



SROAUG

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R12 Upgrade

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Oracle Technical Consulting

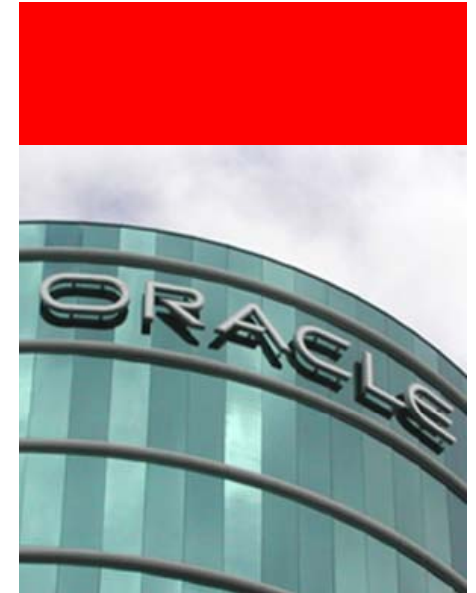


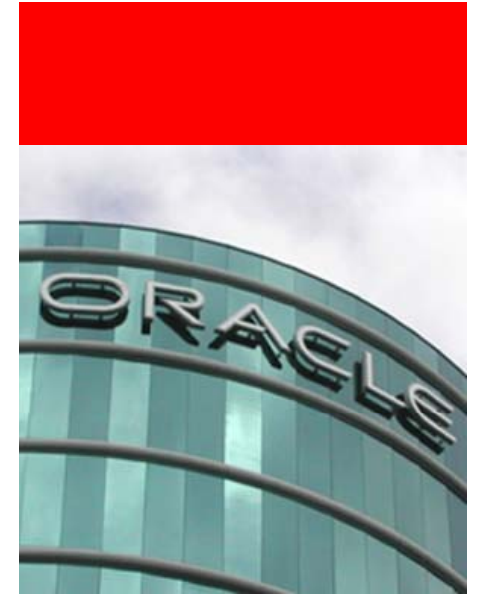
Safe Harbour

The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. The development, release, and timing of any features or functionality described for Oracle's products remains at the sole discretion of Oracle.

Agenda

- **Key Success Criteria**
 - Plan, people, practice
 - Minimizing downtime
 - Upgrade flow
- **Upgrade Challenges**
 - R12 technology stack
 - Upgrade and configuration
 - Customizations
- **Proactive Measures**
 - Supported upgrade path
- **R12 Readiness**
 - Customer
 - Oracle consulting
- **Q&A**





Key Success Criteria

Reiterative Planning

- Upgrade strategy
- Hardware/staffing resources
- Testing of key features
- Multiple upgrades
- Identify upgrade downtime target
- Ensure skilled resources
- Evaluate potential areas for improvement
 - Incorporate according to feasibility
- Assess implications of new stack



Involve the Right Resources



Project Manager

- Project owner
- Decision maker
- Task & staff coordinator



Functional Owner

- Functional impact
- New feature uptake
- Testing
- Upgrade steps



DBA

- AD utilities
- Database administration
- Tech stack updates
- Upgrade steps



IT Developer

- Functional impact
- Customization impact
- Custom development

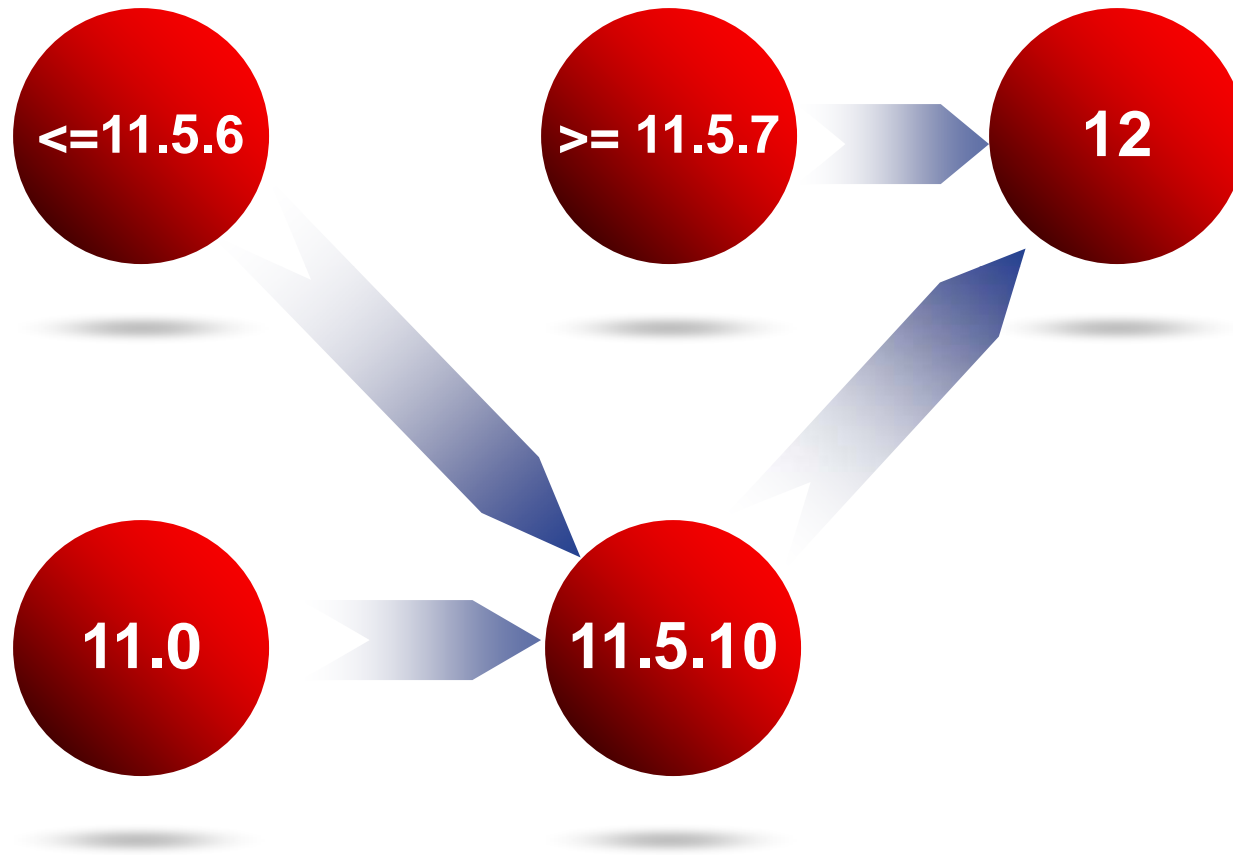


Fine Tune Upgrade Activities

- Leverage best practices to minimize downtime
 - Shared APPL_TOP
 - Staged APPL_TOP
 - Distributed AD
 - Hot patch
 - Merge patches
 - Archive/purge
 - Tune upgrade performance
 - Automate fixes
 - Export/Import of gathered statistics
 - Multithread activities as applicable



Upgrade Path



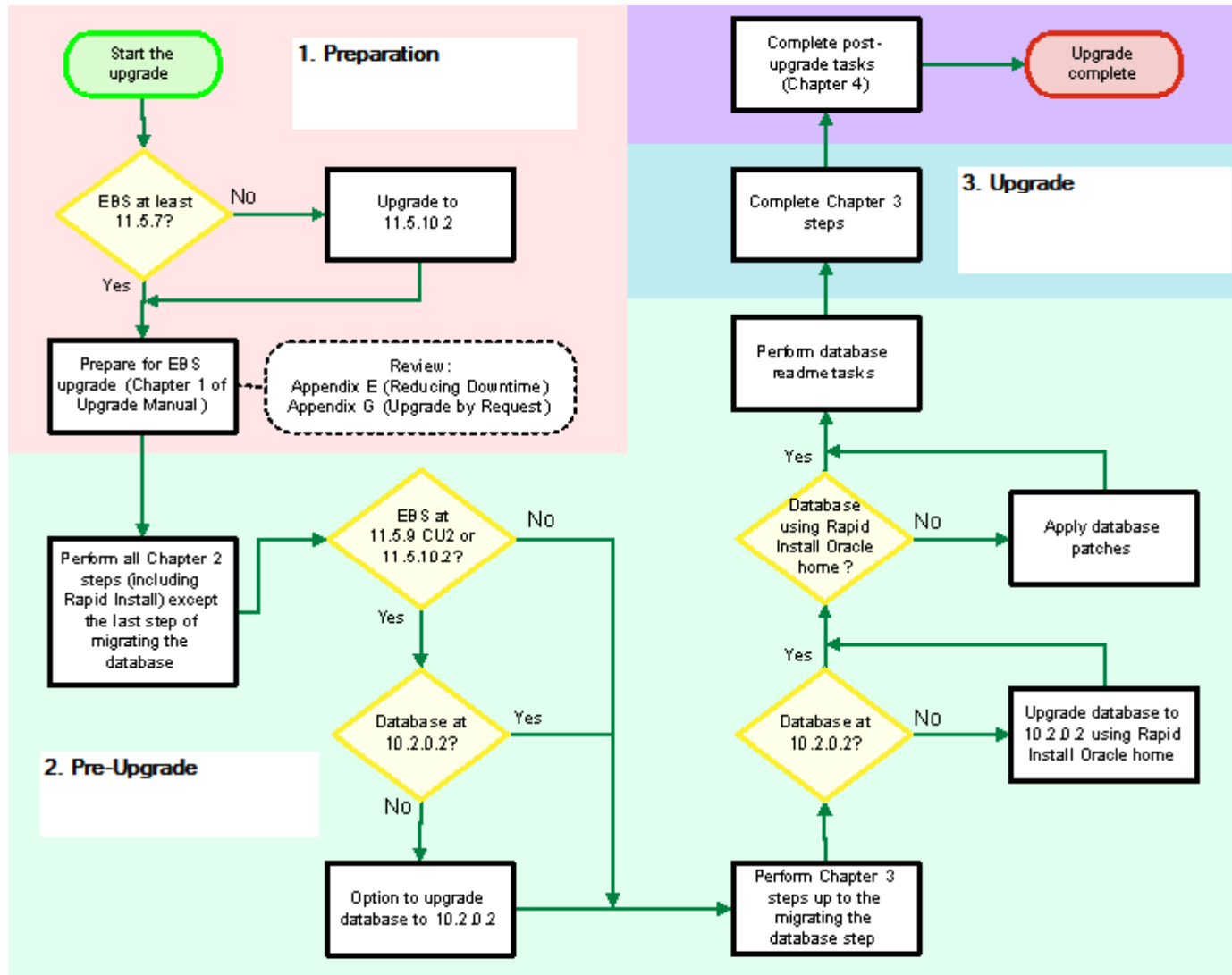


Upgrade Path (Continued)

				APPS			
DB	<11.5.7	11.5.7	11.5.8	11.5.9.1	11.5.9.2	11.5.10.1	11.5.10.2
9.2.x		A	A	A	A	A	A
10.1x				A	C	A	C
10.2.x	11.5.10.2				B		B

Option A: Upgrade to 10gR2 During R12 Upgrade	Option B: Already at the right Level for R12 Upgrade	Option C: Upgrade to 10gR2 Before OR During R12 Upgrade
Install R12 Tech Stack and 10.2.0.2 Home	Install R12 Technology Stack	Upgrade database to 10.2.0.2
Upgrade the Database to 10.2.0.2	Conditionally Apply database patches	Proceed with R12 upgrade OR use 11i with 10gR2
Perform Database Steps	Conditionally apply Service patch	Apply database patches
Conditionally apply Service patch		Conditionally apply Service patch

R12 Upgrade Flow





Install R12 File Systems

- Run script `$AD_TOP/sql/adutconf.sql`
- Install TUMS-MP patch 5120936
- Review TUMS report
- Run AD preparation scripts (5726010)
- Run rapidwiz to create R12 code tree
- Ensure use of previously identified ports
- Build R12 code tree
 - Use same character set as 11i



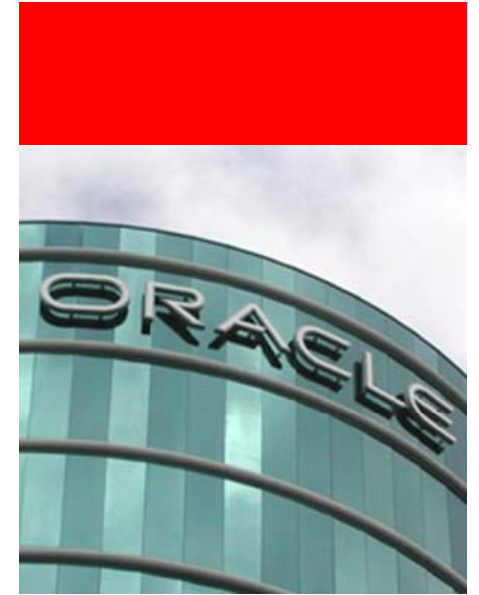
Perform Upgrade Steps

- Shutdown the Application Server processes
- Review init.ora parameters Note: 216205.1
- Enable maintenance mode
- Apply patch AD.A 4502962
- Apply unified driver 4440000 patch
 - Located in R12 \$AU_TOP/patch/115/driver
- Review all log files
- Address any identified errors



Configuration Phase

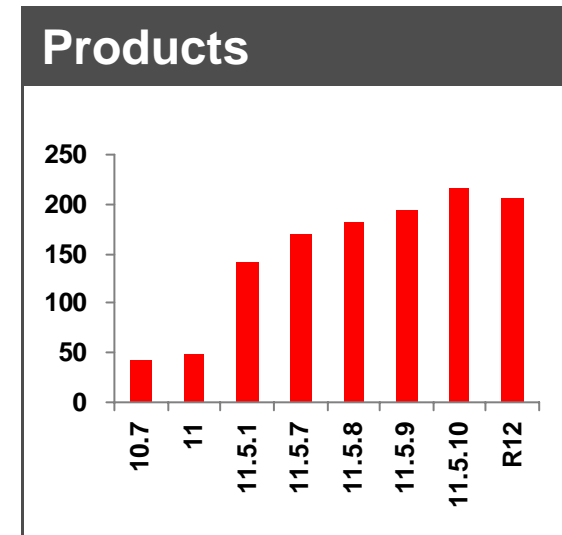
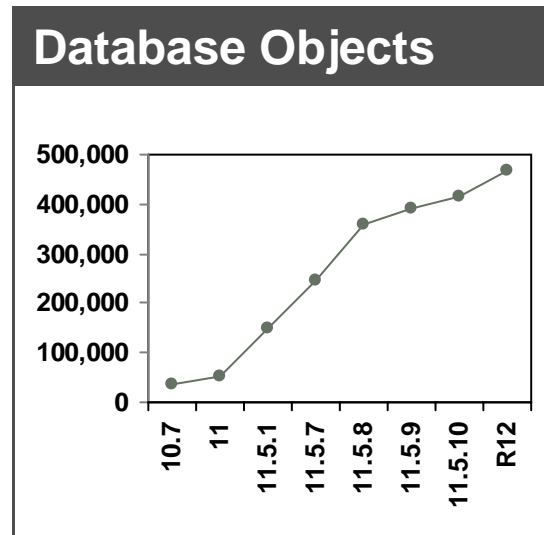
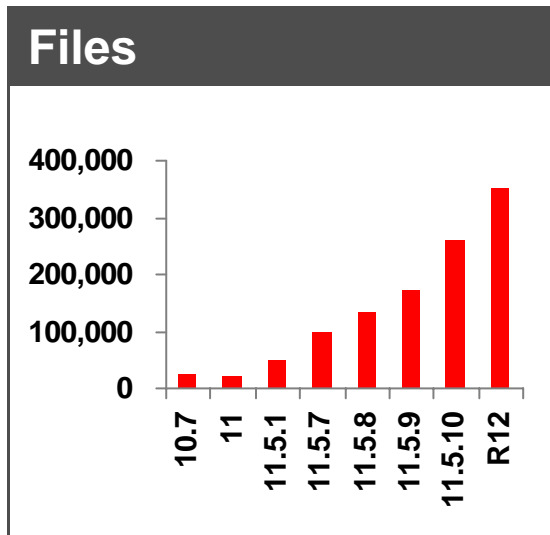
- Disable maintenance mode
- Run autoconfig
- Run rapidwiz to configure and start processes
- Sign on to R12 applications check concurrent managers



Upgrade Challenges

Larger Footprint

- Many functional enhancements
- Cross product initiatives impact many objects
- Largest EBS release by every Matrix





Technical Stack Differences

Component	11i10	R12
Servlet Engine	Jserv	OC4J
Apache	1.3.19	1.3.31
Forms	6.0.8	10.1.2
Client Oracle Home	8.0.6	10.1
JDK	1.4 , 1.5 , 1.6	1.5
Core Application Server	1.0.2.2	10.1.3
JDBC Driver	9.2.0.8	10.2.0.2/3
Data Server	9.2.0.8 , 10.2.0.2/3	10.2.0.2/3



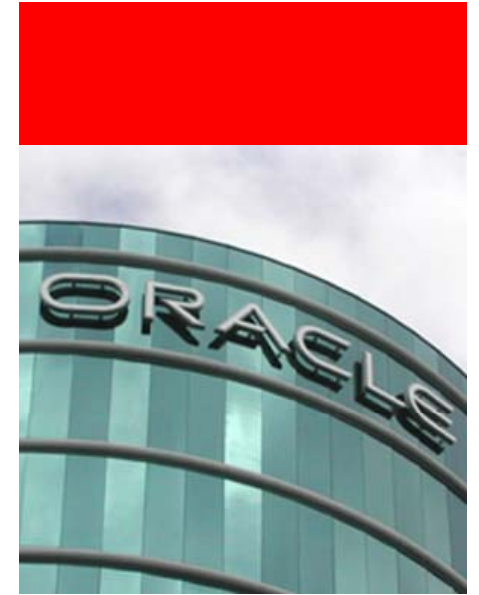
Reconfigure init.ora for Upgrade

init.ora parameter changes for R12 upgrade	value
parallel_max_servers	80
log_buffer	32010240
job_queue_processes	40
db_block_checking	False
recyclebin	Off
_db_handles_cached (for ar120trxl.sql)	16
log_archive_max_processes	8
pga_aggregate_target	16 GB
_db_file_optimiser_read_count	REMOVE
db_file_multiblock_read_count	REMOVE



Customizations

- Forms
- Reports
- C code
- Java code
- Custom.pll
- AutoConfig customizations
- Development tools
 - Compilers, Forms/Reports builder 10.1.2, JDev 10.1.3
- User interfaces
 - New look & feel



Proactive Measures

Upgrade Readiness

- Keep up-to-date on latest AD/OAM code
- Schedule periodic/proactive maintenance
- Combine patches with AD merge patch
- Perform “uptime” maintenance
 - Gather schema stats
 - Apply translation database updates
 - Patch help system
- Use a shared APPL_TOP and distributed AD
- Use cheaper/faster middle-tier hardware





Upgrade Readiness

(Continued)

- Consider converting to Multi-Org
- Adopt OATM
- Upgrade to latest certified RDBMS version
- Archive & purge old data
- Ensure new customizations comply with the Developers Guide for Customizations
- Read the Upgrade Documentation Set



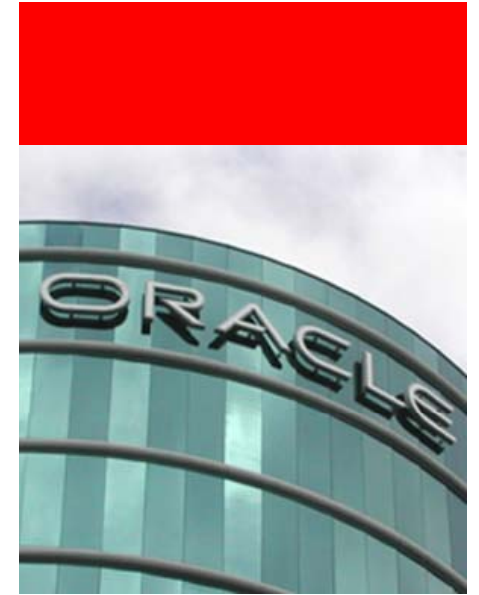
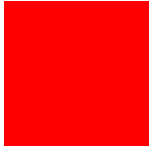
Bridge Technology Gaps

- 11.5.10.2 instance
- Upgrade of Developer to Dev6i Patchset18 + interop patches
- Upgrade of RDBMS to 10.2.0.2 + interop patches
- Application patches
 - AD.I.4 4712852
 - ATG.PH 4 4676589
 - TXK.N 5107107



Summary

1. Early planning
2. Develop upgrade Strategy
3. Plan upgrade path
4. Ensure adequate hardware resources
5. Ensure skilled staffing resources
6. Easy access to training and documentation
7. Study technical impacts
8. Study functional impact carefully
9. Testing of key features
10. Multiple test upgrades
11. Cutover and transition tests
12. Identify upgrade downtime target



R12 Readiness



Customer Exposed Readiness

- Generally available product documentation
- Metalink knowledge base
- E-Business Suite R12 Information Center
 - An 11i Information Center also exists off the main page
- E-Business Suite R12 Upgrade Guide
- EBS Oracle Advisor Webcast Program
 - Archive
- EBS AppCasts



Technical Consulting Readiness

- Transfer Of Information (TOI)
 - Delivered through various formats
 - Available prior to product release
- Center Of Expertise (COE)
 - Leading the way in development of best practices and sharing of latest information
 - 600+ members (consulting, product support, development, etc.)
- R12 Competency Track (Road Map)
 - Five day class developed and delivered by consulting experts
- SPARKS
 - Bi-weekly field consultant delivered technical presentations
- R12 Oracle Expert Services under development
 - R12 Technology Upgrade Workshop
 - R12 Capacity, Sizing and Scalability Planning
 - R12 Technical Readiness Assessment
 - R12 Technical Architecture Roadmap



Oracle Expert Services

- Main Page
 - System Performance & Architecture section
- EBS focused
 - Oracle E-Business Technical Readiness Assessment
 - Oracle E-Business Performance Capacity Scope and Assessment
 - Oracle E-Business Performance Review
 - Oracle E-Business Suite on Grid Quick Start
- Other popular offerings
 - High Availability Scope and Assessment
 - Oracle Back-up and Recovery
 - Oracle Database Configuration and Optimization
 - Oracle Database Performance Healthcheck
 - Real Application Cluster Quick Start
 - Oracle Database Upgrade Assessment Workshop



Proactive Internal Readiness

- R12 Emersion campaign
- Road map training and efficient knowledge sharing
 - New acquisitions, performance tuning, architecture, etc.
- Increased certification focus
 - Various OCP and PM certifications
- Rigorous interview and promotion process
 - Increase overall service quality
- Application Integration Architecture (AIA)
 - Web services (SOA), Business Process Execution Language (BPEL), Process Integration Packs (PIPs), Foundation Pack, etc.
 - Master Data Management Suite (MDM)
- Applications On RAC (AOR) Deep Dive
 - Undergoing revisions for R12 focus
- Enterprise Manager (GC)
 - Greater functionality for EBS environments
 - Develop and communicate best practices



Q&A



References

- R12 doc set
- Upgrade manual - Part No. B31566-01
- Install manual – Part No. B31295-02
- <http://blogs.oracle.com/schan/>
- R12 Upgrade Best Practices Metalink Note 3999362.1
- Oracle Press – Oracle Applications DBA by Joyjeet Banerjee (Covers 11i and R12)
- Oracle Open World Presentations