

# ORACLE WEBLOGIC SERVER

## KEY FEATURES AND BENEFITS

### ORACLE WEBLOGIC SERVER STANDARD EDITION

- Java EE 8 and Jakarta EE 8 support
- Java SE 8 and 11 support
- GraalVM EE support
- On-premises and cloud native deployments
- Performance, reliability, manageability
- Helidon for microservices

### ORACLE WEBLOGIC SERVER ENTERPRISE EDITION

- Oracle WebLogic Server Standard Edition, plus...
- Java SE Advanced
- Clusters for high performance and high availability
- Dynamic Clusters for elastic scaling

### ORACLE WEBLOGIC SUITE

- Oracle WebLogic Server Enterprise Edition, plus...
- Oracle Coherence Enterprise Edition
- Active GridLink for RAC
- Verrazano Enterprise Edition
- iAS Enterprise Edition

### CLOUD NATIVE KUBERNETES DEPLOYMENTS

- Dockerfiles
- Docker Images
- WebLogic Kubernetes Toolkit
  - WebLogic Kubernetes Toolkit UI
  - WebLogic Operator
  - WebLogic Deploy Tooling
  - WebLogic Image Tool
  - WebLogic Remote Console
  - WebLogic Monitoring Exporter
- Verrazano Enterprise Edition

### ORACLE WEBLOGIC SERVER FOR ORACLE CLOUD INFRASTRUCTURE

- Simplified provisioning to Oracle Cloud on:
  - Virtual Machines
  - Bare Metal
  - Kubernetes (OKE)
- Universal Credits and BYOL
- Full compatibility with on-premises deployments

*Oracle WebLogic Server is the #1 Java application server, offering standards-based APIs and tools for developing and deploying mission critical applications on physical systems, VMs or Kubernetes clusters hosted on-premises or in public clouds. Oracle WebLogic Server is integrated with Oracle's full product and service portfolio and is available in multiple editions.*

*Oracle WebLogic Server Standard Edition combines Java EE 8 and Jakarta EE 8 support with high performance, reliability, and manageability. Java SE 8 support is included. Development and management tools are available to support application development and deployment. Helidon support is included for Java-based microservices.*

*Oracle WebLogic Server Enterprise Edition includes all Standard Edition features, plus clustering and integrated Java SE Advanced features. Configured clusters provide high performance and high availability with advanced messaging and transaction management support. Dynamic clusters add simplified configuration and automated, policy-based elastic scaling.*

*Oracle WebLogic Suite provides a comprehensive mission-critical application infrastructure. It includes all Enterprise Edition features, plus Oracle Coherence Enterprise Edition for performance and scalability, Active GridLink for RAC for connectivity with Oracle Database RAC, Verrazano Enterprise Edition for multi-cloud Kubernetes deployments, and iAS Enterprise Edition.*

*Oracle provides Dockerfiles and Docker images, and the WebLogic Kubernetes Toolkit for cloud native Kubernetes deployments with all Oracle WebLogic Server editions. Oracle WebLogic Suite includes entitlements to Verrazano Enterprise Edition for managing WebLogic and microservices deployments on Kubernetes, including multi-cloud deployments.*

*Oracle WebLogic Server for Oracle Cloud Infrastructure simplifies provisioning configurations on Oracle Cloud, with full compatibility with on-premises deployments. Multiple editions are available from the Oracle Cloud Marketplace via Universal Credits (UCM) and Bring Your Own License (BYOL) pricing models.*

### Oracle WebLogic Server Standard Edition

Oracle WebLogic Server Standard Edition provides developers with the tools and technologies for building enterprise applications quickly. In production, Oracle WebLogic Server Standard Edition delivers high performance, reliability, and administration capabilities to keep enterprise applications and services up and running.

- **Simplified Development**  
 Oracle WebLogic Server 14.1.1 is Java EE 8 and Jakarta EE 8 compatible and is certified with Java SE 8 and Java SE 11. Oracle Java SE Support is included. Lightweight installers are available for developer ease of use - developers can use Eclipse, IntelliJ, and other popular IDEs. Maven plug-ins integrate with public and private Maven repositories, and continuous integration environments based on Jenkins and other tools. Support for Helidon provides the option for developing Java-based microservices. Oracle Application Development Framework (ADF) offers an end-to-end MVC development framework, available with Oracle WebLogic Server Standard Edition through version 12.2.1.4.
- **Industry-leading performance and reliability**  
 Oracle WebLogic Server delivers industry-leading performance, making it possible to meet service levels with fewer servers and resources to manage, at lower cost. Performance optimizations and self-tuning capabilities deliver high performance across diverse applications, and in industry standard benchmarks. Use of GraalVM Enterprise Edition is supported for improved performance. Features such as dynamic configuration and automatic restart of failed servers enable reliability for deployed applications.
- **Superior Manageability, Monitoring and Management**  
 Oracle WebLogic Server provides built-in management, diagnostic and automation tools to increase management and operational efficiency, with a choice of interfaces. The WebLogic Administration Console provides a Web interface for all Oracle WebLogic Server management functionality. The WebLogic Scripting Tool enables command-line and script-based management. The WebLogic Kubernetes Toolkit provides a comprehensive set of tools for Kubernetes deployments. The WebLogic Diagnostic Framework enables advanced monitoring, diagnostics, and policy-based management automation. REST management APIs enable HTTP-based monitoring and management for on-premises and cloud deployments.
- **Oracle Web Tier Integration**  
 Oracle WebLogic Server Standard Edition includes Oracle Web Tier for integration across Web Servers and the application server tier. Oracle Web Tier includes Oracle HTTP Server, and Web Server plug-ins for Apache and Microsoft IIS.

### Oracle WebLogic Server Enterprise Edition

Oracle WebLogic Server Enterprise Edition includes all of Oracle WebLogic Server Standard Edition, with improved application performance and availability features, and deep diagnostic capabilities for production systems.

- **Enterprise Scalability and Clustering**  
 Clustering simplifies scaling of applications with high availability and reliability. Cluster-wide management and deployment simplify management of clustered environments. Session failover, whole server migration and automatic service migration for messaging and transaction services, and rolling upgrades are just a few of the clustering capabilities that help maintain system availability.

Automated, rules-based elastic scaling of dynamic clusters can be used to automatically adapt to changing application requirements. Oracle Web Tier components automatically recognize cluster configuration changes and adapt load balancing and session failover accordingly.
- **Java Mission Control and Java Flight Recorder**  
 Java Mission Control and Java Flight Recorder are included in Java SE Advanced and in Oracle WebLogic Server Enterprise Edition. They enable users to record JVM events in an in-memory buffer that can be persisted for post-incident analysis. The WebLogic Diagnostic Framework integrates with Java Flight Recorder to enable combined Oracle WebLogic Server and JVM event analysis.

## Oracle WebLogic Suite

Oracle WebLogic Suite includes all of Oracle WebLogic Server Enterprise Edition, and adds unique performance, availability, scalability, and manageability capabilities to meet the most demanding enterprise requirements.

- **Linear Scalability – Oracle Coherence Enterprise Edition**

Oracle WebLogic Suite includes Oracle Coherence Enterprise Edition, an in-memory data grid that enables applications to improve performance, scalability, and reliability. Developers can use Oracle Coherence APIs for access to cache data and data grid programming. Coherence\*Web HTTP session management leverages Oracle Coherence functionality via configuration only.

Oracle WebLogic Server enables the management of Coherence clusters using the WebLogic Management Framework, and tools such as the WebLogic Console and WebLogic Scripting Tool (WLST) to provide a unified management infrastructure for managing Oracle WebLogic Server and Oracle Coherence together.

- **High Availability – Active GridLink for RAC**

Active GridLink for Oracle Real Application Clusters (RAC) integrates Oracle WebLogic Server and Oracle RAC. GridLink data sources simplify management by connecting to RAC clusters while isolating Oracle WebLogic Server configurations from RAC configuration changes. Runtime Connection Load Balancing increases application performance and scalability. Transaction affinity ensures transactions are processed with maximum performance and reliability. Fast Connection Failover speeds detection of RAC node failures, and failover to remaining nodes, for continuous connectivity and improved system availability.

- **Oracle Internet Application Server (iAS) Enterprise Edition**

Oracle WebLogic Server includes all entitlements of Oracle iAS Enterprise Edition, permitting Oracle iAS Enterprise Editions licensees who are migrating to Oracle WebLogic Suite licenses and functionality to ensure full inclusion of all their existing entitlements when they perform the license migration.

## Cloud Native Kubernetes Deployments

Oracle provides Dockerfiles and Docker images to help users get started using Oracle WebLogic Server in containers, and a set of tools for deploying and managing Oracle WebLogic Server in Kubernetes, known collectively as the WebLogic Kubernetes Toolkit:

- **WebLogic Kubernetes Toolkit UI**

The Toolkit UI provides an easy-to-use interface for using the tools in the Toolkit together, to perform operations such as introspecting an existing Oracle WebLogic Server domain and applications, updating the domains for deployment to Kubernetes, creating a WebLogic Docker image from the domain, and deploying the domain and applications to Kubernetes.

- **WebLogic Kubernetes Operator**

The Operator supports the creation of the Kubernetes resources required by Oracle WebLogic Server configurations, and simplifies lifecycle management operations such as starting, stopping and patching servers, and deploying and redeploying applications.

- **WebLogic Deploy Tooling**

The Deploy Tooling provides a declarative approach to configuration and deployment and enables introspection of existing configurations for migration of those configurations to Kubernetes.

- **WebLogic Image Tool**

The Image Tool supports the creation of WebLogic Docker images and automation of ongoing Docker image updates, including patches and application updates.

- **WebLogic Monitoring Exporter**

The Monitoring Exporter collects standard Oracle WebLogic Server runtime metrics, and exports them in a format for use by Kubernetes monitoring tools such as Prometheus and Grafana.

## Oracle Verrazzano Enterprise Edition

Oracle Verrazzano Enterprise Edition (EE) is based on the open source Verrazzano project and is included in Oracle WebLogic Suite. Oracle Verrazzano EE combines best of breed open source technologies into an integrated system for deploying and managing traditional applications and microservices using Open Application Model (OAM) models. Oracle Verrazzano EE supports Oracle Container Engine for Kubernetes,

Oracle Cloud Native Environment, and other Kubernetes implementations for portability across clouds, and to support multi-cloud deployments. It offers a preconfigured observability stack for applications, using familiar Prometheus, Grafana, Elasticsearch and Kibana technologies. Istio is used for securing communications to deployments, along with Keycloak for identity and access management. Polyglot workloads are supported, with advanced support for WebLogic Server, Coherence and Helidon deployments.

### **Oracle WebLogic Server for Oracle Cloud Infrastructure**

The preferred solution for deployment of Oracle WebLogic Server applications to Oracle Cloud is Oracle WebLogic Server for Oracle Cloud Infrastructure. Listings in the Oracle Cloud Marketplace enable you to rapidly provision Oracle WebLogic Server configurations on Virtual Machines, Bare Metal Compute Instances, or Kubernetes using Oracle Container Engine for Kubernetes (OKE). Pricing is available using either Oracle's Universal Credits (UCM) or Bring Your Own License (BYOL) pricing models, with full compatibility with on-premises deployments. Oracle WebLogic Server for Oracle Cloud Infrastructure enables you to easily develop, deploy and manage Oracle WebLogic Server applications in Oracle Cloud, paying only for what you use.

### **Oracle Private Cloud Appliance**

Oracle WebLogic Server is fully supported on Oracle Private Cloud Appliance systems, including VM-based deployments, and cloud native Kubernetes deployments leveraging the Oracle Cloud Native Environment.

### **Oracle Database Integration**

All Oracle WebLogic Server editions support multiple database products. In addition, Oracle WebLogic Server implements specific Oracle Database integration features. Oracle Database drivers are included to simplify configuration and connectivity to Oracle Database instances. Database credentials used in Oracle WebLogic Server configurations can be encrypted for additional security. Application Continuity provides continuous application services, even when database connections are lost. Support for Oracle Database Edition-Based Redefinition (EBR) enables coordination of application updates with required updates to database schema used by applications. Diagnostic tools spanning application server and database tiers are available through Oracle Enterprise Manager. Active GridLink for RAC (see above) enables integration with Oracle RAC for improved performance, availability, and manageability. Configuration guidance is provided for combined Oracle WebLogic Server and Oracle Database multi data center deployments. Finally, Oracle WebLogic Server is certified for use with Oracle Cloud database services, such as the Oracle Database Cloud Service, Oracle Autonomous Transaction Processing, Oracle Database Exadata Cloud Service and Oracle Databases Exadata Cloud at Customer.

### **Oracle Enterprise Manager**

Oracle WebLogic Server Management Pack Enterprise Edition is available as an add-on to all Oracle WebLogic Server editions. It enables management of Oracle WebLogic Server domains via Oracle Enterprise Manager Cloud Control, including business transaction management, performance, diagnostics, and lifecycle management, and provisioning and patching for managing multi-domain environments.

### **Foundation for Oracle Fusion Middleware, Oracle Applications, and the Oracle Cloud Platform**

Oracle WebLogic Server provides the core runtime for Oracle Fusion Middleware, Oracle Applications, and many of the PaaS and SaaS services available in the Oracle Cloud. Common provisioning, application development, management, and integration capabilities across these offerings deliver flexible integration between custom applications developed on Oracle WebLogic Server, and Oracle's middleware, applications, and cloud services portfolio.

### **Summary**

Oracle WebLogic Server provides a modern development platform for building applications, a runtime platform for high performance and availability, and rich management tooling for efficient and low cost operations. It offers flexible choice of deployment options on physical systems, VMs or cloud native Kubernetes environments hosted on-premises or in public clouds. It is a critical foundation technology for Oracle's middleware, applications, and cloud services offerings. No other application server in the industry has the same breadth of capabilities and strategic vendor commitment. Build your next generation of applications on Oracle WebLogic Server!

**RELATED PRODUCTS**

Many Oracle Applications and Cloud Services run on Oracle WebLogic Server. See the applicable Application and Cloud Services documentation for details.

Oracle Fusion Middleware works with Oracle WebLogic Server to form an integrated set of capabilities for diverse business requirements.

Extend Oracle WebLogic Suite with:

- Oracle WebLogic Coherence Grid Edition Option
- Oracle BPEL Process Manager Option
- Oracle Service Bus
- Oracle SOA Suite
- Oracle Unified Business Process Management Suite

Extend Oracle WebLogic Server Enterprise Edition with:

- Oracle WebCenter Portal
- Oracle WebCenter Real-Time Collaboration

Extend Oracle WebLogic Server Standard Edition, Enterprise Edition, and WebLogic Suite with:

- Oracle WebLogic Server Management Pack Enterprise Edition

**Supported Platforms**

For supported platforms and configuration detail, refer to the following:

[oracle.com/technetwork/middleware/ias/downloads/fusion-certification-100350.html](http://oracle.com/technetwork/middleware/ias/downloads/fusion-certification-100350.html)

See Table 1 for a platform summary.

Supported Platforms	
Software	
Operating systems	<ul style="list-style-type: none"> <li>• AIX</li> <li>• HP-UX</li> <li>• Linux (including Docker and Kubernetes Support)</li> <li>• Mac OS X (development)</li> <li>• Solaris</li> <li>• Windows</li> </ul>
Databases	<ul style="list-style-type: none"> <li>• Oracle Database (and Oracle Database RAC)</li> <li>• IBM DB2</li> <li>• Microsoft SQL Server</li> <li>• MySQL</li> <li>• Sybase</li> </ul>
Web Servers	<ul style="list-style-type: none"> <li>• Apache</li> <li>• Microsoft IIS</li> <li>• Oracle HTTP Server</li> </ul>
Java EE, Jakarta EE, Java SE and GraalVM EE	<ul style="list-style-type: none"> <li>• Oracle WebLogic Server 14.1.1                             <ul style="list-style-type: none"> <li>▪ Java EE/Jakarta EE 8, Java SE 8 and 11, GraalVM EE</li> </ul> </li> <li>• See documentation for prior WebLogic versions</li> </ul>
Clouds	<ul style="list-style-type: none"> <li>• Oracle Cloud</li> <li>• Oracle Private Cloud Appliance</li> <li>• Oracle Authorized Cloud Environments</li> </ul>

**Table 1: Oracle WebLogic Server Platform Support Summary**

**Contact Us**

For more information about Oracle WebLogic Server, please visit

[oracle.com](http://oracle.com) or call +1.800.ORACLE1 to speak to an Oracle representative.



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