

CASE STUDY

Norwin Upgrades SAN Switches for a Global Insurance Leader



OVERVIEW

Precision SAN Migration Delivered at Global Scale

Norwin helps a prominent Insurance Company with multiple sites spread across the globe, in upgrading SAN switches from legacy Brocade to **next-generation Cisco MDS** as part of their technology refresh initiative.

- Architected the network topography with the new **Cisco Switches**.
- Planned for the switch migrations for both **Production and DR locations** without downtimes.
- Generated and executed the **run books for entire migration**.
- Coordinated with **customer storage** team for planning the migration and post migration validations.
- Norwin delivered this upgrade as a **fixed fees, outcome based model** in the most cost optimized manner.

THE CHALLENGE

Performance Bottlenecks in a Constrained SAN Fabric



Bandwidth-Constrained SAN Fabric

A shared SAN fabric with heterogeneous devices created performance challenges due to restriction of the bandwidth.



Fabric Congestion & Contention

High-throughput workloads led to resource contention, fabric congestion, and complex management.



Limited Fault Isolation

Fault isolation and performance tuning were difficult, causing latency and degraded application performance.



Costly Overprovisioning Practices

Overprovisioning to prevent contention increased infrastructure costs.



Operational Complexity Overhead

Administrative overhead grew due to complex SAN configurations and monitoring.

THE SOLUTION

Deployment of Cisco MDS 9000 Switches with Multiple VSANs

The solution involved the logical segmentation of the SAN using **Virtual SANs (VSANs)**, each operating as an independent fabric overlay on a common physical backbone.

This enabled the creation of **isolated logical SAN environments** tailored to specific workloads, departments, or application tiers.



RESULTS & IMPACT

Benefits of the Solution

- 1 Logical Isolation**
Ensures that environment remain isolated, preventing interference between different workloads or tenants.
- 2 Enhanced Scalability**
Enables seamless infrastructure expansion without impacting existing services.
- 3 Improved Redundancy & Fault Containment**
Contains failures locally to prevent cascading issues across systems, thereby enhancing overall reliability.
- 4 Optimized Resource Utilization**
Compute, storage, and network resources more efficiently.
- 5 Independent Configuration Domains**
Allows customized settings for each environment, reducing risk and increasing flexibility.
- 6 Application and Workload Isolation**
Prevents the performance or issues of one application from impacting others, ensuring greater stability and security.

KEY TAKEAWAYS

Next-Generation SAN Features Built for Speed, Control, and Efficiency

- ✓ **32 Gbps Fiber Channel Speed**
Ultra-low latency and high throughput.
- ✓ **Backward Compatibility**
Supports 8/16 Gbps HBA cards.
- ✓ **Integrated Slow Drain Detection and Remediation**
Helps identify and manage devices causing performance bottlenecks.
- ✓ **VSANs**
Virtual SANs for traffic separation and security across the switch backplane.
- ✓ **Smart Zoning**
Simplifies the zoning process and reduces configuration errors.
- ✓ **FCoE (Fiber Channel over Ethernet) Interoperability**
Supports integration into modern data centers running converged networks.