

SANbox2

Firmware Release Notes

Version 1.3.64

50140-12 Rev A

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Version 1.3.64 is a bugfix release for the QLogic SANbox2-8 and SANbox2-16 switches. If using the SANbox™ Manager fabric management application, you must use SANbox Manager version 1.03.46, or later, in conjunction with this firmware.

Documentation

Installation, setup and management of the SANbox2 switch are described in the following manuals. These manuals are available on the distribution CD.

- SANbox2 Switch Management User's Guide, Publication No 59022-03 Rev. D
- SANbox2-8c Fibre Channel Switch Installation Guide 59042-00 Rev. A
- SANbox2-16 Fibre Channel Switch Installation Guide, Publication No 59021-03 Rev. D

Installing the Firmware via telnet

The following procedure should be used, to download Version 1.3.64:

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 fullimage.XXX (where XXX represents the version of the firmware)

> quit

telnet to the switch

login using username: admin, password: password

enter the following commands:

> admin start

> image unpack fullimage.XXX

reset the switch (resetting switch will disrupt traffic)

Interoperability

- SANbox – The SANbox2 switch is fully interoperable with the SANbox 1Gb switch when running in E_Port mode. Interoperation requires firmware release version 4.01.45 or later, for the SANbox. To obtain this release, contact QLogic Technical Support. Contact information is listed at the end of these release notes.
- MKII - The SANbox2 switch does not support the legacy T_Port mode and therefore does not interoperate with MKII switches.
- Brocade Silkorm 2400/2800; Firmware supported: 2.4.1c

Configuring the Brocade 2400/2800 switch:

Certain configuration parameters need to be set on the Brocade switch before it will operate with a standards compliant switch. The following parameters can be changed with the Brocade telnet interface.

```
switch:admin> configure
```

```
Configure...
```

```
Fabric parameters (yes, y, no, n): [no] y
```

```
VC Encoded Address Mode: (0..1) [0]
```

```
Switch Operating Mode (yes, y, no, n): [no] y
```

```
Interoperability Mode: (0..1) [1]
```

```
Zoning Operation parameters (yes, y, no, n): [no] y
```

```
Standard Mode: (0..1) [1]
```

In a mixed fabric with SANbox2, Brocade and McData switches, Domain IDs must be in the 0x61-7f range. If a SANbox 1Gb switch is in the fabric, this is further restricted to 0x61-6f or 70-7f. The Domain ID can be set with the Brocade telnet interface.

```
switch:admin> configure
```

```
Configure...
```

```
Fabric parameters (yes, y, no, n): [no] y
```

```
Domain: (97..127) [97]
```

Known Issues with Brocade/SANbox2 operation:

- The SANbox2 switch supports 2 modes of treating devices when there is no active zoneset, either visible to each other or visible to none. When operating with a Brocade switch, the SANbox2 switch should be set to no orphan visibility. Do this by using the CLIsh command “set config zoning” to set “Default” to “None”.
- When zoning, the SANbox2 allows you to specify zone members as WWNs, domain/portNos, or by Fibre Channel address. Brocade switches accept only the WWN specification.
- Do not enable Brocade's Platform Management Server. It should be disabled by default. If it is enabled, the Brocade switch will keep sending non-GS-3 management server messages to E_port every 4 seconds and the Brocade switch will eventually isolate with the message “WARNING MS-PLDBSEG...MS Platform Segmented”. To disable this feature, follow these steps:

```
switch:admin>msPIMgmtDeactivate
switch:admin> msplatshow
Platform Management is NOT enabled.
```
- Brocade Silkworm 3800; Firmware supported: 3.0.2a

Configuring the Brocade 3800 switch:

Certain configuration parameters need to be set on the Brocade switch before it will operate with a standards compliant switch. The following commands must be entered from the Brocade telnet interface.

```
switch:admin> switchdisable
switch:admin> interopmode 1
switch:admin> fastboot
```

In a mixed fabric with SANbox2, Brocade and McData switches, Domain IDs must be in the 0x61-7f range. If a SANbox 1Gb switch is in the fabric, this is further restricted to 0x61-6f or 70-7f. The Domain ID can be set with the Brocade telnet interface.

```
switch:admin> configure
```

Configure...

```
Fabric parameters (yes, y, no, n): [no] y
Domain: (97..127) [97]
```

Known Issues with Brocade/SANbox2 operation:

- Minor anomalies have been observed in Domain ID assignment. To avoid these, it is advisable to configure each switch with a unique Domain ID and to lockdown the Domain Ids.
 - The SANbox2 switch supports 2 modes of treating devices when there is no active zoneset, either visible to each other or visible to none. When operating with a Brocade switch, the SANbox2 switch should be set to no orphan visibility. Do this by using the CLish command “set config zoning” to set “Default” to “None”.
 - When zoning, the SANbox2 allows you to specify zone members as WWNs, domain/portNos, or by Fibre Channel address. Brocade switches accept only the WWN specification.
 - “Brocade” mode is unsupported with the Brocade Silkworm 3800 switch. Furthermore, this compatibility mode will be removed in a future release.
 - Do not enable Brocade's Platform Management Server. It should be disabled by default. If it is enabled, the Brocade switch will keep sending non-GS-3 management server messages to E_port every 4 seconds and the Brocade switch will eventually isolate with the message “WARNING MS-PLDBSEG...MS Platform Segmented”. To disable this feature, follow these steps:
 - switch:admin>msPIMgmtDeactivate
 - switch:admin> msplatshow
 - Platform Management is NOT enabled.
- McData ED-5000

Firmware supported: 04.00.00.01

Configuring the McData switch:

Certain configuration parameters need to be set on the McData switch before it will operate with a standards compliant switch. The following parameter can be changed with the McData GUI.

- In the Hardware View window, bring up the Operating Mode window and set “Interop Mode” to “Open Fabric 1.0”
- In a mixed fabric with SANbox2, Brocade and McData switches, Domain IDs must be in the 0x61-7f range. If a SANbox 1Gb switch is in the fabric, this is further restricted to 0x61-6f or 70-7f. Note that in the McData GUI, the Domain IDs are listed as 1-15 which does equate to 0x61-7f.

Known Issues with McData/SANbox2 operation:

- The McData switch does not support Port and FC Address zoning. Their use on the SANbox2 switch should be avoided, if connected to a McData switch.
- As with the Brocade switch, orphan visibility should be off. Do this by using the CLish command “set config zoning” to set “Default” to “None”.

Problems corrected in this release

Problem No.	Description
4654	There are JBODs that do not send a LIP when a drive is removed. This causes the name server entries to remain in the table.
5142	After an ISL cable pull, the GA_NXT is rejected when port 0 is an F_Port and the driver requests port_address - 1.
5164	Commands that require admin mode to be executed, when executed in a regular user mode, don't display any error messages.
5314	Overnight run of offline/online ports with HDS 9960 caused buf mem to be exhausted.
5323	After moving an F_Port from port 6 to port 7, the green port light stayed on and the same WWN showed up for port 6 and port 7 in the name server.
5325	ELP WWN comparisons Standards changed. Use ELP switch WWN instead of port.
5330	Send only the Domain level RSCN when the remote switch powers up. The local switch will filter out any Port or Area RSCN for devices on the remote switch.
5444	Finisar 2Gb SFPs, model number FTRJ-8519-7D-2.5, support a DC restore loop mechanism that takes over when there is no traffic on the wire for more than a few milliseconds. The POLT offline tests were not allowing time for loop stabilization to complete after this mechanism takes over.
5500	In setting E_ports online and offline and stopping that by using ^C, a random Eport will be in a state where it is sending SW_RJT frames to the other E_port. In order to recover from this, you must reset the switches.
6069	After 25-28 days, the ports do not respond if the connected device is rebooted.

Known issues

Problem No.	Description
3342	<p>The switch's internal system storage can occasionally become lost, if the switch is power cycled while configuration changes are being made. To avoid this, use of "reset" rather than power cycling is recommended.</p> <p>Should it occur, the following procedure will restore the switch to operability:</p> <ol style="list-style-type: none"> (1) Power down the corrupted switch (2) Push and hold the Flasher Reset button and power up the switch, Wait until both the power and heartbeat LED's are on, solid Green and Yellow respectively. (3) Telnet into the switch using IP address 10.0.0.1 (4) Login as user "prom" with the password "prom" (5) The following menu will be presented: <ol style="list-style-type: none"> 0) Exit 1) Image Unpack 2) Reset Network Config 3) Reset Password File 4) Copy Log Files 5) Remove Switch Config 6) Remake Filesystem 7) Reset Switch <p>Option:</p> <ol style="list-style-type: none"> (6) Enter "6" at the prompt and "y" at the warning. (7) Enter "7" at the prompt and "y" at the warning. (8) If you have previously saved the switch configuration, download it to the switch, using ftp with the user "images" password "images" and with the ftp "put" command download the "configdata" file to the switch. (9) Telnet into the switch as user "admin" (10) Use the CLish command "config restore", or you may manually reconfigure the switch.
4199	<p>If you have a fabric with SANbox2 and McData and/or Brocade switches, you cannot use SANbox Manager to see nameserver entries for devices attached to the Brocade or McData switch nor can you zone them via SANbox Manager. You can use telnet/clish to work around this problem. If you have a SANbox 1Gb switch in the fabric, this problem does not exist.</p>
4200	<p>After activating a large zoneset, the CLish "zoning list" command did not list all zoning information. This is a Windows only issue with the default telnet application. A 3rd party telnet application is recommended on a Windows platform.</p> <p>If you use the default telnet and it appears hung when you first open the session, "set term vt100" at the telnet prompt will resolve this issue.</p>
4308	<p>In a SANbox2/SANbox 1Gb/Brocade/Mcdata mesh configuration, if you have a JNI initiator in loop mode and assign the same domain ID to all switches and bring all of them online, the JNI initiator does not log back into the same port on SANbox2. This is not a switch problem. If you do not set the JNI to loop only mode, this problem is avoided.</p>
4610	<p>Zoning limits are not enforced during a zone merge with other vendor switches. If another vendor's switch exceeds the SANbox2 zoning limits and that zoning data is merged, the switch sends out an alarm message letting you know that you have exceeded the zoning limits. The zoning limits that are enforced within the SANbox2 switch are:</p> <p>256 Zone sets, 256 Zones, 256 Aliases 2000 Members per zone, 2000 Members per alias, 2000 Total members</p>
4658	<p>A TL Initiator will be unable to discover target devices connected to non-SANbox2 switches, including SANbox 1Gb switch, McData, and Brocade. Target devices which are to be accessed via a TL port must be connected to a SANbox2 switch.</p>
4705	<p>The Unzoned Name Server ignores the frame size specified in the PLOGIN.</p>
4981	<p>If a device had registered (using the SCR command) to receive state changes and later unregistered (again using SCR), we fail to stop sending them state changes.</p>
	<p>If a VPF hard zone crosses multiple switches but doesn't contain the ISL in the zone, a nameserver query outside the zone will show devices that are inside the zone on the remote switch. However, device access will be prevented by hardware enforcement. Therefore, all VPF zones that overlap switches must contain the ISL(s) in the zone.</p>

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