

# AvailabilityGuard/SAN™

## SAN Fabric Risk Detection and Optimization

### The SAN Challenge

Storage Area Network (SAN) is at the heart of every modern datacenter. However, the SAN environment can be highly complex, presenting significant challenges that may result in availability risks and inefficient resource utilization. The typical SAN environment is multi-layered with components from multiple vendors (storage arrays, SAN switches, servers, HBAs). Frequent configuration changes require complex adjustment at each layer, and a growing use of virtualization further complicates dependencies.

*How can you make sure your environment is correctly configured and efficiently managed to provide the required level of data protection, performance, and high availability?*

### AvailabilityGuard/SAN

AvailabilityGuard/SAN allows you to address these challenges, providing complete visibility and control to verify and optimize your SAN fabric and infrastructure.

#### Visibility

AvailabilityGuard/SAN provides end-to-end visibility from the array and replication layers, through the SAN fabric to the host (physical and virtual), Cluster, LVM, File Systems, database and more.

#### Verification

Using Continuity Software's patent-pending automated vulnerability detection, AvailabilityGuard/SAN will continually monitor your SAN fabric for configuration issues that could lead to downtime and data loss. Identified risks will be immediately reported, displaying the topology, problem description, business impact, and recommended remediation steps.

#### Optimization

AvailabilityGuard/SAN will verify your compliance with vendor best-practices and identify opportunities to optimize your fabric and infrastructure for better resource utilization.

#### What-if analysis

AvailabilityGuard's what-if analysis allows you to understand how bringing down any port, switch, VSAN, Storage Array or virtual infrastructure element will impact your business, so you can plan configuration changes and perform maintenance activities with confidence and predictability.

#### Real-time monitoring

AvailabilityGuard monitors Fabric changes in near-real time, to shorten response time to critical issues and simplify troubleshooting.

### What Can You Visualize with AvailabilityGuard?

- Storage array:** LUNs, port mapping, masking, Local copies / remote replication
- SAN fabric:** Switch, VSAN, ports, zoning, masking
- Host:** HBA configuration, speed, firmware, options, Multi-pathing, LVM, Filesystem, Database
- Virtualization:** VMware vSphere / Unix (AIX, Solaris, HP)

### What can AvailabilityGuard help you detect?

- Path configuration risks (options, speed, zoning, masking, VSAN alignment and more)
- Single points of failure
- Storage alignment risks
- SAN fabric best practices
- HBA configuration issues

### Supported platforms

- Storage:** EMC Symmetrix (DMX/VMAX), VNX /CLARiiON & RecoverPoint, NetApp Filers & SnapVault, HDS AMS (500, 1000), USP V/VM & VSP, IBM DS (6K, 8K), XIV & SVC, HP XP
- SAN Switch:** Cisco MDS, Brocade
- OS:** Solaris 8+, HPUX 11.0+, AIX 4+, Linux RedHat AS 3+ and SuSE 8+, Windows 2000+
- Virtualization:** VMware vSphere, AIX wPAR and VIO server, Solaris Domains and Zones, HP vPAP and nPAR
- Database:** Oracle 8.1.7+, MS SQL Server 2000 SP3+, Sybase 12.5+, DB2 UDB 8.1+
- MultiPath:** EMC PowerPath, Veritas DMP, HP PVLINKS, HPDM, Linux MPIO, AIX MPIO, SDD, HDLM, DSM
- Cluster:** Veritas Cluster Server, HP MC/SG, PolyServe, IBM PowerHA (HA/CMP), Sun Cluster, MSCS, Oracle ClusterWare / RAC, Linux cluster