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Universal Multiprotocol SAN Connectivity for Hitachi Adaptable Modular Storage and Workgroup Modular Storage Systems

Hitachi Adaptable Modular Storage and Workgroup Modular Storage systems are now integrated with QLogic's SANbox 6140 iSCSI to Fibre Channel router to provide simultaneous storage access from Fibre Channel and Ethernet-based networks.

Multiprotocol Flexibility

Hitachi Adaptable Modular Storage and Workgroup Modular Storage systems are leading solutions for small and medium businesses (SMBs). Each of these solutions leverages the performance and availability of enterprise systems to bring advanced data protection and service to the SMB market.

In the SMB market, iSCSI is growing into a leading storage area network (SAN) connectivity option. IDC predicts that the iSCSI SANs will remain the fastest growing interconnect segment of the market, increasing from US$560 million in 2006 to US$6 billion in 2011 and representing a quarter of the external disk storage systems market. IDC also expects iSCSI SAN connectivity usage to grow from 1.8 percent in 2005 to 22.6 percent by 2010. It is expected that larger enterprises will leverage iSCSI SANs to aggregate stranded servers and provide remote offices with SAN networking.[1]

Multiprotocol Consolidation

The ability to provide multiprotocol services simultaneously for Adaptable Modular Storage and Workgroup Modular Storage simplifies SAN implementation. It allows SMBs to simplify storage back-end infrastructure with low-cost iSCSI and high-performance Fibre Channel storage networks connected to a single system. This flexibility creates more value for IT managers by eliminating the need for multiple storage systems, multiple management interfaces and multiple data protection solutions. iSCSI has promised the ability to lower the cost of SANs, and now Hitachi Data Systems can provide the flexibility of both low cost and high performance without making IT managers choose.

Advantages of Multiprotocol Connectivity

Adding multiprotocol flexibility to Adaptable Modular Storage and Workgroup Modular Storage systems brings the benefits of centralized storage to every server on the SAN and the SANbox 6140 makes it fast and easy to support up to 512 iSCSI initiators.

Now, all servers in the business can gain the benefits of SAN for storage, including:

- **Storage Consolidation**—Adaptable Modular Storage and Workgroup Modular Storage systems allow for consolidation of direct attached storage (DAS) into a SAN.
- **SAN Consolidation**—multiprotocol support allows for consolidation of iSCSI and Fibre Channel SANs into a single SAN.
- **SAN Connectivity at a Fraction of the Cost**—by connecting up to 512 servers via a SANbox 6140 router SAN connectivity costs are drastically reduced.
- **Lower Storage Costs**—centralized management reduces the staff required to support storage, provides better utilization of storage assets and reduces the risk of human errors.
- **Improved Data Protection**—centralized SANs provide the right tools and staff to meet the business continuance and regulatory requirements.

[1] IDC April 2007 – Worldwide Disk Storage Systems 2007-2011, pages 33, 94, 115, 126.

- Improved Asset Management and Return on Investment (ROI) —amortizing the cost of highly reliable Adaptable Modular Storage and Workgroup Modular Storage systems over more servers expands the ROI of these systems.
- Diskless Servers —for blade servers and low-cost servers, the ability to boot from the SAN lowers management and capital cost.
- Centralized Policy and Management — lowers storage costs and supports for business continuance and regulatory requirements.
- Local and Remote Connectivity — connect over IP WANs and LANs.

SAN for Blade Servers

The SANbox 6140 is an ideal way to connect blade servers to a centralized storage system. Leading blade servers from IBM, HP, Sun, Dell and other original equipment manufacturers (OEMs) typically use Ethernet as a back plane that can be used to connect blade servers to the Adaptable Modular Storage and Workgroup Modular Storage systems via the SANbox 6140.

File and Print Services

File and print services are still key applications in every data center. One in five servers deployed in Microsoft® Windows and Linux environments is performing this basic service. Multiprotocol Adaptable Modular Storage and Workgroup Modular Storage systems can now offer a lower cost of connection, and IT can consolidate storage for better utilization and central policy support as well as leverage better data protection tools.

Easy to Install on Any SAN

Every major operating system vendor is now providing freely available iSCSI software initiators. Today such initiators are available for Microsoft Windows, Sun Solaris, Red Hat and SuSE Linux. These initiators will allow the server block-level access to Fibre Channel storage using a SAN router that offers iSCSI interfaces.

Network Topology

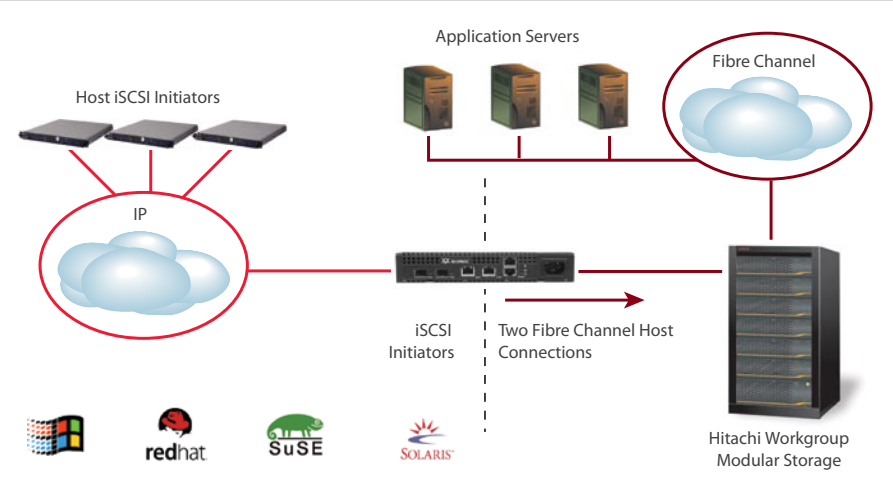

Figure 1. Flexible, Low-cost Multiprotocol Connectivity for Adaptable Modular Storage and Workgroup Modular Storage

Easy to Use Graphical User Interface (GUI) and Wizards

Setup and configuration wizards make it fast and easy to set up the SANbox 6140. Typically it takes less the 15 minutes to be ready to start protecting data.

Investment Protection

Gain investment protection for Adaptable Modular Storage and Workgroup Modular Storage systems. The use of an external SANbox 6140 router, maximizes the value and flexibility of your SAN investment. Moving multiprotocol connectivity outside the system allows high-performance applications to use Fibre Channel, while less demanding solutions can use iSCSI.

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Compliments of: Hitachi Data Systems Corporation

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