

# Oracle WebLogic Server Management Pack Enterprise Edition

Oracle Enterprise Manager Cloud Control – Oracle’s on-premises management platform – and the Oracle WebLogic Server Management Pack Enterprise Edition provide a single pane of glass for managing all of a customer’s WebLogic deployments, whether in their data centers or in the Oracle Cloud. By leveraging Cloud Control and the pack, customers can reduce IT costs, improve business results and eliminate risk.

## PERFORMANCE MANAGEMENT

The Oracle WebLogic Server Management Pack Enterprise Edition greatly improves server as well as application performance by providing unique functionality to automatically detect performance bottlenecks; quickly diagnose these performance problems, and identify their root cause. Key performance management features of the pack include the following:

- Manage multiple WebLogic Domains and Oracle Coherence (assuming Coherence is running on WebLogic; otherwise licensed separately) centrally
- Monitor middleware availability and performance out-of-box; track such data historically, correlate messages across log files, and receive notifications of potential problems
- Monitor applications from a business perspective and from a single pane of glass via Business Application Management which integrates real end user experience KPIs with Service Level Agreements and supporting infrastructure
- Identify potential impact of availability and performance problems across tiers via a routing topology viewer
- Obtain real-time and historical in-depth JVM diagnostics including garbage collection, thread, and heap analysis without instrumentation overhead
- Trace request instances across containers to the database and vice versa



### KEY BENEFITS

Improve performance and availability of Java EE applications and web services

Improve quality of service by avoiding down time and improving end-to-end response time

Reduce cost by automating manual, error-prone lifecycle management operations

### KEY FEATURES

Manage multiple domains centrally

Gain in-depth JVM diagnostics

Follow request instances from HTML to the database

Perform key administration and configuration operations

Detect configuration changes in real time and track historically

Ensure compliance to industry standards and best practices

Provision, clone, or scale up/down domains

Apply patches to domains

Perform disaster recovery operations

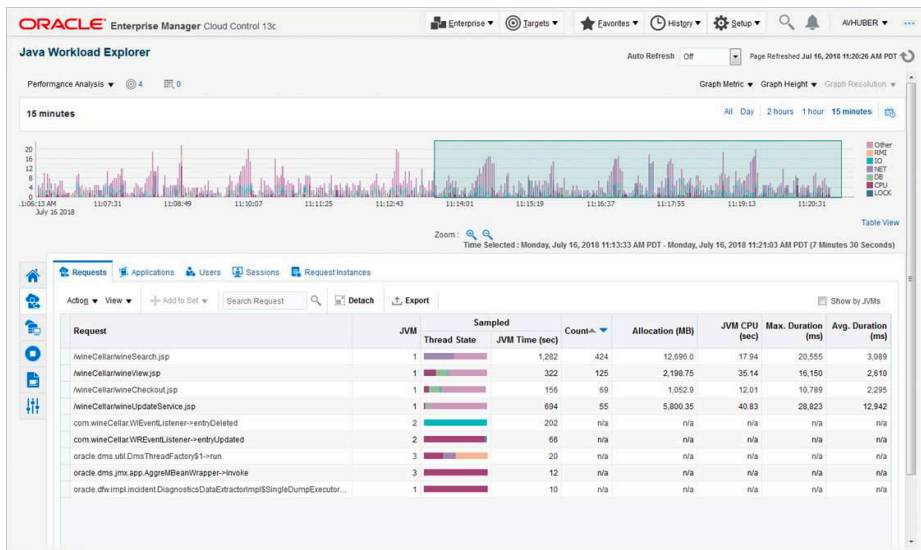


Figure 1. Java Workload Explorer enables you to compare JVM activity between two sets of requests or two periods of time – including actual versus sampled data

## SERVICE LEVEL MANAGEMENT

The Oracle WebLogic Server Management Pack Enterprise Edition helps IT organizations to achieve high availability, performance, and optimized service levels for their business services. Key service level management features of the pack include the following:

- Monitor services from the end users' perspective using service tests or synthetic transactions executed from remote user locations
- Assess the business impact of any service problem or failure and understand whether service level goals have been satisfied

## ADMINISTRATION

The Oracle WebLogic Server Management Pack Enterprise Edition provides common administration operations - traditionally available from the Oracle Enterprise Manager Fusion Middleware Control console or the WebLogic Server Administration Console – directly from the Cloud Control console. Consequently, a single console can be used to centrally administer multiple domains, and administrators can specify domain credentials once, store them as preferred credentials and never be prompted for domain credentials again. Key administration related features of the pack include the following:

- Lock a domain configuration via Change Center prior to making changes
- View and edit settings for the domain, cluster, server, application deployments, multitenancy, server template and machine configurations
- Create, edit, delete and test JDBC data sources
- View, configure and use MBeans via the System MBean Browser
- Record configuration actions as series of WLST commands
- Configure log file settings (e.g. location, format, log level, rotation policy)
- Audit administration operations performed by Enterprise Manager administrators

Timestamp	Operation	Status	Administrator	Upstream Component Type	Message
Sep 19, 2016 10:13:5...	WebLogic Domain Login	Failure	ORACLE	Browser	Login failed for weblogic
Sep 15, 2016 02:06:3...	WebLogic Domain Update	Success	ORACLE	Browser	MBean invoke[jarePartit...
Sep 15, 2016 02:06:2...	WebLogic Domain Update	Success	ORACLE	Browser	MBean invoke[bookupEdit...
Sep 15, 2016 02:06:0...	WebLogic Domain Update	Success	ORACLE	Browser	MBean invoke[bookupEdit...
Sep 15, 2016 02:05:5...	WebLogic Domain Update	Success	ORACLE	Browser	MBean invoke[starEdit] e...
Sep 15, 2016 02:05:4...	WebLogic Domain Update	Success	ORACLE	Browser	MBean invoke[checkRole]...

Figure 2. WebLogic Domain operations performed from Oracle Enterprise Manager Cloud Control 13c are audited and searchable from the Audit Data page

## LIFECYCLE MANAGEMENT

The Oracle WebLogic Server Management Pack Enterprise Edition provides comprehensive lifecycle management capabilities for middleware software and its underlying hardware that help customers to maximize value of their IT assets, increase the quality of IT services, reduce the cost of managing IT, and meet IT compliance requirements. Key configuration management related features of the pack include the following:

- Automate discovery of configuration items
- Detect configuration changes in real-time and track changes historically
- Compare configurations to reduce “configuration drift” and when undesired differences are detected, synchronize the configurations to make them the same again
- Correlate both real-time and historical configuration changes with performance metrics
- Ensure compliance with regulatory standards and unique business policies including standards such as the Security Technical Implementation Guide (STIG), Sarbanes-Oxley (SOX) and Payment Card Industry (PCI)

Target Name	Member Target Name	Configuration Name	Actual Value	Expected Value	Sta Priority	Acknowledged	Escalated
/prod1213_prod...	/prod1213_prod1213_do...	SSLListenPortEnabled	false	true			
/SOA_OSB_soa...	/SOA_OSB_soa_osb_do...	SSLListenPortEnabled	false	true			
/SOA_OSB_soa...	/SOA_OSB_soa_osb_do...	SSLListenPortEnabled	false	true			

Figure 3. Detected violation of WebLogic Server configuration when evaluated against STIG compliance standard

The pack also automates common manual and error-prone operations allowing administrators to focus on more strategic initiatives. Key patching and provisioning related features of the pack include the following:

- Receive automatic WebLogic Server patch recommendations via integration with My Oracle Support
- Search for, download, and apply Patch Set Updates, Critical Patch Updates, and one-off patches to managed servers across one or more domains
- Provision a domain and/or Oracle Home from installation media stored in the software library
- Clone a domain and/or Oracle Home from a provisioning profile stored in the software library
- Scale up or out existing domains (e.g. expanding a two node WebLogic Cluster to four nodes) or scale down (e.g. reducing four node cluster to two)
- Export and import a WebLogic partition between domains
- Migrate an older versioned domain to a partition in version 12.2.1 domain
- Deploy, undeploy or redeploy Java EE applications to one or more domains
- Perform disaster recovery operations against systems supporting Java EE applications (e.g. failover to a standby site when the primary site goes down)

Middleware Provisioning Page Refreshed Sep 29, 2016 11:56:33 AM PDT

**Profiles**

Name	Products	Source	Platform	Version	Owner	Description
AH 12.2.1 domain Profile	Oracle We...	WebLogic Domain	Linux x86-64	12.2.1.0.0	SYSMAN	no oracle home, one cluster one managed server
Restricted JRF Domain Config Profile - FMW infra 12.2.1.0	Oracle We...	WebLogic Domain	Linux x86-64	12.2.1.0.0	ORACLE	Contains 12.2.1.0 domain with one cluster containing one managed server with no custom apps deployed, restricted JRF, no binaries. Originally generated from software downloaded from OTN as fmw_12.2.1.0.0_infrastructure_Disk1_tof1.zip
No JRF Domain Config Profile - FMW infra 12.2.1.0	Oracle We...	WebLogic Domain	Linux x86-64	12.2.1.0.0	ORACLE	Contains 12.2.1.0 domain with one cluster containing one managed server with no custom apps deployed, no JRF, no binaries. Originally generated from software downloaded from OTN as fmw_12.2.1.0.0_infrastructure_Disk1_tof1.zip
Oracle Home Profile - FMW Infrastructure 12.2.1.0	Oracle We...	Oracle Home	Linux x86-64	12.2.1.0.0	ORACLE	Contains FMW Infrastructure 12.2.1.0 binaries with examples that was originally downloaded from OTN

**Deployment Procedures**

Name	Description	Version	Owner	Type	Parent Procedure
Provision Fusion Middleware	This procedure clones and configures a Fusion Middleware Home and/or a Fusion Middleware Domain from the Software Library.	4.0	ORACLE	Middleware Provisioning	Not Applicable
Provision FMW infra 12.2.1.0 Oracle Home	This deployment procedure provisions a FMW Infrastructure 12.2.1.0 Oracle Home (domain config is not provisioned) as defined in the FMW Infrastructure 12.2.1.0 profile.		ORACLE	Middleware Provisioning	Provision Fusion Middleware
Provision WebLogic Domain 12.2.1.0	This deployment procedure provisions a 12.2.1.0 restricted JRF domain containing one cluster with one managed server (Oracle Home/binaries are not provisioned) as defined in the WebLogic Domain 12.2.1.0 profile.		ORACLE	Middleware Provisioning	Provision Fusion Middleware
	Provisions 12.2.1.0 domain with one cluster containing one managed server with no custom apps deployed as defined in the Profile.				

Figure 4. Store fully tested gold images as profiles in software library and then use deployment procedures to clone the profiles for installation and configuration automation

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