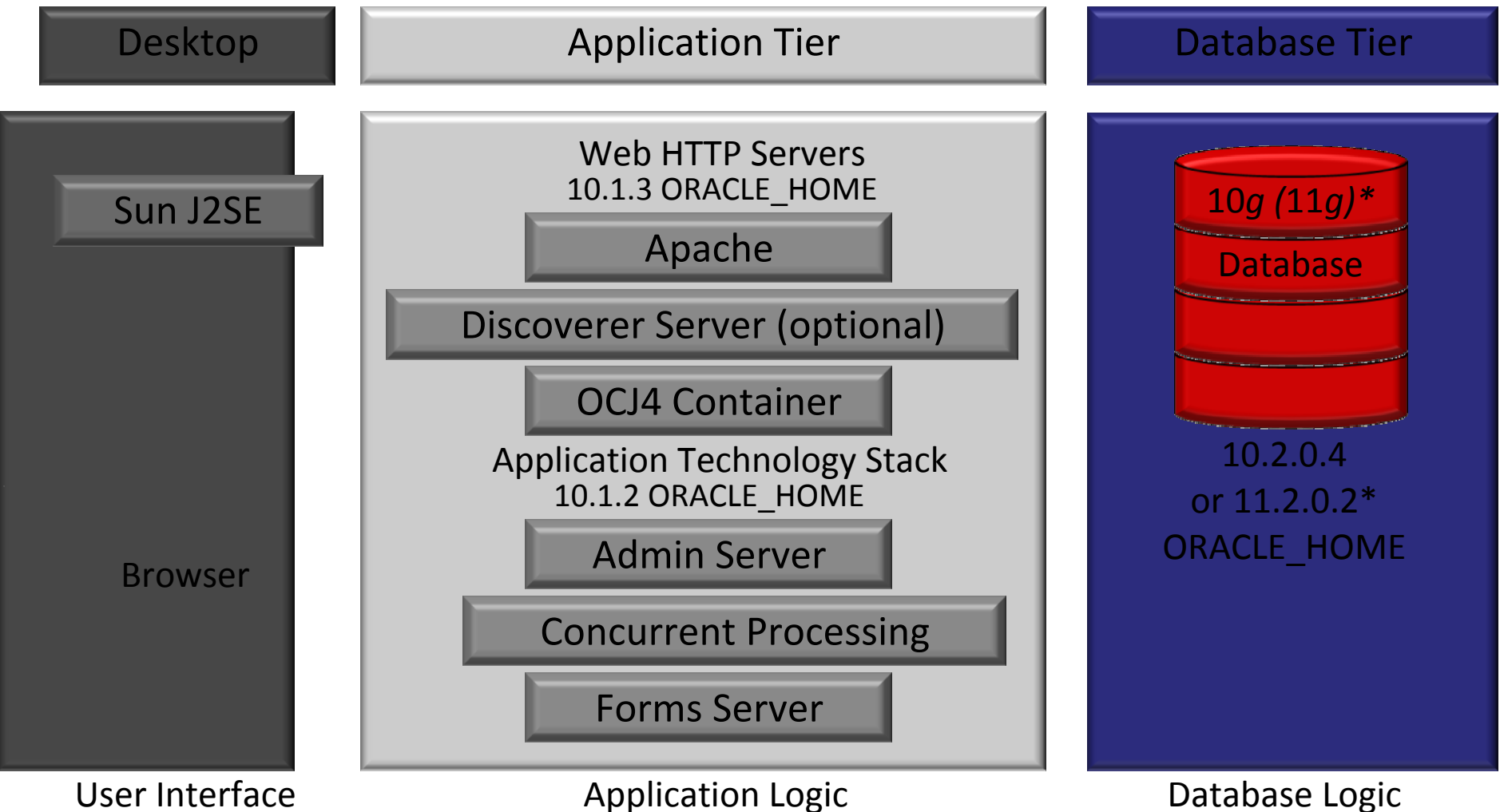


Release 12 Apps DBA 101

Release 12 Architecture Components



Administration and Maintenance Tools

- Oracle Applications Manager (OAM)
- Patching – Shared Appl_top
- AutoConfig
- Diagnostics
- Cloning
- Oracle Enterprise Manager (OEM)

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)

- Recommended tool for making changes to AutoConfig
- Use License Manager to enable licensed E-Business Suite modules
- Monitors Jserv, Business Flow, Concurrent Manager, Runaway Forms Processes
- Includes Patch Wizard and Patch History
- Create your own System Alerts
- Tracks security issues, including Sign-on Auditing
- MetaLink Note: 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

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 - AutoPatch
 - Upgrading E-Business Suite from R11*i* to R12 *
 - Applying an R12 RUP, a Family Pack, Mini-Pack, etc.
- Database and CPU/PSU Patching – OPatch and N-apply
- Diagnostics – a set of non-intrusive programs that can be run to gather information about aspects of the applications

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

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
 - `adtmplrpt.sh` – provides information about location of AutoConfig templates
 - `restore.sh` – to roll back an AutoConfig session

Applications Patching

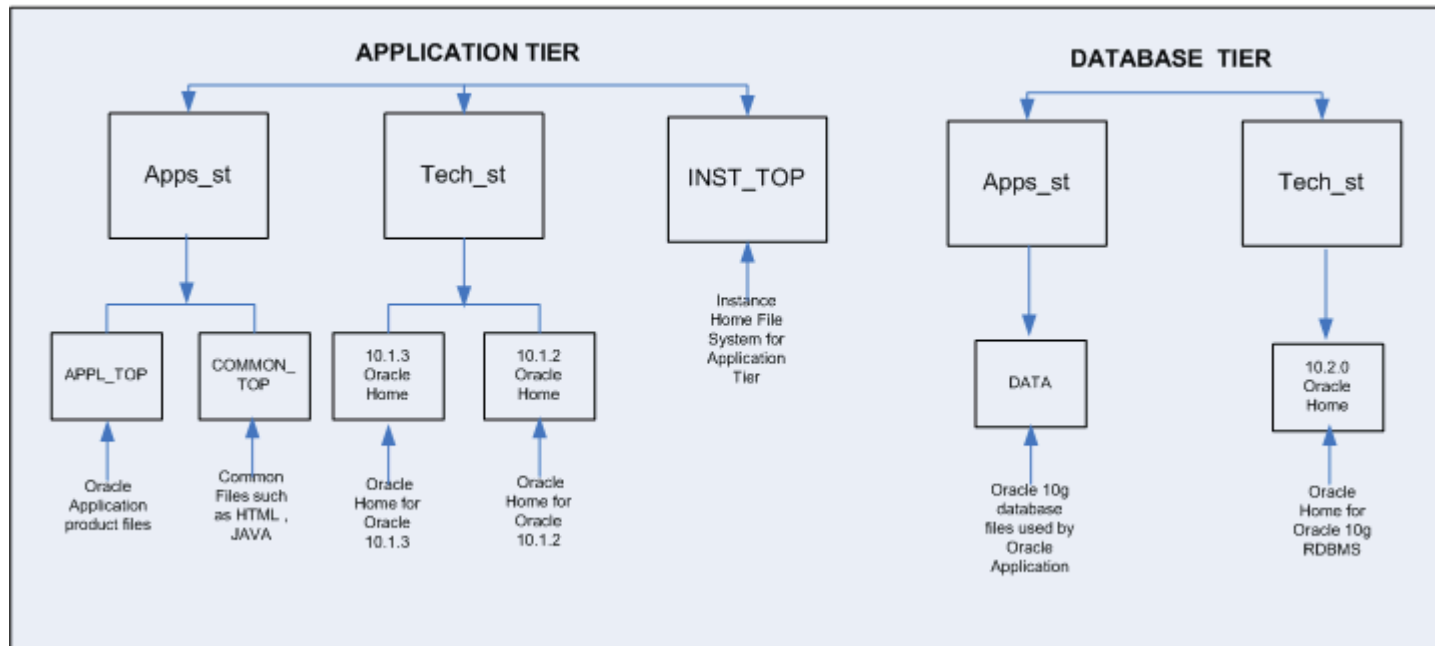
- Patching is Oracle's way of releasing code fixes, functionality enhancements or new functionality
- Patches can update or create new file system objects like forms, reports and sql scripts
- Patches can execute code within the database to change seeded data

AutoPatch

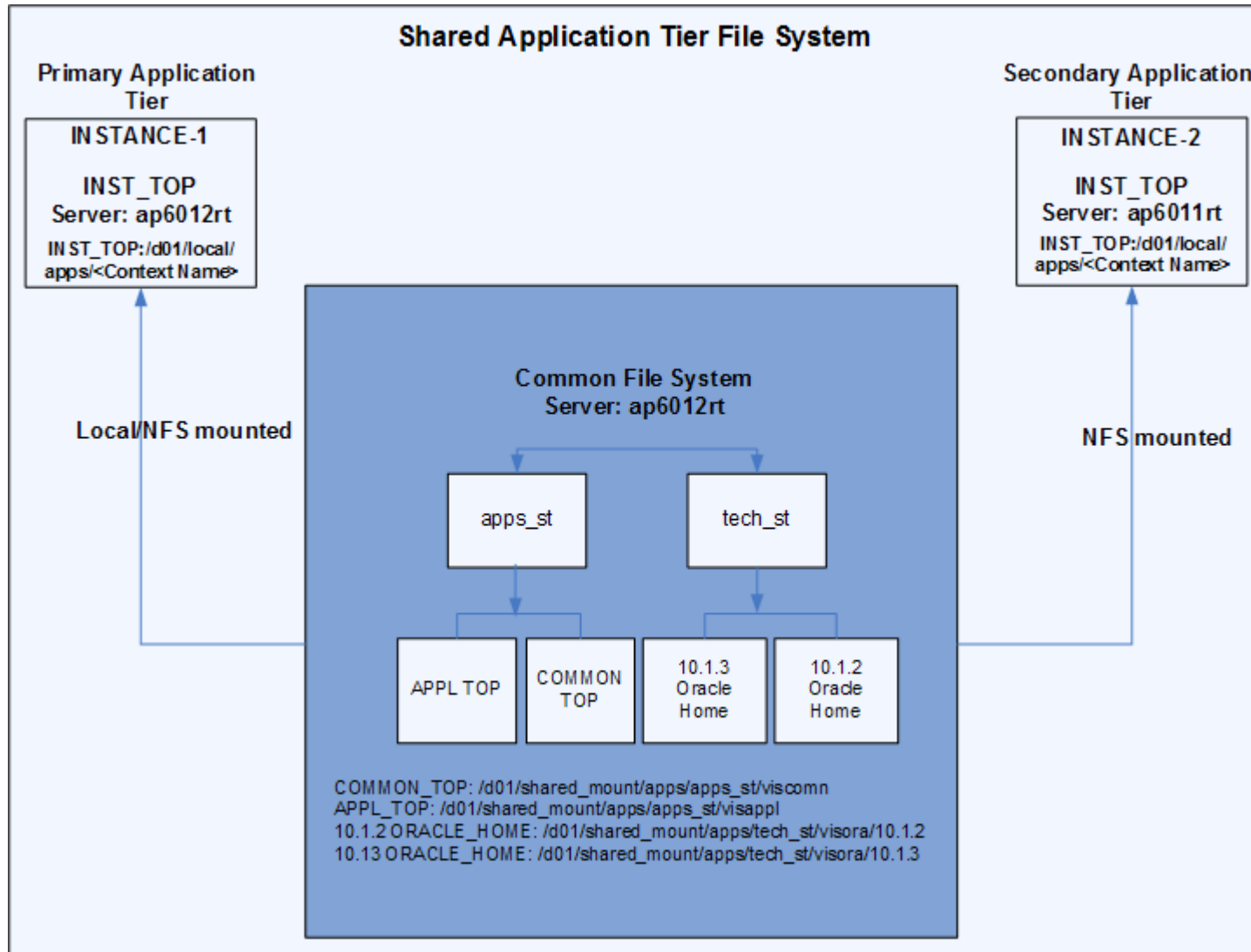
- Use AD Merge Patch to group patches together for application, then apply the merged patch using AutoPatch
- Use AutoPatch Non-interactive Mode to automate patch application
- Use a Shared Application Tier File System for multi-node systems to apply patches only once
- MetaLink Note: 181665.1 (AutoPatch)
- MetaLink Note: 384248.1 (Sharing Appl top)

Shared Application Tier File System Architecture

Applications Directory Structure



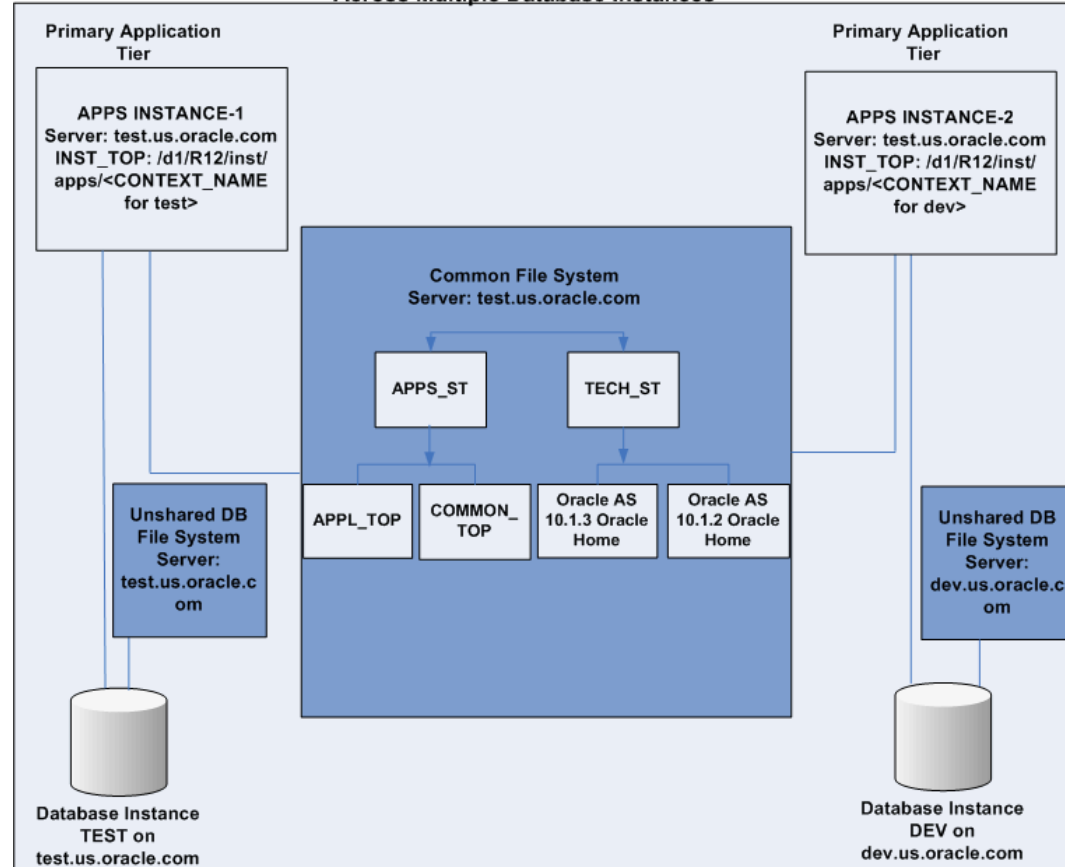
Shared Application Tier File System Architecture



Sharing Oracle E-Business Suite Release 12 File System Among Multiple Database Instances

- Share App Tier File System between two database instances
- Example Dev and Test
- Database must be at same patch level
- Reduce Disk Space used
- Reduce Patching Downtime
- “All eggs are in one basket”
- See Appendix B (ID 384248.1)

Sharing Applications Tier File System Across Multiple Database Instances



Database and CPU Patching

- OPatch utility – To apply patches to the RDBMS
- Critical Patch Updates (CPU/PSUs) – 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 but less patching

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 12.1.2 is E-Business Suite Diagnostics 12.1.2 (Patch 7717707)
- 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 11gR2 New Features

Don't upgrade *just* because of the end of Premier Support -upgrade for the new features!

Oracle's Real Application Testing database pack:

- SQL Performance Analyzer
- Database Replay

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**

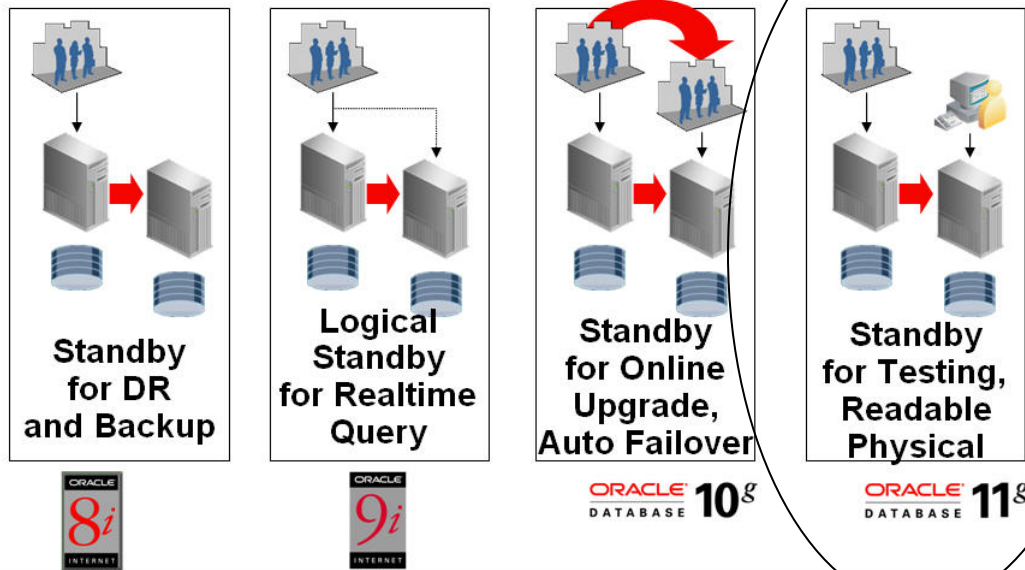
- 2-4 times compression rates across all types of data and applications.
- Improves query performance by reading fewer blocks from disk.
- Disk space savings + improved network performance and data backup time.
- Use Oracle's Compression Advisor to estimate space savings:
http://www.oracle.com/technology/products/database/compression_advisor.htm

Oracle 11gR2 New Features

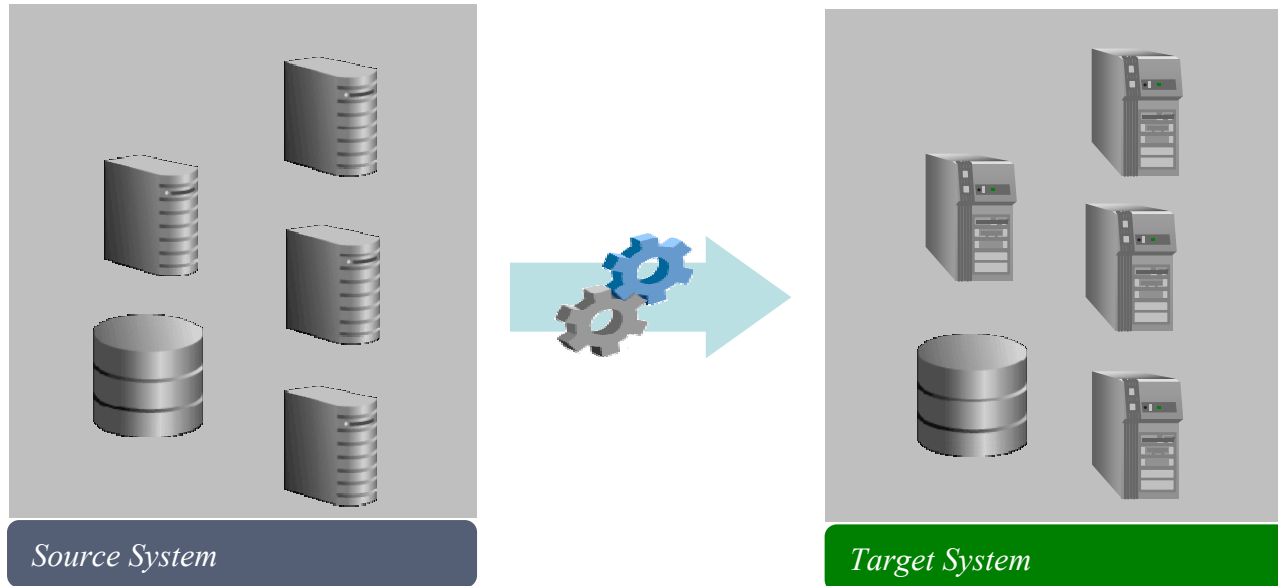
- **Active Data Guard**
 - Offload resource intensive activities from a production database to a synchronized standby database
 - Enables fast incremental backups, high availability and disaster recovery

11gR2 New Features: Active Data Guard: Future

Unlocking the Value of Standby DBs

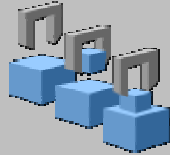


Cloning Techniques



- Cloning is the process used to create a copy of an existing E-Business Suite System

Cloning Techniques



Rapid Clone

- Manual Process
- Requires User Interaction
- Note [406982.1](#)

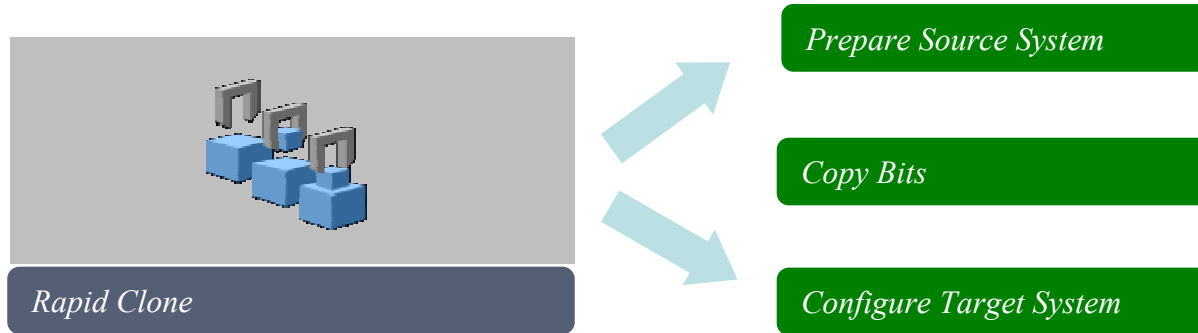


Application Management Pack

- Automated Process
- Provides Data Scrambling
- Allows Image Creation
- Leveraging EM Grid Control

Cloning Techniques

Rapid Clone



Rapid Clone

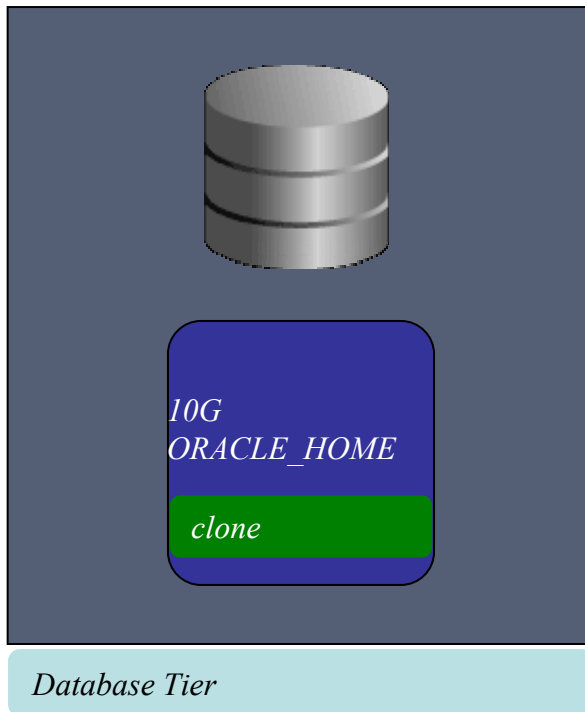
Functionality

- Prepare Source System
 - Does not alter the Source System
 - Can be executed at any time
 - Users can be connected to the System
 - Obtains Database Information
 - Creates Clone Directory
- Configure Target System
 - Configures System for the new Target
 - Can be re-executed in case of failure
 - Same OS Requirements than Rapid Install

Rapid Clone

Prepare Source System

1 Database Tier



```
adpreclone.pl dbTier
```

Creates
OH/appsutil/clone
directory

Obtains Database
Information

Creates adcrdbclone.sql

Rapid Clone

Prepare Source System

2 Applications Tier



```
adpreclone.pl appsTier
```

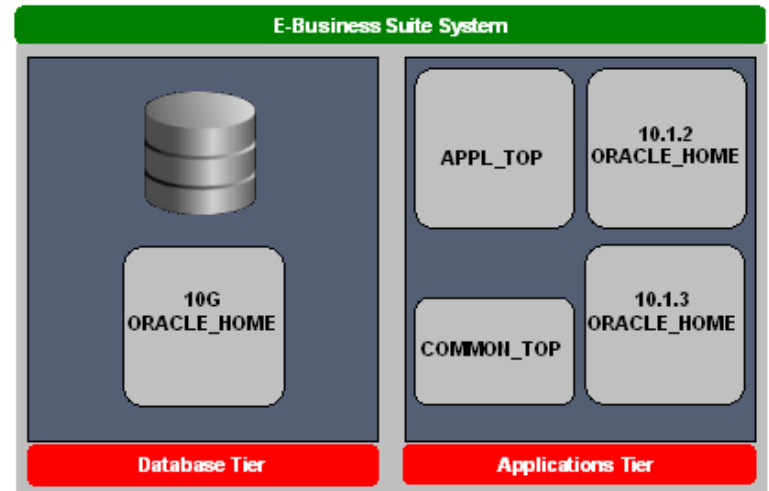
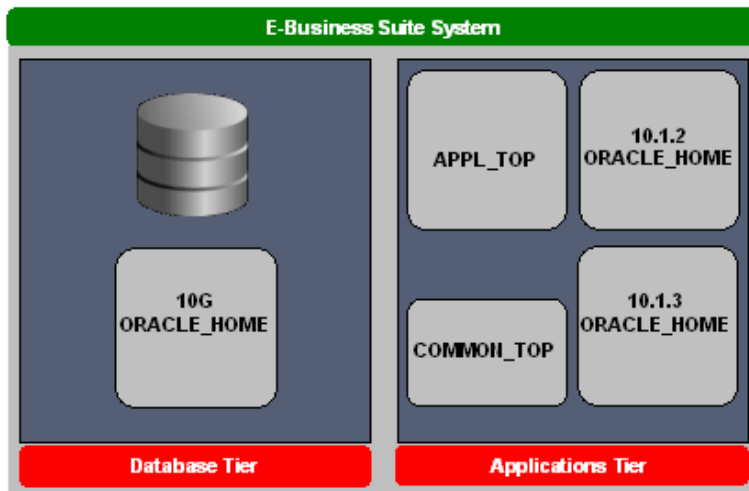


Creates
`$COMMON_TOP/clone`
directory

Applications Tier

Rapid Clone

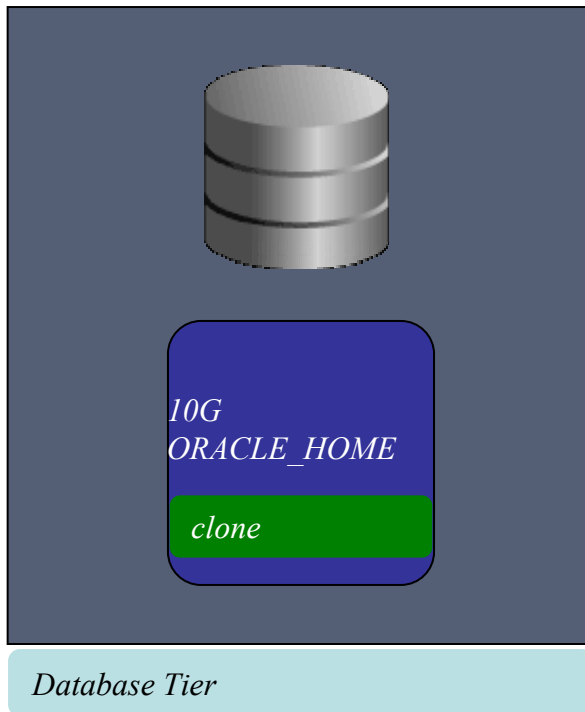
Copy Bits



Rapid Clone

Configure Target System

1 Database Tier



`adcfgclone.pl dbTier`

Create Context File

Register Oracle Home

Relink Oracle Home

Configure Oracle Home

Recreate Control File

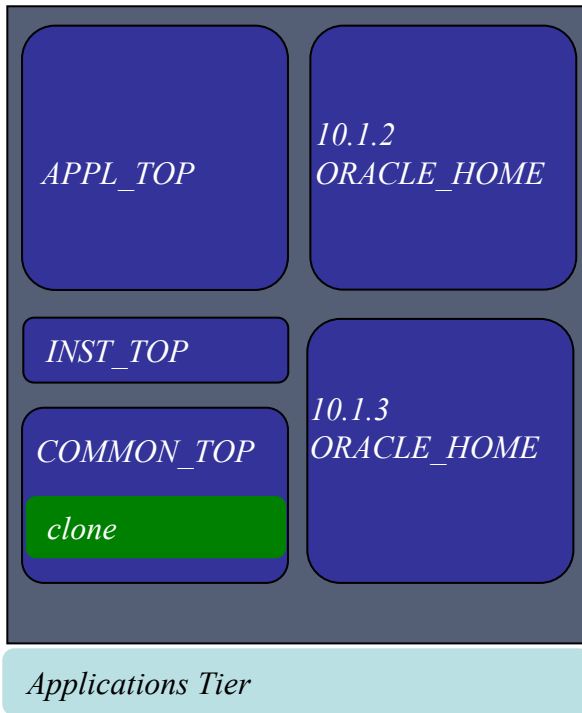
Configure Database

Start SQL*Net Listener

Rapid Clone

Configure Target System

2 Applications Tier



`adcfgclone.pl appsTier`



- Create Context File
- Register Oracle Homes
- Relink Oracle Homes
- Configure Oracle Homes
- Create INST_TOP
- Configure APPL_TOP
- Start Apps Processes

Rapid Clone

Summary

- Manual process
- Flexible methodology
- Easy to maintain
- Can interact with custom tools

Oracle Enterprise Manager (OEM)

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