

### ► Challenge

- To consolidate storage by creating virtual volumes connecting all hosts and servers
- To integrate the backup directly onto the SAN by mirroring the volumes to a second storage enclosure.

### ► Solution

Installation of a SANRAD V-Switch 3000 with two SATA/FC enclosures of 4TB each.

### ► Benefits

- Easy to deploy with excellent performance at significantly lower cost than FC-based SAN systems
- Based on familiar IP infrastructure
- Centralized storage management & virtualization
- High levels of availability and reliability

*"The SANRAD V-Switch technology allows all-in-one storage networking for full availability and seamless management of stored information across standard Ethernet networks using iSCSI."*

Luca Ambrosi, National Manager for Storage  
SQUARE ONE SOLUTIONS GROUP



## Africon consolidates its data storage with SANRAD V-Switch 3000

### *Square One Solutions Group opts for 8TB iSCSI IP-based SAN system*

Africon, a Pretoria-based black empowered professional services consultancy providing sustainable development and infrastructure solutions, has consolidated its data storage requirements with an 8TB iSCSI IP-based SAN system installed and commissioned by Square One Solutions Group using SANRAD V-Switch equipment and technology.

The solution involved the installation of a V-Switch 3000 from international storage system specialist SANRAD with two SATA/FC enclosures of 4TB each.

Square One's National Practice Manager for Storage, Luca Ambrosi, said that Africon's three hosts, comprising Microsoft Exchange, various application suites and file and print, were connected via the V-Switch 3000 to the two storage enclosures. "With the virtualization capability of the V-Switch, we were able to create volumes for each of the three hosts and mirror these to the second storage enclosure. Redundancy is achieved at two levels, firstly by having RAID5 hardware configurations in each enclosure and secondly by mirroring the volumes from one enclosure to the other, using SANRAD's volume management function."

Ambrosi said the system design provides Africon with high levels of availability and reliability as an entire enclosure could fail and the data would still be online. "The hosts are connected to the V-Switch via an existing Gigabit Ethernet switch but the entire infrastructure is on a separate network segment through the creation of a V-LAN."



In consultation with Africon it was decided to use a V-Switch 3000 combo that has four storage ports - two FC and two SCSI. This allows Africon to attach its tape library to the V-Switch SCSI ports and therefore integrate the backup directly onto the SAN. LAN-free backups can be done by using the functionality of the V-Switch, including snapshots and disk-to-disk backup."

IS manager Johann Putter said Africon had called upon various vendors to offer solutions: "In the main these proved very expensive. When we were presented with a solution based upon iSCSI technology, the price to capability ratio represented excellent value and the solution has proved most efficient and cost-effective." A service agreement has also been signed in terms of which Square One Solutions will provide Africon with ongoing support and maintenance services.

Ambrosi said iSCSI IP-based SAN storage solutions are gaining ground in SA. "The SANRAD V-Switch technology allows all-in-one storage networking for full availability and seamless management of stored information across standard Ethernet networks using iSCSI."

"The technology offers complete storage continuity solutions that are easy to deploy with excellent performance at significantly lower cost than FC-based SAN systems. SANRAD's iSCSI V-Switches combine an interoperable, multiple-port iSCSI gateway with comprehensive storage services for full block-based data access, network volume management, storage continuity and traffic optimization."

Square One Solutions Group holds distribution rights for SANRAD equipment and technology in southern Africa. Ambrosi said it could deliver solutions that set new dimensions for the availability and reliability of business information using iSCSI IP SANs.