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Oracle WebLogic Server Data Sheet

Oracle WebLogic Server is the #1 Java application server for deploying mission critical applications on-premises or in the cloud.   It is fully integrated with Oracle's product and service portfolio.

Overview

Oracle WebLogic Server is the #1 Java application server, offering standards-based APIs and tools for developing and deploying mission critical applications. Applications can be deployed on-premises and in the cloud on physical machines, virtual machines, or in containers running in Kubernetes clusters. 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 Jakarta EE 8 support with high performance, reliability, and manageability. Java SE support is included. Development and management tools are available to support application development and deployment, including support for deployments in Kubernetes. Helidon support is included for Java-based microservices.

Oracle WebLogic Server Enterprise Edition includes all Standard Edition features, plus clustering and Java SE Advanced Edition. Configured clusters provide high performance and availability with advanced messaging and transaction management. Dynamic clusters simplify configuration and add 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, and iAS Enterprise Edition.

Oracle WebLogic Server for Oracle Cloud Infrastructure (OCI) 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.

Key features and benefits

Oracle WebLogic Server Standard Edition

- Standards Support: Jakarta EE 8, Java SE 17 and 21
- Deployment on-premises and in the cloud
- Performance, reliability, manageability
- WebLogic Docker images and WebLogic Kubernetes Toolkit
- 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
- iAS Enterprise Edition

Oracle WebLogic Server for Oracle Cloud Infrastructure (OCI)

- Simplified provisioning on Bare Metal, VMs and Kubernetes (OKE)
- Universal Credits and BYOL
- Full compatibility with on-premises deployments

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 14.1.2 is Jakarta EE 8 compatible and is certified with Java SE 17 and Java SE 21. Oracle Java SE Support is included. Developers can use Eclipse, IntelliJ, and other popular IDEs. Maven plug-ins integrate with Maven repositories and continuous integration environments based on Jenkins and other tools. Support for Helidon provides the option for developing Java-based microservices. Oracle JDeveloper 14.12 offers a development environment for applications leveraging Oracle Application Development Framework (ADF) 14.1.2.

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. Features such as dynamic configuration and automatic restart of failed servers enable reliability for deployed applications.

Superior Manageability

Built-in management, diagnostic and automation tools increase management and operational efficiency. The WebLogic Remote Console provides a Graphical User Interface (GUI) for all Oracle WebLogic Server management functionality. The WebLogic Scripting Tool enables command-line and script-based management. 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.

WebLogic Kubernetes Toolkit

The WebLogic Kubernetes Toolkit is an integrated set of tools developed in open source for deploying and managing Oracle WebLogic Server in Kubernetes. It enables users to migrate existing Oracle WebLogic Server applications to Kubernetes, deploy new applications to Kubernetes, monitor and manage applications, and automate patching, application updates and application scaling. Oracle supports customers running WebLogic Server workload on a variety of Kubernetes platforms, including Oracle Cloud and Oracle Private Cloud Appliance, an engineered system that delivers Oracle Cloud Infrastructure (OCI)-compatible compute, storage and networking on-premises.

Oracle Web Tier

Oracle Web Tier provides support for Web Servers that proxy requests to Oracle WebLogic Server. Oracle Web Tier includes Oracle HTTP Server 14.1.2, 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, automatic service migration for messaging and transaction services, rolling upgrades and other features help maintain system availability.

Automated, rules-based elastic scaling of dynamic clusters can be used to automatically adapt to changing application requirements.

Java Mission Control and Flight Recorder

Java Mission Control and Java Flight Recorder are included 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.

Oracle Coherence Enterprise Edition

Oracle WebLogic Suite includes Oracle Coherence Enterprise Edition, a distributed in-memory data grid that enables users to improve application performance, scalability, and reliability. Oracle Coherence can be used to provide a distributed cache for WebLogic Server applications, or to perform distributed processing on data residing in the grid. Oracle WebLogic Server enables the management of Coherence clusters using tools such as the WebLogic Remote Console and WebLogic Scripting Tool (WLST) to provide a unified management infrastructure for Oracle WebLogic Server and Oracle Coherence.

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 WebLogic Server for OCI

The preferred solution for deployment of Oracle WebLogic Server applications to Oracle Cloud is Oracle WebLogic Server for OCI. 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 Kubernetes Engine (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 OCI enables you to easily develop, deploy and manage Oracle WebLogic Server applications in Oracle Cloud, paying only for what you use.

Oracle WebLogic Management Service

The Oracle WebLogic Management Service is available to simplify management of Oracle WebLogic Server domain configurations in Oracle Cloud, including domains provisioned using Oracle WebLogic Server for OCI and domains that have been provisioned on Oracle Cloud using standard Oracle WebLogic Server installation and configuration tools. Oracle WebLogic Management Service enables users to perform the following actions with a click of a button:

- View the state, patch levels and other information about Oracle WebLogic Server components.

- Manage Oracle WebLogic Server lifecycle, including starting, stopping, restarting, and performing a "rolling restart" of WebLogic domains.

- Apply the latest Oracle WebLogic Server and Oracle Fusion Middleware Infrastructure Critical Patch Updates to improve the reliability and security of Oracle WebLogic Server deployments.

Oracle WebLogic Server on Oracle Private Cloud Appliance

Oracle provides Oracle Private Cloud Appliance for your private cloud deployments and provides tools for creating and managing Kubernetes clusters on these systems. Oracle also provides tools that will enable you to migrate existing Oracle WebLogic Server applications to these private cloud systems on open cloud native infrastructure that is supported by Oracle. By doing so, you can preserve your investment in Oracle WebLogic Server applications, leverage new Kubernetes and technologies to enhance these applications, and position your organization for evolving applications as business requirements dictate. Oracle Private Cloud Appliance fully support Oracle Linux Cloud Native Environment, including Oracle Container Runtime for Docker and Oracle Container Services for Use with Kubernetes. They provide an ideal runtime for Oracle WebLogic Server applications to run in Docker and Kubernetes with full, integrated system support from Oracle.

Oracle Database Integration

All Oracle WebLogic Server editions support multiple database products. In addition, Oracle WebLogic Server implements specific integration features for Oracle Database products and cloud services. Oracle Database drivers are bundled to simplify configuration and connectivity to Oracle Database instances, including the latest Oracle Database 23ai features. 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 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.

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 Middleware, Applications, Services

Oracle WebLogic Server 14.1.2 provides the core runtime for Oracle Fusion Middleware 14.1.2, 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.

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Related Products

Related Products

Oracle Fusion Middleware is built on Oracle WebLogic Server to form an integrated set of middleware products and capabilities for diverse business requirements.

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

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 Standard Edition with:

• Oracle WebLogic Server Management Pack Enterprise Edition

Supported Platforms

Table 1. Oracle WebLogic Server Supported Platforms

Platform Component	Products Supported
Operating Systems *Planned for WebLogic 14.1.2	Mac OS X (development only) Windows Linux (including Kubernetes support) Solaris* AIX*
Databases	Oracle Database Products and Services IBM DB2 Microsoft SQL Server MySQL
Web Servers	Oracle HTTP Server Apache Web Server Microsoft IIS
Jakarta EE and Java SE	Jakarta EE 8 Java SE 17 and 21 (See product doc for WebLogic versions prior 14.1.2)
Clouds	Oracle Clouds Oracle Authorized Cloud Environments

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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!

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