

SANbox[®] 5200 and SANbox2[™] Firmware Release Notes Version 4.0.0.11

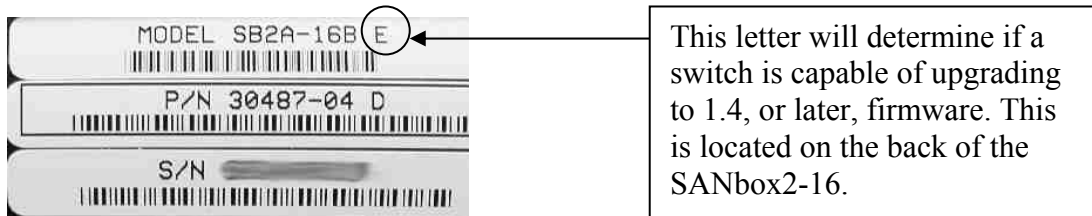
50207-16 Rev A

This software is licensed by QLogic[®] for use by its customers only.
Copyright (c) 2001-2004 QLogic Corporation
All rights reserved

Version 4.0.0.11 is a new platform release for the QLogic SANbox 5200 switch product line. In addition, this release supports all SANbox2 switch products. If using the SANbox Manager[™] fabric management application, you must use SANbox Manager version 4.00.10, or later, in conjunction with this firmware.

Important Notes (Applicable only to SANbox2 switches)

1. All SANbox2-16 switches with model numbers ending with the letters A through G (see below) cannot upgrade to the 1.4, or later, firmware release without contacting QLogic Technical Support first. Technical Support contact information can be found at the end of these release notes.



2. Caution: When downgrading SANbox2 firmware to 1.3.xx, all configuration data is lost and a 4-blink code flashes on the Heartbeat LED. A backup of the configuration, prior to downgrading to 1.3, is recommended. Visit the knowledge base section of our web site at http://www.qlogic.com/support/knowledge_base.asp or contact QLogic Technical Support for assistance.
3. If you need to downgrade from 4.0 firmware to 3.0 firmware on a SANbox2 switch, please contact your QLogic approved reseller or QLogic Technical Support as noted in the Support section of these release notes.
4. Fabric Device Security, which was noted as a new feature in switch firmware 3.0.1.00, has not been implemented in this release.

New Features in 4.0

This 4.0 switch firmware can be loaded without a reboot or disrupting the switch fabric.

Version 4.0 firmware adds the following features:

- **SANbox 5200 Support** – The following functionality has been added and is specific to the SANbox 5200 platform:
 - **Stacking** – Up to 4 switches can be stacked together to provide up to a 64 port fabric without sacrificing 2Gb device ports or performance.
 - **10Gb Ports** – High bandwidth 10Gb ports provide a simple and high performance ISL solution using stacking.
 - **Port Licensing** – SANbox 5200 switches may be ordered as an 8, 12, 16 or 20 port base configuration. The four 10Gb stacking ports are only available when a 20 port based switch configuration is ordered or via equivalent upgrades. At any time, a license may be purchased to enable use of any unused ports, in 4 port increments. For information regarding the purchase of additional licenses, contact your approved reseller.
- **Signed Images** – For additional security, all firmware images are now signed. Due to this added security, after upgrading to version 4.0, downgrading to pre-4.0 firmware images can only be accomplished via maintenance mode. For more information, contact QLogic Technical Support.
- **VPF Removal** – With the 4.0 release, VPF hard zone support has been removed. This proprietary feature has been discontinued in favor of standards-based FC-GS-4 zoning. If the switch detects VPF zones, they will be automatically converted to soft zones.
- **New Firmware Version Names** – Although the code base for SANbox 5200 and the SANbox2 series of switches is the same, they must be compiled separately due to the processor difference in these switches. Due to this difference, the firmware version names must change to clearly distinguish between the versions.
 - 4.0.0.11.00_x86 is the 4.0 firmware image for the SANbox2 series of switches
 - 4.0.0.11.00_mpc is the 4.0 firmware image for the SANbox 5200 switch

Documentation

Installation, setup and management of the SANbox 5200 and SANbox2 switches are described in the following manuals.

- SANbox 5200 Fibre Channel Switch Installation Guide, 59055-00 Rev. B
- SANbox 5200 Switch Management User's Guide, 59056-00 Rev. B
- SANbox2 Simple Network Management Protocol Reference Guide, 59047-02 Rev. A
- SANbox2-8c Fibre Channel Switch Installation Guide, 59042-05 Rev. B
- SANbox2-16 Fibre Channel Switch Installation Guide, 59021-08 Rev. B
- SANbox2-8c/16 Switch Management User's Guide, 59022-08 Rev. B
- SANbox2-64 Fibre Channel Switch Installation Guide, 59043-04 Rev. B
- SANbox2-64 Switch Management User's Guide, 59048-04 Rev. B
- SANbox2-64 Field Replaceable Unit Installation Guide 59049-02 Rev. A
- SANbox2-64 Chassis Replacement Guide 59050-00 Rev. A
- SANbox2-64 Rack Mounting Guide 59051-01 Rev. A

The following manual is available on-line at www.qlogic.com/interopguide

- QLogic Switch Interoperability Guide

Installing the Firmware via telnet

The following procedure should be used, to download Version 4.0.0.11:

After downloading new firmware from QLogic, change directory to the directory where the new firmware is located.

ftp to the switch

login using username images, password images

enter the following commands:

> bin

> put 4.0.0.11.00_xxx (where xxx is mpc for SANbox 5200 and x86 for SANbox2 products)

> quit

telnet to the switch

login using username: admin, password: password

enter the following commands:

> admin start

> image unpack 4.0.0.11.00_ xxx (where xxx is mpc for SANbox 5200 and x86 for SANbox2 products)

Refer to the instructions in the Installation Guide listed in the Documentation section of these release notes to decide which type of reset to perform in order to activate this new firmware.

Interoperability

- Brocade and McData interoperability - The following switches and firmware levels were specifically tested with this release:
 - FC-SW-2 Enabled (Will work with Brocade and McData in their “interoperability” mode):
 - Brocade Silkworm 3200/3800; Firmware supported: v3.0.2a, v3.0.2c, v3.0.2g, v3.1.0
 - McData ES-3232; Firmware supported: 04.01.00.12, 05.01.00.24, 06.00.00.45, 06.00.00.60, 06.01.00.09
 - Brocade Silkworm 3900; Firmware supported: v4.0.2c, v4.1.0, v4.0.2a
 - FC-SW-2 Disabled (Will work with Brocade in their “native” mode):
 - Brocade Silkworm 3800; Firmware supported: v3.0.2g, v3.0.2h, v3.0.2j, v3.1.0, v3.1.1
 - Brocade Silkworm 3900; Firmware supported: v4.0.2c, v4.1.0, v4.0.2a, v4.1.1a

For information regarding configuration settings necessary for this mode, refer to the FAQ at the following link:

http://www.qlogic.com/cgi-bin/faq_display.pl?faq=switch/sw_sb2_036.html

Known Issues with Brocade/QLogic operation that are not documented in the Interoperability Guide (see note below):

- In a mixed QLogic, McData, Brocade fabric, using McData’s GUI to take the McData switch offline/online sometimes caused an ISL failure between QLogic switches and Brocade switches. When this does occur, the Brocade loop initialization code will continuously loop.
- Brocade BB credit negotiation does not work properly. Flow control errors are reported during an E_Port offline/online. This problem is fixed in v3.1.0 and later.
- Connecting a QLogic switch to a Brocade 3900 switch via a GL port will cause the Brocade switch to panic. The Brocade 3900 switch demonstrates this issue with other non-QLogic switches. To work around this issue, change the QLogic port to a G port.
- When running with FC-SW-2 enabled, zoning propagation from a Brocade switch does not work in Brocade firmware v3.1.0 and later. The Brocade switch sends an invalid data format which does not comply with FC-SW-2.

Known Issues with McData/QLogic operation that are not documented in the Interoperability Guide (see note below):

- McData’s SANpilot, and command line interface, do not display devices attached with QLogic switch. A workaround is to use their EFCM tool.

Note: The QLogic Switch Interoperability Guide listed in the Documentation section of these release notes provides all other information regarding QLogic interoperability with Brocade, McData, Cisco and Inrange switches, including:

- configuration information
- feature limitations in mixed configuration
- known issues

Problems corrected in 4.0.0.11

Problem No.	Description
6970	Session timeouts are set to 5 minutes. In cases where max (or near max) sessions are reached, and resets occur in the fabric, the sessions no longer being used may prevent users from performing other operations for 5 minutes until these sessions time out.
6998	Doing a "show port x" on a SANbox2-8 switch displays garbage data in the "DiagStatus" field. If there truly is a problem, a flashing LED would indicate a POST error and the port will be downed.
7029	After a switch power cycle, Emulex LP9002 HBAs are logging in to the switch at 1Gb when it should login at 2Gb. If you reset the port or reset/hard reset switch, the device will login at 2Gb.
7058	When running in a fabric with both QLogic and Brocade switches and using Brocade's Webtools to create multiple aliases, to ensure correct propagation of those aliases, single letter named aliases should be avoided.
7153	The 'expires' data in the "user accounts" command displays the data rounded down to the nearest day. Therefore, an account that really expires in 4 days, 23 hours, and 59 minutes would show 4 days instead of 5 days.
7269	When logging in to the switch via SANbox Manager, if the login is not successful, the "invalid user" alarm that is generated is listing the switch IP address instead of the IP address of the workstation where the failed login originated.
7367	When performing a Non-Disruptive Code Load and Activation (NDCLA), a decode alarm message is erroneously produced.
7493	When a domain ID change occurs on a switch, its E_Ports do not log out and log back in again for several minutes. A workaround is to either wait until it does log back in or to manually reset the port.
7885	A FC address zone member cannot be set from within SANavigator.
8234	After adding a new zone to a zone set, upon activating the zone an RSCN is being sent to all of the ports in that zone set causing a disruption in the I/O. This is only an issue with hard, or ACL, zones.
8243	On a SANbox2-64 switch, if only one ASIC on a Cross Connect (CC) fails POST, DiagStatus will display a passing status.

Known issues

Problem No.	Description
6736	If a SANbox2-64 I/O blade is not installed, SNMP connUnitRevsRevId erroneously returns a value of 1.0 for the Hardware PCB Version.
7518	The firmware does not yet detect and display the proper type of media, such as copper interconnect or Optical X-Pak transceiver, plugged in to the 10Gb port. This will be supported in a future release of SANbox 5200.
8148	After a hot reset, or NDCLA, an SNMP trap will be issued containing "WARNING: Received out of range enumeration 0 is not a known value for connUnitStatus". This trap can be ignored.

Interoperability issues

Problem No.	Description
8417	In a QLogic/Brocade 3900 fabric in non-SW-2 mode, after changing zoning on the QLogic switch, that zoning does not get updated on the Brocade 3900 switch. This only occurs with Brocade 3900 firmware v4.1.0 and later.

Notes

1	While running with a QLogic HBA (F_Port) with an NT driver installed, there are two known HBA issues. 1) If you offline the switch, the HBA will not log back in when the switch is brought back online. 2) While the HBA is trying to adjust the credit counters, data frames continue to be received. The switch eventually detects an out of credit situation, does a link reset (LR) and then recovers. Other drivers at level 3.2.17 or later no longer exhibit these issues.
2	To achieve optimal performance on a loop port, configure MFSEnabled on (true) for that port. The default is off (false) for all ports. In a future release, a loop device will be automatically detected with MFSEnabled then configured on for that port.

Support

Please feel free to contact your QLogic approved reseller or QLogic Technical Support at any phase of integration for assistance. QLogic Technical Support can be reached by the following methods:

Web: <http://support.qlogic.com>

Email: support@qlogic.com

Phone: (952) 932-4040

Trademarks

QLogic, SANbox, SANbox2 and SANbox Manager are trademarks or registered trademarks of QLogic Corporation.

Windows is a registered trademark of Microsoft Corporation.

SANavigator is a registered trademark of McData Corporation.

Silkworm is a registered trademark of Brocade Communications Systems Inc.

All other brand and product names are trademarks or registered trademarks of their respective owners.

Notices

Information furnished in this manual is believed to be accurate and reliable. However, QLogic Corporation assumes no responsibility for its use, nor for any infringements of patents or other rights of third parties which may result from its use. QLogic Corporation reserves the right to change product specifications at any time without notice.

Applications described in this document for any of these products are for illustrative purposes only. QLogic Corporation makes no representation nor warranty that such applications are suitable for the specified use without further testing or modification. QLogic Corporation assumes no responsibility for any errors that may appear in this document.