Middleware Licensing Information, 11g Release 1 (11.1.1) documentation:

[http://docs.oracle.com/cd/E28280\\_01/doc.1111/e14860/entitle\\_basic.htm#ABBUECDJ](http://docs.oracle.com/cd/E28280_01/doc.1111/e14860/entitle_basic.htm#ABBUECDJ)



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# Oracle WebLogic Management Framework

Oracle WebLogic Management Framework is a comprehensive set of features from Oracle WebLogic Server and Oracle Coherence providing consistent management capabilities for Fusion Middleware products in which it is expressly included.

This appendix describes the WebLogic Server and Coherence features available in WebLogic Management Framework. The following topics are included:

- [Section D.1, "Oracle WebLogic Management Framework Overview"](#)
- [Section D.2, "Oracle WebLogic Management Framework Features and License"](#)
- [Section D.3, "Installation of Oracle WebLogic Management Framework"](#)

## D.1 Oracle WebLogic Management Framework Overview

WebLogic Management Framework provides heterogeneous management capabilities for Oracle Fusion Middleware products that require basic administrative capabilities. Its capabilities include start, stop, configuration settings and other such basic product lifecycle operations through a common command line, API and user interface. WebLogic Management Framework is comprised of specific WebLogic Server and Coherence features.

## D.2 Oracle WebLogic Management Framework Features and License

Table D-1 and Table D-2 summarize the Oracle WebLogic Server and Oracle Coherence features that are available as part of WebLogic Management Framework.

Each WebLogic Management Framework feature is limited to use solely with the Oracle products for which WebLogic Management Framework is listed as a component in each product's product licensing documentation. For full use of these features independent of the WebLogic Management Framework, you must separately license other Oracle products. For the WebLogic Server features you are required to license WebLogic Server Standard Edition, WebLogic Server Enterprise Edition, or WebLogic Suite; and for the Coherence features you are required to license Coherence Standard Edition, Enterprise Edition, or Coherence Grid Edition.

**Table D-1 Oracle WebLogic Management Framework Features: Oracle WebLogic Server**

Feature	Description
WebLogic Server Administration Server	WebLogic Administration Server is a central control entity for managing the configuration of server infrastructure. ( <a href="http://docs.oracle.com/cd/E28280_01/web.1111/e13716/understand_domains.htm#sthref8">http://docs.oracle.com/cd/E28280_01/web.1111/e13716/understand_domains.htm#sthref8</a> )

**Table D–1 (Cont.) Oracle WebLogic Management Framework Features: Oracle WebLogic**

<b>Feature</b>	<b>Description</b>
WebLogic Scripting Tool	WebLogic Scripting Tool is a tool for scripting the configuration of server infrastructure. ( <a href="http://docs.oracle.com/cd/E28280_01/web.1111/e13715/using_wlst.htm">http://docs.oracle.com/cd/E28280_01/web.1111/e13715/using_wlst.htm</a> )
WebLogic Server JMX and MBean infrastructure	WebLogic Server JMX and MBean infrastructure provides a set of Mbeans for monitoring, configuring and managing WebLogic Server and its resources. ( <a href="http://docs.oracle.com/cd/E28280_01/web.1111/e13728/understandwls.htm#JMXCU112">http://docs.oracle.com/cd/E28280_01/web.1111/e13728/understandwls.htm#JMXCU112</a> )
Weblogic.deployer	WebLogic.deployer is a command lined based tool for deploying Java archives to server infrastructure. ( <a href="http://docs.oracle.com/cd/E28280_01/web.1111/e13702/wldeployer.htm#i1010724">http://docs.oracle.com/cd/E28280_01/web.1111/e13702/wldeployer.htm#i1010724</a> )
WebLogicServer RESTful Management Services	WebLogic Server RESTful Management Services provides representational state transfer (REST) resources that enable you to monitor server infrastructure through HTTP requests and responses. ( <a href="http://docs.oracle.com/cd/E28280_01/web.1111/e24682/toc.htm#CHDGIHJI">http://docs.oracle.com/cd/E28280_01/web.1111/e24682/toc.htm#CHDGIHJI</a> )
WebLogic Server Administration Console	WebLogic Server Administration Console provides a browser based graphical user interface for administering WebLogic server infrastructure. ( <a href="http://docs.oracle.com/cd/E28280_01/apirefs.1111/e13952/index.html">http://docs.oracle.com/cd/E28280_01/apirefs.1111/e13952/index.html</a> )
Fusion Middleware Management Console	Fusion Middleware Control console is a browser based graphical user interface for administering Fusion Middleware server infrastructure.
Fusion Middleware Configuration Wizard	Fusion Middleware Configuration Wizard provides a graphical user driven wizard interface for creating and configuring Fusion Middleware server infrastructure. ( <a href="http://docs.oracle.com/cd/E28280_01/web.1111/e14140/intro.htm#i1061120">http://docs.oracle.com/cd/E28280_01/web.1111/e14140/intro.htm#i1061120</a> )
WebLogic Server Node Manager	WebLogic Server Node Manager is a utility that enables you to start, shut down, and restart Administration Server and Managed Server instances from a remote location. ( <a href="http://docs.oracle.com/cd/E28280_01/web.1111/e13740/overview.htm#NODEM112">http://docs.oracle.com/cd/E28280_01/web.1111/e13740/overview.htm#NODEM112</a> )

**Table D–2 Oracle WebLogic Management Framework Features: Oracle Coherence**

<b>Feature</b>	<b>Description</b>
Coherence Caching for WebLogic Management Framework	Coherence caching is used to communicate management events in memory for the WebLogic Management Framework.

### D.3 Installation of Oracle WebLogic Management Framework

Oracle WebLogic Management Framework is provided as a set of features within the standard installer distribution of Oracle Fusion Middleware WebLogic Server and Oracle Coherence.