The Storage Challenge:

The explosive growth in information is continually driving up the cost and complexity of protecting, managing and expanding data storage capacity. The goal is to supply high performance and guaranteed data access while simplifying administration and reducing costs and complexity.
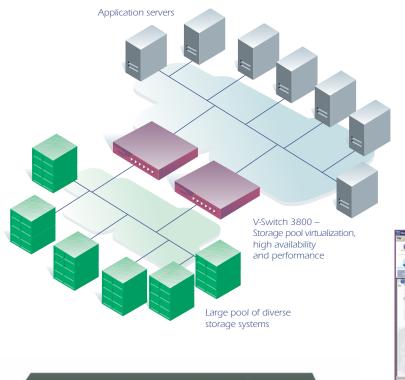
The Solution:

Total iSCSI SAN For Enterprises

V-Switch 3800

V-Switch 3800 delivers an open, reliable, highly scalable storage solution for large numbers of data center servers. **V-Switch 3800** provides highly scalable storage pooling and centralized storage management, ensuring data access and leading industry performance within a single iSCSI SAN solution.
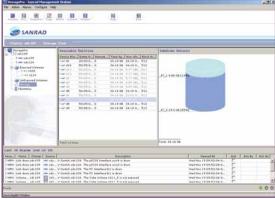
V-Switch 3800 enables enterprise users to build and manage a large, highly scalable pool of diverse storage systems. V-Switch 3800 enables enterprises to virtualize the storage pool into custom volumes and assign those volumes to many servers using iSCSI.

V-Switch 3800 provides the largest number of storage ports and the fastest internal bus available in the V-Switch family. It uses a real-time operating system and high-end network processors to deliver high performance with complete component and system redundancy.

SANRAD StoragePro management software is embedded on the V-Switch and provides all storage pooling, vitrualization and management services. StoragePro is configured via a CLI or GUI. Features include: open FC, open FC fabric and open iSCSI storage connectivity, custom volume creation, volume expansion, capacity provisioning, local data mirroring, data migration, volume snapshot, snapshot rollback, multi-pathing, failover and active/active V-Switch clustering.

Application servers

V-Switch 3800 –
Storage pool virtualization,
high availability
and performance

Large pool of diverse
storage systems

StoragePro Centralized Management GUI

Key Features	Benefits
Large Storage Pools	Create large storage pools by consolidating many storage systems into a centrally managed pool that can easily scale to several petabytes.
Open Heterogeneous Architecture	Use any storage system for flexible and cost-effective creation and expansion of the storage pool, including FC and iSCSI storage systems with any drive type and FC fabrics all within the same SAN.
Network-Based Virtualization	Create custom storage volumes across all the connected storage systems for optimal performance of applications, maximum utilization of storage resources and cost effective service growth.
Tiered Storage	Combine storage systems with diverse properties into the same storage pool to provide different SLAs for different applications, better performance and cost tuning.
High Speed Data Migration	Copy over 2TB/hour of data between storage systems.
Local and Remote Data Protection	Asynchronous and synchronous remote data replication, snapshot and cloning eliminate the possibility of data loss and ensure business continuity.
High Availability	Active/Active V-Switch clustering with automatic failover, failback and multi-pathing for fault tolerant access to data.
Storage Security	Access Control Lists and iSCSI login authentication (CHAP, SRP) for complete access control and protection of data.
Simple and Centralized Management	StoragePro provides centralized management with a web based GUI or complete CLI. Secure CLI via SSH.
Monitor Performance and Traffic within the SAN	Monitor traffic statistics on each storage and network interface to increase application performance. Monitor counters and generate reports defined by standard MIBs including TCP/ IP, FC and iSCSI interfaces.
Removable Onboard Compact Flash	Quickly replace or replicate V-Switch configurations, mirror the configuration database for fast recovery, replacement and replication of V-Switches.
1 unit rack size and front facing interfaces	Compact size saves you precious rack space and all network and storage connections are on the front face. Adjustable rack supports fit racks up to 39'' in depth.

Technical Specifications

Storage Virtualization and Volume Management:
- Maximum no. of servers supported: 200
- Maximum no. of volumes supported: 51,200
- Maximum capacity: 8192 TB (8.192 PB)
- Maximum volume size: 64 TB

FC Interfaces:
- 8 FC ports
- Copper SFP HSSDC2
- Optic LC SFP SW/LW
- 1 or 2 Gb/s auto speed detection
- L, N or NL ports

Management Interfaces:
- RS232 DB-9 port
- Ethernet 10/100 RJ45 port

Network Interfaces:
- 3 1Gbit iSCSI Ethernet ports
- Copper RJ45 1000BaseT
- Optic SFP 1000Base-SX
- Optic SFP 1000Base-LX

Ethernet Standards:
- IEEE 802.3z
- IEEE 802.3.ab

Additional Features:
- Wake up on LAN
- Removable Compact Flash

Internet Standards:
- RFC 791 IP v4
- RFC 793 TCP, RFC 894 IP/Ethernet
- RFC 1042, IP/802
- RFC 1517
- RFC 792 ICMP, 950 ISSP
- RFC 3720 -iSCSI
- SSH-2
- RFC 854 Telnet

Fibre Channel ANSI Standards:
- FC-AL-2
- FC-PLDA
- FC-FLA
- FC-PH-3
- FCP

Management Standards:
- SNMP V2
- RFC 2863
- RFC 2011
- RFC 2012
- ID SCSI MIB 05
- ID iSCSI MIB 09

SCSI Standards:
- SCSI-3
- SAM-2
- SPC-3
- SBC-2

- **Dimensions:**
  1.75" H x 17.2" W x 22.8" D (4.4 H x 43.8 W x 58 D cm), Standalone surface mounting or fits standard 19 inch EIA rack
- **Power:**
  Dual Hot Swap Power Supplies 100-250V, 50-60Hz Auto Switching, 75 WATT
- **Weight:** 14.1 lb (6.4 kg)
- **Operating Temperature:** 32° to 122° F (0° to 50° C)
- **Storage Temperature:** -40° to 75° F (-40° to 167° C)
- **Humidity (non-condensing):** 10% to 95%

Regulatory Compliance:
- **EMC (Emission):**
  USA & CANADA: FCC part 15 Class A
  Europe and Rest of the World: EN55022 Class A
- **Immunity:** EN55024
- **Safety:**
  USA & CANADA: UL60950
  Japan: EN60950
  Europe and Rest of the World: EN609050