

Implement iSCSI in Mac OS X

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Version 1.0 (AUG, 2008)

QSAN Technology, Inc.
<http://www.qsan.com.tw>
White Paper# **QWP200914-P102C**

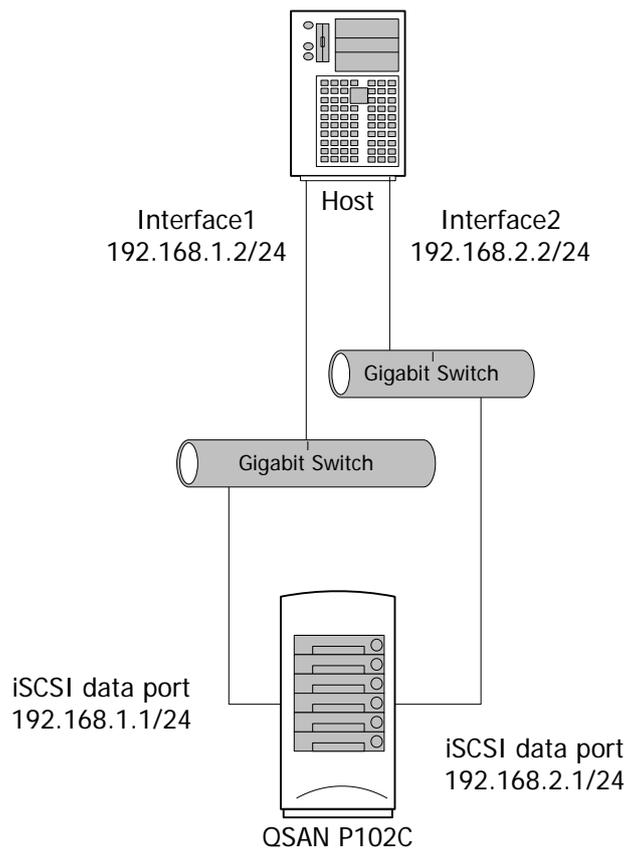
Introduction

In this document, it describes how to connect an iSCSI target in Mac OS X via ATTO Xtend SAN iSCSI initiator. This configuration can be applied to all **QSAN P series**.

Environment

- Host OS:** Mac OS 10.5.6
- Necessary package:** ATTO Xtend SAN iSCSI Initiator for Mac OS X
- iSCSI target:** QSAN P102C
- RAM:** 512 MB DDR-333
- Firmware:** 1.0.4p1 (20090625_1800)
- iSCSI data port:** 192.168.1.1/24; 192.168.2.1/24

Diagram



Installation

To implement iSCSI in Mac OS X, it is recommended to install ATTO Xtend SAN iSCSI initiator on Mac OS X. Please refer to the page three of the installation manual listed in the following web site.

http://www.attotech.com/software/files/manuals/XTendSAN_FINAL.pdf

Configuration

Part 1: Setup volume and iSCSI data ports in controller

1. Connect network cables between host and data ports of target.
2. Login **P102C** and set up the data ports of controller.

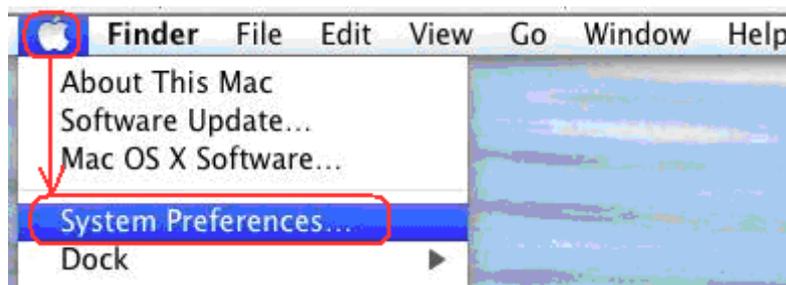


3. Create a volume with LUN well-attached.



Part 2: Setup data port IP of host

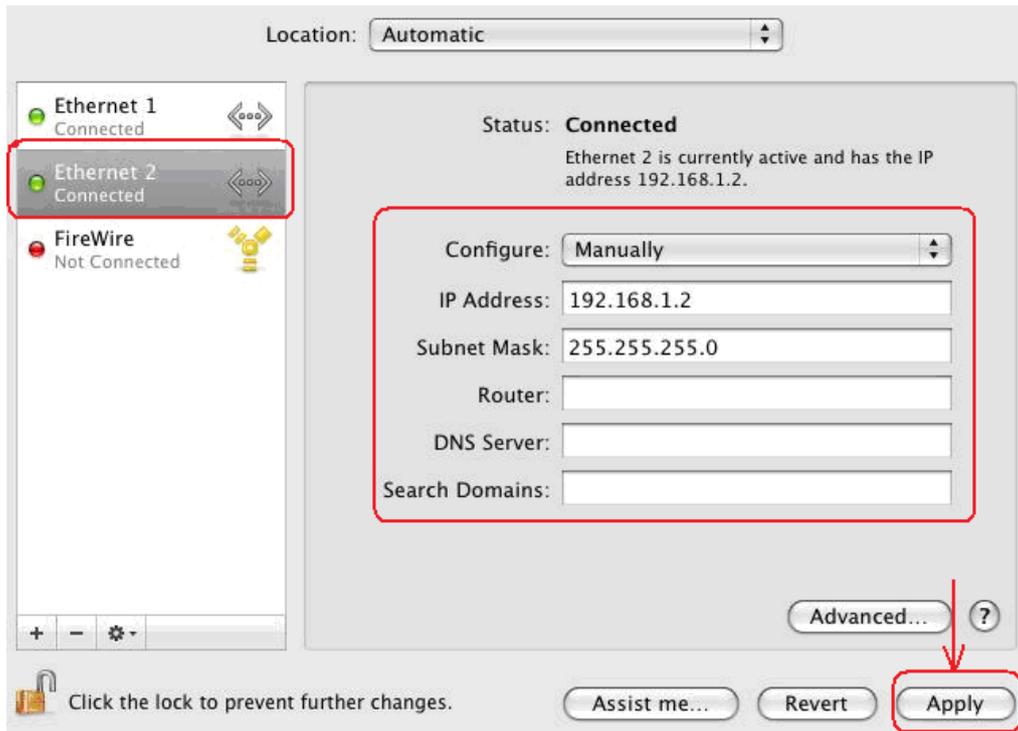
1. Click on the **apple** icon on the upper left corner of the desktop and then access **System Preference...** item.



2. Setup network by clicking **Network** icon.



3. Setup data port IP and confirm by clicking **Apply** button.



4. Make sure that the data ports between the host and target are well-connected. It can be checked by using ping command from host to controller.

Part 3: ATTO Xtend SAN iSCSI initiator configuration

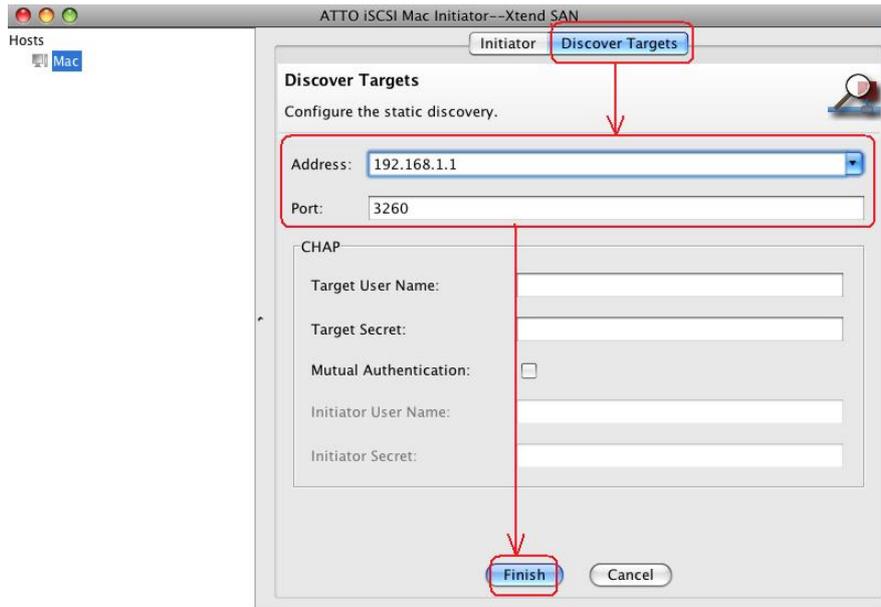
1. Click the **iSCSI** icon at the bottom of the desktop to activate the ATTO iSCSI initiator. The icon is shown as follows:



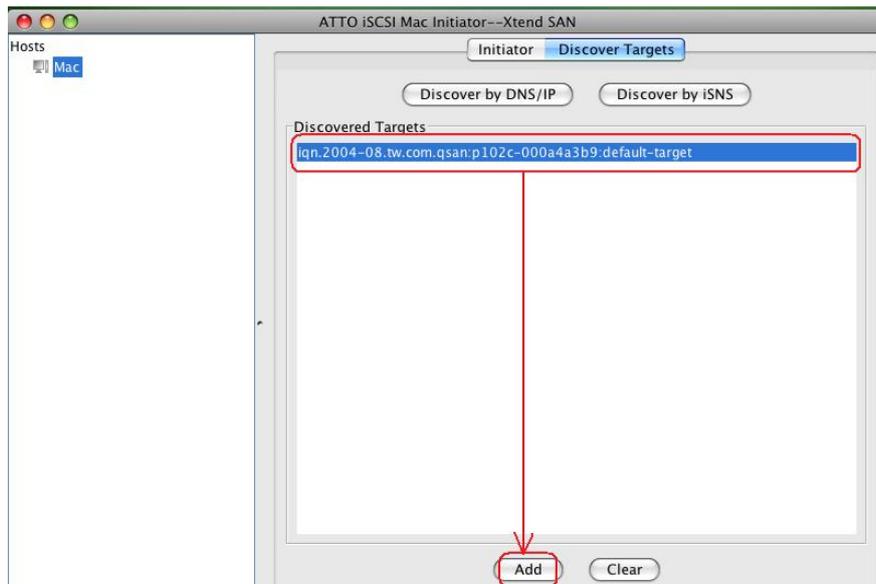
2. The ATTO iSCSI initiator provides two mechanisms to discover iSCSI targets: iSNS and DNS/IP discovery. In this document, using “DNS/IP discovery” as an example of discovering iSCSI targets.



3. Type in the IP address or hostname of the target.
4. The default port number is 3260.
5. Confirm by clicking **Finish** button.

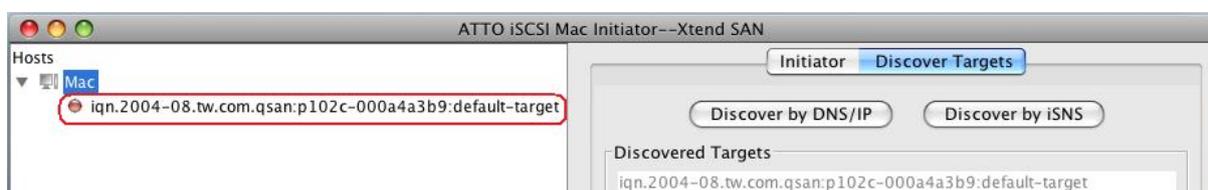


6. Highlight the discovered target listed in the central panel, and then confirm by clicking **Add** button.

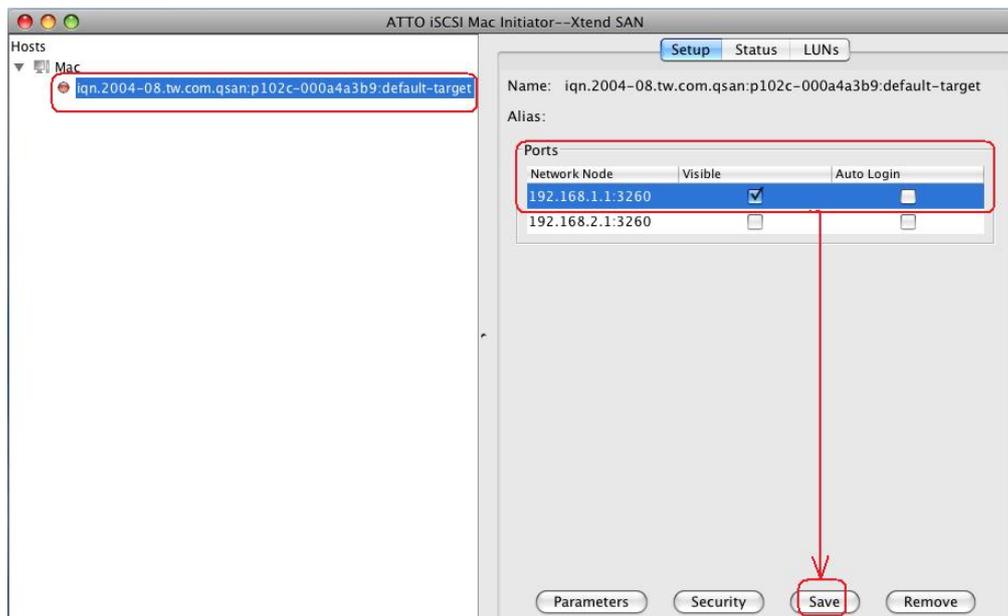


7. The highlighted target is listed in the left-hand panel now. The icon next to each target indicates the status of the target:

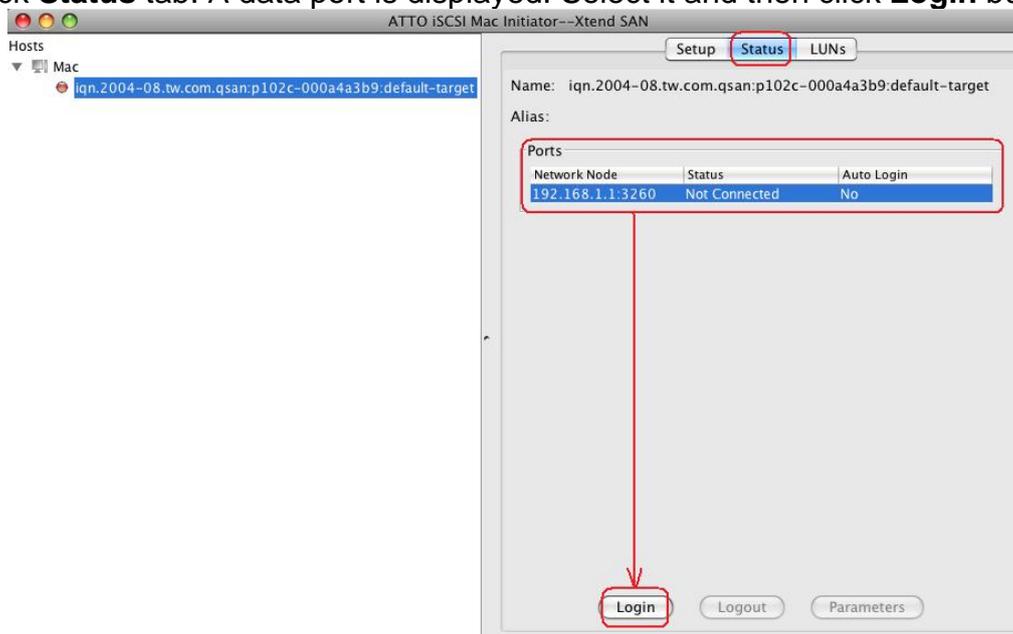
- **Red** → Not connected.
- **Green** → Connected.
- **X** → The target is unavailable.



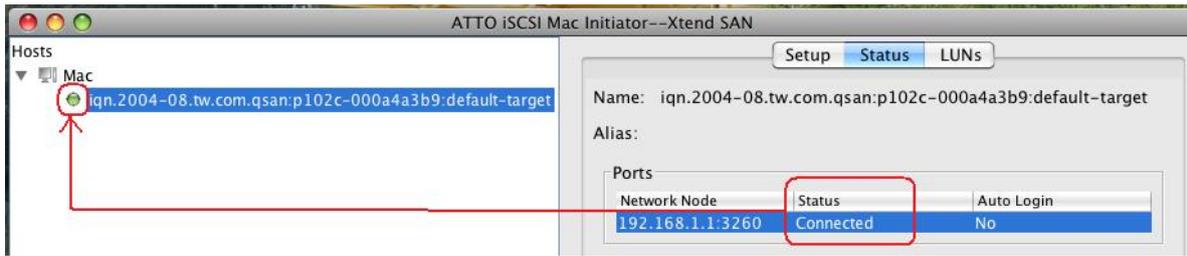
8. Click on the target listed in the left-hand panel, and then the central panel will show the tabs containing **Setup**, **Status** and **LUNs**.
9. Click **Setup** tab. The data ports are displayed. Each port can be setup individually to connect to the target.
10. Check **Visible** check box at the first network node, and then click **Save** button.
11. Check **Auto Login** check box will connect automatically when the host reboots next time.



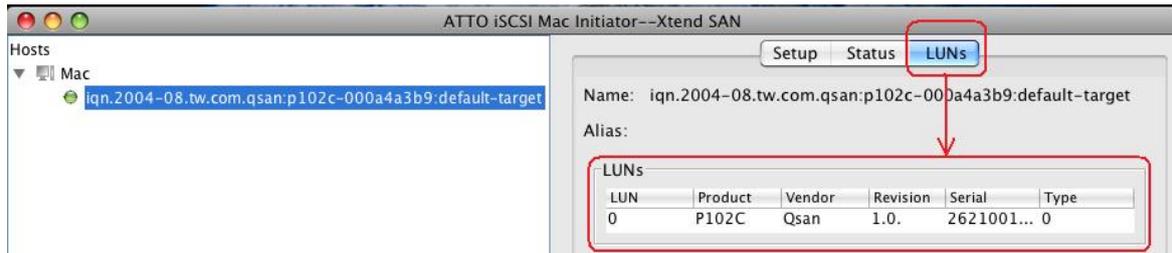
12. Click **Status** tab. A data port is displayed. Select it and then click **Login** button.



13. The target status changes to **Connected**.

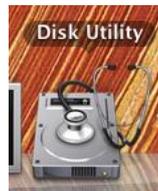


9. LUNs information is exposed by the target.

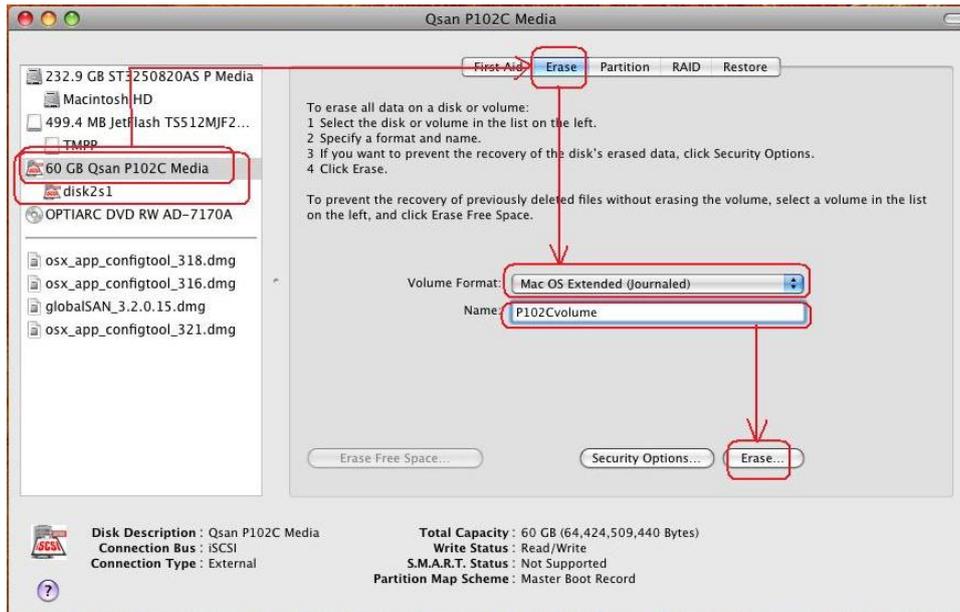


Part 4: Mount the P102C volume

1. Click the **Disk Utility** icon at the bottom of the desktop. The icon is shown as follows:



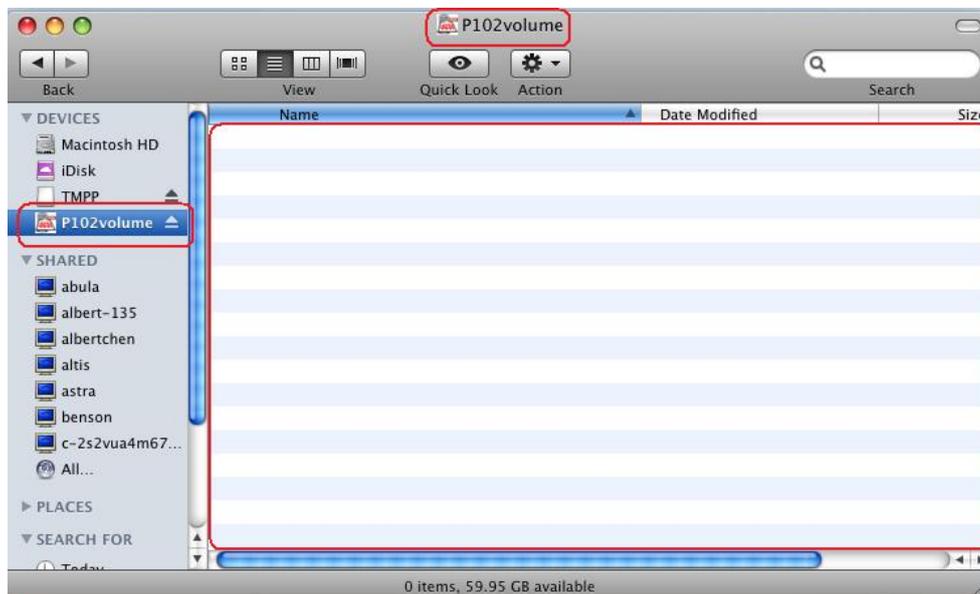
2. The iSCSI target is now listed in the left-hand panel of the utility UI.
3. Take an example of formatting the whole disk.
4. Click **60 GB Qsan P102C Media** in the left-hand panel.
5. In **Erase** tab, select **Volume format to Mac OS Extended (Journal)**.
6. Type in a device name, and then click **Erase** button.



- When the format completes, an icon named **P102Cvolume** is standing on the desktop.



- Done, the iSCSI disk can be used.



Summary

Follow the procedures; it's easy to implement iSCSI in Mac OS X.

Applies to

- All **QSAN P series** controllers FW (20090625_1800)

References

- ATTO Xtend SAN iSCSI Initiator Software for Mac
<http://www.attotech.com/products/product.php?scat=17&sku=INIT-MAC0-001>
- ATTO Xtend SAN Installation and Operational Manual
http://www.attotech.com/software/files/manuals/XTendSAN_FINAL.pdf