



TEAM

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Agenda

- ▶ Customer Challenges
- ▶ NetApp Services for Oracle
- ▶ NetApp Best Practices for Oracle
- ▶ Case Studies
- ▶ Further Sources of Information

Customer Challenges *Drive Service Solutions*

Architecture complexity



Accelerate implementation
Best practices and architecture blueprints
reduced complexity

“Do more with less”
productivity imperative



Control cost
Fixed price, pre-scoped
accelerated professional
service offerings

Vendor management



Maximize return on IT investment
Best of breed storage and DB
Unmatched partnership
Collaborative expertise
Single point of contact

NetApp Services for Oracle



Pre Deployment

- Assessment services
- Architecture services
- Capacity planning

Deployment

- Oracle on NetApp Accelerator
- Disaster recovery
- High availability

Post Deployment

- Performance tuning
- Data migration
- Custom services

Delivering value together for our customers while helping them lower cost and reduce complexity

NetApp Services for Oracle

Reducing Complexity and Delivering Success

Accelerator Services

Fixed-cost & scope
Lowering risk

Custom Services

Wide range of capabilities
Delivering expertise

Portfolio of Services

- ✓ High availability
- ✓ Disaster recovery
- ✓ Capacity/performance tuning
- ✓ NAS/SAN



How to Quote

Always engage PS early in sales cycle for discovery and pre-sales support

- ▶ **NAS/SAN Accelerator - PS-ORCL-A-7USORCL-ACCEL-DB-ON-NetApp \$28,500**
- ▶ **Real Application Clusters Implementation - PS-ORCL-HA-10US ORCL-HA-9iRAC-ACCEL-ON-NetApp - \$35,000**
- ▶ **Disaster Recovery Implementation - PS-ORCL-DR-7INTLORCL-Dsas-Rcov-ACCEL-ON-NetApp \$31,500**
- ▶ **Custom Consulting – Assessment, Tuning, Migration etc. – Contact your local PS Manger for scoping**

NetApp Best Practices for Oracle

These best practices were developed through the interaction of technical personnel from NetApp, Oracle, and joint customer sites, and cover:

1. NetApp system configuration
2. Operating-specific recommendations
3. Database layout
4. Network recommendations
5. And much more...

Case Study

OC Tanner: Salt Lake City, Utah

Customer situation

- ▶ Two terabyte SAP database migrated from IBM Shark storage system to NetApp Filer

NetApp-Oracle solution

- ▶ Two-Week Data Migration Accelerator
- ▶ NFS Protocol
- ▶ Target Filer:
 - 2 x F820 – 4 DS-14 shelves each
 - Multipath fiber channel I/O
 - 4 x GbE NIC (1 single vif of 2 cards)
 - Data ONTAP 6.2R2

Customer benefits

- ▶ Reduced backup time from 14 hours to less than one minute!
- ▶ Migration completed in less than two weeks
- ▶ Knowledge transfer about Oracle and NetApp products

Case Study

Universal Tax Services: Rome, Georgia

Customer situation

- ▶ 9i RAC upgrade to 10g RAC
- ▶ Moved from SAN to NAS

NetApp-Oracle solution

- ▶ Two-Week 9iRAC Accelerator
- ▶ Hewlett Packard Servers
- ▶ Microsoft Operating System to LINUX OS
- ▶ Proof of Concept with iSCSI and Fiber Channel
- ▶ Chose NAS for simplicity after all options were tested

Customer benefits

- ▶ 9i RAC upgrade to 10g RAC
- ▶ Moved from SAN to NAS
- ▶ Increased confidence level that project would be completed on time

Case Study

U of Texas Medical Center: Galveston, Texas

Customer situation

- ▶ PeopleSoft migration from SunFire 4900 Server Disk Storage to NetApp Filer

NetApp-Oracle solution

- ▶ Five-Day Data Migration Accelerator
- ▶ One F960 configured
 - 56 72GB disk drives 4 TB raw space
 - Data ONTAP 6.1.2R3
 - Memory Size: 6 MB
 - 2 Gigabit Ethernet interfaces
- ▶ NFS Protocol
- ▶ SnapShot / SnapRestore for Backup and Recovery

Customer benefits

- ▶ Accelerated all back up and restore processes
- ▶ Acquired more disk space to accommodate future growth

Case Study

PPM Energy: Portland, Oregon

Customer situation

- ▶ New 9i RAC installation

NetApp-Oracle solution

- ▶ Two-Week 9i RAC Accelerator
- ▶ FAS940C Filer
- ▶ Four databases to support production and on development database
- ▶ RAC was chosen for high availability and scalability
- ▶ Two-node cluster
- ▶ Dell server
- ▶ NFS protocol

Customer benefits

- ▶ Faster deployment due to Rack Accelerator engagement -- up and running within two weeks
- ▶ Comment from DBA about snapshots “WOW!”

Case Study

Consol Energy: Pittsburgh, Pennsylvania

Customer situation

- ▶ Data migration from EMC to NetApp Filer
- ▶ SAN protocol

NetApp-Oracle solution

- ▶ Two-Week Basic Accelerator
- ▶ Hewlett Packard AIX Operating System
- ▶ Single instance database to support a 1TB SAP database
- ▶ Target Filer:
 - 2 x F820 – 4 DS-14 shelves each
 - Multipath fiberchannel I/O
 - 4 x GbE NIC (1 single vif of 2 cards)
- ▶ Data ONTAP 6.2R2

Customer benefits

- ▶ Enabled easier maintenance of storage facilities
- ▶ Provided greater growth capabilities
- ▶ Delivered high availability

Case Study

Edmunds.com: Santa Monica, California

Customer situation

- ▶ Multiple 9i and 10g RAC databases to support new mission-critical application

NetApp-Oracle solution

- ▶ Two-Week Basic Accelerator
- ▶ SnapShot and SnapRestore Backup Solution

Customer benefits

- ▶ SnapShot and SnapRestore are now essential to support their backup and recovery strategies
- ▶ Dramatically decreased time for backups

Oracle Corporation: Austin Data Center

Data Center Stats:

- Oracle is the largest NetApp installation on earth!
 - 2.5 Petabytes (2,500 Terabytes) of disk storage
 - More than 9,500 operational servers
- 355 new servers on average added every month
- Largest Dell/Linux installation on earth
- Hundreds of mission-critical applications are hosted on the premises

Contact Information

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More Information

▶ Internal website – NetApp Services for Oracle

- http://cs-web.netapp.com/service_mktg/consultingedge/database/index.html

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NetApp Services for Oracle

NAS / SAN Accelerator Service

▶ **Planning and Analysis**

- Determine and recommend architecture for optimization
- Analyze specific needs such as filer configuration, back up schedules, Number of db instances and data migration requirements

▶ **Installation and Configuration**

- Configure NetApp filer for transition of the db instance
- Install Oracle software on the NetApp filer, if required
- Clone the database instance on the Netapp filer and create mirroring scripts for database

▶ **Documentation and Transition**

- Joint testing and review of solution with IT staff to ensure success
- Mentoring and capture of best practices
- Deliver full engagement summary

▶ **Fixed price and scope**

- 7 and 10 day options

NetApp Services for Oracle

Disaster Recovery Accelerator Service

- ▶ **Analysis and Diagnosis of IT environment**
 - Review and document filer configuration, backup schedule, number/type/size of Oracle instances and network and storage layout architectures
 - Review and assess disaster recovery requirements
- ▶ **Installation and Configuration**
 - Configure NetApp filer for transition of the database instance
 - Install Oracle software on the NetApp filer
 - Configure and implement the Oracle standby database (DataGuard solution) with the NetApp SnapMirror solution
 - Perform a cold backup of the primary database
- ▶ **Documentation and Transitioning to NetApp Global Support**
 - Provide best practices and recommendations for database or application
 - Develop documentation of findings and create an engagement summary
- ▶ **Fixed price and scope**
 - 7 and 10 day options

NetApp Services for Oracle

High Availability Accelerator Service

▶ **Analysis and Diagnosis of IT environment**

- Analyze specific - filer configuration, backup schedule, number/type/size of Oracle instances
- Review and assess Oracle on NetApp high availability solution architecture
- Identify and optimized design to ensure scalability and availability of Oracle RAC

▶ **Installation and Configuration**

- Configure NetApp filer for transition of the database instance
- Install Oracle software (DBand RAC) on the NetApp filer
- Backup the primary database in preparation for RAC
- Provide a database backup and recovery strategy and develop scripts using NetApp Snampshot and SnapResotre functionality

▶ **Documentation and Transitioning to NetApp Global Support**

- Generate documentation and best practices and engagement summary
- Mentor and transition over to client

▶ **Fixed Price and Scope**

- 7 and 10 day options

NetApp Services for Oracle

Performance Tuning – Custom Service

- ▶ Analysis and Diagnosis of IT environment
 - Database application code, schema and structure
 - Database tuning such as index creation, table reorganization, data partitioning
- ▶ Recommendations and Implementations
 - NFS client side tuning on OS recommendations
 - Filer disk layout and configuration recommendations
 - Oracle instance parameters, database schema structure, I/O and memory tuning
- ▶ Capture and share finding
 - Develop best practice documentation and engagement summary
 - Mentoring and knowledge transfer