

Oracle E-Business Suite
Release 11/ and Release 12

A Study in Contrasts

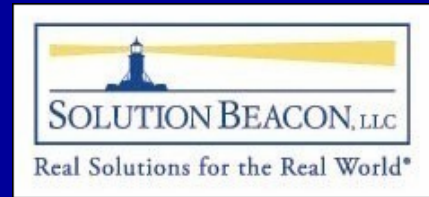
John Stouffer

COLLABORATE 07

April 2007



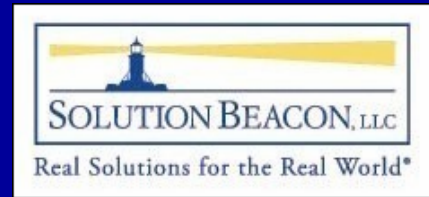
Are you an OAUG Member?



Member Benefits include:

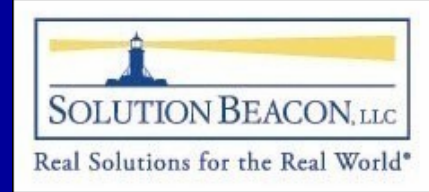
- ◆ Advocacy opportunities to influence Oracle on product enhancements, usability, new features, Oracle support, pricing and quality
- ◆ Knowledge that showcases the latest trends and techniques used by industry leaders through our national and regional events and our publications, such as OAUG Insight magazine
- ◆ Communication with other OAUG members worldwide through participation in OAUG committees, leadership positions, interaction with Oracle Corporation's user initiatives, frequent member surveys, and Oracle management briefings
- ◆ Education through the hundreds of career-enhancing presentations in our conference paper database archive, as well as discounts to conferences and Oracle education
- ◆ Networking with Oracle customers, industry experts, third-party software firms, and other Oracle Applications specialists through our Member Database and Online Vendor Directory

John Stouffer



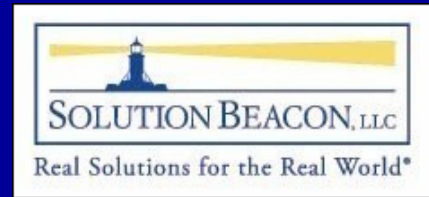
- ◆ Oracle DBA 19+ Years
- ◆ Oracle Apps DBA 14+ Years
- ◆ OAUG Co-Chair for Fusion Applications
- ◆ OAUG Upgrade SIG Chair
- ◆ Release 8 to 11i
- ◆ RDBMS Version 5 to 10g
- ◆ jstouffer@solutionbeacon.com

Audience



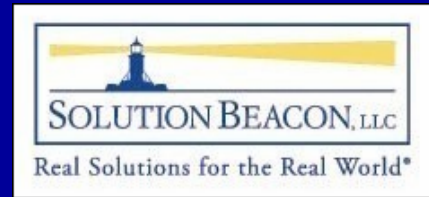
- ◆ Functional/Technical
- ◆ PeopleSoft, JD Edwards, Retek, Siebel, Hyperion
- ◆ Oracle E-Business Suite
 - Release 10.7
 - Release 11.0.3
 - Release 11*i*
 - Release 12
 - Application Technology Group Rollup
 - RDBMS Version
 - Platform
 - Storage

Release 11i



Concepts

Release 11/ Terminology



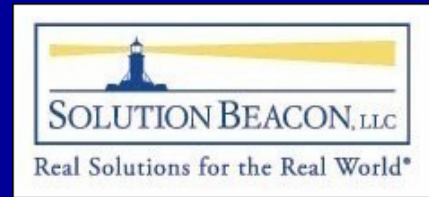
◆ 11/ is 11.5.x or 11./x

- 11.5.1 ... 11.5.2 11.5.10

◆ Point Release

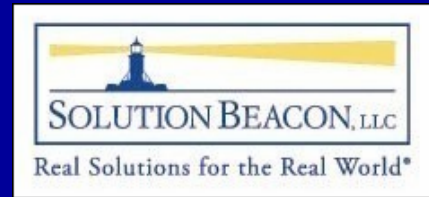
- Applies to all products in all suites
- CD/DVD Bundle or Maintenance Packs (11.5.6 – MP only)
- Updates the “point” number (11./8 -> 11./9 or 11.5.9 -> 11.5.10)

Release 11/ Basics to Remember



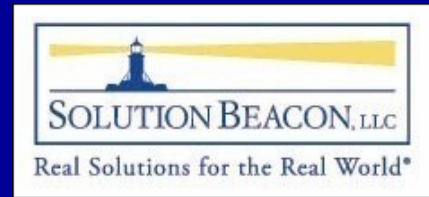
- ◆ Release 11/ is not a static release
- ◆ Release 11/ installs everything regardless of licensing and de-normalizing the data in the database for reporting performance
- ◆ Release 11/ contains constantly evolving technology components
- ◆ Release 11/ point upgrades introduce significant changes to functionality and technology
- ◆ Release 11/ has significant interdependencies of Critical Pseudo Products: AD, FND, AK, HZ (TCA), OWF, TXK, ADX, SHT, ATG, AU, FWK, OAM, UMX

What is Release 11i?



- ◆ The Biggest and Most Complex Oracle Applications Release Ever!
- ◆ Ten* CD/DVD bundle releases containing:
 - Major changes to the tools and technology stack
 - Bug fixes
 - NEW and CHANGED functionality!

What is Release 11*i*?



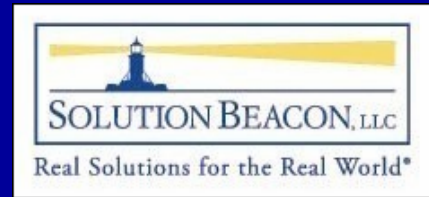
◆ Completely New Architecture, Tools and Technology – True Three-Tier

- Internet Computing Architecture (ICA)
- Technology Stack – Forms, Java, Apache(html)
- Oracle8*i*/Oracle9*i*/10*g* – CBO, Partitioning

◆ Multiple Application Server Components

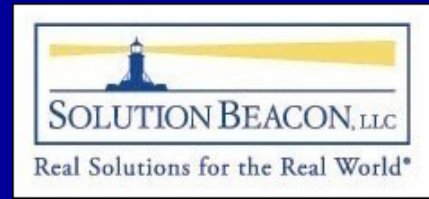
- Forms-Based: ERP, Back Office
- HTML/JAVA-Based: Self Service, Workflow, “*i*” Products
- Business Intelligence: Discoverer 3*i*/4*i*/10*g*, Reports, XML (BI) Publisher

Release 11/Concepts



- ◆ All or Nothing: Oracle Applications Software and Database – No sharing of Software/Objects
- ◆ Multiple Component Requirements: Database Software (3), Forms, Reports, Java, JDBC, Apache, Self-Service (OA) Framework, Workflow, XML Gateway
- ◆ Hybrid Application: OLTP/Batch/Web Coexist and Each is Separate Database Distribution

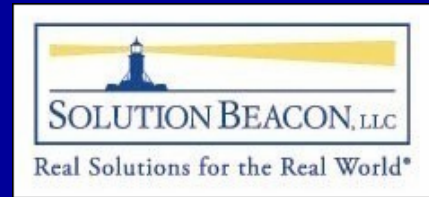
Release 11/Products



◆ Increased Modules, Functionality, and Features

● Release 10.7	40 products
● Release 11.0.x	50 products
:	:
● Release 11.5.5	161 products
● Release 11.5.6	175 products
● Release 11.5.7	179 products
● Release 11.5.8	191 products
● Release 11.5.9	197 products
● Release 11.5.10	209 products

Release 11/Bug Fixes



◆ More stable functionality (technical and applications) continuously appearing with each major patch release

- 11.5.5/6 – ~ 20,000 bug fixes
- 11.5.7 – ~ 40,000 bug fixes
- 11.5.8 – > 60,000 bug fixes
- 11.5.9 – > 100,000 bug fixes
- 11.5.10 – ~ 180,000 bug fixes

◆ Initially released on Oracle9i ... now 10gR2 certified

◆ ATG Introduced

◆ Workflow changed ... again

◆ Rapid cloning changed ... again

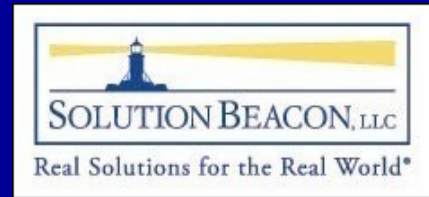
◆ AD enhancements ... again

◆ New Java framework – 5.10 ... again

◆ JInitiator 1.3.1

Note: Metrics from Vision Environments

Release 11/Objects

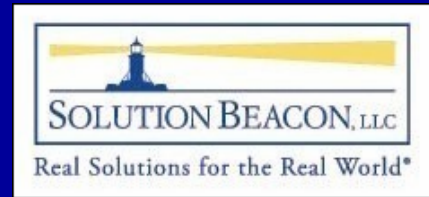


◆ “Stub” applications, performance improvements, additional functionality continuously appearing with each major patch release

● 10.7	–	~ 25,000 objects
● 11.0	–	~ 30,000 objects
● 11.5.5/6	–	~ 200,000 objects
● 11.5.7	–	~ 240,000 objects
● 11.5.8	–	~ 280,000 objects
● 11.5.9	–	~ 310,000 objects
● Fresh* 11.5.9	–	~ 200,000 objects
● 11.5.10	–	~ 270,000 objects

Note: Metrics from Vision Environments

Release 11/Architecture – 11.5.10.0



◆ Client

- Oracle JInitiator 1.3.1.18 on Client

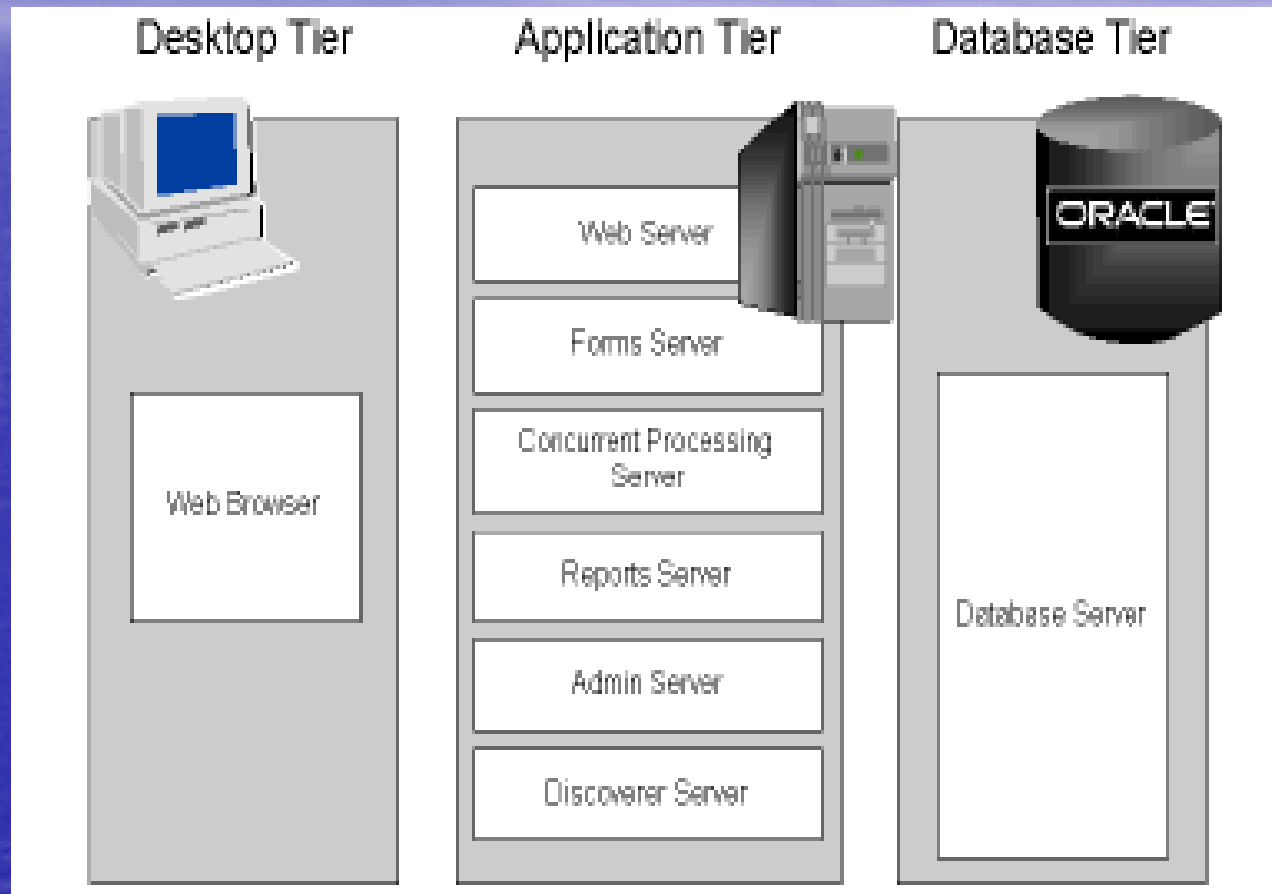
◆ Middle Tier

- Apache Web Server 1.3.19 (Full – jsp, JServ)
- JRE (Java Runtime Environment) 1.4.2_04-b05
- JDK (Java Development Kit) 1.4.2
- Oracle Applications Java Framework 5.10
- Oracle Forms/Reports 6i (6.0.8.24 – Patch 15)
- Workflow 2.6.3 (OWF.H)

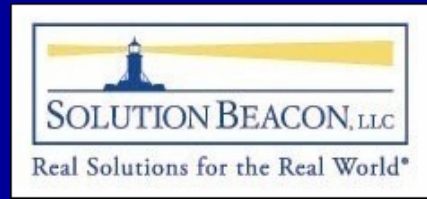
◆ Database Tier

- Oracle 9i/Enterprise Edition 9.2.0.5
- Other Oracle Home Software Directories – App 8.0.6.3, iAS 8.1.7 = 9iAS 1.0.2.2.2 (Release 1)
- Oracle Portal 3.0.9.8.4
 - Discoverer 4i (4.1.48) – 10/31/06

Release 11/Architecture

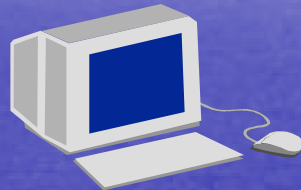


Release 11/Architecture – Components



Release 11.5.10.2 DVD Release

Client Tier



JInitiator

Web HTTP Servers

Application Technology Stack

Middle Tier

Apache

Admin Server

Concurrent Processing Server

Discoverer Server*

Forms Server

Reports Server *

*optional

9/AS ORACLE_HOME
(1.0.2.2.2)

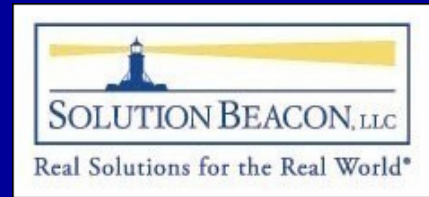
8.0.6.3 ORACLE_HOME

Database Tier

9.2.0.6 Database

9.2.0.6 ORACLE_HOME
upgrade!

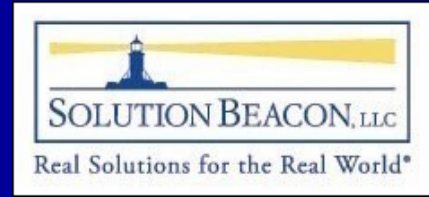
Recommended Architecture



- ◆ Five Nodes – MetaLink 285267.1
 - Database *
 - Administration
 - Concurrent Managers
 - Forms
 - Web

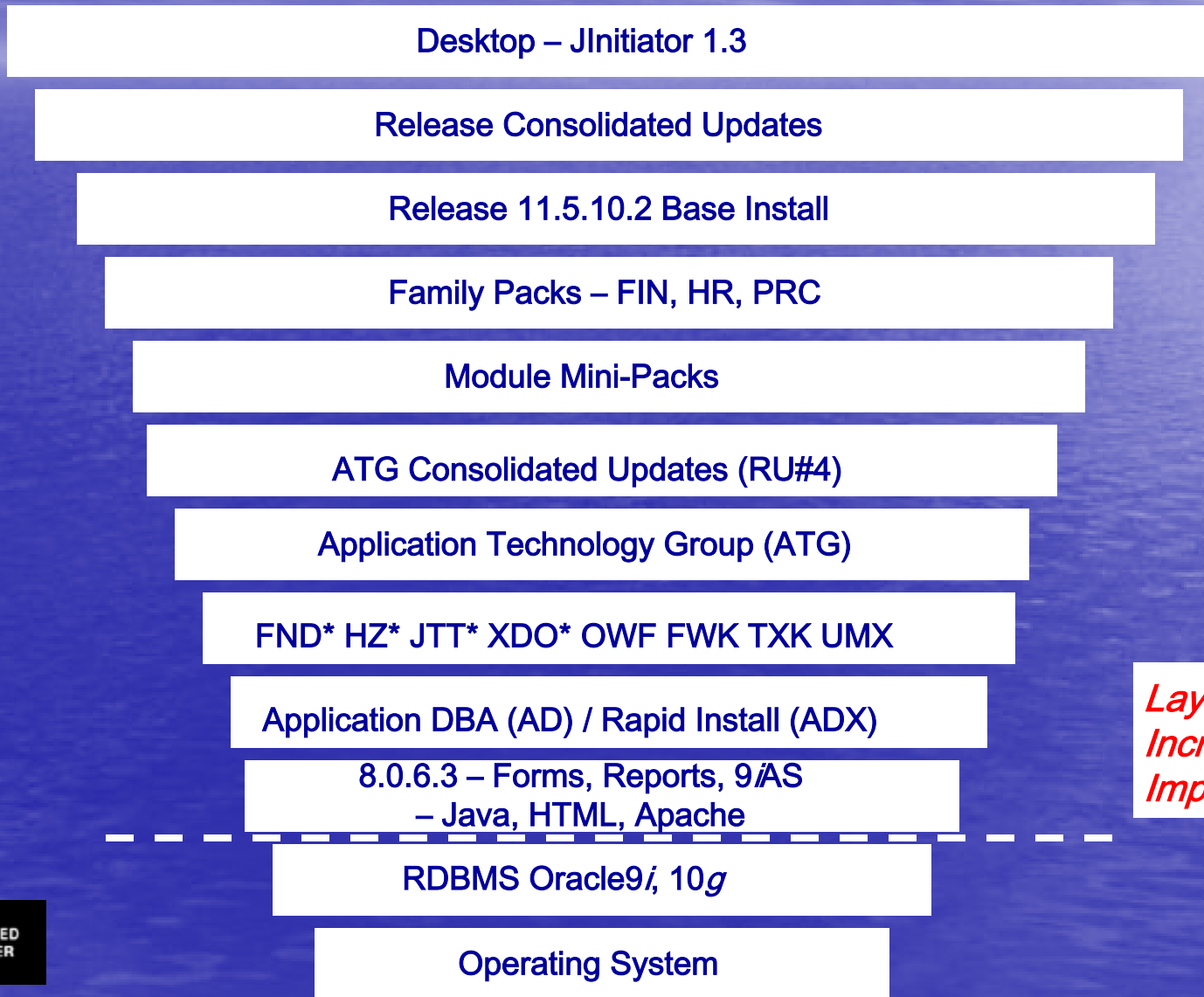
- ◆ Recommendations for Ease of Support and Maintenance
 - Single User
 - Single Logical Disk Mountpoint
 - Shared Application File System > Single Tier
 - Oracle Applications Tablespace Model (OATM)

11.5.10.2 – Applications Interdependencies – March 2007



- ◆ Release 11.5.10.2 – 8 out of 22 Family Packs Out of Date (HR, BIS, FIN, PROJ)
- ◆ Consolidated Update #1 – Superseded
- ◆ Consolidated Update #2 – Available
- ◆ Consolidated Update #3 – CANCELLED
- ◆ 11.5.10.2/9.2.0.8 Certified
- ◆ 10gR2 Certified (Release 12 Utilizes 10gR2)
- ◆ Fusion Applications Jump-Off Points – Releases 11.5.10.2 and 12
- ◆ Lifetime Support Eligible – Releases 11.5.10.2 and 12

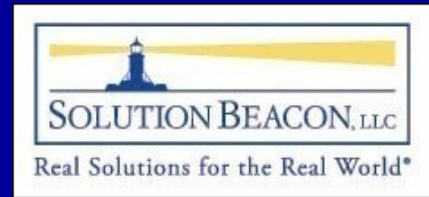
11.5.10.2 – Applications Interdependencies – March 2007



Layers of Increasing Impact

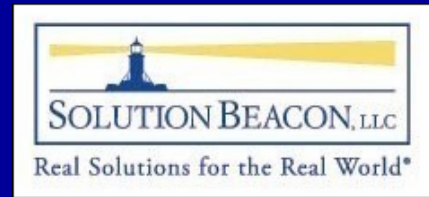


Release 11i



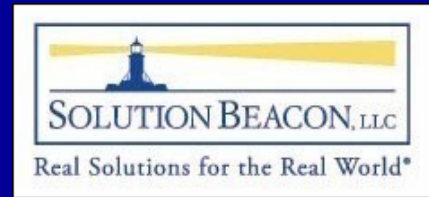
Patching

Patch Definitions



- ◆ **Media Pack (50+ CDs, 10-15 DVDs)**
 - 11.5.10.0 – November 2004, 11.5.10.2 – July 2005
 - Entire Applications Release Including Technology
 - Desktop Components
 - Documentation
 - Latest Maintenance Pack Included
- ◆ **Maintenance Pack (AU – 11.5.10)**
 - Entire Code Set Release for All Application Modules
 - No Technology Patches or Components Included
 - Lots of Pre/Post Tasks, VERY Long-Running
 - Consolidated Update Patches – 11.5.9 and 11.5.10
- ◆ **Family Pack (HR_PF.K) – Currently 22**
 - All Product Modules Mini-Packs for the Specific Family
 - Lots of Pre/Post Tasks, VERY Long-Running
- ◆ **Product Mini-Pack (GL.H)**
 - Entire Patch Set for Specific Application Modules
 - Functionality Changes AND Bug Fixes
- ◆ **One-Off Bug Patch (High Priority)**
 - Fixes Specific Issue, No Regression Testing

Patchsets.sh Comparison Utility

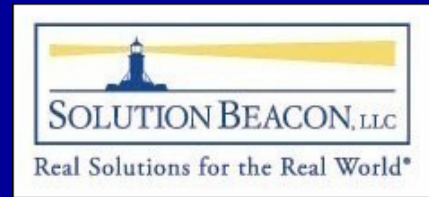


Patchset Comparison Utility Found on Oracle's FTP Site:

ftp://ftp.oracle.com/apps/patchsets/PATCHSET_COMPARE_TOOL/

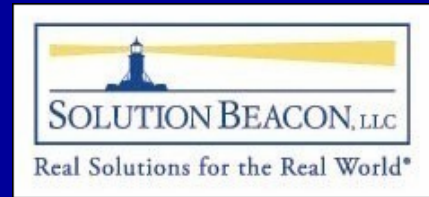
- ◆ Updated Nightly By Oracle
- ◆ Can Be Used For 10.7, 11.0.x and 11.5.x
- ◆ Displays Currently Available Patchsets
- ◆ Reads the applptch.txt File or the Database
- ◆ Produces Reports on Differences

OAM Patch Advisor



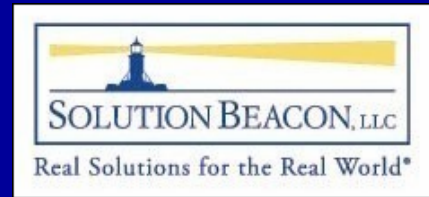
- ◆ OAM.G Mini-Pack
- ◆ MetaLink Document 226826.1
- ◆ Uses InfoBundle11i.zip

InfoBundle11 / .zip



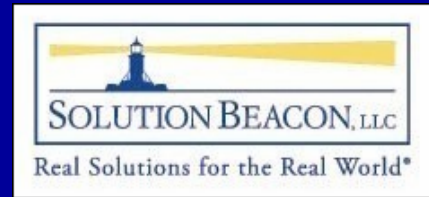
- ◆ Updated Nightly by Oracle
- ◆ Updates Patch Snapshot Repository
- ◆ Recommended Patch List
- ◆ Includes Patch Prerequisites
- ◆ MetaLink Document 233039.1

Patch Application Methods



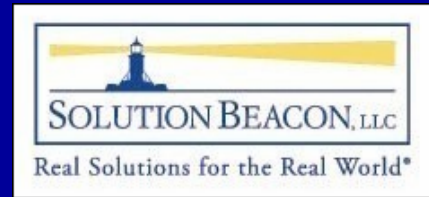
- ◆ Manual (Interactive)
- ◆ Automated (Non-interactive)
- ◆ Merge Patch Utility (Automated)
- ◆ OAM (Oracle Applications Manager)
- ◆ Commercial (RingMaster APM)

Patch Management/Tracking



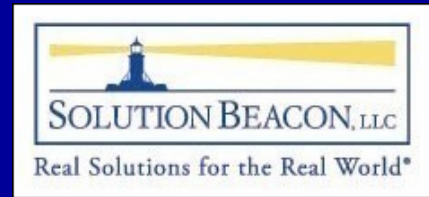
- ◆ Manual (applptch.txt)
- ◆ Manual (spreadsheet)
- ◆ Manual (patchsets.sh)
- ◆ Database (AD patch – AD.E)
- ◆ Commercial (RingMaster APM)

Oracle Patch Documentation



- ◆ Maintenance Procedures – July 2005 (B19299-01)
- ◆ Maintenance Utilities – July 2005 (B19300-01)
- ◆ Steven Chan's Blog
 - <http://blogs.oracle.com/schan>

Minimal Patching – Security Patches



◆ Security Docs

- (189367.1, 277535.1, 287176.1, 217368.1)

◆ Applications Codeset \$APPL_TOP

◆ Web Tier \$ORACLE_HOME

◆ Application Tier \$ORACLE_HOME

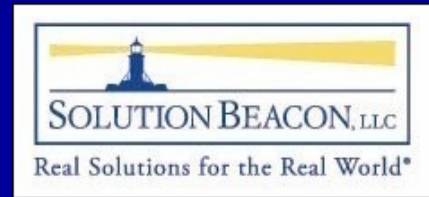
◆ Database Tier \$ORACLE_HOME

◆ Minimum Technology Baseline (363827.1)

◆ Oracle's Quarterly Critical Patch Update

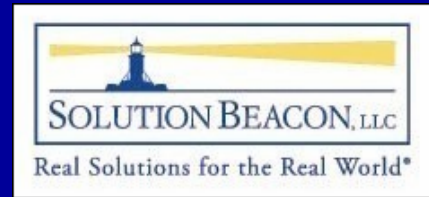
- Significant Impact – Database, Tools and Apps
- Plan as Part of Release/Change Mgmt
- MetaLink Doc. ID: 265987.1
- www.integrigy.com – Patch Impact Analysis

Patch Tips



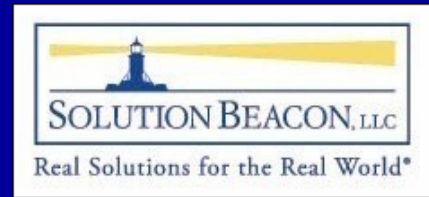
- ◆ Pre-Patched/Staged \$APPL_TOP
 - MetaLink 242480.1
- ◆ Shared Application File System
 - MetaLink 233428.1
- ◆ Distributed AD Patching
 - MetaLink 236469.1

Release 11i



Performance

Performance Considerations



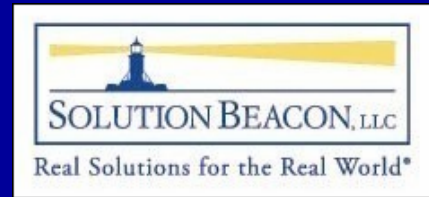
- ◆ Patched Current
- ◆ Pinning
- ◆ Statistics
- ◆ Diagnostics

Patched Current



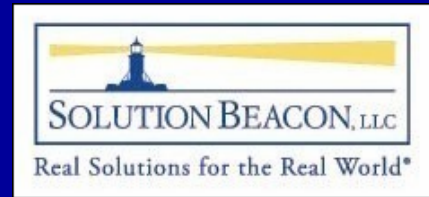
- ◆ Latest, Greatest Optimized Code
- ◆ Interdependencies Between Modules
- ◆ New Functionality and Features
- ◆ Changed Functionality

Pinning



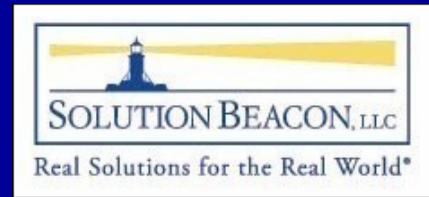
- ◆ Oracle Applications requires space in the ORACLE System Global Area (SGA) for stored packages and functions; if SGA space is fragmented, there may not be enough space to load a package or function; you should pre-allocate space in the SGA shared pool for packages, functions, and sequences by "pinning" them
- ◆ Pinning objects in the shared pool can provide a tremendous increase in database performance, if it is done correctly; since pinned objects reside in the SQL and PL/PLSQL memory areas, they do not need to be loaded and parsed from the database, which saves considerable time
- ◆ PIND Pinning Toolkit – MetaLink 301171.1

Statistics



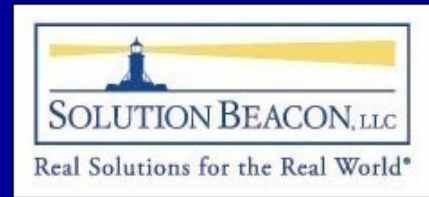
- ◆ The Concurrent Program Gather Schema Statistics should be run weekly (at a minimum) using ALL, 99 and NOBACKUP values unless time prohibits
- ◆ Minimum Gather Statistics should be run weekly against all non-sys/system objects using 10%
- ◆ Additionally, a separate statistics gathering process should be run daily on high transactions modules (e.g. AP, PO, OE, ONT, PA, PAY) during low processing periods
- ◆ Using any value larger than 50 will force a compute vs. an estimate for statistics; any value < 50 only provides estimated statistics. Computed statistics provide a significant performance improvement for Application modules
- ◆ FND_STATS Required – MetaLink 141532.1

Diagnostics



- ◆ Diagnostics 2.4 RUP A
- ◆ Remote Diagnostic Agent (RDA) 4.6
- ◆ Application Collection Tool (ACT)
- ◆ BDE Scripts
- ◆ Statspack
- ◆ TUMS-MP, Technology Validation Utility

Release 12 is Now Available



Launch Event for E-Business Suite Release 12

Wednesday, January 31, 2007

9:00 a.m. Registration and Breakfast

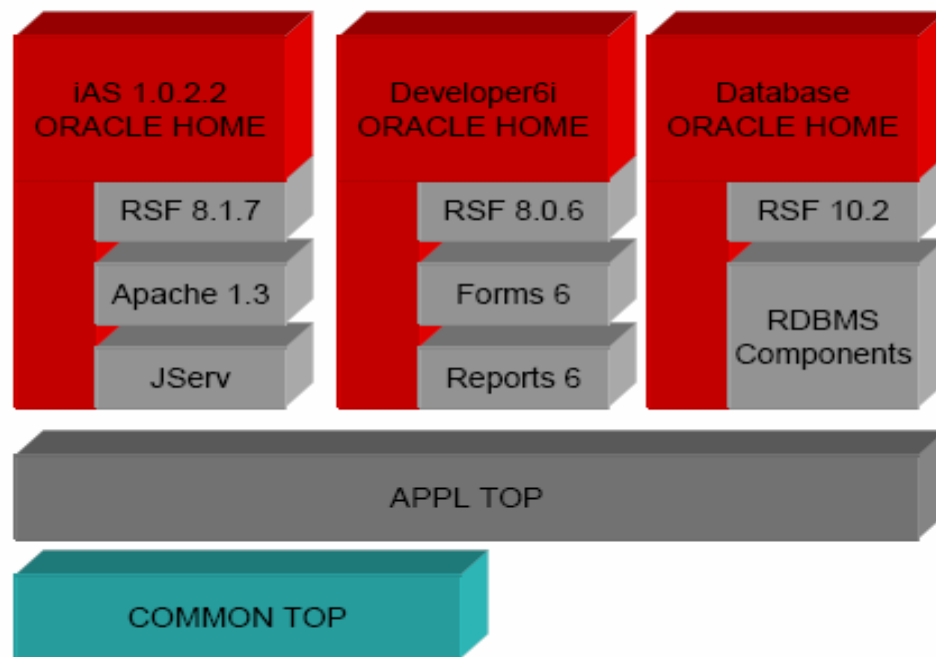
10:00 a.m. – 1:30 p.m. Event

Hudson Theater
145 West 44th Street
New York, NY

Release 11/Components



11i Installed & Managed File System



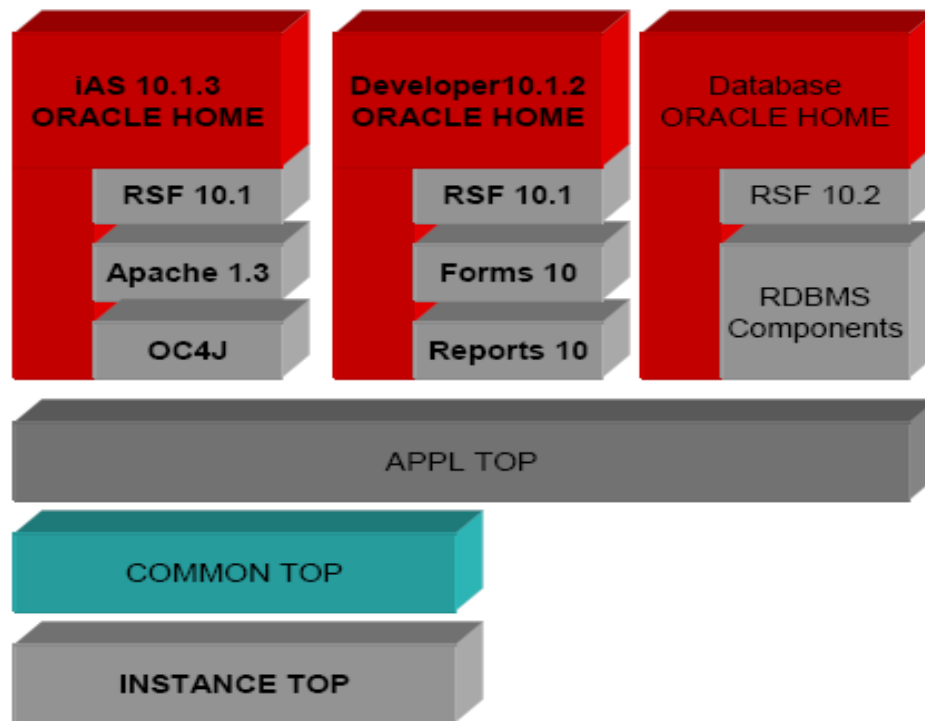
Major Components:

- Java Home: 8.1.7-based iAS 1.0.2
- C Home: 8.0.6-based Developer 6
- Database Home: 10.2
- Appl Top: Applications' code staging area
- Common Top: Runtime location for Java, HTML, run-time generated files

Release 12 Components



R12 Installed & Managed File System



Major Components:

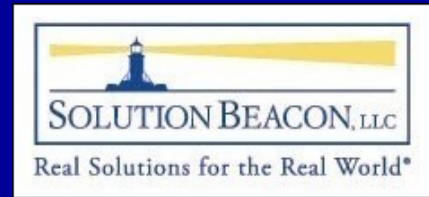
- Java Home: 10.1-based iAS 10.1.3 –*new*
- C Home: 10.1-based Developer 10 standalone install of AS 10.1.2 phase2 –*new*
- Database Home: 10.2
- Appl Top: Applications' code staging area
- Common Top: Runtime location for Java, HTML
- Instance Top: configuration and runtime generated files –*new*

Release 12 Components



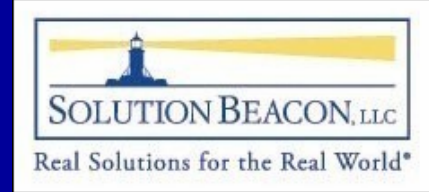
- ◆ Sun's Native 1.5 Java Runtime Environment (JRE)
- ◆ Java Home 10.1.3
 - Required Support Files (RSF) 10.1
 - Apache 1.3.34
 - OC4J – Oracle Containers for J2EE
 - ◆ Execute Servlets, Java Server Pages (JSP) and Enterprise Java Beans (EJB)
 - ◆ Three Instances (Oacore, Forms, OAFM)
 - ◆ Deploys EAR (Enterprise Archive), WAR (Web Application Files), JAR (Web Application Code), JSP and HTML
 - ◆ Oracle Process Manager and Notification Server (OPMN)
- ◆ Developer Home 10.1.2
 - Required Support Files (RSF) 10.1
 - Forms
 - ◆ Swan UI
 - ◆ Servlet
 - ◆ Forms Trace
 - ◆ Forms Generator
 - Reports (Only Available from Concurrent Managers)
 - 'C' Code
- ◆ Database Home 10.2.0.2
- ◆ APPL_TOP
 - Application Code
- ◆ COMMON_TOP
 - Runtime Java and HTML
- ◆ INSTANCE_TOP
 - Configuration Files

Release 12 Changes



- ◆ No JInitiator
- ◆ No mod_plsql
- ◆ No Oracle Graphics – Rewrite with XML Publisher and OAF/BI Beans
- ◆ Report Server Not Utilized
- ◆ OC4J Replaces JServ with Orion-web.xml, Orion-application.xml, OC4J.properties and Server.xml
- ◆ Not Included in Rapid Installation
 - Discoverer 10.1.2
 - SSO/OID 10.1.2
 - Portal 10.1.4
 - WebCache 10.1.2
 - Collaboration Suite 10.1.2
 - Warehouse Builder 10gR1
 - Enterprise Manager 10.1.2
 - Integration Server 10.1.3
 - Forms Developer Installed Separately as Part of Developer Suite

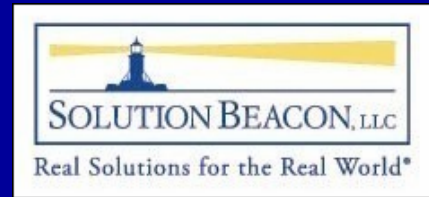
Release 12 Next Steps**



- ◆ Upgrade Database to 10gR2
- ◆ Review mod_plsql
- ◆ Migrate to XML (BI) Publisher
- ◆ Install Forms/Reports Builder 10.1.2
- ◆ Review Custom.pll Library
- ◆ 10% Larger Database

**Subject to Change

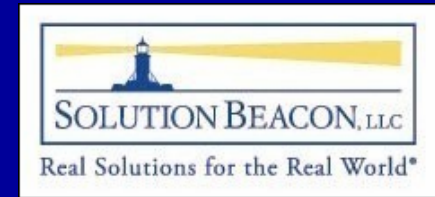
Questions and Answers



And Remember:

Keep It Simple and SupportableSM

Questions and Answers



Thank you!

John Stouffer

jstouffer@solutionbeacon.com

www.solutionbeacon.com

Real Solutions for the Real World.®

Visit Our Booth #339
to Register for a
*World Class
Weekend Trip!*

ORACLE CERTIFIED
PARTNER

Got Oracle? Get the Book!

Installing, Upgrading and
Maintaining
Oracle E-Business Suite
Applications 11.5.10+

It's available in the OAUG
Bookstore or online!

Sign up for the
Solution Beacon Newsletter
www.solutionbeacon.com

Solution Beacon and OnCallDBA
Installing, Upgrading and Maintaining Oracle E-Business Suite Release 11i



(or "Teaching an Old Dog New Tricks – Release 11i Care and Feeding")

*Installing, Upgrading and Maintaining
Oracle E-Business Suite Applications
Release 11.5.10+*

*By Barbara Matthews, John Stauffer, Randy Giefer, Karen Brownfield, Jeff Holt,
Bruno Coon, James Morrow, Tim Sharpe and Faun deHenry*

Available at www.solutionbeacon.com