

# Plug-and-play SAN Kit for Hitachi TagmaStore™ Modular Storage

Hitachi Data Systems, the first Fibre Channel storage system provider to achieve Microsoft's Simple SAN for Windows Server designation, enables SAN installation in minutes, rather than hours or days.

## Networked Storage Advantages for Small- and Medium-sized Companies

Today's small- and medium-sized companies are facing storage capacity growth and availability needs similar to those of larger enterprises. Storage area networks (SANs) ease these challenges. However SANs have traditionally been expensive, complex, difficult to install, and, as a result, only found in the largest of organizations.

Hitachi Data Systems collaborated with Microsoft and QLogic to develop a solution that is easy to buy, install, manage, and upgrade.

As the first Fibre Channel storage system provider to achieve Microsoft's Simple SAN for Windows Server designation, Hitachi Data Systems offers a plug-and-play SAN Kit for Hitachi TagmaStore™ Adaptable Modular Storage models AMS200 and AMS500 and Workgroup Modular Storage model WMS100.

## "Out of Box" SAN Experience—No SAN Expertise Required

The plug-and-play SAN Kit includes all the hardware and software necessary to connect two or more servers to a first SAN or to extend a SAN from the data center to a distant workgroup. The kit includes a QLogic SANbox Fibre Channel switch, two SANblade Fibre Channel host bus adapters (HBAs), and all the necessary optical media (small form pluggable media or SFPs and cables) to physically connect your SAN.

QLogic SANsurfer Express software automates the entire process with wizards

and provides one console for managing the switch, HBA, and storage system.

Now smaller organizations facing the same storage challenges as large enterprises can afford, implement, and manage a Windows SAN.

## Business Benefits

### Cost-effective and Easy-to-use SAN Solutions

- Simplify and expedite installation with a plug-and-play SAN kit compatible with Microsoft Simple SAN for Windows Server.
- Reduce management costs by consolidating storage or moving from server-internal storage to networked storage.
- Eliminate the need for complex SAN device management by enabling point-and-click wizards that leverage Microsoft Windows Server 2003 VDS services.
- Scale your SAN and your Hitachi TagmaStore modular storage as your business grows. Add capacity, ports, and cache, quickly and inexpensively.

### Reduce storage cost for a great return on investment with a plug-and-play SAN

- Manage and configure HBAs, switches, and Hitachi TagmaStore modular storage from a single, completely integrated application.
- Implement a SAN without a large IT budget or staff.
- Reduce implementation costs for a faster return on investment.
- Keep up with growing storage needs; back up data in minutes—not hours; and consolidate storage.

## The simple way to build your first SAN

- QLogic SANbox Fibre Channel Switch
- QLogic SANblade Fibre Channel HBAs
- SFPs and cables—all the fiber optic media and accessories you require to physically connect your SAN
- SANsurfer Express software—manage your switches and HBAs, plus provision storage, all from a single interface

## And Hitachi TagmaStore Modular Storage

- AMS200 and AMS500
- WMS100

## Plug-and-play SAN Kits and Specifications

### Small Business Kit for 2Gbit/sec SANs

#### QLogic SANbox 1400 Fibre Channel Switch

- Four 2Gbit/sec or 1Gbit/sec ports: 2Gbit/sec, full-duplex, auto-negotiating for compatibility with existing 1Gbit/sec devices (10 ports enabled)
- Supports E-port link to another switch
- In-order delivery of frames in all multi-switch and multilink configurations
- Ports are auto-discovering, self-configuring
- Hot-pluggable, industry-standard SFPs

#### Two QLogic SANblade HBAs – QLA210

- 133MHz, 32-bit PCI-X 1.0
- 3.3 V bus supported
- 2Gbit/sec
- FC-AL, FC-AL-2, F-Port
- Class 3 Fibre Channel service
- Protocol support for SCSI (FCP) and tape (FCP-2)
- 16 FC-AL/FC-AL-2 (private loop)
- Eight F-Port targets (fabric logins)
- Up to 64 FCP/FCP-2 exchanges

#### QLogic SANsurfer Express

Easy to install and use SAN management software with VDS providers to provision storage directly from Windows

### Medium Business Kit for 4Gbit/sec SANs

#### QLogic SANbox 5600 Fibre Channel Switch

- Four 4Gbit/sec, 2Gbit/sec, and 1Gbit/sec ports: 4Gbit/sec, full-duplex, auto-negotiating for compatibility with existing 1–2 Gbit/sec devices (eight ports enabled)

#### Two QLogic SANblade PCI-X HBAs – QLA2460

- For servers requiring PCI-X 1.0 or 2.0: 4Gbit/sec, 64-bit, PCI-X 2.0 266MHz dual data rate (DDR) bus for high-throughput applications
- 100,000 IOPS delivers high I/O transfer rates for storage applications
- Three LEDs display real-time status and link activity information
- 4Gbit/sec, 2Gbit/sec, and 1Gbit/sec (auto-negotiation)
- Persistent binding
- LUN masking
- 2,048 concurrent logins
- SCSI initiator, target, and initiator/target

OR

#### Two QLogic SANblade PCI-Express HBAs – QLE2460

- For customers with servers using PCI-Express: same performance and features as the QLA2460

#### QLogic SANsurfer Express

Easy-to-install and use SAN management software with VDS providers to provision storage directly from Windows

*Kits contain all required cables and components to install and operate the SAN and are RoHS\* compliant.*

\* EU directive: Restriction of the use of Hazardous Substances

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