



ATTO Technology, Inc.



# Disaster Recovery using iSCSI

## Protecting data using iSCSI-based remote backup

### THE BENEFITS OF REMOTE BACKUP

Current methods of protecting data from disaster involve moving tapes offsite to protect them. A timely and more effective way of protecting mission critical data is essential to ensure accurate backup and restoration. iSCSI offers a better solution. By using existing IP infrastructure, iSCSI provides a simple, cost-effective way to protect data against disaster. With iSCSI, data can be moved instantly over IP to the remote location – even over long distances. In the event of catastrophic data loss, data can immediately be restored from the remote location or data can be restored to any other location worldwide to ensure continuity of business. iSCSI also allows for the centralization of backup among multiple servers and business locations.

### ONE PLUS ONE

The addition of one piece of hardware and one piece of software allows an organization to harness the power of remote backups. Adding the ATTO IPBridge™ 2700C/R/D hardware and Xtend SAN software to existing Apple® Fibre Channel-based Storage Area Networks (SANs) changes existing backup processes into an organizational disaster recovery plan.

## Features

### Data Backup and Recovery

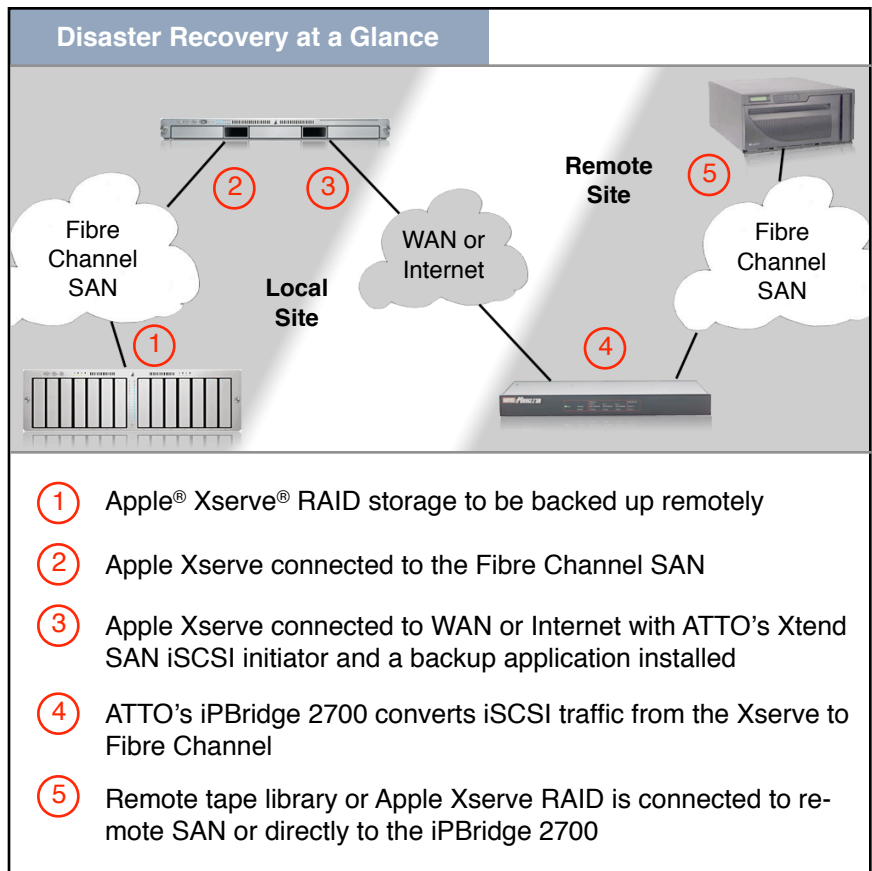
- Leverage existing IP network with minimal hardware investment
- Capitalize on existing IT expertise
- Highly scalable

### High Performance

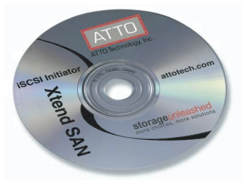
- Single site, campus and long distance environment support
- Centralizes backup – multiple servers share same DR site
- Performance of up to 120 MB/sec. per link

### Integration with Existing Infrastructure

- Utilizes current Gigabit Ethernet network
- Utilizes common TCP/IP protocol
- “Out-of-box” simple connectivity solution kit



## ISCSI IMPROVES REMOTE BACKUP



### ATTO Xtend SAN

#### Easy to use

- Intuitive GUI-based management
- Simple set up and use

#### Compatible

- Compatible with Apple®'s built-in Gigabit Ethernet port
- Compatible with latest iSCSI specification
- Compatible with all leading ISV solutions



### ATTO iPBridge™ 2700C/R/D

#### High Performance

- Four independent Gigabit Ethernet ports for iSCSI traffic
- Two independent 4-Gigabit Fibre Channel ports
- Features ATTO's intelligent Bridging Architecture™ for optimal performance

#### Easy to use

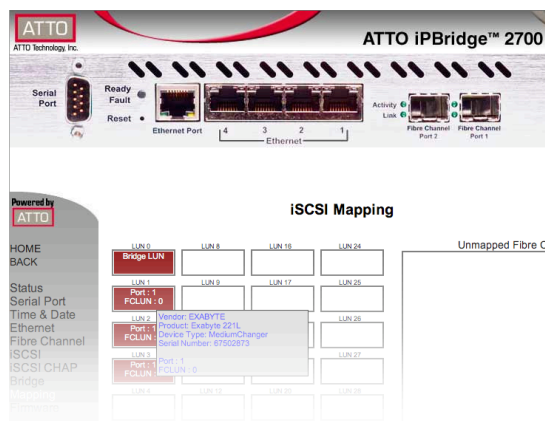
- Easy web-based administration
- Management of remote site from local server
- Simple set up and configuration

#### Compatible

- Compatible with all leading tape drives, libraries and Fibre Channel switches
- Compatible with all Mac® OS X-based products
- Auto negotiates to 4/2/1-Gigabit Fibre Channel

iSCSI works by encapsulating SCSI data into TCP/IP packets. This allows backup applications to send standard block level SCSI data over existing IP infrastructures. As a result, backup applications see the remote storage device as if it were locally connected even if the device is thousands of miles away. Existing IP benefits are automatically utilized and because iSCSI uses familiar TCP/IP technology, support costs are reduced. iSCSI also provides increased error handling and security.

ATTO Technology's Xtend SAN software product for Macintosh® is a software-based iSCSI initiator. This software converts any Ethernet port on the Macintosh to an iSCSI port allowing connection to any iSCSI device. SCSI commands from the backup application are intercepted by the Xtend SAN software, converted to iSCSI then sent out the Ethernet port. ATTO's Xtend SAN software also does not prevent other IP traffic from using the same Ethernet port allowing multiple services to use that same port.



ATTO's iPBridge 2700 iSCSI-to-Fibre Channel bridge provides extensive diagnostic and management tools.

At the remote site, ATTO's iPBridge 2700 receives the iSCSI data and converts it to Fibre Channel. The iPBridge 2700 can be configured to allow connectivity to either one backup device or to the entire remote SAN. The iPBridge 2700 provides four Gigabit Ethernet ports and two 4-Gigabit Fibre Channel ports allowing for bandwidth aggregation and failover protection. It also provides simple configuration and a multitude of diagnostic tools. The iPBridge 2700 can be connected to a fabric or directly to the storage device.

## CONCLUSION

iSCSI provides a revolutionary way of protecting data while keeping costs and complexity low. ATTO Technology's Xtend SAN and iPBridge 2700 combine to make implementing an iSCSI remote backup and disaster recovery solution effortless.

Please visit: <http://www.attotech.com/apple> for more information.

Please visit: <http://www.apple.com/TBD> to purchase.

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## Technology Brief

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