



Applications DBA 101: The Basics for a Successful Implementation or Upgrade



Learning Objectives

- As a result of this presentation, you will understand:
 - Key Release 11*i* Basics
 - Focus Areas of Release 11*i*
 - Proven Tips for a Successful Implementation or Upgrade

Speaker's Qualifications

- **Eric Cole** – colee@mail.nih.gov
 - Oracle Apps DBA – 4 years
 - Federal IT Security Officer – 3 years
- **John Stouffer** – jstouffer@solutionbeacon.com
 - 25+ years experience in IT
 - Oracle DBA – 17 years
 - Oracle Apps DBA – 12 years (Release 8+)

Agenda

- Audience Profile
- Release 11 / Basics
- Project Type
- Architecture
- Infrastructure
- Resources
- Maintenance
- Performance
- Security
- Typical Issues
- Case Study
- Questions and Answers

Audience Profile

- Functional
 - Manager
 - User
- Technical
 - DBA
 - Developer
- Application Release 10.7, 11.0, 11i.x
- RDBMS Version 7, 8.0, Oracle8*i*, Oracle9*i*, 10g
- Operating System, RAC
- Hardware

Release 11*i* Basics

- Release 11*i* is not a static release
- Release 11*i* installs everything regardless of licensing
- Release 11*i* contains constantly evolving technology
- Release 11*i* point upgrades introduce significant changes to functionality and technology

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*i* 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 Oracle8*i*, now Oracle9*i*, soon 10*g*
 - Workflow changed ... again
 - Rapid cloning changed ... again
 - AD enhancements

Release 11 / Objects

- Objects

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

Project Type

- Project Type Impact
 - Migration, Upgrade or Big Bang Implementation
 - Significant Business Impact
 - Low Software Update Impact
 - Lower Overall Project Cost
 - Higher Hardware Cost
 - Immediate ROI
 - Phased Implementation
 - Less Perceived Business Impact
 - High Software Update Impact
 - Higher Overall Project Cost
 - Lower Hardware Cost
 - Deferred ROI

Architecture

- Architecture
 - End State Defined
 - Modules and Users
 - History and Size
 - Uptime Requirements
 - Phased Hardware and Complexity Rollout
 - Security Comes First
 - Simple Steps
 - Coordinate Change Prior to Project Milestones
 - Bolt-on Components Separated – Minimize Dependencies (LCD)
 - Printing
 - Documentation
 - SOX Solutions
 - Training
 - ADI, Discoverer, Reporting
 - Automation and Tools
 - Backups
 - Cloning
 - Testing
 - Code
 - Patching
 - Configuration

Infrastructure

- Infrastructure
 - Methodology Defined
 - Procedures and Processes
 - Defined
 - Trained
 - Workflow
 - Automation Required
 - Standards
 - Change Management
 - DBA
 - Developer
 - Automation Required

Resources

- Resources
 - Hardware
 - Certified
 - Adequate for PEAK Processing
 - Availability Defined Before Acquisition
 - Software
 - Certified Versions
 - Compatibility
 - Limitations
 - Personnel
 - Network
 - Operating System
 - Security
 - Operators
 - Help Desk
 - Automation Required

Maintenance

- Maintenance
 - Certification
 - MetaLink – OS, RDBMS, Tools and Applications
 - Hardware Drivers
 - Patches
 - Quarterly Critical Patch Updates
 - Security
 - Patchsets.sh
 - Patch Advisor – InfoBundle11i.zip
 - Utilities and Diagnostics
 - RDA Scripts
 - BDE Scripts
 - Technology Validation Utility
 - TUMS-MP
 - Diagnostics 2.3
 - OAM 2.3
 - AD.I.1
 - AutoConfig

Performance

- Current Codeset
 - Oracle Tuned
 - Optimized for Applications
 - Analyzed Integration Impact
- Intelligent Pinning
 - Heavily Used Application Modules
 - Large Shared Pool
 - Large Java Pool
- Gather Statistics
 - Computed vs. Estimated
 - All vs. Selected Modules
 - Frequency – Weekly
 - BDE Scripts
- Cleanup
 - Concurrent Requests
 - Signon and Audit Information
 - Workflow
 - OATM
 - Log Files
 - Temporary Files

Security

- Security
 - Administrative
 - Policies and Procedures (Contingency Plan)
 - Assigning Security Responsibility
 - Training
 - Physical
 - Data Center Facility Access
 - Device and Media Controls
 - Workstation Use/Security (secure workstation location)
 - Technical
 - Network, Operating System, DB, Application
 - Integrity
 - Audit Controls
 - User Authentication
 - Transmission security (e.g., SSH, SSL, etc.)
 - Certification and Regulatory Compliance
 - SOX
 - FDA
 - FISMA, HIPAA, NIST guidance

Typical Issues

- Overly Complex Architecture Solution
- Hardware Inadequate
- Software Not Current
- Resources Unallocated
- Testing Underestimated
- Training – Technical And Functional
- Processes Not Defined
- Project Timings Inaccurate
- Automation Not Deployed Initially

Case Study

- **Oracle E-Business Suite Release 11i – Production – 11.5.8/Oracle9i – 2001 – 2004**
 - 550 Application Users – Single Sign-on
 - 200 Database Users
 - 225,000 Database Objects
 - Total Environment Size – 210 GB Disk Allocated, 180 GB Used
 - 125 GB Database – OATM Configured
 - 30 GB Application Code
 - 9 GB Patches
 - 9 Production and Production Support Environments (Production, Quality, Test, Training, Development, Sandbox, Patch, Year-end, Upgrade)
 - Phased, Multi-year, Federalized – Initially Started with 11.5.3
- **COTS Travel Package – RDBMS Oracle8i, Progress, Apache, Tomcat and Coyote**
 - 33,000 Traveler Users – Single Sign-on
 - 2700 Application Users (Planners, Reviewers, Approvers, Administrators, System Administrators, Super Users)
 - 10 Database Users
 - 3900 Database Objects
 - Total Environment Size – 30 GB Disk Allocated, 24 GB Used
 - 14 GB Database Size
 - 7 GB Application Code
 - 9 Production and Production Support Environments (Production, Quality, Test, Training, Development, Sandbox, Patch, Year-end, Upgrade)
- **Total Environments – Production, Development and Project**
 - 30 Release 11i Environments – Two Production DBAs
 - 200 Unattended Clones Annually
 - Full Single Sign-on Enablement w/Netegrity and Active Directory
 - Reverse Proxy Configured for Security – Servers and Ports
 - Servlet Technology in Place
 - Single Tier, Single User, Single Mountpoint
 - 44 CPUs
 - 110 GB RAM
 - 10 TB SAN Disk Space





The **BIG**
★ **EVENT**
OAUG Connection Point

Q & A





Thank You!

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