

ORACLE®

Announcing Oracle WebLogic Server 12c

ORACLE® **12^c**
FUSION MIDDLEWARE
WEBLOGIC SERVER

ORACLE®

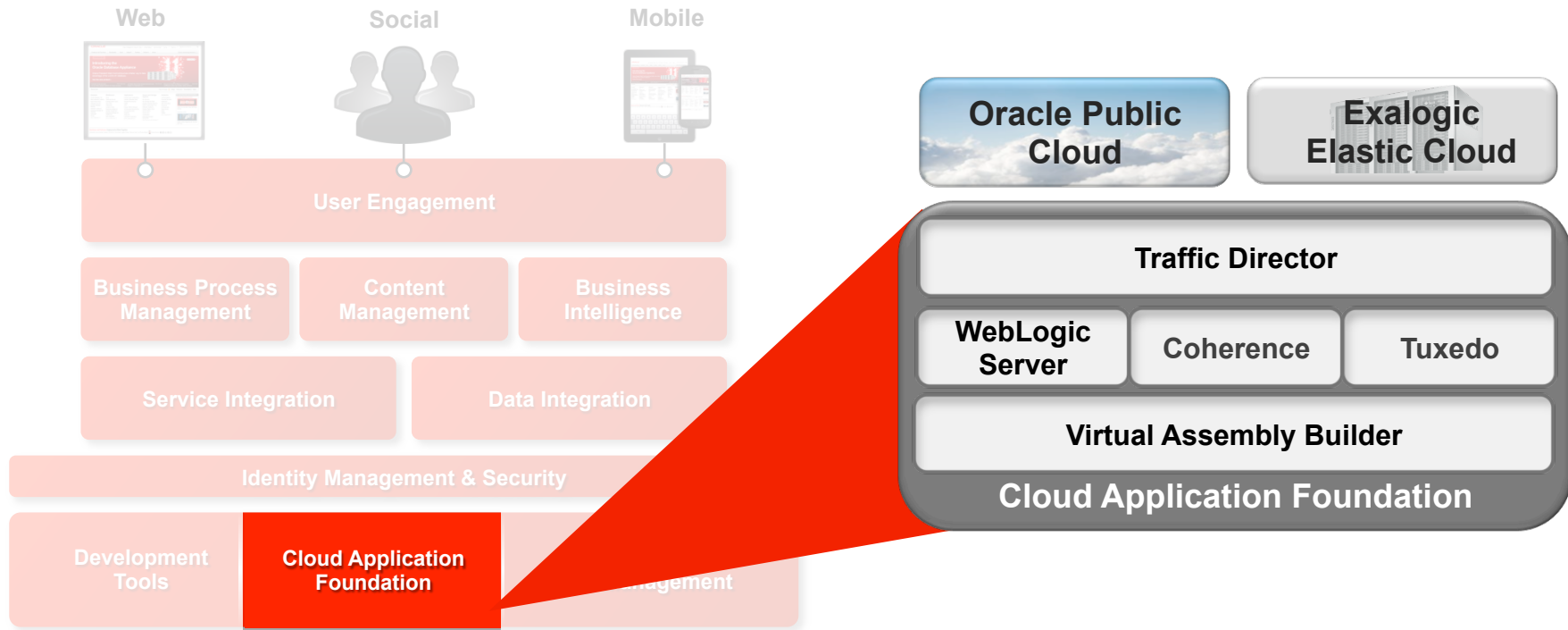
Oracle Aces Update

Mike Lehmann

Senior Director of Product Management

Oracle Cloud Application Foundation

Foundation for Oracle Fusion Middleware in the Cloud



Announcing WebLogic Server 12c

The #1 App Server across Conventional and Cloud Environments

Industry's top choice for
Conventional Systems

WebLogic
Server



Deploy/Run on
Conventional Systems

Optimized for
Engineered Systems

WebLogic
Server



Deploy/Run on High
Performance
Engineered Systems

Ready for Cloud

WebLogic
Server



Deploy/Run on Private
and Public Clouds

ORACLE

Oracle WebLogic Server 12c

Key New Capabilities

- Java EE 6 and Developer Productivity
- Simplified Deployment and Management with Virtualization
- Integrated Traffic Management
- Enhanced High Availability and Disaster Recovery
- Much Higher Performance
- Seamless Upgrade

WebLogic Server 12c – A Lot More New!

Java EE 6

- JSP 2.1, JSF 2.0
- EJB 3.1, JPA 2.0
- Context and Dependency Injection
- Restful Web Services

Developer

- JDeveloper
- Eclipse
- NetBeans
- Maven

Java SE

- Java SE 6
- Java SE 7

Database

- GridLink – Session Affinity
- GridLink – Transaction Affinity
- GridLink – Fast Connection Failover
- Performance Tuning
- SPECjEnterprise World Records– EjOPS Overall, EjOPS/Core, EjOPS/Processor

Traffic Management

- Software Load Balancer
- Traffic Shaping
- SSL Termination

Enterprise Scale

- Database Transaction Logs
- Database Store Performance

Enterprise Manager 12c

- Cloud Management
- Middleware Diagnostics
- Patching
- Incident Management
- Java EE App Provisioning

Distributed Caching

- Coherence Transactions
- Coherence Rest
- Coherence Query Explain Plan

Cloud

- Optimized WebLogic Virtual Appliances
- Coherence Exalogic Exabus
- WebLogic Elastic Message Overflow
- Coherence Elastic Data Exalogic Data Grids and Web Services Performance
- TopLink Data Partitioning

Security Updates

- New Certification Validation
- New SPNEGO Update
- New RSA Update
- New JSSE Support

Over 200 New Features

Java EE 6 and Developer Productivity

New in WebLogic Server 12c

Java Classes*

25%

Less

Lines of Code*

50%

Less

Lines of XML*


80%

Less

- Completes WebLogic Java EE 6 API support
 - Servlet 3.0, CDI, Managed beans, JSP 2.2, EJB 3.1, JAX-WS 2.2
- Certified Java EE 6 Makes Development Faster
 - Fewer Java Classes, Less Code, Less XML
- With Modern Programming Techniques
 - Dependency Injection, Annotations, POJO, REST

Enhanced WebLogic Maven Plug-in

- Simple and intuitive
- New Maven goals, functional support
- Enable/support/automate the full development lifecycle from Maven
- Additional WebLogic, Fusion Middleware enhancements planned

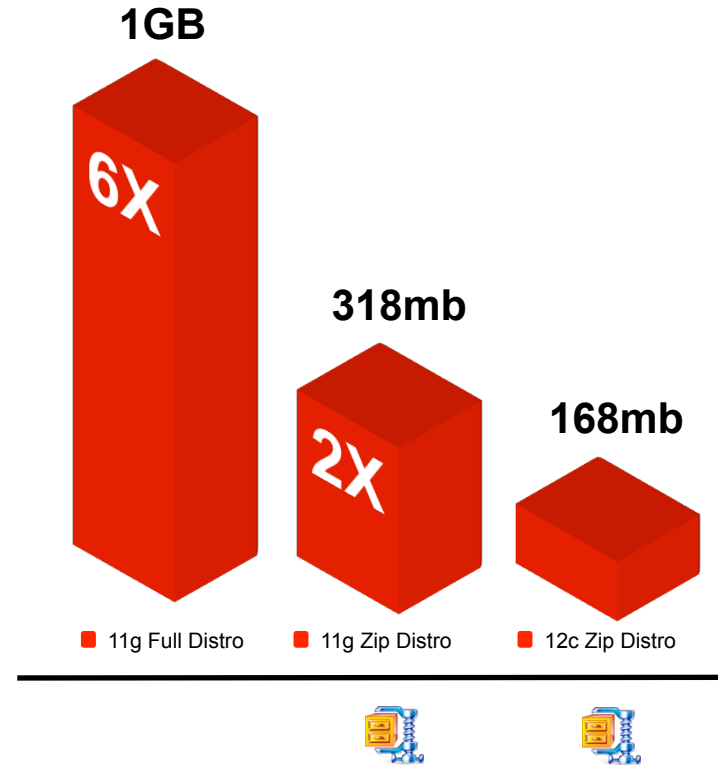


```
mvn wls:install: automate install from zip file
mvn wls:create-domain: create a simple domain
mvn wls:start-server: process control
mvn wls:wlst: execute inline and external WLS scripts
mvn wls:appc: compile Maven artifacts using appc
mvn wls:deploy: deploy apps to server
```

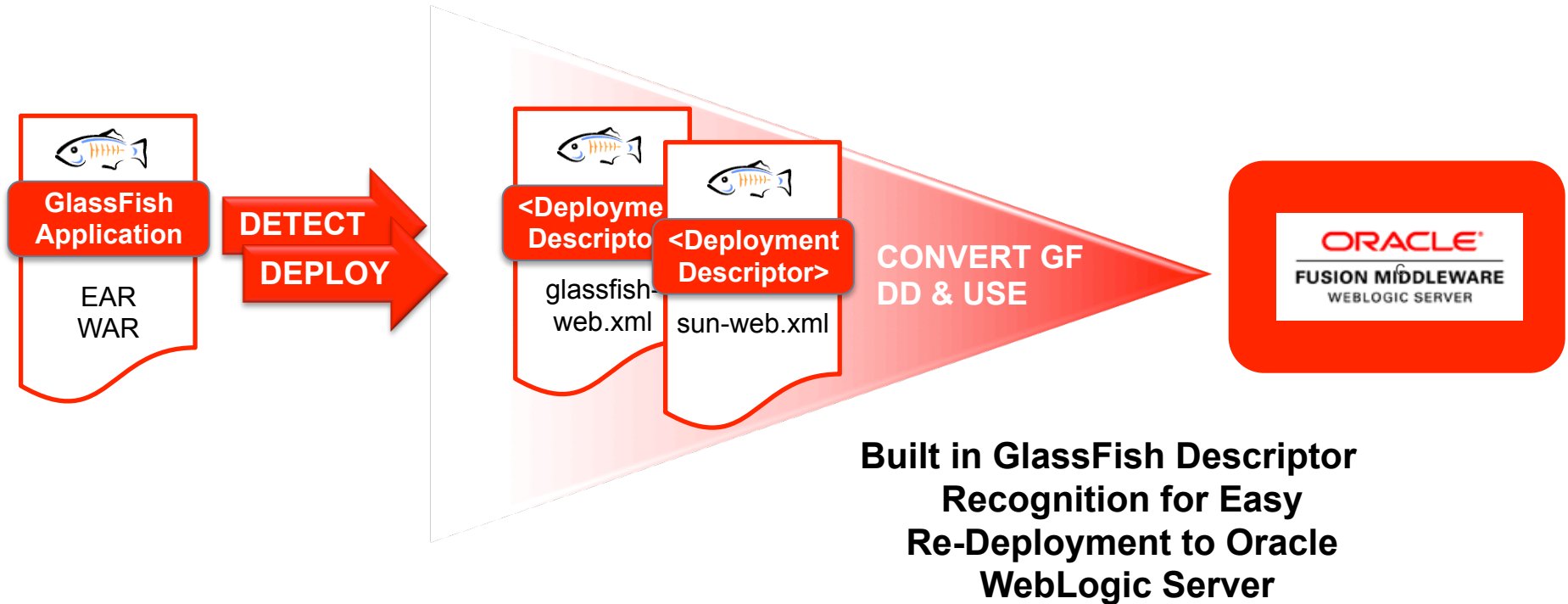
The image shows a screenshot of the Apache Maven Project website header with the logo and URL <http://maven.apache.org>. Below the header, a list of Maven goals is displayed, each preceded by a red starburst icon with the word "New" inside. The goals listed are: `mvn wls:install:` (automate install from zip file), `mvn wls:create-domain:` (create a simple domain), `mvn wls:start-server:` (process control), `mvn wls:wlst:` (execute inline and external WLS scripts), `mvn wls:appc:` (compile Maven artifacts using appc), and `mvn wls:deploy:` (deploy apps to server).

Lightweight Development with WebLogic Server

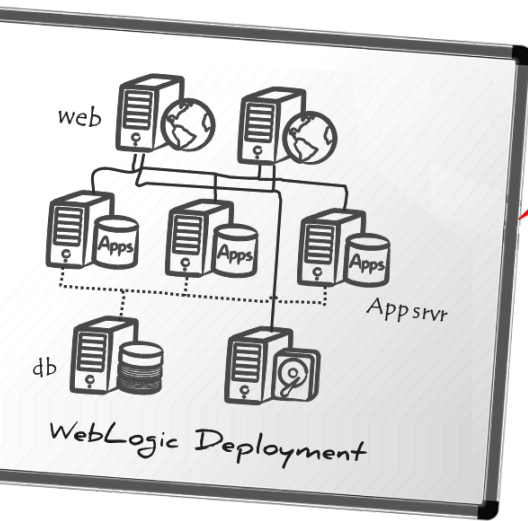
- **2X-6X** download size improvement for developers
- No installer, unzip and go on Win/Linux/OSX
- Start an instance with `-Dservertype=wlx` to launch without EJB, JMS, and JCA containers
- FastSwap greatly reduces project redeployment requirement when doing iterative deployment



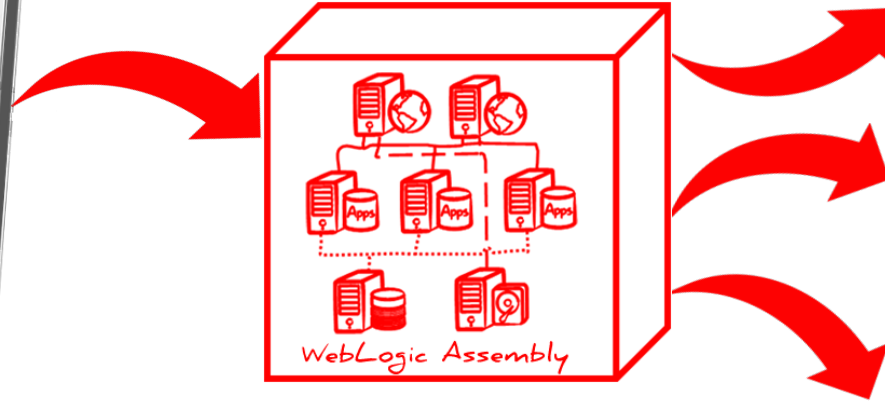
Scaling up to WebLogic Server from GlassFish



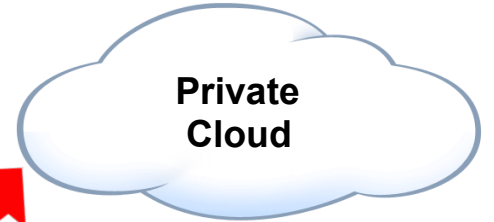
Simplified Deployment and Management with Virtualization



**Deployment Plan
and Software**

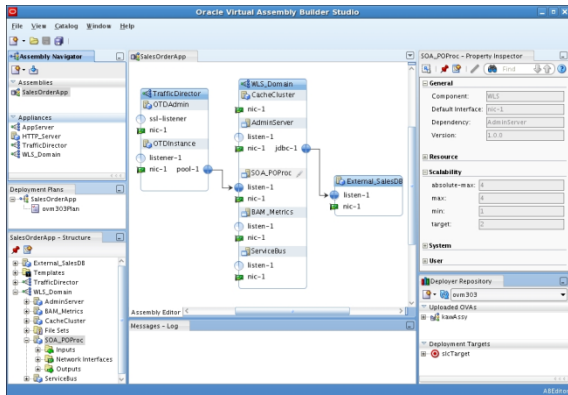


**Packaged via
Oracle Virtual Assembly Builder**

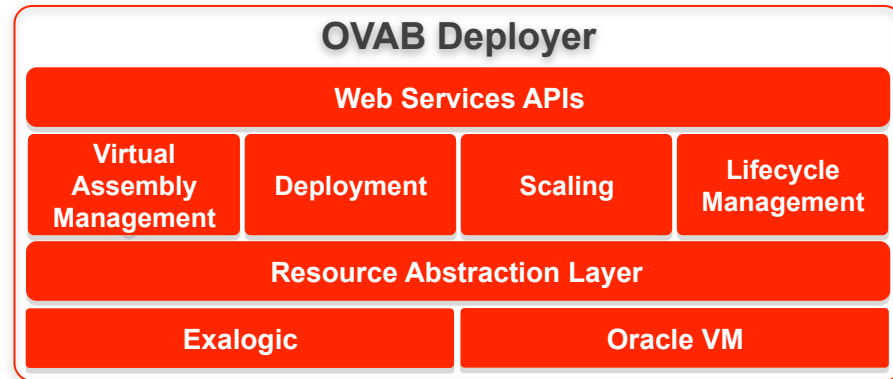


Oracle Virtual Assembly Builder Updates

Studio Tool for Assembly Creation



Server Application for Deployment

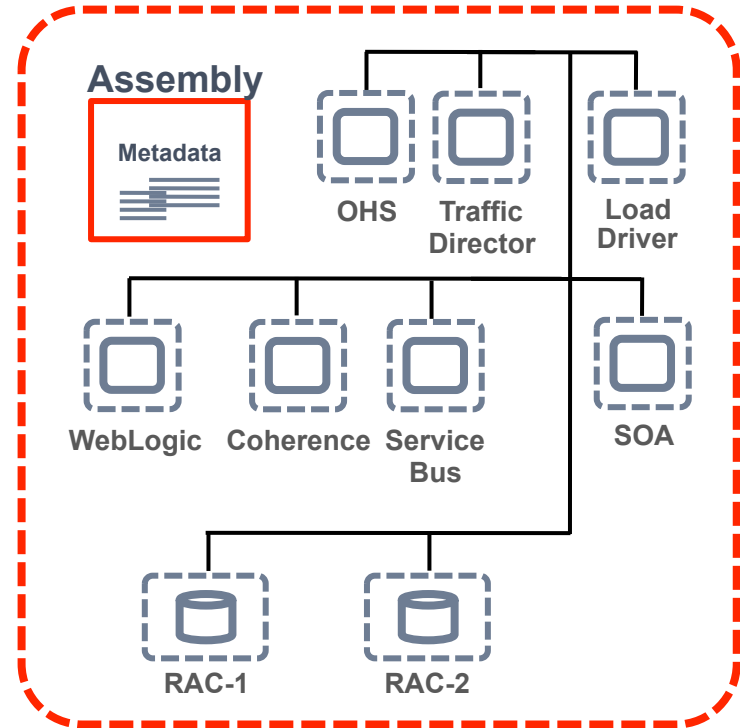


- Create appliances
- Construct assemblies
- Create deployment plans
- Transfer & deploy via Deployer

- Maintain assembly repository
- Manage deployment lifecycle
- Enable automated scaling
- Programmatic API and CLI

Assembly Builder Product Support

- Weblogic Server
- Coherence
- Oracle Traffic Director
- Oracle HTTP Server
- SOA Suite
- Oracle Service Bus
- Tuxedo
- Oracle Database (RAC & single instance)
- Custom applications
- Black-box templates



WebLogic Server Management

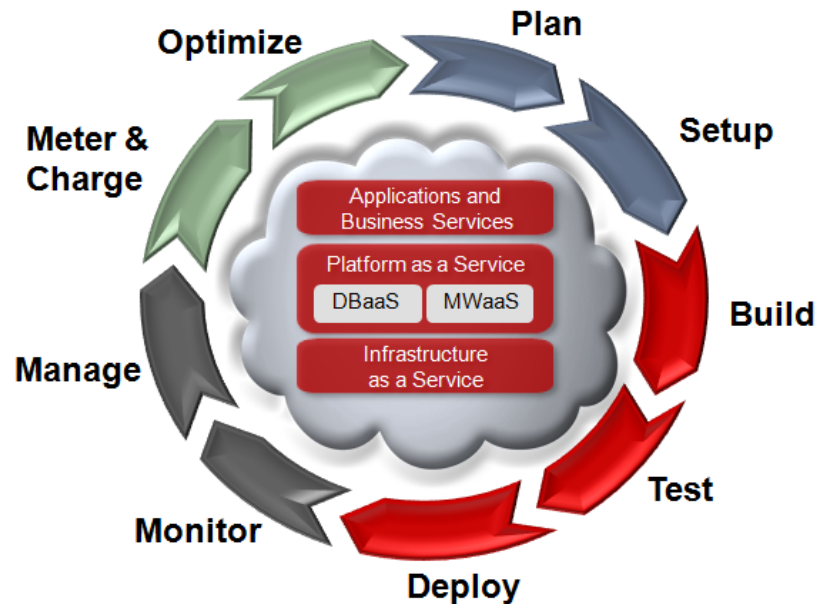
New in Enterprise Manager Cloud Control 12c

WebLogic Server 12c

- Performance Monitoring and Diagnostics
- Configuration Management
- Domain and Java EE App Provisioning
- MOS Integration & Support Workbench

Cloud Management

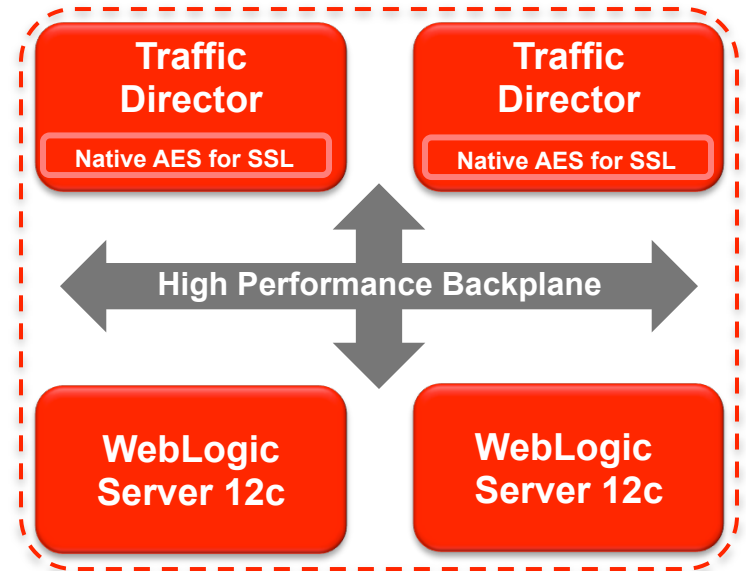
- Self Service
- Metering and Chargeback
- Consolidation Planner



Integrated Traffic Management

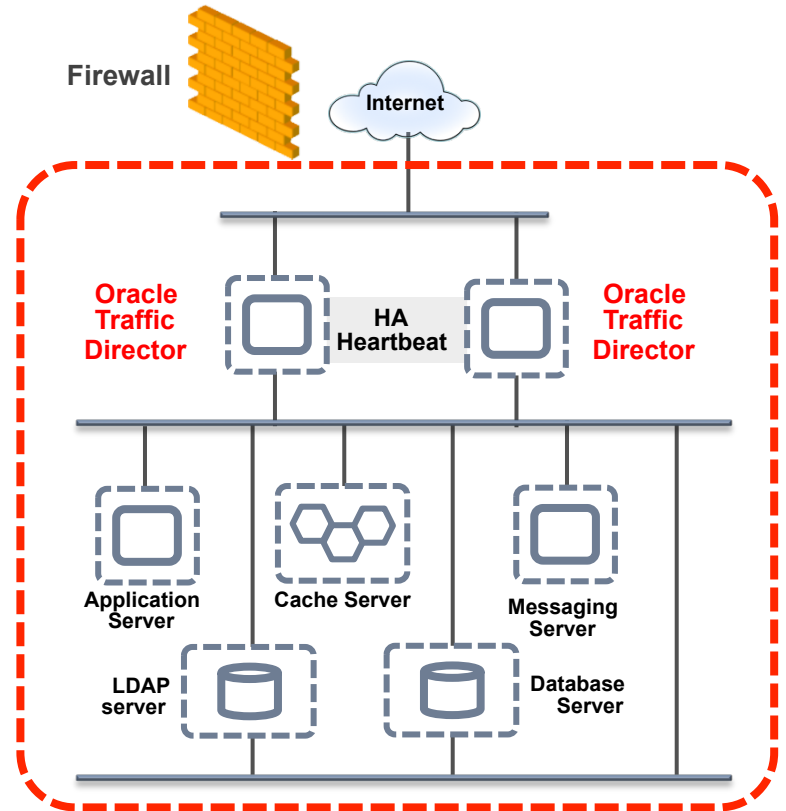
New in WebLogic Server 12c

- Integrated with Oracle Traffic Director
 - Routing, Load Balancing, Traffic Shaping
- Fast, highly-configurable request routing and caching
- SSL Crypto acceleration using Intel™ Advanced Encryption Set
- Up to **3.5X** More Throughput and **28%** lower CPU than Apache
- Delivered on Exalogic



Oracle Traffic Director: Highlights

- Multi-core scaling (0.5m+ simultaneous connections per processor)
- Reverse-proxy routing/load-balancing
- Request rate limiting/throttling
- In-memory HTTP 1.1 caching
- Built-in cluster management
- VRRP HA Failover Groups
- OAM SSO Integration
- Infiniband/SDP support
- Hardware-assisted crypto/compression
- OVM/OVAB support



Enhanced HA and Disaster Recovery



Integrated WebLogic/RAC Clusters

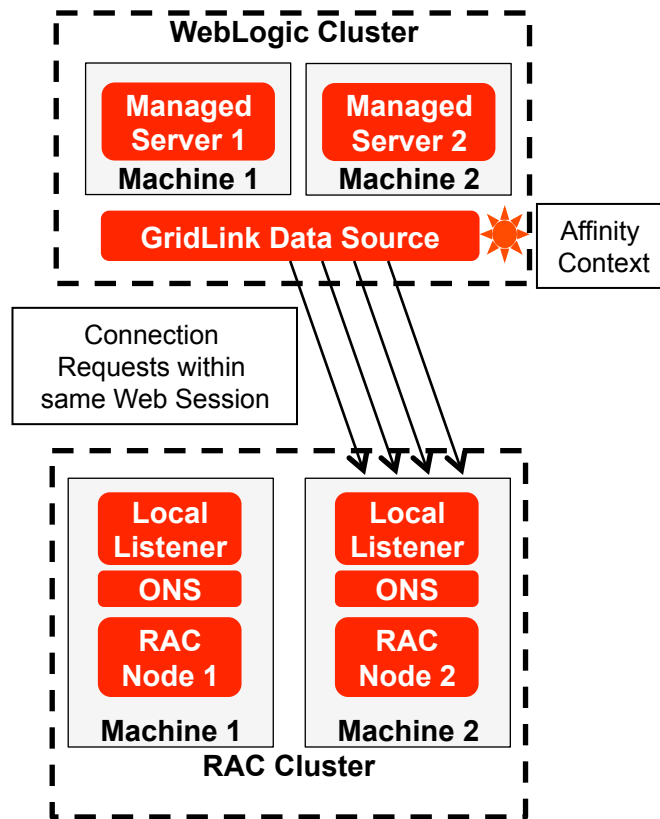
- RAC Aware Pool with RAC Node Affinity (Session/Transaction), RAC One Node Support and Fast Connection Failover

Multiple Data Center Architecture

- Integrated with Active Data Guard (transaction logs) and GoldenGate (Data Grid Change Data Capture)

Active GridLink for RAC Highlights

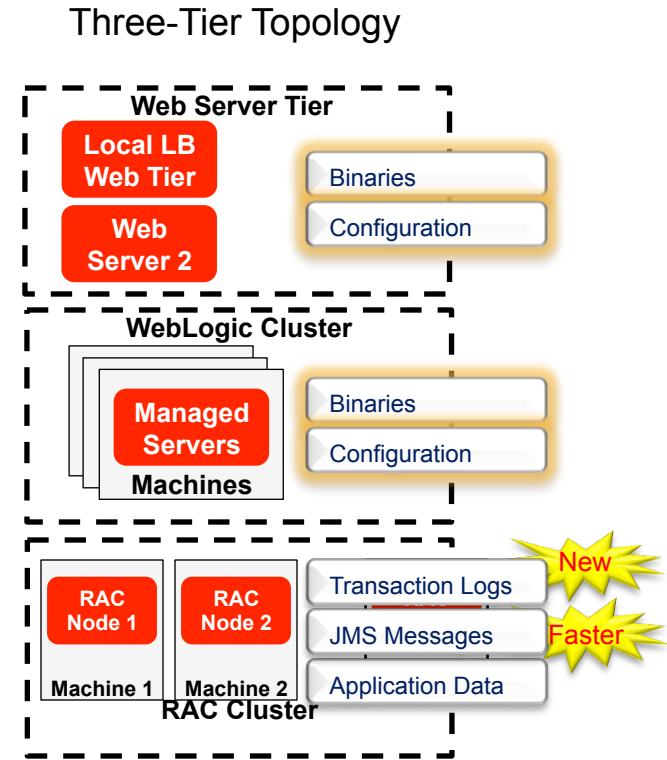
- Web Session Affinity
 - New Affinity type in WebLogic 10.3.6
 - Connection requests use Affinity “hint”
 - Performance for Web Apps
- Configuration Wizard support
 - Create Gridlink-enabled domains
 - Templates, Configuration Wizard, WLST Offline Gridlink “aware”
- Fusion Middleware Support
 - Standardized RAC integration across FMW



WebLogic Server 12c Disaster Recovery

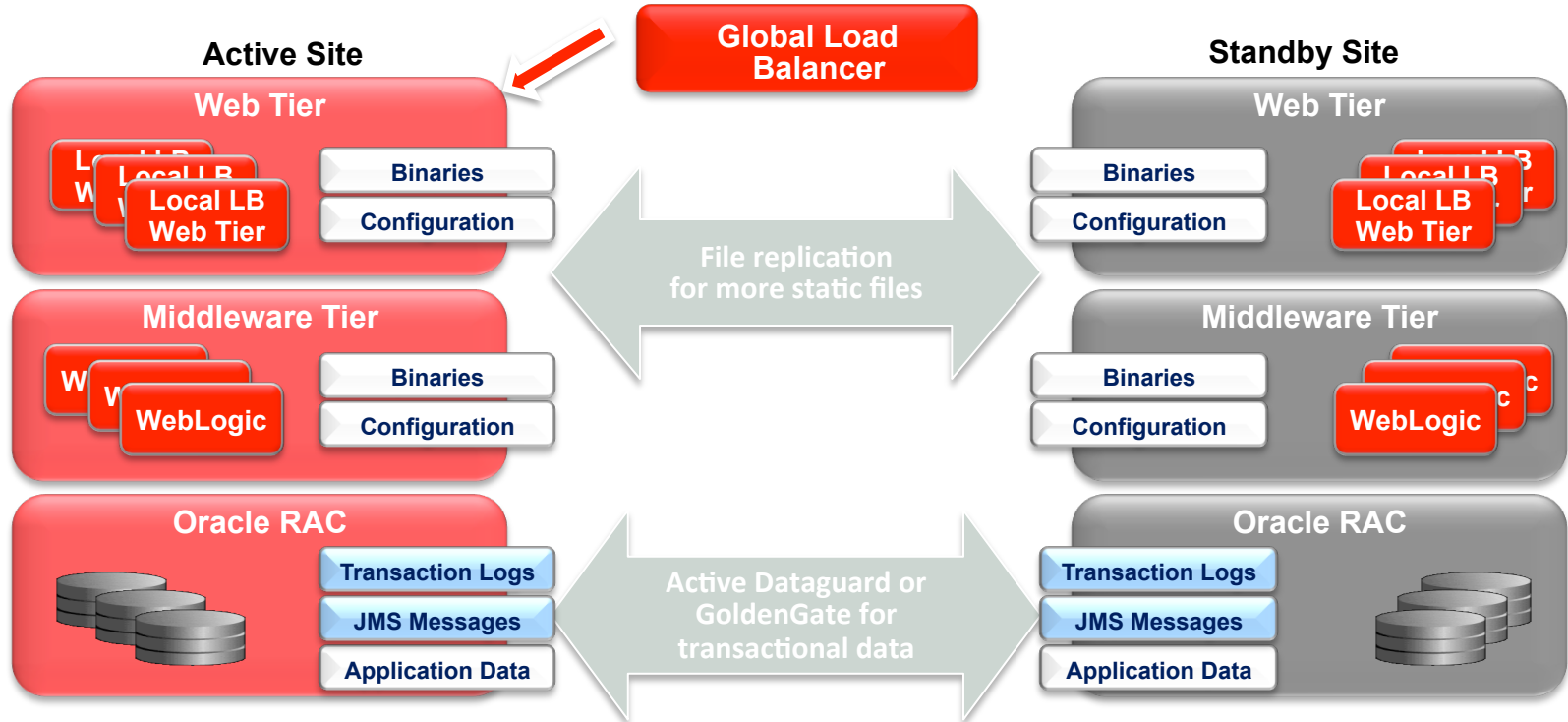
New Features

- Transaction Logs in Database
 - Option to use DB instead of file store
 - Enables common storage, replication with application and JMS data
 - Configuration benefits
 - Supported with RAC, Exalogic, Exadata
 - Maximum performance with GridLink
- JDBC Store Performance
 - Optimizations for DB Store use cases
 - Enabler for new DR architectures
 - Supported with RAC, ExaLogic, Exadata
 - Maximum performance with GridLink



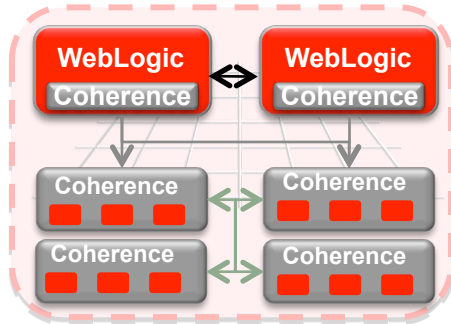
Disaster Recovery Architecture

All State Can be Persisted in Oracle for Simplified Disaster Recovery

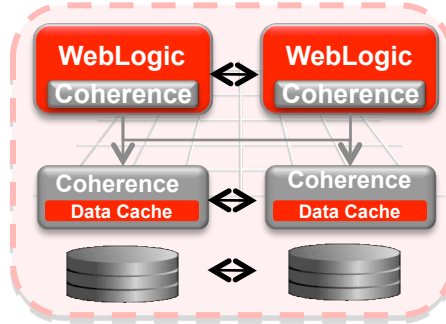


Integrated Caching, Data Grid Services

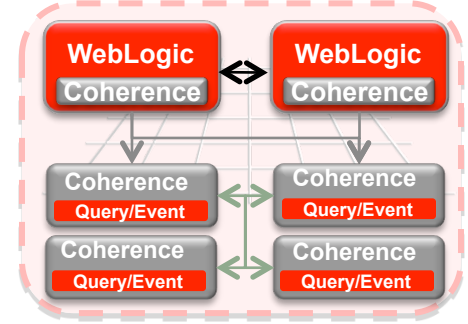
- Declarative scale out of session state management with WebLogic
- JPA L1/L2 Cache data access with synchron/asynchron read/write through
- Analytics, events and compute
- Administration, operations and management built into WebLogic



Declarative Session Management



Persistence Caching with Read and Write Through

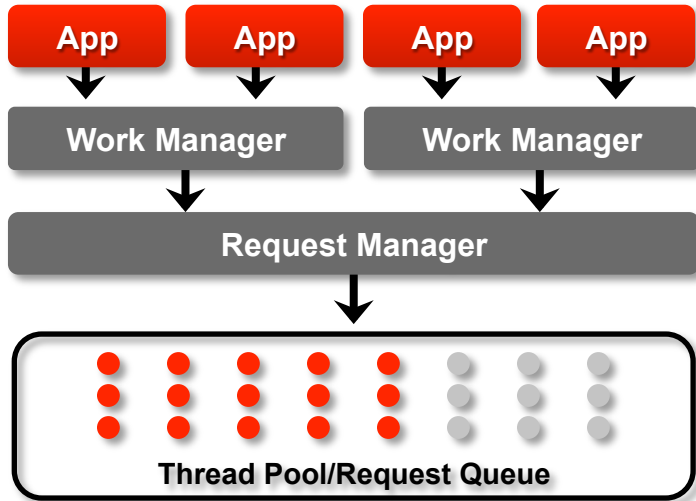


Query, compute and event

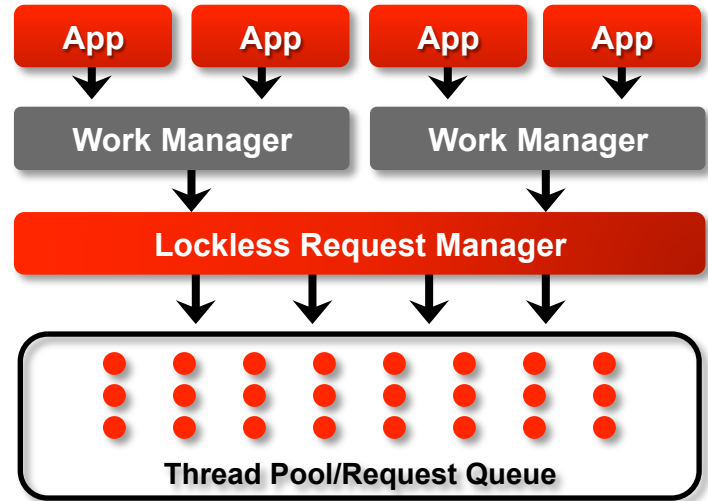
WebLogic Server 12c Messaging Performance

New Concurrency Model for Maximum Throughput on Exalogic

Standard Request Manager



Concurrent Request Manager



3X Throughput in JMS Benchmarks

WebLogic Server: #1 in Performance

SPECjEnterprise 2010 Performance World Record

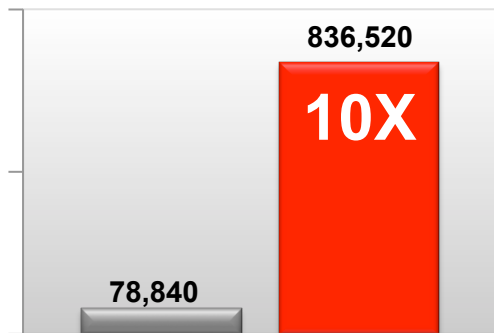
- Multi-Node Overall EjOPS
 - **2.4X** more workload than IBM
 - Running on Oracle Database RAC
- Overall EjOPs per Processor
 - **56%** more workload than IBM
- Overall EjOPS per Core
 - **50%** more workload than IBM on identical hardware!



See: <http://www.spec.org/jAppServer2010/results/>

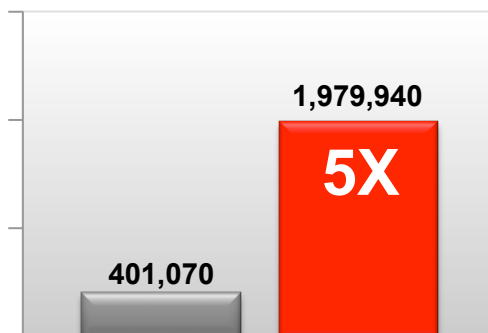
WebLogic Server on Exalogic

Web Requests/Sec.



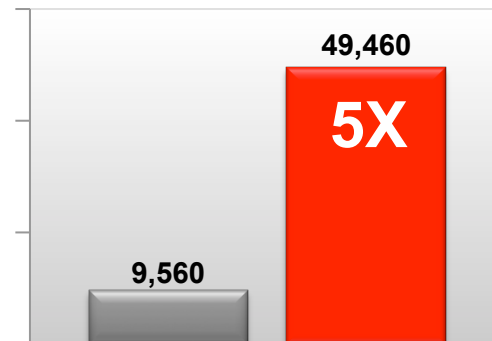
- Conventional Hardware
- Exalogic

JMS Messages/sec.



- Conventional Hardware
- Exalogic

Enterprise Java Operations/Sec.

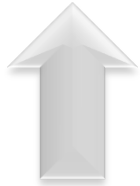


- Conventional Hardware
- Exalogic

Seamless Upgrade

From WebLogic, iAS and Others

ORACLE®
FUSION MIDDLEWARE 12^c
WEBLOGIC SERVER



Automated Tooling

Internet
Application Server



Simple Upgrade

WebLogic
Server 11g



Redeployment

GlassFish



Migration Services

JBoss
WebSphere

ORACLE®

Cloud Application Foundation Roadmap

WebLogic Server 12c: Start of Fusion Middleware 12c

2012

Cloud Application Foundation 2012

Traffic Director 11g
Tuxedo 11g
WebLogic Server 11g/12c
GlassFish 3.1.2
Coherence 11g (3.7.1)
Java SE 7

- WebLogic Server 11g and 12c with EE 6
 - Active GridLink Enhancements
 - Coherence 3.7.1 with Elastic Data
 - Exabus
 - Software Load Balancing
 - TopLink Declarative Data Partitioning
 - Optimized Disaster Recovery
 - JDK 7

2012/2013

Cloud Application Foundation 2012/2013

Traffic Director 12c
Tuxedo 12c
WebLogic Server 12c
GlassFish 4.0
Coherence 12c
Java SE 7

- Fusion Middleware on WebLogic 12c
 - GlassFish 4.0 with EE 7 RI
 - SOA, WebCenter, Identity, ADF
- Coherence 12c with Native WebLogic Containers
 - Fusion Middleware Application Continuity
 - Fusion Middleware Diagnostics
 - Virtualization Optimizations
 - Cloud Updates

ORACLE

Oracle WebLogic Server 12c

Summary of New Capabilities

- ✓ Java EE 6 and Developer Productivity
- ✓ Simplified Deployment and Management with Virtualization
- ✓ Integrated Traffic Management
- ✓ Enhanced High Availability and Disaster Recovery
- ✓ Much Higher Performance
- ✓ Seamless Upgrade

WebLogic Server 12c

The #1 App Server across Conventional and Cloud Environments

Industry's top choice for
Conventional Systems

WebLogic
Server



Deploy/Run on
Conventional Systems

Optimized for
Engineered Systems

WebLogic
Server



Deploy/Run on High
Performance
Engineered Systems

Ready for Cloud

WebLogic
Server



Deploy/Run on Private
and Public Clouds

ORACLE

Join the WebLogic Community



Twitter

twitter.com/oracleweblogic



Facebook

facebook.com/oracleweblogic



Oracle's WebLogic blog

blogs.oracle.com/weblogicserver



Youtube

Youtube.com/oracleweblogic



Developer Webcast Series

oracle.com/goto/weblogicdevcast

Oracle.com/weblogic



Announcing Oracle WebLogic Server 12c

ORACLE® **12^c**
FUSION MIDDLEWARE
WEBLOGIC SERVER

ORACLE®