

# Release 12 Apps DBA 101

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Release 12 Upgrade

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## John Stouffer

- Connection Point 12.1 Board Member
- OAUG Board Member 2010
- Oracle ACE
- Oracle Databases Version 5+
- Oracle Applications Release 8+
- Specialist in Assessments, Upgrades and Client Advocacy

# Presentation Objectives

- Learn about your upgrade choices for the database and applications
- Learn about the new features, functionality and utilities available with Oracle 11g and Release 12
- Learn how patching and patch nuances have changed from Release 11i

## Release 12 Basics

- Release 12 aka R12
- Each new point release of R12 is packaged in a RUP (Release Update *Pack*)
- Current R12 RUPs are 12.0.1, 12.0.2, 12.0.3, 12.0.4, 12.0.5, 12.0.6, 12.1.1 (aka EBS 12.1 RUP 1), 12.1.2 (aka EBS 12.1 RUP 2), 12.1.3 (aka EBS 12.1 RUP 3) – **12.2 is next!**
- Oracle usually releases a new RUP for Release 12 at least once a year
- RUPs may include new or stub applications, performance improvements AND, new or enhanced functionality
- Read the Release Content Documents (RCDs) on My Oracle Support to see what changed between RUPs

## Release 12 Basics

- Release 12 is constantly changing
- It is the DBA's job to be constantly vigilant, watching for changes:
  - Oracle released the January 2011 CPU, then modified it in February with a mandatory change
  - Oracle released RDBMS 11gR2 in October, 2010, then released an updated version in November, 2010 because of a security issue with MetaLink Authentication
  - Oracle released five patches to JRE in 2010 until finally resolving a functionality issue with JRE 1.6.0\_23, then released JRE 1.6.0\_24 to resolve security issues. See [http://blogs.oracle.com/stevenChan/2011/02/sun\\_jre\\_160\\_24\\_ebs.html](http://blogs.oracle.com/stevenChan/2011/02/sun_jre_160_24_ebs.html) - most current is 1.6.0\_29

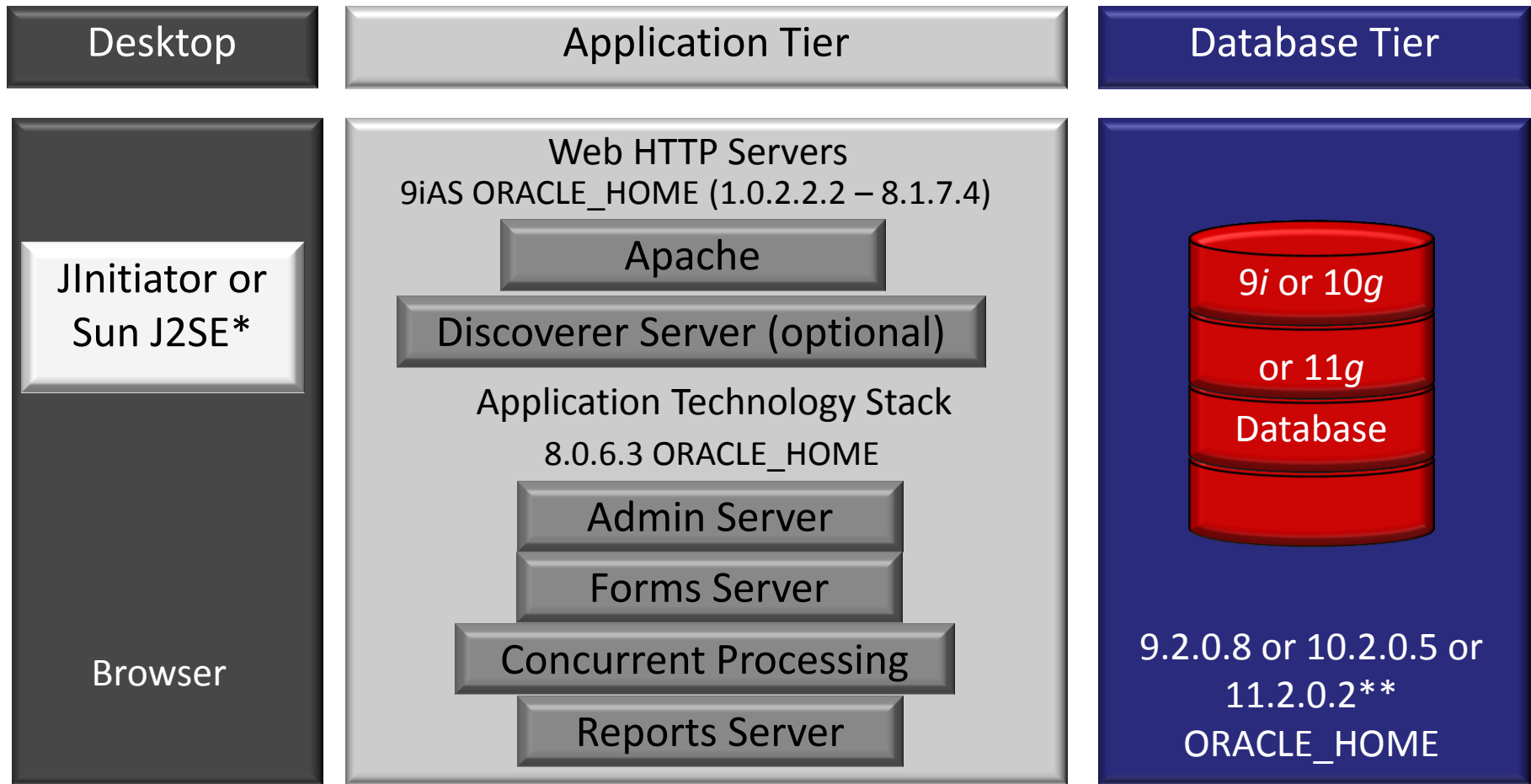
## Release 12 Basics

- PSUs - Use the PSU Method for Database and Applications, beginning with the January 2010 Quarterly CPU
- Check My Oracle Support often, even if you think you don't have any problems!
- See MOS Doc. ID: 806593.1, *Oracle E-Business Suite Release 12.1 Information Center*, for the latest on Release 12.1
- When you install Release 12, you install all modules, whether you license them or not (200+)
- Expect your Release 12 disk space requirements to go up by 20% or more because of new modules and functionality

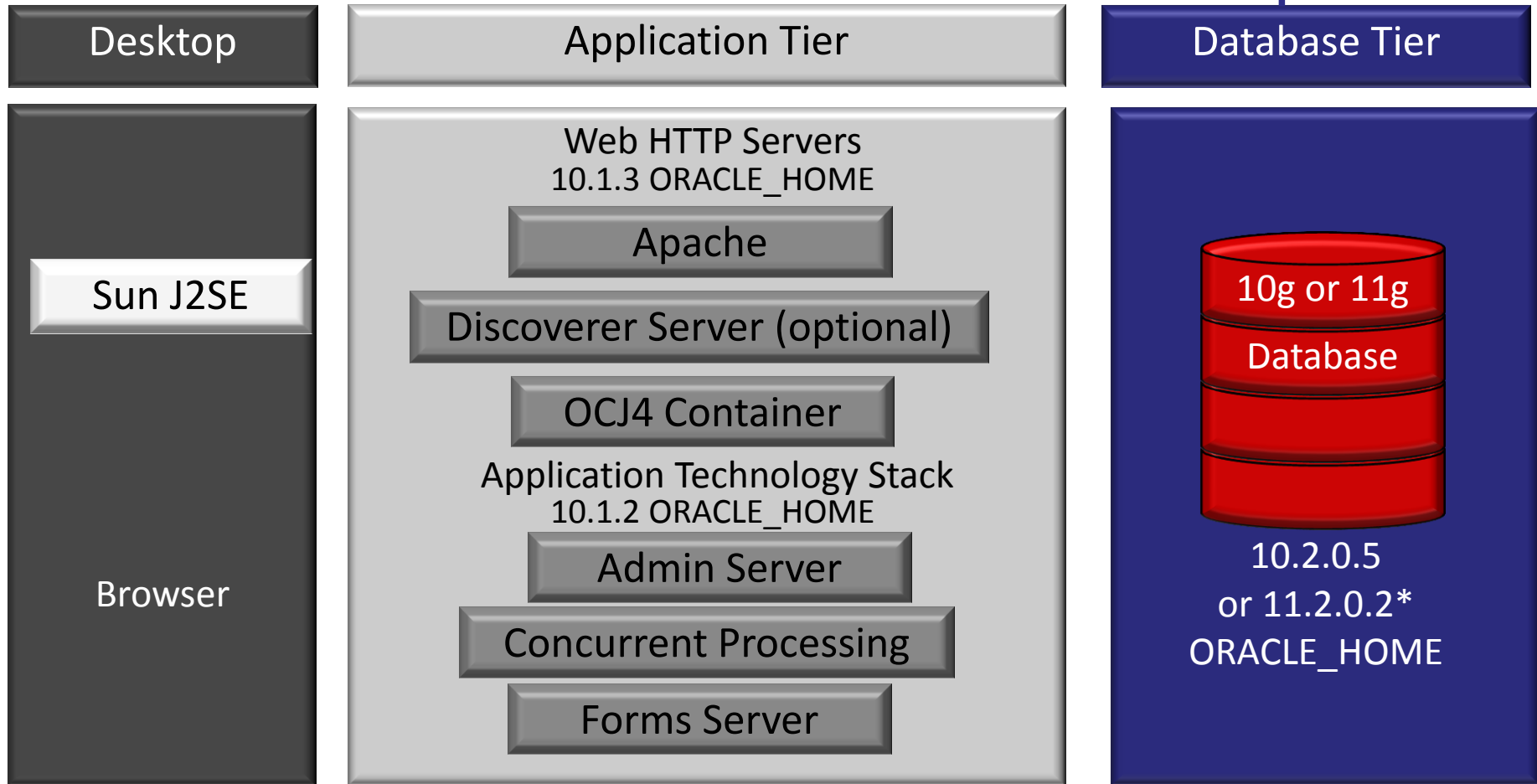
## Release 12 Basics

- Certain additional patches *should* be applied on a regular schedule
  1. Quarterly CPUs (Critical Patch Updates)/Patch Set Updates (PSUs). Use the PSU Method for Database and Applications - Starting with the January 2010 Quarterly CPU)
  2. Release 12 Upgrade Packs (RUPs) can change/add functionality and/or technology
  3. Applications Technology (ATG) or pseudo products are an integrated set of modules used by all of the other modules: FND, OAM, OWF, FWK, JTT, JTA, TXK, XDO, ECX, EC, AK, ALR, UMX, BNE, and FRM

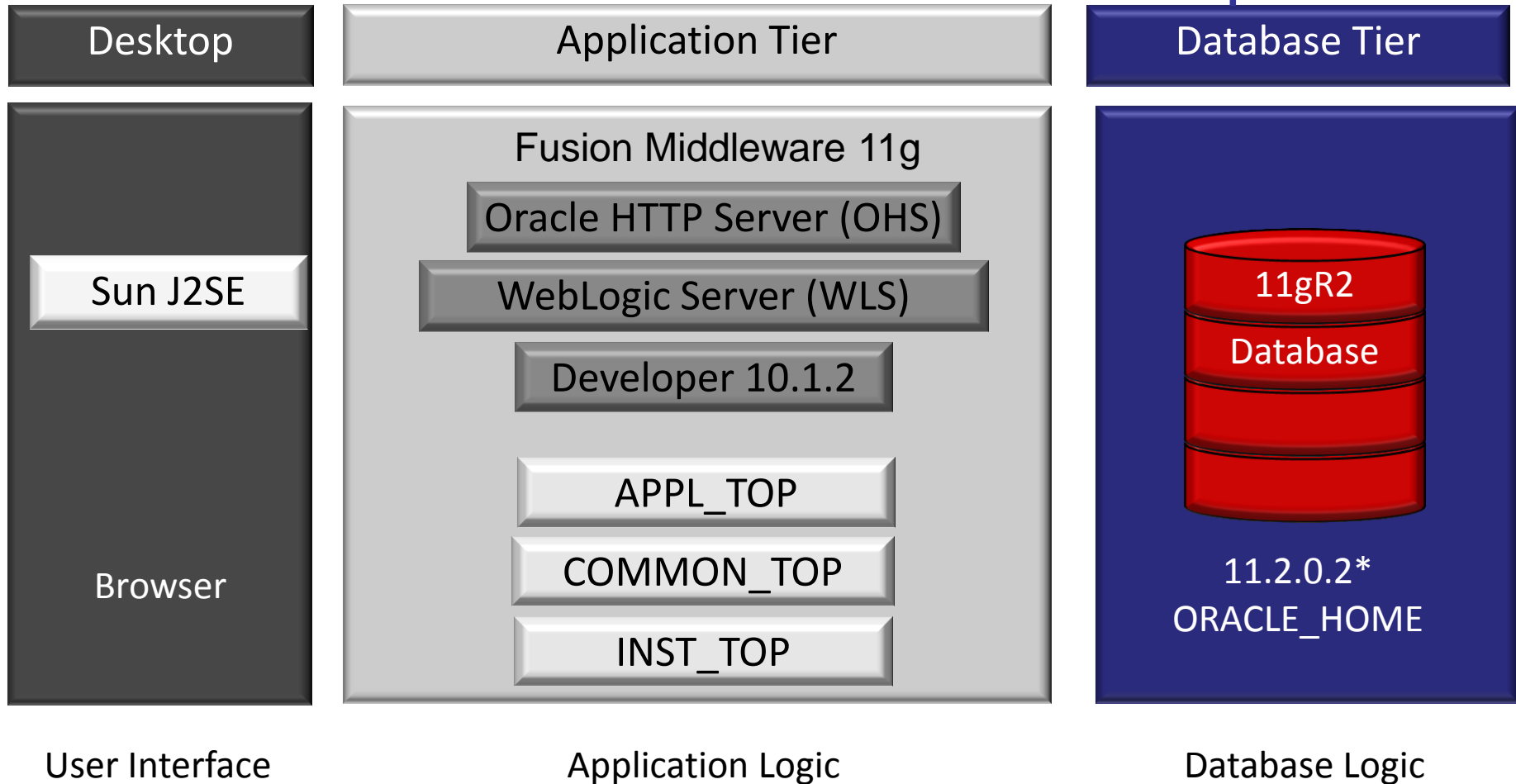
# Current Release 11i Architecture Components



# Current Release 12.1 Architecture Components



# Future Release 12.2 Architecture Components



# R11*i* and R12 Multi-Tiered Architecture

- Desktop Tier
  - R11*i* – uses a browser and JInitiator\* or Sun J2SE Plug-In
  - R12+ – uses a browser and Sun J2SE Plug-in

\*JInitiator Desupported

## Desktop Tier - The Case for Sun J2SE

- There is no supported version of JInitiator
- Sun J2SE required for R12
- Sun J2SE includes all features that JInitiator enhanced to support Oracle Forms
- Upgrading directly to Sun J2SE is less disruptive than going from 1.1.8 to 1.3 to Sun J2SE
- Sun J2SE eliminates the need for Oracle to support their patched JInitiator versions of Sun's software
- JRE Version 1.6.0\_24 has corrected security and functionality issues with JRE Versions 18 – 29 – **most current JRE Version is 1.6.0\_29 – stay current**
- **Whether your company is running R11i or R12, you should be running the Sun J2SE component**

## Multi-Tiered Architecture

- Application (Middle) Tier
  - The Application Tier holds the code that users run against the database
  - R11*i* - Web Services, Forms Server, Report Server, Concurrent Processing Server and an Admin Server
  - R12 - Web Services, Forms Server, Concurrent Processing Server and an Admin Server
  - R11*i* - uses *iAS* 1.0.2.2.2 (JServ)

## Multi-Tiered Architecture

### Release 12.1 Application (Middle) Tier:

- R12.1 uses Oracle Application Server 10g
  - OracleAS 10g 10.1.2 – Forms – equivalent to the R11*i* 8.0.6  
ORACLE\_HOME
  - OracleAS 10g 10.1.3 – the Web Server and Oracle Containers for Java (OCJ4) – equivalent to the R11*i* 8.1.7  
ORACLE\_HOME
  - Oracle JDeveloper 10.1.3
  - JDBC 10.2
  - Provides more functionality than R11*i* Jserv
- Note – “Server Partitioned” --> “Split Configuration” --> “Mixed Platform Architecture”

## Multi-Tiered Architecture

Planned Release 12.2 Application (Middle) Tier:

- R12.2 will replace Oracle Containers for Java (OC4J) 10g with WebLogic Server 11g

## JServ versus 10g AS

- Release 11*i* JServ - a simple Java apps server that supports JSP and Servlets, and little else
- Release 12 Oracle Application Server 10g
  - supports Sun's Java Enterprise Edition version 1.4 (Java EE 1.4) programming standards
  - Includes Oracle Identity Management for security
  - Supports BPEL, Discoverer in an OC4J Container
  - Latest version of OID for E-Business Suite is 10.1.4
  - Version 10gR2 10.1.2 and 10gR3 10.1.3 **Premier Support** for externally integrated OracleAS 10g components (not the internal EBS R12 technology stack components) ends **December, 2011**

## JServ versus 10g AS

- Release 12 OAS 10g
  - Uses OCJ4 (Oracle Containers for Java)
    - Supports multiple instances of OCJ4, not for scalability (which was why you could have multiple JServ instances), but for division of processing
    - Each instance of OCJ4 is used as a compartment to contain one portion of the OAS 10g functionality
    - This allows the individual instances to be tuned for their actual workload, and helps to prevent them from competing for resources

## Release 12.1 Oracle Process Management and Notification (OPMN)

- *Oracle Process Manager and Notification Server Administrator's Guide 10g Release 3 (10.1.3)*
- Installed and configured with every Oracle Application Server
- Essential for running Oracle Application Server
- An integrated way to manage all Oracle Application Server components including Discoverer, OCJ4, etc.
- Checks to see if a service has terminated and tries to restart the service automatically (death detection)

## Release 12.1 Oracle Process Management and Notification (OPMN)

- Dynamic Resource Management (DRM) – you can customize process management
  - Spawn an additional OC4J process if average response time exceeds a threshold and if there are less than four processes
  - Start an additional OC4J process every day at 5pm for peak hours
- Resource Management Directive (RMD) tells DRM when and what to do - Directives are configured in opmn.xml
- Creates a file for each managed process and can rotate log files

# R11*i* and R12 Multi-Tiered Architecture

- Database Tier
  - R11*i* - runs Oracle 9*i*R2 or Oracle 10gR2 or Oracle 11gR2
  - R12.1 – runs Oracle 10gR2 or Oracle 11gR2
  - **R12.2 – will run Oracle 11gR2 or higher**

# Upgrade Paths

- Dual Phase Upgrade
  - Earlier releases (<11.5.7) must upgrade to 11.5.10.2 first, then Release 12.
  - If not on latest certified Oracle 10g or 11g, must upgrade to it before upgrading to Release 12.
  - The two phases do not have to occur during the same critical downtime.
  - Use OATM Migration Utility to upgrade to Oracle Applications Tablespace Model (OATM)
- Upgrade by Request
- Single Phase Upgrade
  - 11.5.7 and later releases must upgrade to Oracle 10g if not there already, then to the latest certified DB (currently 11gR2), and Release 12.1 during the same critical downtime

# Premier, Extended or Sustaining Support?

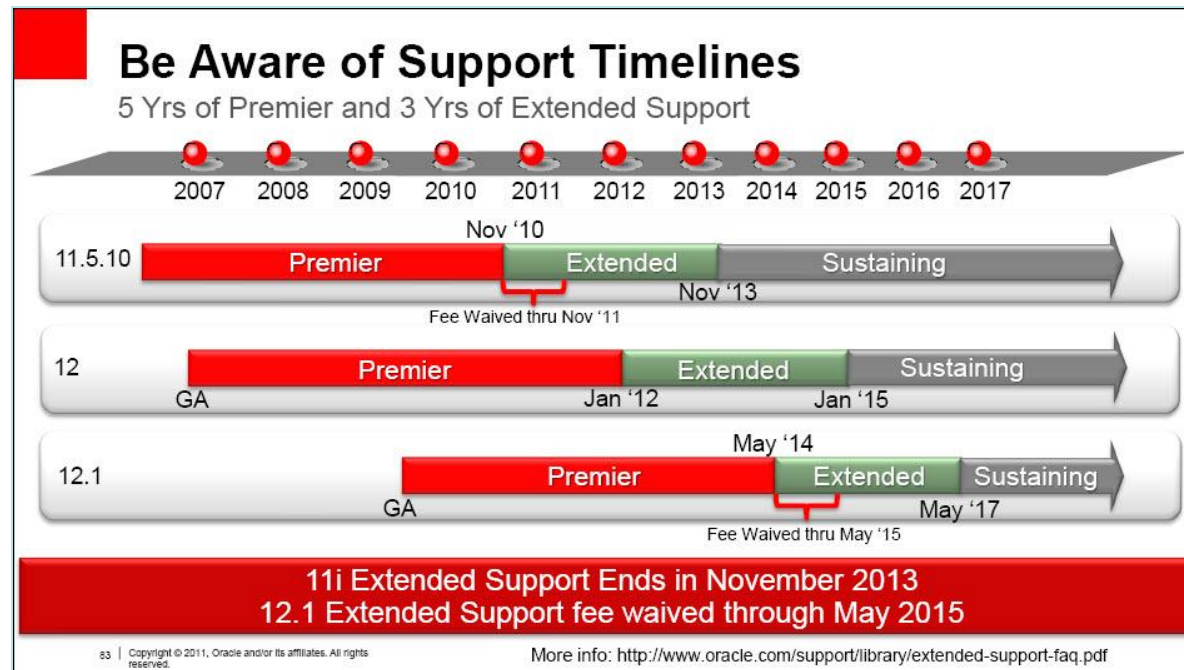
- Premier Support
  - Includes certification with **new** third party products / versions and Oracle products
- Extended Support
  - Costs more than Premium Support -10%, 20%, 20%
  - Certification is with most **existing** instead of **new** third party products/versions and Oracle products
  - Extended Support may not include certification with some new third-party products/versions
  - So if you find a new problem with an existing certified configuration, Oracle Support will help you
  - **If you're still running Oracle 9i you're on Extended Support (ended July 2010)**
  - **If you're still running Oracle 10g, Premier Support ended July 2010**

# Premier, Extended or Sustaining Support?

- Extended Support now **requires** that you patch to a minimum baseline level for Release 11*i*, effective Dec 2010, and Release 12, effective Feb 2012
  - Minimum Patch Baseline for Release 11*i* Extended Support (MOS 883202.1) and Release 12 Extended Support (MOS 1195034.1) may require **extensive patching**

# Premier, Extended or Sustaining Support?

See Steven Chan's [EBS 12.0 Minimum Requirements for Extended Support Finalized](#) – simplest way to go: upgrade to latest 12.1 and skip the minimum requirements



See **Oracle E-Business Suite Technology Vision, Roadmap & Customer Successes**  
Lisa Parekh, Vice President, Applications Technology Integration

# Premier, Extended or Sustaining Support?

- Sustaining Support
  - Does not include new updates, fixes, security alerts, data fixes and critical patch updates; new tax, legal and regulatory updates; new upgrade scripts; certification with new third-party products/versions; certification with new Oracle products
  - If you have a question and there's already an answer in My Oracle Support, Oracle Support will point you to it
  - **If you're still running Release 11.0.3, you're not supported - Sustaining Support ended Jan 2009**
  - **Sustaining Support Means No Changes/Alterations to Your System**
  - What will you do if Microsoft releases Windows 9, and your company needs it for some other desktop tool?

# What Will the Biggest Upgrade Challenges Be?

- Upgrade Downtime – OS Migration (for many customers) + 64 bit RDBMS Migration (for many customers) + OATM Migration (for some customers) + RDBMS Upgrade + Applications Upgrade
- Understanding all the new features
- Customizations
- Testing All Those Patches – Look at Patch Wizard and [Identifying Data Model Changes Between EBS 12.1.3 and Prior EBS Releases](#) and [Oracle E-Business Suite Plug-in 4.0 Released for OEM 11g \(11.1.0.1\)](#)

# Should We Upgrade to Oracle 11gR2?

## YES

Release	GA Date	Premier Support Ends	Extended Support Ends	Sustaining Support Ends
8.1.7	Sep 2000	Dec 2004	Dec 2006	Indefinite
<b>9.2</b>	<b>Jul 2002</b>	<b>Jul 2007</b>	<b>Jul 2010</b>	<b>Indefinite</b>
10.1	Jan 2004	Jan 2009	Jan 2012	Indefinite
<b>10.2</b>	<b>Jul 2005</b>	<b>Jul 2010</b>	<b>Jul 2013</b>	<b>Indefinite</b>
11.1	Aug 2007	Aug 2012	Aug 2015	Indefinite
<b>11.2</b>	<b>Sep 2009</b>	<b>Jan 2015</b>	<b>Jan 2018</b>	<b>Indefinite</b>

# Should We Upgrade to Oracle 11gR2?

- Release 10g software is 6 years old
- End of life for 10gR2 Premier Support was **July 2010**. Why would you upgrade to a release whose Premier support has ended? 10%, 20% and 20% Additional Support Cost...
- If you are planning an upgrade, you should consider upgrading to Version 11gR2
- If the software is stable, always upgrade to the latest release
- Version 11gR2 is stable!
- 11gR2 has new/improved features

# Oracle 11gR2 New Features



Don't upgrade *just* because of desupport - upgrade for the new features!

Oracle's Real Application Testing database pack:

- SQL Performance Analyzer
- Database Replay

# Oracle 11gR2 New Features

## Real Application Testing: Tools of the Trade

	<i>SQL Performance Analyzer</i>	<i>Database Replay</i>
<b>What is it?</b>	<ul style="list-style-type: none"> <li>Predicts SQL performance deviations before end-users can be impacted, helps assess impact of change on <b>SQL response time</b></li> </ul>	<ul style="list-style-type: none"> <li>Replays <b>real</b> database workload on test system, helps assess impact of change on <b>workload throughput</b></li> </ul>
<b>How it works?</b>	<ul style="list-style-type: none"> <li>Executes each SQL, stored in SQL Tuning Set, in <b>isolation</b> using <b>production context</b> and then compares before and after execution plans and run-time statistics</li> </ul>	<ul style="list-style-type: none"> <li>Captures workloads and replays it with production characteristics including <b>concurrency, synchronization &amp; dependencies</b></li> </ul>
<b>When to use?</b>	<ul style="list-style-type: none"> <li><b>Unit testing</b> of SQL with the goal to identify the set of SQL statements with improved/regressed performance</li> </ul> 	<ul style="list-style-type: none"> <li><b>Comprehensive</b> testing of all sub-systems of the database server using real production workload</li> </ul> 

ORACLE

From Upgrading to 11g Best Practices, by Ashish Agrawal, Oracle Corporation

# Oracle 11gR2 New Features

- SQL Plan Management** - control resource consumption more effectively than the way we used to do this, with hints, stored outlines, or initialization parameters. With SQL Plan Management, you can create a SQL Baseline of trusted execution plans and then force the optimizer to use those trusted plans.
- Data Pump Improvements** – Faster than the Export and Import utilities. Data Pump uses multiple worker processes and parallelism to use all available resources and maximize throughput. See Oracle Database Utilities 11g Release 1 (11.1), Part Number B283319-02.

# Oracle 11gR2 New Features

- **Advanced Compression**

- 2-4 times compression rates across all types of data and applications.
- Improves query performance by reading fewer blocks from disk.
- Disk space savings + improved network performance and data backup time.
- Use Oracle's Compression Advisor to estimate space savings:

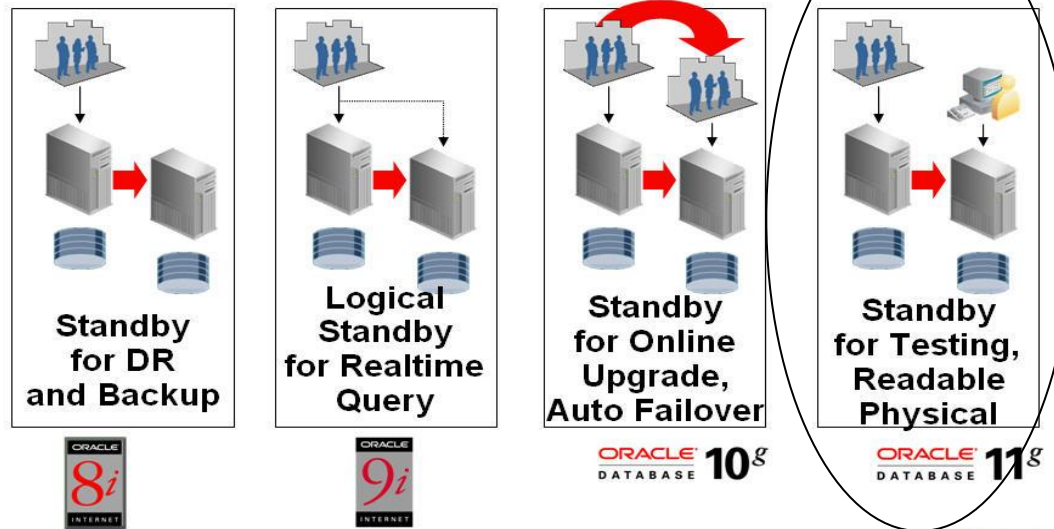
<http://www.oracle.com/technology/products/database/compression/compression-advisor.html>

# Oracle 11gR2 New Features: Active Data Guard

- Offload resource intensive activities from a production database to a synchronized standby database.
- Enables fast incremental backups, high availability and disaster recovery.
- Now you can offload reporting from the production database to the read-only physical standby database
- Now you can run some EBS reports on Active Data Guard. See Steven Chan's [Offloading \(Some\) EBS 12 Reporting to Active Data Guard Instances](#)
- MOS Doc. ID: 1070491.1, [Using Active Data Guard Reporting with Oracle E-Business Suite Release 12.1 and Oracle Database 11g](#)

# Oracle 11gR2 New Features: Active Data Guard

## Unlocking the Value of Standby DBs



From Oracle Database 11g - What Does it Mean?, by Tom Kyte, Oracle Corporation

## Should We Upgrade to R12.1?

- Release 11.5.10 software is 6 years old
- Premier Support for 11.5.10.2 ended **Nov 2010**
  - Why would you upgrade to a release whose Premier support has ended even if the first year of extended support costs nothing\*\* - subsequent extended support years are 20% and 20%
  - Why would you stay on a release whose Premier support has ended?
  - Have you applied the Release 11i Minimum Baseline Patches for Extended Support?
- Premier Support for R12.0 ends **Feb 2012** – see [Heads-Up: Preparing for E-Business Suite 12.0 Extended Support](#)

## Should We Upgrade to R12.1?

- New/improved modules – the biggest difference for Release 12 is on the functional side; much more so than the technical side
- Swan Interface – enhanced user interface
- Always upgrade to the most current release of Release 12.1 with the latest RUP and the latest CPU/PSU
- Release 12 is now considered the jump-off point for Fusion. *Companies on Release 11i will not have a direct upgrade path to Fusion Applications.*
- Oracle is waiving the first year of Extended Support Fees for Release 12.1.x from June 2014 – May 2015

# MUST We Upgrade to R12.1?

Eventually we all must accept a little change...

Release	GA Date	Premier Support Ends	Extended Support Ends	Sustaining Support Ends
11.0.3	May 1999	Feb 2007	Not Offered	Jan 2009
11.5.1	May 2000	Jul 2006	Not Offered	Indefinite
11.5.2	Oct 2000	Jul 2006	Not Offered	Indefinite
11.5.3	Jan 2001	Jul 2006	Not Offered	Indefinite
11.5.4	Jun 2001	Jul 2006	Not Offered	Indefinite
11.5.5	Sep 2001	Jul 2006	Not Offered	Indefinite
11.5.6	Jan 2002	Jul 2006	Not Offered	Indefinite
11.5.7	May 2002	May 2007	Not Offered	Indefinite
11.5.8	Nov 2002	Nov 2007	Not Offered	Indefinite
<b>11.5.9</b>	<b>Jun 2003</b>	<b>Jun 2008</b>	<b>Not Offered</b>	<b>Indefinite</b>
<b>11.5.10</b>	<b>Nov 2004</b>	<b>Nov 2010</b>	<b>Nov 2013</b>	<b>Indefinite</b>
<b>12</b>	<b>Jan 2007</b>	<b>Jan 2012</b>	<b>Jan 2015</b>	<b>Indefinite</b>
<b>12.1</b>	<b>May 2009</b>	<b>May 2014</b>	<b>May 2017</b>	<b>Indefinite</b>

# What About Release 12.2?

- It hasn't been released yet
- It will include a significant technology stack change (WebLogic)
- Your DBAs need to learn how to implement it and support it
- Don't wait for it: upgrade to R12.1
- Do learn as much as you can about it in advance

# MUST We Upgrade to R12.1?



What's the risk to *not* upgrading?

- The biggest risk is Security
- Critical Patch Updates (CPUs) / Patch Set Updates (PSUs)
  - CPUs/PSUs address security vulnerabilities
  - Oracle releases a new CPU every quarter
  - R12 Apps CPUs are cumulative (PSU) as of January 2010's CPU ☺
  - Release 12.1.3, released Aug 2010, includes the Jan 2011 CPU... if you upgrade to 12.1.3, it's time to look at the Oct 2011 CPU

## MUST We Upgrade to R12?

What's the risk to *not* upgrading?

- Oracle follows strict compliance with ATG\_PF RUP policy (N-1)
  - January 2011 CPU will only support RUP 7
  - To stay current on security, you must stay relatively current on ATG RUPs, which means you must stay relatively current on which Release of the Applications you are running
- If Sarbanes-Oxley compliance is important to your company, can you afford to fall behind on security updates?
- If *you* know there's a Critical Patch Update, and *you* know what vulnerabilities it fixes, so do *hackers*
- [www.integrigy.com](http://www.integrigy.com) - independent analysis of each quarterly CPU

## Release 12 New Features

Don't upgrade *just* because of desupport - upgrade for the new features!

- Functional: MOAC, AP, E-Business Tax, SLA, Analytics (BI)
- Technical: OEM+OAM+AMP+ACP, Patch Wizard, Oracle E-Business Suite Diagnostics, iRep

# Release 12 New Features: Functional: MOAC

- Users can access data from one or more operating units from within a given responsibility
- As part of the upgrade, you will need to define security profiles and link them to roles with Role Based Access Control (RBAC)

## Release 12 New Features: Functional: AP

- AP – completely overhauled, early releases were rocky, now very stable
- Improved integration with Fixed Assets, E-Business Tax, and Subledger Accounting
- Uses Trading Community Architecture (TCA) to define suppliers as TCA Parties

## Release 12 New Features: Functional: E-Business Tax

- E-Biz Tax – Uses a centralized Tax Repository to store and modify all tax transactions
- Allows Self-Assessment/Reverse Charge, Tax Zone Type, Tax Formulas, Tax Condition Sets, Tax Determining Factor Set
- Includes a Tax Simulator to simulate tax calculations based on “what-if” scenarios.

# Release 12 New Features: Functional: SLA

## Subledger Accounting (SLA)

Instead of each module being responsible for accounting, SLA provides centralized account generation across modules (Payables, Receivables, Cost Management).

MOS 466513.1

# Release 12 New Features: Functional: SLA

## Benefits

Define and manage accounting parameters in one centralized place with setups consistent across modules

- Flexibly addresses different and changing accounting requirements to meet business needs and changes in legal requirements
- Simply defines Journal Entry components instead of creating complicated logic in the accounting programs.
- Uses Compilation, a PL/SQL package, to track changes to accounting rules and ensure latest rules are being used
- Allows date based SLA rules based on the accounting date of the transaction.

# Release 12 New Features: Analytics: BI

Use Oracle Business Intelligence (BI) pre-built dashboards for:

- ERP Analytics – Financial, Procurement and Spend, Human Resources, Supply Chain and Order Management, Spend Classification, Project
- CRM Analytics – Sales, Service, Marketing, Contact Center, Loyalty, Price
- Government – Oracle US Federal Financial Analytics
- Use BI to create your own custom reports

## Release 12 New Features: Technical

- Oracle Integration Repository (*i*Rep) – Shows all interfaces in the E-Business Suite natively
- OEM with OAM with AMP and ACP
- Workflow – End of Life with R12, time to learn BPEL!
- Patch Wizard – new features, functionality and fixes
- Role Based Access Control (RBAC) – instead of assigning a responsibility to a user, you assign roles to a user. When a new responsibility needs to be created, you assign it to the role, rather than each user.

## Should We Upgrade All at Once?

- Both the 11gR2 and Release 12.1 upgrades are well documented in MOS
- But the Release 12.1 upgrade implements new modules and significant functionality changes
- And the 11gR2 upgrade adds many new features that could benefit the R12.1 upgrade if DBAs have time to test the new features
- Consider upgrading the database first, and then the applications second if you can

# Administration and Maintenance Tools

- Oracle Enterprise Manager (OEM)
- Oracle Applications Manager (OAM)
- Oracle E-Business Suite Plug-in (\$)
- Patch Wizard
- Cloning
- AutoConfig
- Oracle E-Business Suite Diagnostics

## Oracle Enterprise Manager (OEM)

- Oracle Enterprise Manager 10g Grid Control (10gR5) or Oracle Enterprise 11g Grid Control (11gR2)
- Monitor end-to end E-Business Suite performance, availability and configuration changes
- Can monitor multiple E-Business Suite instances

# Oracle Applications Manager (OAM)

- A web-based management tool
- Allows you to use maintenance utilities that used to be available only from the command line
- The main console is the OAM Dashboard
- System Administrators can check the status of an EBS instance's database, concurrent managers and other services, concurrent requests, and Workflow processes
- Can also manage initialization parameters and profile options

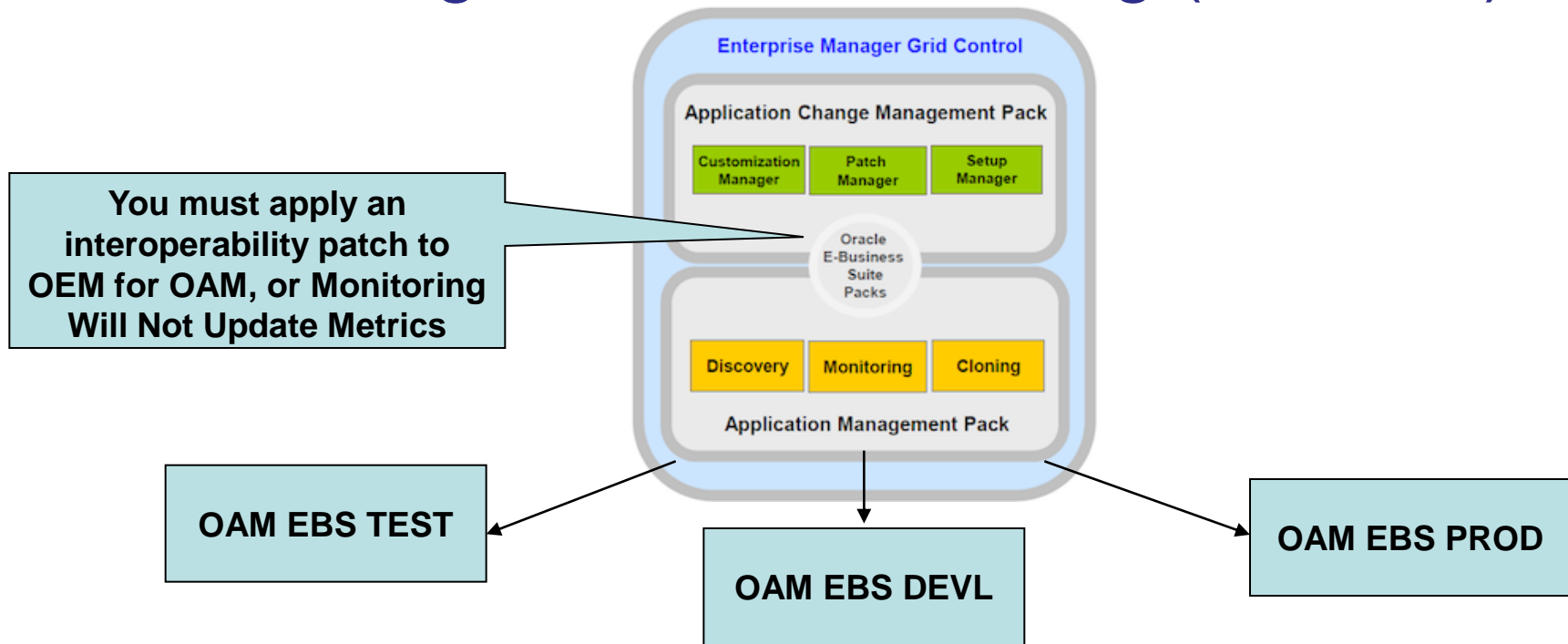
# Oracle Applications Manager (OAM)

- Use License Manager to enable licensed E-Business Suite modules
- Monitors JServ, Business Flow, Concurrent Manager, Runaway Forms Processes
- Use Patch Wizard for patch research and to download patches; includes Patch Advisor and Patch History
- Create your own System Alerts
- Tracks security issues, including Sign-on Auditing
- Recommended tool for making changes to AutoConfig
- MOS 387859.1 “Using AutoConfig to Manage System Configurations in Oracle E-Business Suite Release 12”

# Oracle Applications Manager (OAM)

- Administer Concurrent Managers and Workflow components
- Includes Diagnostic Wizards for Concurrent Manager Recovery, Service Infrastructure, GCS and Forms Monitoring, CP Signature and Dashboard Collection Signature
- Provides a menu-driven system to set up, run and view Diagnostics

# OEM + OAM + AMP + ACP = Oracle E- Business Suite Plug-in 4.0 for OEM 11g (11.1.0.1)



- Based on **Application Management Pack and Application Change Management Pack 3.1 Now Available** by Steven Chan, Oracle
- Also see **Application Change Management Pack for Oracle E-Business Suite An Introduction** by Ken Baxter, Biju Mohan, Oracle

# Oracle E- Business Suite Plug-in 4.0 for OEM 11g (11.1.0.1)

## Application Management Suite for Oracle E-Business Suite



- Based on [Oracle E-Business Suite Plug-in 4.0 Released for OEM 11g \(11.1.0.1\)](#) by Steven Chan, Oracle
- See Patch 8333939 for the Oracle E-Business Suite Plug-in
- See [Getting Started with Oracle E-Business Suite Plug-in Release 4.0](#) (Note 1224313.1)

# What is the Oracle E- Business Suite Plug-in 4.0 for OEM 11g (11.1.0.1)?

- Prior to this, Oracle described separate tools, AMP Version 3.1 and ACMP Version 3.1
- Oracle plans to gradually phase out the terms AMP and ACMP. However, for this release of the Oracle E-Business Suite Plug-In, the terms AMP and ACMP will continue to be employed in certain technical circumstances. For example, the installation procedure and certain recommended patches continue to reference AMP/ACMP.
- New terminology! System Management for E-Business Suite and Change Management for E-Business Suite

# What is the Oracle E- Business Suite Plug-in 4.0 for OEM 11g (11.1.0.1)?

- MOS 122431.1, *Getting Started with Oracle E-Business Suite Plug-in, Release 4.0*
- [Oracle Application Management Pack for Oracle E-Business Suite Installation Guide \(PDF\), E18708-01, February 2011](#)
- *Oracle Application Management Pack for Oracle E-Business Suite User's Guide (PDF), E18709-01, February 2011*
- *Oracle Application Change Management Pack for Oracle E-Business Suite User's Guide (PDF), E18710-01, February 2011*

# System Management for E-Business Suite

- AMP 3.1 extends OEM 10g Grid Control; the E-Business Suite Plug-in 4.0's System Management for E-Business Suite and Change Management for E-Business Suite functionality is certified with OEM 11g Grid Control
- Integrates Oracle Application Manager (OAM) with Grid Control to provide an end-to-end management solution
- Provides advanced features to monitor and manage EBS systems, including Cloning, Application Service Level Management, extended performance metrics, and links from Grid Control to OAM
- Discovery, Monitoring, Cloning

# Change Management for E-Business Suite

- ACP (or ACMP) 3.1 extends OEM 10g Grid Control; the E-Business Suite Plug-in 4.0's System Management for E-Business Suite and Change Management for E-Business Suite functionality is certified with OEM 11g Grid Control
- Provides a centralized view to monitor and orchestrate changes (both functional and technical) across multiple Oracle E-Business Suite systems.
- Manage changes introduced by customizations, patches and functional setups during implementation or maintenance activities.
- Customization Manager, Patch Manager, Setup Manager

# Change Management for E-Business Suite

- Simplifies applying changes – patches, setups, customizations - across multiple Oracle E-Business Suite systems
- Improves user productivity by automating change deployment
- Standards-based change deployment framework reduces human errors
- Notifies specified users of updates
- Provides a Change Approval Mechanism

# New Features of the Oracle E-Business Suite Plug-in Release 4.0

- General:
  - Built-in Diagnostic Ability
- Customization Manager:
  - Multi-Node Custom Application Registration, Public/Private File Source Mappings and E-Business Suite Mappings
  - Test Checkout Command for Versions
  - Prerequisite Patch Validation
  - Destination Path Population

# New Features of the Oracle E-Business Suite Plug-in Release 4.0

- Customization Manager:
  - OAF File Type Support
  - Extended PLL Support
  - Enhanced Standards Checker
  - HTML Package Readme
  - Advanced Package Search Capabilities
  - Enhanced Package Build Notification

# New Features of the Oracle E-Business Suite Plug-in Release 4.0

- Patch Manager:
  - Staged Patches
  - Support for Superseded Patches
  - Automatic Primary Node Identification
- Setup Manager:
  - Preview Extract Results
  - Use Uploaded Extracts in New Projects
  - Re-use Existing Extracts in New Projects

# New Features of the Oracle E-Business Suite Plug-in Release 4.0

- Setup Manager:
  - Support for BR00 formats
  - Concurrent Manager API Support

# Oracle E-Business Suite Plug-in Release 4.0 Certifications

- Certifications
  - Requires Enterprise Manager 11g Grid Control
  - **Oracle E-Business Suite**
    - 11i: Release 11.5.10 CU2 with ATG\_PF.H RUP6 or higher
    - 12.0: Release 12.0.4 with R12.ATG\_PF.A.delta.6
    - 12.1: Release 12.1 with R12.ATG\_PF.B.delta.3
  - **Certified Platforms and Releases**
    - Linux x86 (Oracle Linux 4, 5); (RHEL 4, 5); (SLES 10)
    - Linux x86-64 (Oracle Linux 4, 5); (RHEL 4, 5); (SLES 10)
    - More certifications coming

## Which Tool Does What?

- Rapid Install Wizard - Fresh Install of E-Business Suite
- AutoConfig – manages configuration files (httpd.conf, appsweb.cfg) MetaLink Note: 387859.1
- Applications Patching – Patch Wizard and AutoPatch
  - Upgrading E-Business Suite from R11*i* to R12 \*
  - Applying an R12 RUP, a Family Pack, Mini-Pack, etc.
- Database and CPU Patching – OPatch and N-apply
- Oracle E-Business Suite Diagnostics – a set of non-intrusive programs that can be run to gather information about aspects of the applications
- Oracle Integration Repository (*i*Rep) – Shows all interfaces in the E-Business Suite for R11*i*

## Rapid Install Wizard

- If you are installing the Applications
  - Rapid Install Wizard installs the ORACLE\_HOMEs and databases, and the APPL\_TOP and COMMON\_TOP directories that contain the Applications code,
  - The latest version of Rapid Install Wizard may change while you are planning or implementing your upgrade to Release 12, so watch for new versions

## Rapid Install Wizard

- Instance Home
  - New for Release 12
  - \$INST\_TOP
  - \$ORACLE\_BASE/inst/apps/context\_name
  - context\_name is the dbsid\_host
  - Facilitates shared application file system for multi-node configurations

## AutoConfig

- Automatically configures an Oracle Applications Release 12 instance
- All necessary information saved in the Applications context file or the Database context file
- Applications context file is an XML repository in \$INST\_TOP with APPL\_TOP information
- Database context file is an XML repository in the RDBMS ORACLE\_HOME with database tier information
- AutoConfig logfiles are stored under \$INST\_TOP/admin/log for Application and \$ORACLE\_HOME/appsutil/log/<CONTEXT\_NAME> for the database

# AutoConfig

- AutoConfig Template files have named tags that are replaced with instance-specific information located in <product\_top>/admin/template – should not be edited
- Custom Template File – copy the template and edit it, when AutoConfig detects a custom template file, it uses it
- AutoConfig Driver Files – lists the AutoConfig file templates and their destination locations

# AutoConfig

- AutoConfig Scripts
  - adchkcfg.sh – run before running AutoConfig to review changes. Generates a report showing differences between current and modified AutoConfig
  - adtmp1rpt.sh – provides information about location of AutoConfig templates
  - restore.sh – to roll back an AutoConfig session

# Applications Patching

- Patching is Oracle's way of releasing code fixes, functionality enhancements or new functionality
- Patches can update or create new file system objects like forms, reports and sql scripts
- Patches can execute code within the database to change seeded data

# R12 Applications Patching Changes

- With Release 12, Oracle keeps major new features and bug fixes separate
- Major new functionality reserved for point releases
- A new maintenance branch will be created for each point release
- New feature introduction into maintenance branches limited and requires executive approval
- Codelevels make checking for prerequisites easier
- Patch Application Assistant (PAA) enhances tracking manual steps
- New Oracle manual “Oracle Applications Patching Procedures”

# R12 Applications Patching Changes

- Codelines and Codelevels
  - Patches are grouped into codelines.
  - A codeline begins with a point release and progresses to include all patches required to maintain that point release
  - Release 12.0 -> Codeline A, Release 12.1 -> Codeline B, Release 12.2 -> Codeline C
  - The unique set of product features for a point release or a product family are a codelevel

# R12 Applications Patching Changes

- In Release 11*i*, patches could require other individual patches as prerequisites, making it difficult to determine if a new patch included all the functionality of an older patch
- In Release 12, patches can only require a codelevel as a prerequisite
- My Oracle Support Doc. ID: 459156.1, “Oracle Applications Patching FAQ for Release 12”

# Types of Applications Patches

- R11*i* Consolidated Updates (CUs) and R12 Release Update *Packs* (RUPs)
  - Most thoroughly tested
  - 11.5.10.2 is the latest R11*i* CU
  - 12.1.3 is the latest R12 RUP
  - CUs are released after a maintenance pack
  - You must be running an existing Release 12 to apply an R12 RUP
- Maintenance Packs – a collection of the latest product family patchsets – 11.5.10.2 is the latest R11*i* Maintenance Pack.
- Technology Stack Updates – patchsets or mini-packs that change the underlying services. The latest for Release 11*i* is 11i.ATG\_PF.H.delta.7 (e.g., ATG RUP 7)

## Types of Applications Patches

- Family Packs/Product Family RUP
  - Tested by their product teams
  - Mini-packs for a specific, individual product family for a specific point release
  - Understand the thoroughness of the testing before you plan a Family Pack upgrade
- One-off Patches/Individual Bug Fix – rare w/no regression testing – a patch that fixes one issue – for example – One-off Patch 6812211 to fix potential data corruption issue in R12 Oracle Assets
- Pre-upgrade patch – upgrade related, high priority patches consolidated from all the products within a product family

## Types of Applications Patches

- If you are trying to decide whether to apply a Family Pack or a Release Update Pack (RUP), the major difference is that RUPs are the most thoroughly tested.
- If possible, stay current on CPUs and Technology Stack Updates, even if you can't stay current on Family Packs
- After applying RUPs, Family Packs, Mini-Packs, use Patch Wizard to look for more patches, including High Priority Patches – they are fixes or enhancements that are released before new RUPs, Family Packs or Mini-Packs

## Patch Wizard

- Part of Oracle Applications Manager (OAM)
- Recommends patches to apply after reviewing what you already have applied to available patches and comparing to InfoBundle.zip, which is updated daily
- You can download 25 patches simultaneously
- You can merge patches while downloading them
- You can see the underlying detail of patches – what programs they will run

# Patch Wizard

For more details:

- *Oracle E-Business Suite Patch Wizard Path To Fewer Errors* at [www.justadba.com](http://www.justadba.com)
- *E-Business Suite Release 11i and Release 12 Patching 101* at [www.redriversolutions.com](http://www.redriversolutions.com)

# Applications Patching

- AutoPatch (adpatch) applies *Applications patches* (not database patches, operating system patches, or CPUs)
- AutoPatch records patch details in the OAM Applied Patches Database
- OAM includes tools like Applied Patches, Timing Reports and Patch Wizard to help determine what patches have already been applied, how long they may take to apply, and which ones are available
- Using Patch Wizard, there is no excuse for not knowing exactly what – right down to the SQL code – is being changed by a patch - true Patch Impact including custom objects in R12
- MOS Doc ID: 225165.1, “Patching Best Practices and Reducing Downtime”

# AutoPatch

- Use AD Merge Patch to group patches together for application, then apply the merged patch using AutoPatch
- Use AutoPatch Non-interactive Mode to automate patch application
- Use a Shared Application Tier File System for multi-node systems to apply patches only once
- MOS Note: 181665.1

## Patch Application Assistant (PAA)

- Oracle Patch Application Assistant (PAA) helps you track and perform manual steps during patching
- For patches with manual steps, PAA generates a customized set of instructions specific to your installation and displays the relevant manual steps
- For merged patches, PAA automatically merges the contents of the individual patch readme files.
- If you need to use PAA, the patch readme will ask you to run `admsi.pl`

## Database and CPU Patching

- OPatch utility – To apply patches to the RDBMS
- Critical Patch Updates (CPUs) – Quarterly security patches tied to ATG RUPs that patch the ORACLE\_HOMEs
- CPU Patching - n-apply CPU (aka n-apply) - To apply a Critical Patch Update (CPU) – n-apply uses OPatch, but provides customized features to make applying CPUs more reliable
- Use individual patches or switch to PSU - one way switch only

# Oracle E-Business Suite Diagnostics

- Free utilities
- New diagnostics delivered in a standard Oracle Patch and are applied using AutoPatch
- Diagnostics don't alter data or setups
- Latest patch included in Release 12.1.3 is E-Business Suite Diagnostics 12.1.3 (Patch 9239092) (R12.IZU.B.Delta.3)
- Oracle Support may ask you to run a Diagnostic when logging an SR
- Stay current on Diagnostic patches, as the Diagnostic programs are useful in troubleshooting
- New Diagnostic Patches typically are released with each new RUP

# Oracle E-Business Suite Diagnostics

## To Run Diagnostics

- Login to E-Business Suite using your username/password
- Select the "**Oracle Diagnostics Tool**" responsibility
- Choose application for which you want to execute a diagnostic test from the 'Application' drop-down list of values
- Click on the 'Advanced' tab
- Select the test to execute by clicking on the corresponding link on the left side of the screen
- Enter input parameters
- Click on the 'Run Test' button
- To review the test output, click on the 'Report' icon displayed in the status line

# Oracle Integration Repository (iRep) - Included in R12

To view all the interfaces in the 11*i* E-Business Suite in one place

- PL/SQL
- Concurrent Programs
- Open Interfaces
- Interface Views
- Electronic Data Interchange (EDI) Message Transactions
- XML Gateway Message Maps
- Java Methods

## Other Tools, Utilities and Patches

- Remote Diagnostic Agent (RDA) – comprehensive picture of environment - 4.15.0 = OCM
- 10g Upgrade Companion Version 2 – for upgrading from Oracle 9i to 10g, MOS Note: 466181.1
- Oracle 11gR2 Upgrade Companion – for upgrading from Oracle 9i to 11gR2, MOS Note: 785351.1
- Integrating E-Business Suite Release 12 with Oracle Internet Directory and Single Sign-On, MOS Note: 376811.1
- Debugging Tools (MOS Note: 373548.1 and 454178.1)
- Gather Statistics program has Gather Auto option to reduce how much statistics gathering you need to do

# E-Business Suite Technology Stack Roadmap: What About Fusion?



There will be no direct path to Fusion from Release 11*i*

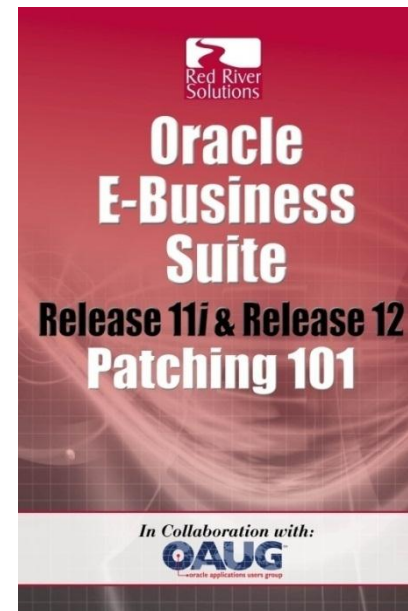
Based on E-Business Suite Technology Stack Roadmap (Sept 2010) Now Available, Steven Chan, Oracle Corporation

## What About Fusion?

- Release 1 of the Fusion Applications is available
- Release 1 does not include all modules - Financials, Procurement and Projects in V1.0
- It's the first release. You know what they say about the first release.
- Oracle will not provide a direct path from Release 11.5.10.2 to Release 2 or Release 3
- In a world without guarantees, you should probably upgrade to Release 12 and then see what happens next

# More Information

<http://www.redriversolutions.com/download-manual.php>



## Links

- <http://blogs.oracle.com/chan> – Steven Chan, Director of Applications Technology Integration for Oracle – wonderful articles explaining the nuances of the Applications - THE ORACLE APPLICATIONS BLOG
- [www.oaug.org](http://www.oaug.org) – Oracle Applications User Group
- [www.integrigy.com](http://www.integrigy.com) – Independent analysis of quarterly CPU/PSU
- [www.OnCallDBA.com](http://www.OnCallDBA.com) – E-Business Suite books, Health Checks and Assessments and concurrent manager expertise
- [www.RedRiverSolutions.com](http://www.RedRiverSolutions.com) – Release 11*i* and Release 12 Upgrade Health Checks and Oracle E-Business Suite consulting
- [www.justadba.com](http://www.justadba.com) – that's me!

# Questions and Answers

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Thank You!