



Rapid Migrations to Releases 11.5.10.2 and 12.1.1

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Drivers for Release 11.5.10.2

- Applications Unlimited and Lifetime Support –
 - <http://www.oracle.com/support/lifetime-support-policy.html>
- Minimum Technology Baselines (363827.1)
- ATG N-1 Approach (387436.1)
- Quarterly Critical Patch Updates (372931.1)
- Desupport

– 11.5.1/11.5.6	: Jul 2006	– No Extended Support
– 11.5.7	: May 2007	– No Extended Support
– 11.5.8	: Nov 2007	– No Extended Support
– 11.5.9	: Jun 2008	– No Extended Support
– 11.5.10	: Nov 2010	– Extended Support Nov 2013
– 9i	: Jul 2007	– Extended Support Jul 2010
– 10g	: Jul 2010	– Extended Support Jul 2013

Concepts

MetaLink – 11.5.10 Statement

From Oracle MetaLink Doc. ID 212005.1 – Rapid Install Technology Stack

- The Release **11.5.10 Maintenance Pack** is designed to be applied to an existing Release 11*i* installation
- Although some of the maintenance pack prerequisite steps update some of the Oracle technology stack components, the **maintenance pack itself only updates Oracle Applications files and data**
- It is advisable to keep the Oracle technology stack up-to-date, beyond the mandatory updates dictated in the prerequisite steps, because the technology stack components have different support lifecycles than that of the Applications
- The Release **11.5.10 Rapid Install, in contrast**, was built with the latest certified technology stack components at the time of its creation
- Although the Applications code is the same, customers who start their Release 11*i* implementation with Release 11.5.10 **will receive a more up-to-date technology stack** than those customers who upgrade from a prior 11*i* release and only perform the prerequisite technology stack updates

Release 11*i* / 12 Terminology

- Release 11*i* is 11.5.x or 11*i*.x
 - 11.5.1 ... 11.5.2 11.5.10
- Release 12 is 12.1.x
 - 12.1.1
- Point Releases
 - Applies to all products in all suites (Release Update Packs)
 - * MP is complete release

Definitions

- **Upgrade**
 - Release 8, 9, 10, 11.0.X to 11*i*
 - Hardware Migration
 - Involved, Complicated Project
- **Migration**
 - Release 11.5.1, .2, .3, .4, .5, .6, .7, .8, .9, .10
 - Update Technology and Applications Codeset/Objects
 - Regression Testing

Release 11*i*/12 Basics to Remember

- Release 11*i*/12 are *not* static releases
- Release 11*i*/12 **install everything** regardless of licensing
- Release 11*i*/12 contain constantly evolving **technology components**
- Release 11*i*/12 point upgrades typically introduce significant changes to **functionality and technology**
- Release 11*i*/12 have **significant interdependencies** of Critical Pseudo Products: AD, FND, AK, HZ (TCA), OWF, TXK, ADX, SHT, ATG, AU, FWK, OAM, UMX

What is Release 11*i*?

Release 12?

- **Release 11*i***
 - The biggest, most complex Oracle Applications release ever!
 - Ten* CD/DVD major releases containing:
 - Major changes to the tools and technology stack
 - Bug fixes
 - NEW and CHANGED functionality!
 - 11.5.9/11.5.10 – CUs introduced
- **Release 12**
 - Even Bigger! 18 more modules
 - 60% Java – even more than Release 11*i*
 - Fusion Middleware
 - 11g database
 - R12.1.1 (May 4, 2009)

What is Release 11*i*? Release 12?

- **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*/11*g* – CBO, Partitioning
 - Multiple Application Server Components
 - Forms-Based: ERP, Back Office
 - HTML/JAVA-Based: Self Service, Workflow, “*i*” Products
 - Business Intelligence: Discoverer, Reports, XML (now BI) Publisher
- **Release 12**
 - More architecture, tools and technology changes
 - Fusion Middleware
 - More Application Server Components changes, especially BI

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 Publisher, XML Gateway (SOA)
- **Hybrid Application:** OLTP/Batch/Web Coexist and Each is Separate Database Distribution

Release 11*i*/12 Products

- Increased Modules, Functionality, and Features
 - Release 10.7 40 products
 - Release 11.0.x 50 products
 - Release 11.0.1 50 products
 - Release 11.0.2 50 products
 - Release 11.0.3 50 products
 - Release 11.0.4 50 products
 - Release 11.0.5 50 products
 - Release 11.0.6 50 products
 - Release 11.0.7 50 products
 - Release 11.0.8 50 products
 - Release 11.0.9 50 products
 - Release 11.0.10 50 products
 - Release 11.0.11 50 products
 - Release 11.0.12 50 products
 - Release 11.0.13 50 products
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 - Release 11.0.46 50 products
 - Release 11.0.47 50 products
 - Release 11.0.48 50 products
 - Release 11.0.49 50 products
 - Release 11.0.50 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 12 220 products

Release 12 progress

- More stable functionality (technical and applications) continuously improving with each major RUP (Release Update Pack)
 - 12.0 -> 12.0.1 -> 12.0.2 -> 12.0.3 -> 12.0.4 -> 12.0.5 -> 12.0.6
 - 12.1.1
 - delivered with 11g
 - JRE 1.6
 - RUPs in Release 12 are like CUs were for Release 11i, only better

cdk

Note: Metrics from Vision Environments

Slide 12

cdk1

11g is already certified for R12 - check out

http://blogs.oracle.com/stevenChan/2008/09/oracle_db_11gr1_11106_certified_with_ebs12.html

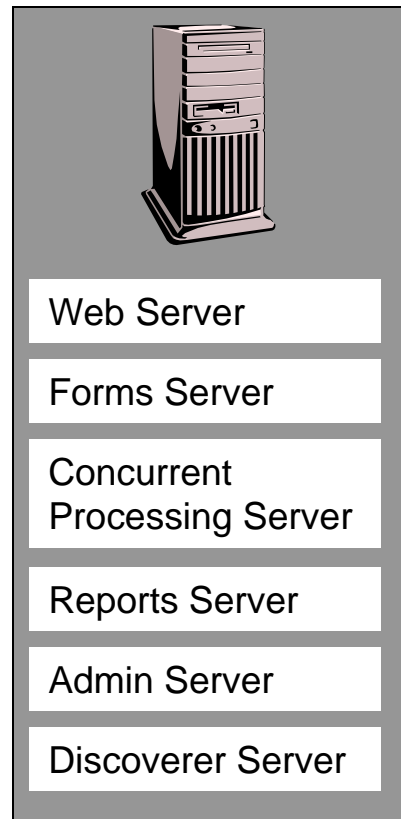
Chuck Kennedy, 2/5/2009

Release 11 / Architecture

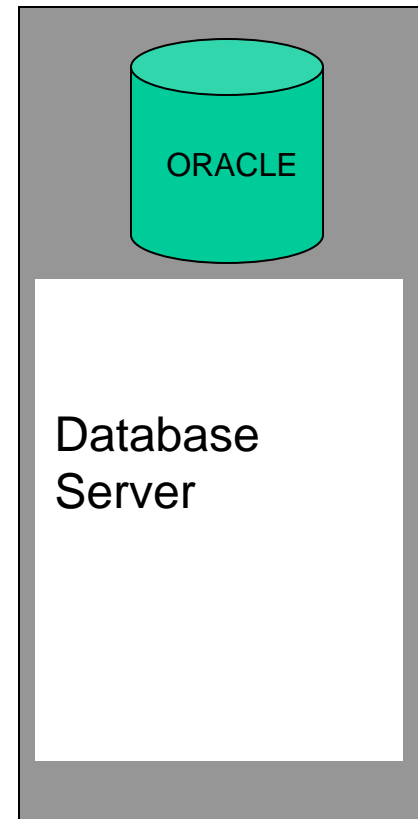
Desktop Tier



Application Tier



Database Tier



Release 11 / Architecture – 11.5.10.0

- **Client**
 - Oracle JInitiator 1.3.1.18 on Client
- **Middle Tier**
 - Apache Web Server 1.3.19 (HTML, JSP, JServ)
 - JRE (Java Runtime Environment) 1.4
 - JDK (Java Development Kit) 1.4
 - 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 – Latest 11.5.10.2

- **Client**
 - Oracle JInitiator 1.3.1.29 or Sun JRE 1.5 / 1.6
- **Middle Tier**
 - Apache Web Server 1.3.19 (HTML, JSP, JServ)
 - JRE (Java Runtime Environment) 1.6
 - JDK (Java Development Kit) 1.6
 - Oracle Applications Java Framework 5.10
 - Oracle Forms/Reports 6i (6.0.8.28 – Patch 19)
 - Workflow 2.6.3 (OWF.H)
- **Database Tier**
 - Oracle 9i Enterprise Edition 9.2.0.8, 10gR2, or 11g
 - Other Oracle Home Software Directories – App 8.0.6.3, iAS 8.1.7 = 9iAS 1.0.2.2.2 (Release 1)

Release 12 Architecture



Desktop Tier

Sun J2SE java plug-in

Internet Explorer

Firefox
Netscape



Application
Tier

Web Services => 10.1.3

Forms Services => 10.1.2

Concurrent Processing Server

Admin Server



Database
Tier

Oracle RDBMS 11g

Release 12 Architecture 12.1.1

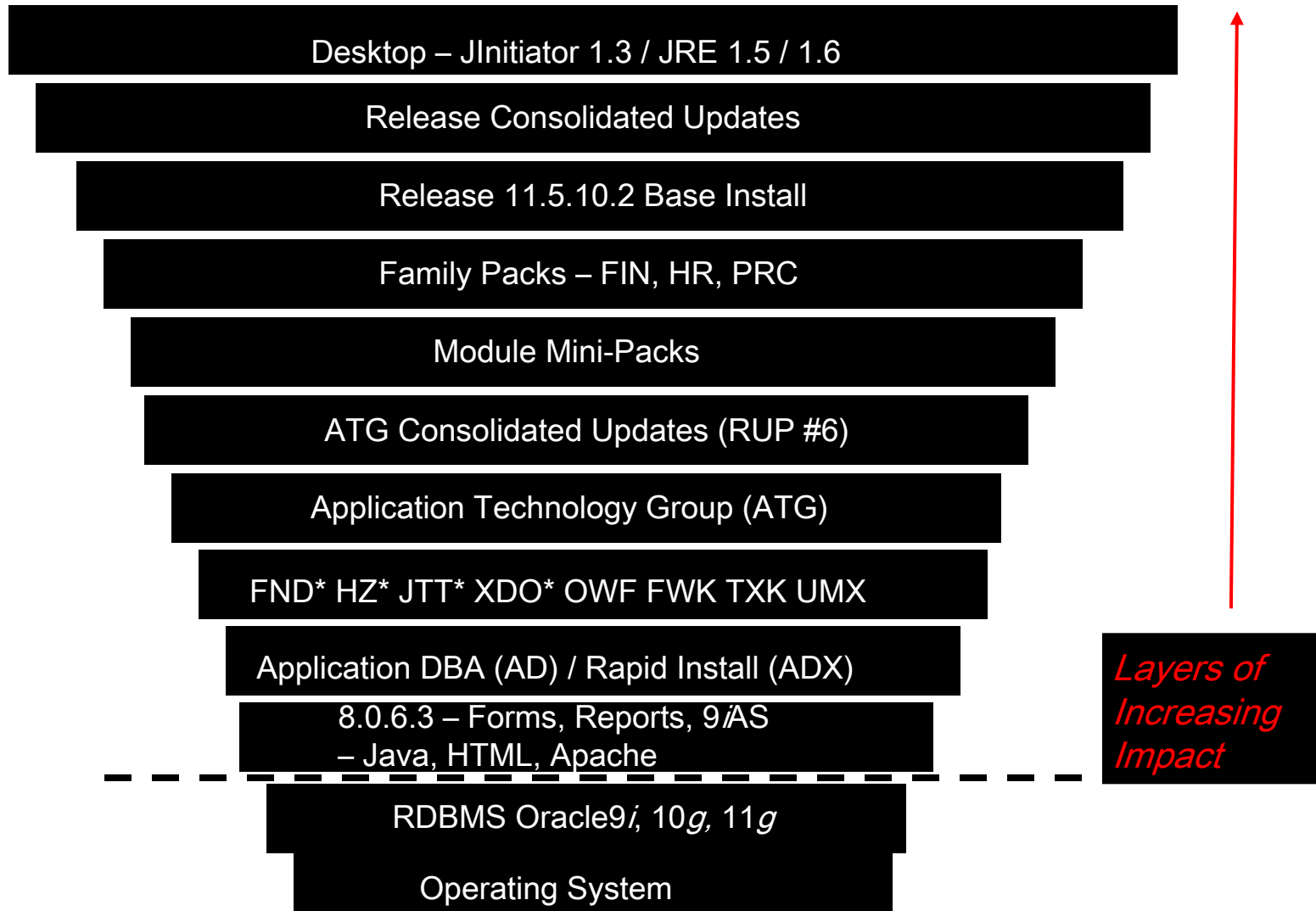
- **Client**
 - Sun 1.6 on Client
- **Middle Tier**
 - Apache Web Server 10.1.3 (HTML, JSP, OC4J)
 - JRE (Java Runtime Environment) 1.6
 - JDK (Java Development Kit) 1.6
 - Oracle Applications Java Framework 5.10
 - Oracle Forms/Reports 10g (10.1.2)
 - Workflow 2.6.3 (OWF.H)
- **Database Tier**
 - Oracle 11.1.0.7 Enterprise Edition
 - Other Oracle Home Software Directories – App 10.1.2, Web 10.1.3

Release 11 //12

Recommended Architecture

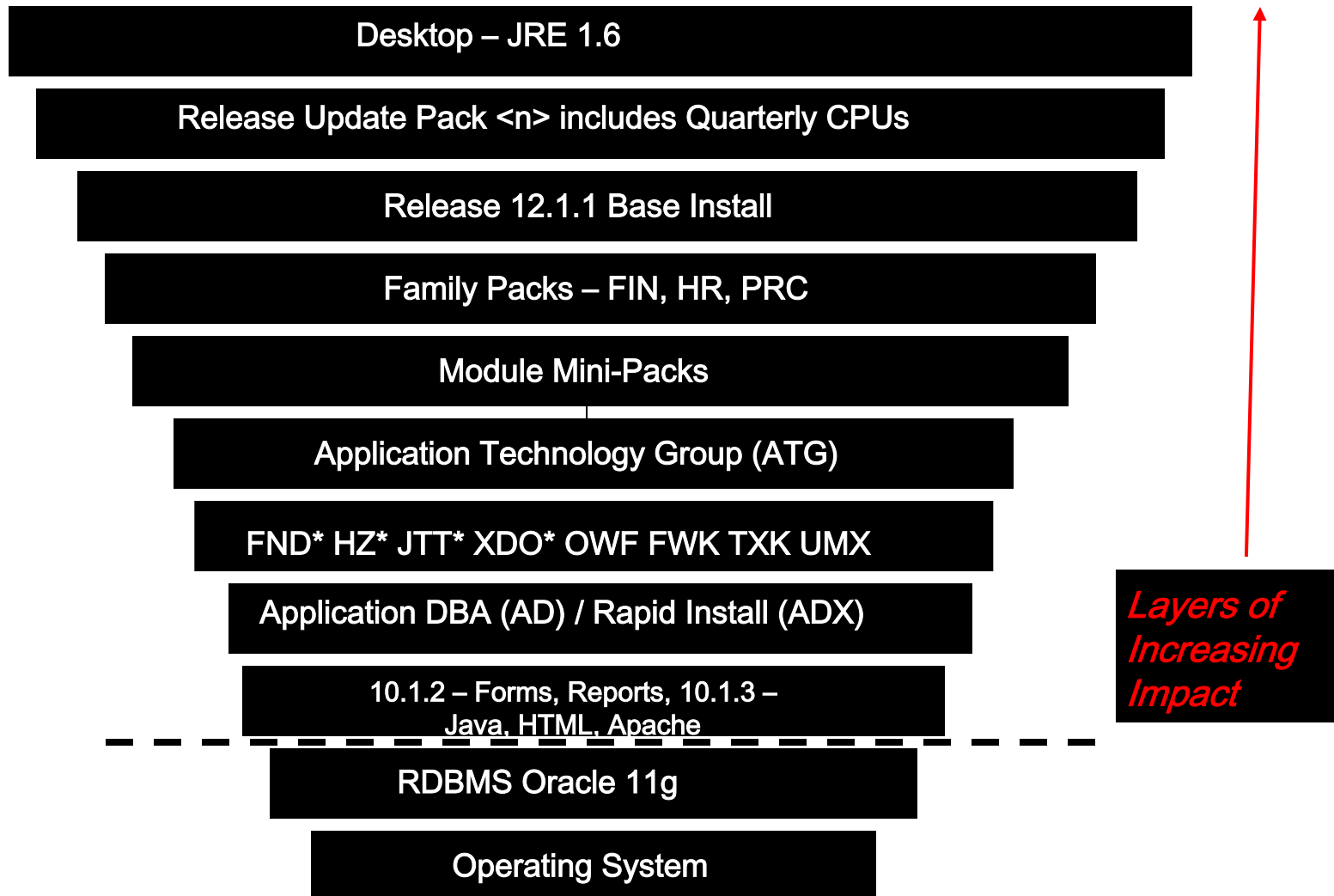
- Five Nodes – MetaLink 285267.1
 - Database *
 - Administration
 - Concurrent Managers
 - Forms
 - Web
- Recommendations for Ease of Support and Maintenance
 - Single User
 - Single Logical Disk Mountpoint
 - Shared Application File System > Single Tier
 - Oracle Applications Tablespace Model (OATM) – required for R12

Release 11.5.10.2 – Applications Interdependencies



Release 12 – Applications Interdependencies

June 2009



Patchsets.sh Comparison Utility

Patchset Comparison Utility Found on Oracle's FTP Site:

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

- Updated Nightly By Oracle
- Can Be used For 10.7, 11.0.x , 11.5.x and 12
- Displays Currently Available Patchsets
- Reads the applptch.txt File or the database
- Produces Reports on Differences

Release 11 / Rapid Migration Strategy With DVD Bundles

Why Migrate?

- **Stay Current – well prepared (proactive)**
 - Pros
 - Software/Technology Up to Date
 - Bug/Performance Fixes
 - Support From Oracle
 - Cons
 - Manual/Extensive Research – Multiple Dependencies
 - Significant Business Impact – Regression Testing for All Business Areas
 - Ongoing, Regular Effort
- **Patch As Needed - if it “ain’t” broke, don’t fix it (reactive)**
 - Pros
 - Stabilize – No Changes, No New Functionality
 - Minimal Business Impact – One-off Bug Fixes Only
 - Cons
 - Oracle Support – Patch Current
 - Software Out of Date – Functionality, Performance Tuning
 - If Problems Encountered – Massive Patch Current Exercise Because of Module Interdependencies

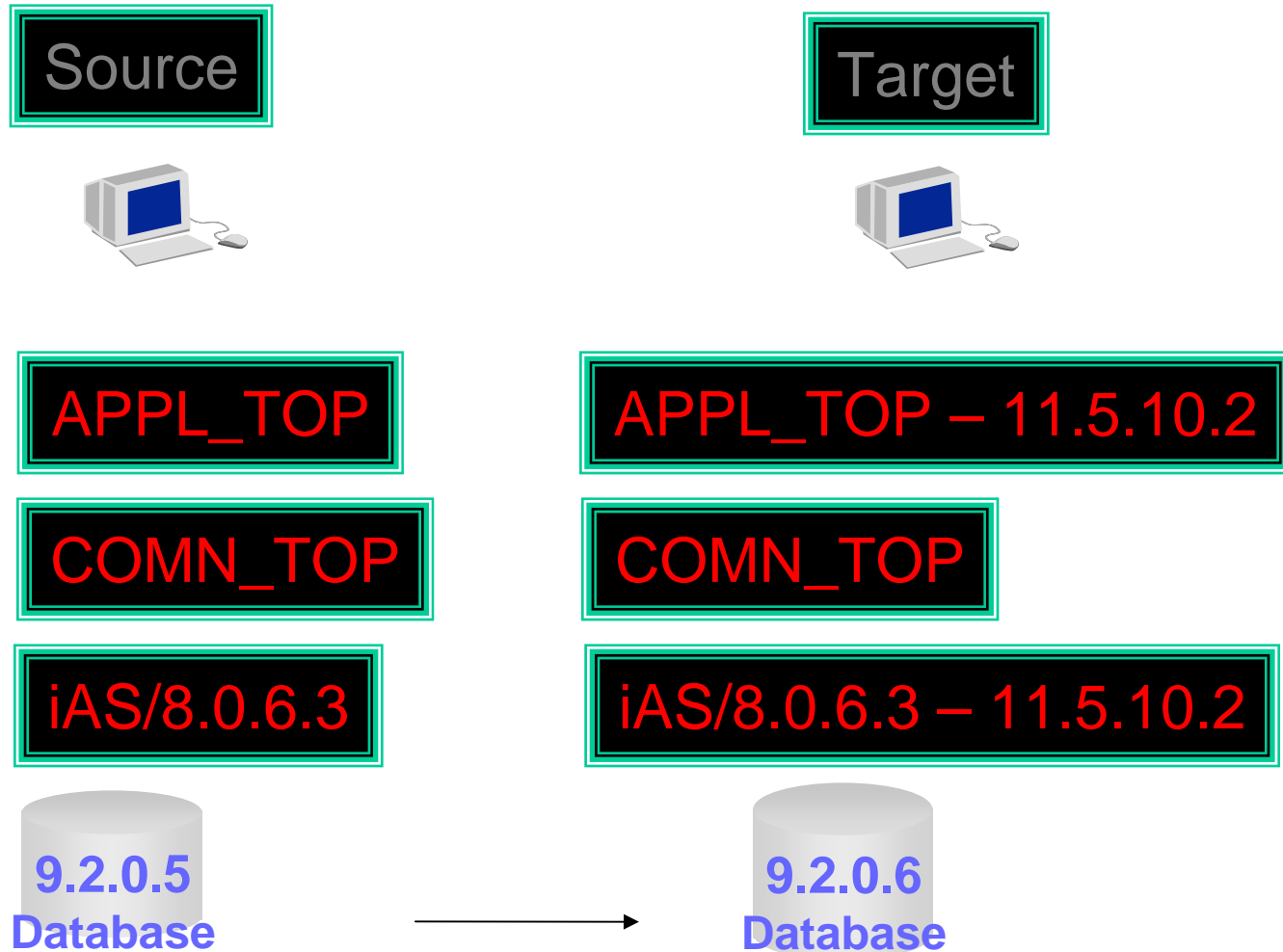
High Level Migration Approach

- Option 1 – Apply the Latest Maintenance Pack to a Copy of the Existing Environment – All Previous Release Artifacts Retained During Every Subsequent Migration
- Option 2 – Staged/Pre-Patched APPL_TOP w/Rapid Install -techstack Option
- Option 3 – Fresh Install of Fully Regression Tested “Clean” Technology and Application Codeset – **Rapid Migration**

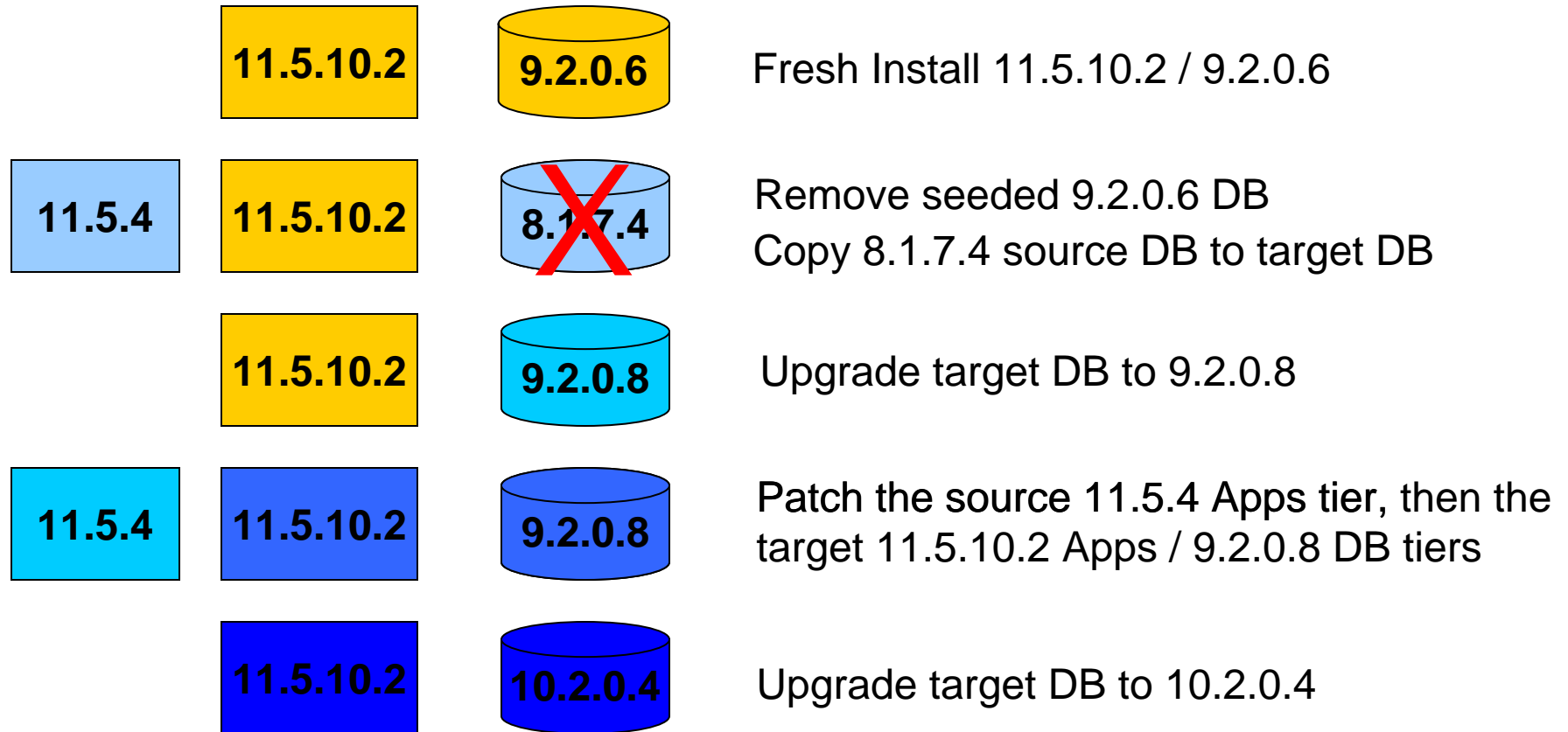
High Level Migration Checklist

- Perform a Fresh Install of 11.5.10.2
- Replace Fresh Install Database With Current Database
- Update Codeset – Apply “C” Drivers for any Previous Patches Applied Newer Than Current DVD Release
- Follow Maintenance Pack Instructions for Same Release as DVD Bundle
 - Re-Apply Customizations/Extensions

Release 11 / Rapid Migration



11i Rapid Migration in Pictures



Final system: patched 'current' 11.5.10.2 Apps on 10.2.0.3 DB

11i High Level Migration Checklist

- Patch Current
- Patchsets.sh
- InfoBundle11i.zip
- ATG Rollup
- Critical Patch Update (CPUs) Oct '05 – current
- HR, Financials, Projects Family Packs
- Diagnostics
- RDA, TUMS-MP, Technology Validation, BDE, ACT Scripts
- Convert to OATM

11i Detailed Migration Checklist

- Perform a Fresh Install of 11.5.10.2
 - Install JDK (Included by RapidWiz for Linux/Solaris)
 - Install UnZip 5.41
 - Test Installation – Validates Environment
 - Shutdown All Processes

11i Detailed Migration Checklist

- Replace Fresh Install Database With Current Database
 - Delete Fresh Install Database
 - Upgrade Fresh Install Database Technology 9.2.0.6 to 11g
 - Copy Current Database
 - Recreate Control File
 - Upgrade Current database to 11g (if applicable)
 - Startup Database and Listener
 - Update Database Configuration/Profile Information

11i Detailed Migration Checklist

- Update Codeset – Apply “C” Drivers for any Previous Patches Applied Newer Than Current DVD Release
 - Check Existing Database for Patches Released After DVD Bundle
 - Apply Latest Quarterly Critical Patch Update

11i Detailed Migration Checklist

- Follow Maintenance Pack Instructions for Same Release as Media Bundle – All Tasks Must be Review for Applicability
 - Section 1 – Pre-Install Tasks
 - Latest AD Minipack
 - ALL Pre/Post Patch Tasks
 - Configure Database for New Products
 - Oracle Install Base / Service / Contracts prerequisites
 - Section 2 – Applying the Maintenance Pack
 - Enable maintenance mode
 - C Driver – NA
 - D Driver – Apply – “U”
 - G Driver – NA
 - Section 3 – Post-Install Tasks
 - Install Help
 - Gather Statistics
 - Section 4 – Product Specific Tasks
 - HR Global
 - Discoverer 10g
 - Section 5 – Miscellaneous
 - Family Pack/Module Patch Levels
 - Technology Component Versions/OATM
 - Upgrade to 11g (if not done in a prior step)

Migration to 11.5.10.2 Architecture

- **Client**
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- **Database Tier**
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 - Other Oracle Home Software Directories – App 8.0.6.3, iAS 8.1.7
= 9iAS 1.0.2.2.2 (Release 1)

Release 12 Rapid Upgrade

R12 Upgrade Overview

- **Assess source E-business version**
 - Release 11.0 must upgrade to 11.5.10.2 (*standard upgrade to 11.5.10.2*) and then 12.1.1
 - Release 11.5.1 – 11.5.8 must upgrade to 11.5.10.2 (*rapid upgrade to 11.5.10.2*) and then 12.1.1
 - 11.5.9 or 11.5.10(base, CU1,CU2) direct upgrade
- **Database considerations**
 - Release 11.5.9 CU2 and 11.5.10 CU2
 - Upgrade to 11g either before or during upgrade downtime
 - Release 11.5.9 base, 11.5.9 CU1, 11.5.10 BASE, and 11.5.10 CU1
 - Upgrade to 11g during downtime window

R12 Upgrade Detail

- 11.5.10.2 to 12.1.1 (*applicable from 11.5.9 as well*)
 - if possible, convert your existing 11i environment to OATM sometime before performing the upgrade. This eliminates OATM work that would be done during the upgrade
 - Obtain 12.1.1 media and install in staging area
 - These are the **recommended and required prep technical steps**. Not shown are optional steps or other steps dependent on given product install
 - apply 11i.AD.I.6 to source 11i env if not there
 - Run TUMS utility – delivered in a patch. Produces a report that lists task that can be omitted from the upgrade
 - Convert to multi-org if you haven't
 - Review sizes of old and new tablespaces
 - Run AD preparation scripts – for OATM
 - Gather schema stats
 - Run rapid install
 - Upgrade database to 11g if 11.5.9(CU2) or 11.5.10 (CU2)

R12 Upgrade Detail

- 11.5.10.2 to 12.1.1 (*applicable from 11.5.9 as well*)
 - **Finish Upgrade**
 - run rapidwiz to configure and start server processes
 - create new appsutil.zip for dbtier
 - ensure JRE on dbtier matches application tier version
 - generate new context file for dbtier
 - run autoconfig on dbtier
 - configure client software to use J2SE if not already using
 - **patch current** at this point, if necessary
 - *ensure all relevant **sysadmin and functional tasks** listed in the upgrade have been completed*
 - **restart apps**
 - **complete additional sysadmin and functional post upgrade tasks that required the apps to be running**

R12 Upgrade Detail

- 11.5.10.2 to 12.1.1 (*applicable from 11.5.9 as well*)
 - **Issues Encountered During Upgrade** – various failures may be encountered during the application of any of the patches that are a part of the upgrade. Search metalink before starting the upgrade with the numbers of the patches to determine if your environment might be likely to encounter the same patch errors.

Ranked Scorecard Free Consultation

How Does The Scorecard Work

- Answer multiple-choice questions
- Identify areas of risk (business and IT)
- Ranked score helps measure your status on issues
- Provides recommendations for next steps
- Feedback on issues that concern steering committees and ROI

Scorecard Focus Areas

- Competitive Optimization
- Functional and Process Issues
- Project Approach and Complex Issues
- Workflow Issues
- Customization Reduction
- Database
- Data Integrity
- System Optimization
- Business Intelligence

Questions and Answers

Thank you!

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