



INT NETLINK's Past Projects

Service Provider Storage

Afghanistan



A leading GSM Service Providers in Afghanistan required a reliable, stable , scalable and Geographically Redundant IT Infrastructure for their corporate network with a 24X7X365 on-site support.

Solution Overview

The Solution designed and implemented for the GSM Provider's Corporate IT Network for their applications is based on EMC SAN including DMX 1000, DMX3 for Disk Storage, EMC Legato Cluster Software for Automated Failovers and Redundancy, EMC Legato Backup Software for tape backups with ADIC as the Tape Library for SAN backups over fiber with 8 LTO3 drives. The Server Platform is based on SUN E6900 Servers, configured for 2 Domains for their critical applications in redundant mode. The Server Platform also includes IBM Servers and Dell Servers for their Microsoft based Applications in redundant mode.

Solution Description

The benefits of using the above solution are Reliability, Stability, Scalability and Geographic Redundancy for the most critical applications in terms of Hardware Availability and Application Availability.

EMC DMX 1000

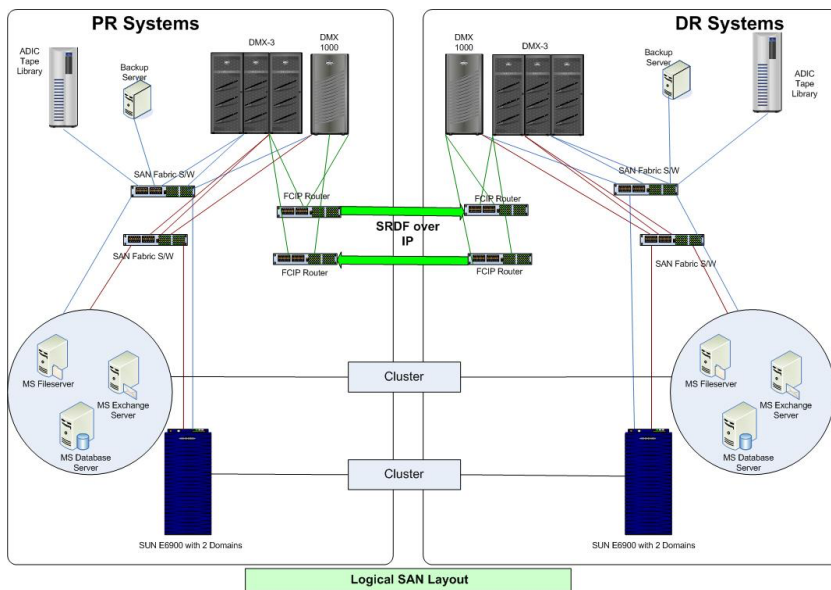
High-End Networked Storage Systems

The Symmetrix DMX1000 is an integrated, high-performance networked storage system, optimized for server consolidation and heavy transaction-processing loads. Part of the Symmetrix DMX Series, the DMX1000 delivers rich functionality, and the most complete connectivity available today.

DMX1000 features include:

- Up to 18.4 TB of usable capacity
- High-density packaging -- 144 drives fit in a single floor tile
- Expanded connectivity
 - Up to 48 ports
 - 1 Gb Ethernet for SRDF
 - iSCSI
 - 2 Gb Fibre Channel or ESCON
 - 2 Gb FICON
- Optimized for high server counts
 - Supports more servers per port
 - More consolidation, smaller footprint
- Optimized for heavy transaction loads
 - Up to 128 GB cache / 16 cache regions
 - 16 2 Gb Fibre Channel disk channels

Logical SAN Layout



EMC DMX 3

The Symmetrix DMX-3 systems scale from 96 to 2,400 drives. Select from a range of Fibre Channel drives to match your needs—from low cost to high performance. And it's easy to increase performance as your requirements change—online and without disruption.

The Symmetrix DMX-3 platform offers:

- ❑ **Information availability:** The most advanced and widely deployed business-continuity platform
- ❑ **Tiered storage consolidation:** Consolidation of application tiers to efficiently meet a wide range of service-level requirements
- ❑ **Predictable performance:** Supports the world's most demanding application workloads
- ❑ **Application integration and qualification:** Longer relationships and deeper integration with more applications and ISVs
- ❑ **Power efficiency:** The most energy-efficient data center solution for today's IT requirements
- ❑ **Information-centric security, built-in:** Advanced security and integrated RSA technology
- ❑ **Simplified management and operations:** Simplified storage allocation, resource management, and tiering

SUN Fire E6900

Sun Fire E6900 Server is a highly-available midrange server with up to 24 UltraSPARC IV+ processors; this enterprise powerhouse can satisfy even your toughest mission-critical service level agreements.

- **Massive performance:** over 5x faster performance than previous generation servers in the same footprint.
- **Doubled memory capacity and over 30% I/O improvement.**
- **Seamless upgrades with the industry's leading Solaris OS and binary compatibility.**
- **New UltraSPARC IV+ processor based on 90nm technology at 1.95 GHz.**
- **Unique Dynamic Reconfiguration technology for online upgrades.**
- **Supports three generations of CPU boards in the same server, each running at its rated speed.**

- Enhanced security and availability through Solaris Security Toolkit and Predictive Self-Healing.
- Full hardware redundancy with fault-isolated Dynamic System Domains and Solaris Containers, ideal for consolidation.

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Key Applications

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- Business intelligence/data warehousing
- Scientific engineering
- Application serving
- IT infrastructure

Standard Features

The standard features of these systems include:

- Rack mountable in industry standard 19-inch rack (Sun Fire E4900)
- Support for up to 24 CPUs
- Support for up to 32 PCI I/O slots
- Extensive redundancy
- System controllers
- Support for multiple domains
- Concurrent hardware maintenance
- Common components
- Redundant power and cooling
- 9.6-Gbyte bus bandwidth

ADIC Scalar i2000

The ADIC Scalar i2000 tape library is designed to meet the unique challenges of SAN backup and improving backup capabilities while reducing the resources needed to manage backup operations.

The Scalar i2000's unique iPlatform architecture enhances performance and reliability through a single management view that includes library, drives, and connectivity through the fabric.

The ADIC Scalar i2000 is designed for enterprise data centers, with native mixed-media support (LTO & SDLT), industry-leading density, rack-compatible form factor, and RAS features that include dual-redundant power, non-disruptive drive, power, and fan exchanges, and component-level fault isolation.

- Capacity-on-demand growth from 100 to more than 1,600 cartridges in a single library
- Improved performance in SAN environment through unified management, proactive data path readiness checks, and optimized drive performance
- Advanced RAS features for higher system reliability and faster, more efficient service
- Policy-based alerting: proactive system monitoring, integrated policy engine, and e-mail alerting system for early problem detection
- Real-time reporting including data written/read, slot utilization, and library activity status
- Native partitioning and true mixed-media operation: supports enterprise backup consolidation without external servers and software