Leveraging Enterprise-Level Server Capabilities

Implement and Managing Database Hotels

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Agenda

- ➤ Why Hotel?
- ➤ Wachovia Hotel Architecture
- Predefining Policies and Procedures
- > Implementation Standards
- > Core Implementation Steps
- > Maintaining the Environment
- ➤ Monitoring for Performance and Compliance
- > Q&A

Why Hotel?

- Decrease Time to Market
- Reduce Support Costs
 - •Hardware
 - Software
 - •Human Resources
- Standardization of Systems
- Expansion of System Unlimited
- Provides for High Availability and Disaster Recovery

as of July 22, 2002 Arcus Data **SILAS** WEC Sercurity (OffSite Storage Vendor) **Production Hotel** Development/DR Hotel KZDP004 KZDD005 Fadility Failure Event SILAS TSM Backup Facility Failure Event KZDD003 KZDP006 ZDP003 KZDD006 EMC Array and Tape are SAN connected EMC Array and Tape are SAN connected

<u>эт:</u> ЭВ ОМВ Red Line denote hardware or package failover

Black lines to servers from EMC denote fibre connection

All Servers except: Hewlett-Packard N4000-750 6 (750mHz) processors with HP-UX 11i (64-bit) and 16.0gb RAM

kzdp003/kzdd003: Hewlett-Packard N4000 (750mHz) processors with HP-UX 11.0 (64-bit) and 16.0db RAM. These will not be HA and will be used for

Policies and Procedures

- > Elements to Define
 - > Standard Installation Components
 - Upgrade/Migration Policy
 - > Desupported Software Policy
 - Standards for Backup/Recovery and DR
 - > Resource Allocation
 - Penalty for Non-Compliance

Implementation Standards

- ➤ FileSystem Naming Standards allows for fully scripted implementation
 - > FileSystems Maps to Package Name
 - Standard Minimum Devices
 - Controller names standardized
- Develop an Oracle Init File Template
- Develop database component standards

Core Implementation Steps (Automated Creation)

- Select available physical devices and create volume group
- ➤ Obtain Network Info -- IP/Subnet
- ➤ Configure cluster/package configuration files
- > Implement watchdog process on all nodes
- > Auto-transfer configuration files to failover node
- > Apply package configuration and start package
- > Create Oracle Listener
- Create Oracle Database
- > Install canned apps, statspack, auditing maintenance, etc.
- > Verify sqlnet connectivity
- > Perform initial database backup
- > Verify failover
- Notify DBA of Package Creation

Maintaining the Environment

- Extending Capacity of Existing Packages
- ➤ Adding a Room to an Existing Package
- ➤ Validate Usage of Standardized Backup/Recovery Methods
- Periodically test/validate Failover

Monitor Performance and Compliance

- Update PARM File
- ➤ Use WLM at the OS-Level
- ➤ Use Oracle Statspack at the DB-Level
- ➤ Ensure MeasureWare is Running

Questions and Answers