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
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
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)

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)

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