Brocade Fabric OS v4.2.0c Release Notes_v1.0

June 1, 2004

Document History

Document Title	Summary of Changes	Publication Date
Brocade Fabric OS v4.2.0c Release Notes_v1.0	First release	June 1, 2004

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Overview

Fabric OS v4.2.0c is a patch release that contains fixes to a small number of additional issues found since the release of Fabric OS v4.2.0. Aside from these changes, Fabric OS v4.2.0c is functionally identical to the Fabric OS v4.2.0 release. Fabric OS v4.2.0 provides the following enhancements and new features to Fabric OS through v4.1.2:

- Adds support for the SilkWorm 3250 (2005-H08), 3850 (2005-H16), and 24000 (2109-M14) platforms
- Reduces fabric configuration downtime:
    - Extended-edge PID for mixed fabrics eliminates host reboot for hosts that statically bind PIDs.
- Improves fabric diagnostics:
    - **pathInfo** command displays path information between any two ports of a fabric.
    - Monitors compact flash utilization and cleans the file systems when encountering high utilization.
    - Improves **supportShow** functionality.
    - Hardware watchdog failures capture a kernel trace dump prior to reset.

Brocade software release policy is to carry forward all fixes in patches to subsequent maintenance and feature releases of Fabric OS.

About This Release

Fabric OS v4.2.0c includes:

- Fixes to defects, as detailed in the section "Defects Closed in Fabric OS v4.2.0c."

Supported Switches

Fabric OS v4.2.0 supports the SilkWorm 3250, 3850, and 3900 switches and the SilkWorm 12000 and 24000 directors.

Technical Support

Contact your switch support supplier for hardware, firmware, and software support, including product repairs and part ordering. To assist your support representative and to expedite your call, have the following three sets of information immediately available when you call:

1. General Information

- Technical Support contract number, if applicable
- Switch model
- Switch operating system version
- Error messages received
- **supportShow** command output
- Detailed description of the problem and specific questions
- Description of any troubleshooting steps already performed and results

2. Switch Serial Number

The switch serial number is provided on the serial number label, as shown here.

Type 2109-M12	Type 2109-F32
S/N PPSSSSS	S/N PPSSSSS

Type 2109-M14	Type 2109-Hxx
S/N PPSSSSS	S/N PPSSSSS

The serial number label is located as follows:

- *SilkWorm 2000 series (3534-1RU) switches:* Bottom of chassis
- *SilkWorm 3200 (3534-F08) and 3800 (2109-F16) switches: Front and bottom* of chassis
- *SilkWorm 3250 (2005-H08) and 3850 (2109-H16) switches: Front and back* of chassis
- *SilkWorm 3900 (2109-F32) switches: Front and b*ottom of chassis
- *SilkWorm 6400, 12000 (2109-M12) and 24000 (2109-M14) switches:* Inside front of chassis, on wall to right of ports

3. Worldwide Name (WWN)

• *SilkWorm 3250 (2005-H08), 3850 (2005-H16) 3900 (2109-F32) 12000(2109-M12) and 24000 (2109-M14) switches:* Provide the license ID. Use the **licenseidshow** command to display the license ID.

• *All other SilkWorm (1RU/S08/S16/F08/F16) switches:* Provide the switch WWN. Use the **wwn** command to display the switch WWN.

Standards Compliance

Brocade Fabric OS v4.2.0 conforms with the following Fibre Channel Standards:

- FC-AL ANSI X3.272: 1996
- FC-AL-2 NCIT S 332: 1999
- FC-FLA NCIT S TR-20: 1998
- FC-GS-3 NCITS 348-2000 Rev 7.01
- FC-FG ANSI X3.289: 1996
- FC-PH ANSI X3.230: 1994
- FC-PH-2 ANSI X3.297: 1997
- FC-PH-3 ANSI X3.303: 1998
- FC-PLDA NCIT S TR-19: 1998
- FC-SW-2 Rev 5.3
- FC-VI Rev 1.61
- FC-MI, Rev 1.92
- FC-SB-2 Rev 2.1 (FICON Support)
- FC-BB Rev 4.7
- FC-FS Rev 1.7
- FC-BB-2 Rev 5.3
- IPFC RFC 2625
- FCP ANSI X3.269: 1996
- FCP-2 Rev 7

Brocade products conform to these standards in a manner consistent with accepted engineering practices and procedures. In certain cases, Brocade might add proprietary supplemental functions to those specified in the standards. Brocade verifies conformance with Fibre Channels Standards by subjecting its switches to SANmark Conformance Tests developed by the Fibre Channel Industry Association. Brocade switches have earned the SANmark logo, indicating such conformance. SANmark is a limited testing program and does not test all standards or all aspects of standards.

Important Notes

This section lists information you should be aware of when running Fabric OS v4.2.0.

OS Requirements

The following table summarizes the versions of Brocade software that are supported in conjunction with this release. These are the *earliest* software versions that interoperate. Brocade recommends using the *latest* software release versions to get the most benefit from the SAN.

Fabric OS v2.4.x or earlier, v3.0.0x or earlier, and v4.0.0 or earlier have reached their end-of-life and are no longer supported, starting February 2004.

Effective September 2004, Fabric OS v2.6.0x and earlier, v3.0.2x and earlier, and v4.0.2x and earlier will reach their end-of-life and will no longer be supported.

	2109-S08/S16 3534-1RU	**2109-F16 3534-F08**	**2005-H08/H16 2109-F32 2109-M12 2109-M14** [1]	**Fabric Manager**
General compatibility	2.6.0c or later	3.0.2c or later	4.0.2 or later	3.0.2c or later
With Secure Fabric OS enabled	2.6.1 or later	3.1.0 or later	4.1.0 or later	3.0.2c or later
Recommended software versions	2.6.2	3.1.2	4.2.0b	4.1.1

[1] 2109-F32 is supported by Fabric OS v4.0.2 or later.
2005-H08/H16, and 2109-M14 are supported by Fabric OS v4.2.0b or later.
2005-H08/H16, and 2109-M14 are supported by Fabric Manager v4.1.1 or later.

Maximizing Fabric Availability During SilkWorm 3900 Hot Code Activation

During code activation on a SilkWorm 3900 (2109-F32) running Fabric OS v4.1.0 or later, data keeps flowing between hosts and storage devices. However, fabric services are unavailable for a period of approximately 50 to 55 seconds. Possible disruption of the fabric can be minimized by ensuring that switches logically adjacent to the SilkWorm 3900 (2109-F32 directly connected via an ISL) are running, at the minimum, Fabric OS v2.6.1 or later, v3.1.0 or later, or v4.1.0 or later. More information is available in the firmware download section of the *Brocade Fabric OS Procedures Guide*, publication number 53-0000518-04.

Mixed-Fabric Environment with Different SilkWorm Platforms

Fabric OS v2.6.2/v3.1.2/v4.2.0 introduced a new switch PID format, extended-edge PID (Format 2). Extended-edge PID might be useful if you introduce a Fabric OS v4.2.0 switch into a fabric consisting solely of Fabric OS v2.x/v3.x switches. Before adding a Fabric OS v4.2.0 switch to such a fabric, refer to *Brocade Fabric OS Procedures Guide*, publication number 53-0000518-04, for information on the extended-edge PID format. Note that in order to use the extended-edge PID format, Fabric OS v2.6.2, v3.1.2, and v4.2.0 must be deployed together, as applicable, to the switches.

If extended-edge PID format is set before downgrade from the current Fabric OS release to an older Fabric OS version that does not support the extended-edge PID format, the PID needs to be returned to a supported format, such as core PID (Format 1) or native PID (Format 0).

Advanced Web Tools Updates

- When using a mixed fabric—that is, a fabric containing v4.x, v3.x, and v2.x switches—Brocade recommends that you use the most advanced switches to control the fabric. For example, use the v4.x switches as the primary FCS, the location to perform zoning tasks, and the time server (CLI). Brocade also recommends that you use the most recently released firmware to control the fabric.
- If you use Advanced Web Tools to change the switch name, the SilkWorm 12000 (2109-M12) or 24000 (2109-M14) telnet console prompt will not update to the new name until a new telnet window is opened.
- **Issue:** If a dialog box is displayed from the Switch Admin window of Advanced Web Tools and the user selects another dialog box from Advanced Web Tools, a window display error occurs.

  Workaround: This is a known defect in Java 1.3, documented at *www.java.sun.com*, Java Bug ID 4763605. To avoid the display error, open only one dialog box at a time or launch another Switch Admin session in a separate window.
- Two Domain/Four Domain Fabric Licensing

  If your fabric includes a switch with a license for a limited number of switches in the fabric and the fabric exceeds the limit, Advanced Web Tools allows a 45-day "grace period" during which you can still monitor the switch. However, Advanced Web Tools will display warning messages periodically.

  These messages warn you that your fabric size exceeds the supported switch configuration limit and tells you how long you have before Advanced Web Tools will be disabled. After the 45-day grace period, you will no longer be able to launch Advanced Web Tools from the switch if it is still exceeding the limit. Two domain/four domain fabric licensing is applicable only to 2 Gbit/sec switches.
- **Issue:** A browser window might stop responding following an HA failover immediately after a zoning configuration was enabled or disabled. It is likely that the Web daemon was terminated by the HA failover before the HTTP request was returned.

  Workaround: If the HA module is not responsive, close the window and relaunch the module. If the module is locked, shut down and relaunch the Web Tools application.
- **Issue:** Due to a defect with Java Plug-in 1.4.1_02 (Java Bug ID 4751259) in combination with Internet Explorer 6.0 on Windows XP, if you frequently enable or disable a switch or perform a power cycle, the Switch View might not display properly, and launching other Web Tools components might cause a browser crash. This does not occur frequently with IE 6.0 and the related Java Plug-in unless the switch is taken offline/online repeatedly and is being monitored on a workstation at the same time.

  Workaround: Upgrade your Java Plug-in version to 1.4.1_06 or higher when you are working with Windows XP.
- For instructions on installing Mozilla 1.4 on Solaris 8 and Solaris 9, refer to the following Web site:

  http://ftp.mozilla.org/pub/mozilla.org/mozilla/releases/mozilla1.4/mozilla-sparc-sun-solaris2.8_1.4.readme
- **Issue:** The Mozilla browser does not support the Switch Admin module properly in Fabric OS v2.6.x. In Fabric OS v2.6.2, a warning message is displayed. For other 2.6.x versions, no warning message is displayed.

  Workaround: Use Netscape 4.7.7 or later.

- Advanced Web Tools browser, operating system, and Java Plug-in support is updated for Fabric OS v4.2.0. The following table identifies the supported browsers, operating systems, and Java Plug-ins for this release.

Operating System	Browser	Java Plug-in
RedHat Linux 9.0	Mozilla 1.4	1.4.2
Solaris 2.8	Mozilla 1.4	1.4.2
Solaris 2.9	Mozilla 1.4	1.4.2
Windows 2000	Internet Explorer 6.0	1.3.1_04 1.4.1_02 (recommended)
Windows 2003	Internet Explorer 6.0	1.3.1_04 1.4.1_02 (recommended)
Windows XP	Internet Explorer 6.0	1.3.1_04 1.4.1_02 (recommended)

The additionally supported browsers, operating systems, and Java Plug-ins introduce the following limitations when using mixed OS versions in Advanced Web Tools v4.2.0.

Launch Switch Environment	Problems
Firmware: Fabric OS v2.6.x **Operating System:** Solaris **Browser:** Mozilla	**Issue**: The Switch Admin does not launch correctly. If you try to launch the Switch Admin using Fabric OS v2.6.2 on a Solaris operating system with a Mozilla browser, a warning dialog displays, telling you to use the Netscape browser. If you try to launch the Switch Admin using Fabric OS v2.6.1 or lower on a Solaris operating system with a Mozilla browser, the Switch Admin fails and no warning is displayed. **Workaround**: Although the Netscape browser is not supported by Web Tools for switches running Fabric OS v2.6.2, v3.1.2, or v4.2.0 or later, if you must access the Switch Admin on a switch running Fabric OS v2.6.x from a Solaris operating system, use the Netscape 4.77 browser.
Firmware: version *prior* to Fabric OS v2.6.2, v3.1.2, or v4.2.0 with secure mode enabled **Operating System:** Solaris Browser: **Mozilla**	**Issue**: If you try to launch the Switch Admin, Zoning, Fabric Watch, or High Availability Admin using firmware versions prior to v2.6.2, v3.1.2, or v4.2.0 on a Solaris operating system with a Mozilla browser, the browser might crash due to a buffer overflow problem with Mozilla. **Workaround**: Although the Netscape browser is not supported by Web Tools for switches running Fabric OS v2.6.2, v3.1.2, or v4.2.0 or later, if you must access the Switch Admin, Zoning, Fabric Watch, or High Availability Admin on a switch running firmware versions prior to v2.6.2, v3.1.2, or v4.2.0, from a Solaris operating system, use the Netscape 4.77 browser.
Firmware: version *prior* to Fabric OS v2.6.2, v3.1.2, or v4.2.0 **Operating System:** any supported operating system (with supported browser) **Browser:** any supported browser (on supported operating system)	**Issue**: When trying to access a switch running firmware versions Fabric OS v2.6.2, v3.1.2, or v4.2.0 from the launch switch, Switch Explorer will display a null pointer exception, and the SwitchInfo applet will not display; Switch Explorer does not work properly with switches running the latest firmware. **Workaround**: Use a launch switch running Fabric OS v2.6.2, v3.1.2, or v4.2.0 or later to access the switch.

Launch Switch Environment	Problems
Firmware: version *prior* to Fabric OS v2.6.2, v3.1.2, or v4.2.0 **Operating System:** any supported operating system (with supported browser) **Browser:** any supported browser (on supported operating system)	**Issue:** When trying to perform end-to-end monitoring (Brocade Advanced Performance Monitoring) on a SilkWorm 24000 (2109-M14) or SilkWorm 3250 (2005-H08), the SilkWorm 24000 (2109-M14) or SilkWorm 3250 (2005-H08) is displayed as a 16-port switch. **Workaround:** For a SilkWorm 3250 (2005-H08), ignore the extra ports. For a SilkWorm 24000 ((2109-M14), use a launch switch running Fabric OS v4.2.0 or later to perform end-to-end monitoring on the switch.
Firmware: version *prior* to Fabric OS v2.6.2, v3.1.2, or v4.2.0 **Operating System:** any supported operating system (with supported browser) **Browser:** any supported browser (on supported operating system)	**Issue:** When trying to perform zoning on a SilkWorm 24000 (2109-M14) or SilkWorm 3250 (2005-H08), the SilkWorm 24000 (2109-M14) or SilkWorm 3250 (2005-H08) is displayed as a 16-port switch. **Workaround:** If you are running Brocade Secure Fabric OS, select a switch running Fabric OS v2.6.2, v3.1.2, or v4.2.0 or later as the primary FCS switch. If you are not running Brocade Secure Fabric OS, use a launch switch running Fabric OS v2.6.2, v3.1.2, or v4.2.0 or later to perform zoning on the switch.
Firmware: Fabric OS v2.6.2, v3.1.2, or v4.2.0 **Operating System:** any supported operating system (with supported browser) **Browser:** any supported browser (on supported operating system)	**Issue:** The Name Server table does not display properly for a switch running firmware versions prior to Fabric OS v2.6.2, v3.1.2, or v4.2.0. **Workaround:** If secure mode is enabled, select a switch running Fabric OS v2.6.2, v3.1.2, or v4.2.0 or later as the primary FCS switch. If secure mode is not enabled, use a launch switch running Fabric OS v2.6.2, v3.1.2, or v4.2.0 or later to access the Name Server table on the switch.
Firmware: version *prior* to Fabric OS v2.6.2, v3.1.2, or v4.2.0 **Operating System:** Solaris **Browser:** Netscape	**Issue**: Any switches running Fabric OS v2.6.2, v3.1.2, or v4.2.0 or later are unsupported through Netscape. **Workaround**: The Netscape browser is not supported by Web Tools for switches running Fabric OS v2.6.2, v3.1.2, or v4.2.0 or later. Use the Mozilla browser to manage all of your switches from a Solaris operating system.
Firmware: version *prior* to Fabric OS v2.6.1, v3.0.x, or v4.0.x **Operating System:** Windows **Browser:** Internet Explorer	**Issue**: When you are trying to run Fabric View, the browser might crash. **Workaround**: Use a launch switch that runs Fabric OS v2.6.1, v3.0.x, or v4.0.x or later so that you can use Switch Explorer (not Fabric View).

Other Notes

This table lists other important information you should be aware of regarding Fabric OS v4.2.0 and the SilkWorm 3250, 3850, and 24000 platform qualification.

SilkWorm 24000 (2109-M14)	Description
CP blade	The SilkWorm 24000 (2109-M14) CPs contain electronics that provide internal routing bandwidth and are always active on both CPs. Removal of a CP might impact user performance and therefore should not occur until a replacement CP is ready to be installed.
Power supplies	A fully configured SilkWorm 24000 (2109-M14) director with eight port cards and two CPs is capable of running on a single power supply. Therefore, two power supplies provide 2N redundancy. However, to maintain redundancy of AC input, one power supply must be in an even-numbered slot and one in an odd-numbered slot. The default configuration is for the power supplies to be in slots 1 and 2.
Card seating	Use the following procedure to ensure that port cards and control processor (CP) cards are properly installed into a SilkWorm 12000 (2109-M12) or 24000 (2109-M14) director: (1) Install the leading edge of the CP or port card into the appropriate slot on the card cage. (2) Push the front surface of the card (SFP cage side) carrier near the center with your hand until the top and bottom ejectors engage the upper and lower ejector plates (do not hold on to the ejectors as you push). (3) Press down on both ejectors at the same time, with equal force, to seat the blade. (4) Tighten the top thumbscrew first.

Fabric OS Area	Description
Boot over SAN	Boot over SAN JNI 6460 fails to initialize when switch port speed is configured to 2 Gbit/sec. Setup: single 3800 (2109-F16) switch with v3.1.2_bld05, Compaq DL580 server, TRIMM 4HDD JBOD Hard set the port that is connected to the JNI 6460 to 2 Gbit/sec. Hard set the port that is connected to the JBOD to 1 Gbit/sec. Power on the server and observe the PC monitor. An error message reports that the JNI 6460 fails to initialize. The port status reports “No_Sync”. **Note:** This symptom does not appear when port speed is set to autonegotiate. The JNI 6460 HBA operates with the FC switch as long as the port speed setting is autonegotiate or 1 Gbit/sec. When the switch port is set to 2 Gbit/sec, the JNI 6460 HBA is unable to initialize.
Compatibility	VC encoding mode is supported with the legacy SilkWorm 1000. For Fabric OS v4.2.0 and later, Brocade is dropping support for this mode.

Fabric OS Area	Description
Compatibility	Sometimes in a mixed fabric of v4.x/v3.x/v2.x, fabric reconfiguration is caused by link reset on v3.x/v2.x; this only happens in fabrics containing Fabric OS v3.x versions released prior to v3.1.0 or Fabric OS v2.x versions released prior to v2.6.1 under heavy traffic or CPU-intensive operations such as large (50K) zone database propagation. Brocade recommends the use of the latest revision code across all releases in a mixed fabric.
Ethernet port IP addresses	When a SilkWorm 12000 (2109-M12) or 24000 (2109-M14) fails over to its standby CP for any reason, the IP addresses for the two logical switches move to that CP blade's Ethernet port. This might cause informational ARP address reassignment messages to appear on other switches in the fabric. This is normal behavior, because the association between the IP addresses and MAC addresses has changed.
Extended links	For 50-km extended links, you have a choice of configuring a port as an LD port or an L1 port. LD ports maintain full link speeds of 103 Mbit/sec. L1 ports have link speeds of 99 Mbit/sec; however, you can configure all four ports of a quad as L1 ports, while you can only configure one port in a quad as an LD port.
Fabric configuration	During fabric configuration, the countdown message that used to appear on the console is removed, starting with Fabric OS v2.6.2, v3.1.2, and v4.2.0. Instead, the fabric reconfiguration message is captured in the error log. For details, refer to the DIAG messages in the *Brocade Diagnostic and System Error Messages Reference Manual*, publication number 53-0000515-08.
Fabric Device Management Interface (FDMI)	An HBA is allowed to register even though the originating port is not on the HBA's registered port list. This is intended behavior, included to test error cases.
Fabric OS CLI commands, failover, and port disable	Changing port configurations during a failover might cause ports to be disabled. To bring the ports online, reissue the command after the failover is complete.
Fabric OS commands	**Issue:** Under the root account, issuing Fabric OS commands in parallel through scripts could cause the kernel task to consume excessive memory. **Workaround:** When using scripts to issue Fabric OS commands, wait for one command to finish before issuing another command.
Fabric OS switch beaconing	**Issue:** Switch beaconing is not preserved across a failover. If you start beaconing, a failover causes all lights to stop flashing. **Workaround:** If this occurs, reissue the command to resume switch beaconing.
Fabric OS, switch reboot and blade repair	**Issue:** Switch reboot fails in the SilkWorm 12000 (2109-M12) or SilkWorm 24000 (2109-M14) if there are faulty port blades. **CAUTION: Verify that all blades are in working order before performing a switch reboot. Switch reboot is meant to be issued after all repairs are complete. If you perform a switch reboot and find a faulty blade, remove the blade and reboot will continue.** **Workaround:** Identify and remove the faulty blade, using the **slotshow** command.
Fabric routing, Fabric Manager: domain overlap	**Issue:** Issuing a **configdefault** command followed by reboot or switch disable or enable can cause the fabric to segment due to possible domain overlap. **Workaround:** Before rebooting the fabric, ensure that all switches are properly configured to avoid domain overlap between the logical switches.

Fabric OS Area	Description
Fabric Watch, email alert error message	If an event occurs while Fabric Watch email alerts are being enabled, the message "ErrLog: Error Level=3 [(null)]" is captured to the system error log. This message is from SMTP and can be ignored.
FICON®	When using fixed 1-GB channels (both G5 and FICON® Express), the FICON® host might generate erroneous link incidents when the channels are coming online. These link incidents result in a call home. Other than the generated link incident, the channel comes online and functions normally. To avoid this situation, the ports on the SilkWorm 12000 (2109-M12) or 24000 (2109-M14) connected to the 1-GB channels should be configured for fixed 1-GB speed.
FICON®	In FICON® environments, dynamic load sharing (DLS) should be configured to "disabled" on the SilkWorm 12000 (2109-M12) or 24000 (2109-M14). With DLS "enabled," traffic on existing ISL ports might be affected when one or more new ISLs is added between the same two switches. Specifically, adding the new ISL might result in dropped frames as routes are adjusted to take advantage of the bandwidth provided by the new ISL. By disabling DLS, there are no dropped frames. A similar situation occurs when an ISL port is taken offline and then brought back online. When the ISL port goes offline, the traffic on that port is rerouted to another ISL with a common destination. When the ISL port comes back online and DLS is enabled, the rerouting of traffic back to the ISL port might result in dropped frames. If DLS is not enabled, traffic is not routed back.
FICON®	When deploying the SilkWorm 24000 (2109-M14) director in FICON® environments and planning to use CUP in-band management in the future, port 126 should not be used for I/O. Due to the addressing of CUP management frames, I/O on an area 7E address is not supported simultaneously with CUP management.
Firmware downgrade	Downgrading from Fabric OS v4.2.0 to v4.0.2x on SilkWorm 12000 (2109-M12) directors must be completed in two steps. First, downgrade from Fabric OS v4.2.0 to v4.1.0x – v4.1.1x. Then, complete the process by downgrading from v4.1.0x/v4.1.1x to v4.0.2x. This is applicable to SilkWorm 12000 (2109-M12) directors only. Fabric OS 4.0.2x does not support SilkWorm 24000 (2109-M14).
Firmware download	During a firmware download, rebooting or power cycling the CPs could corrupt the compact flash. **CAUTION: Do not attempt to power off the CP board during firmware download, to avoid high risk of corrupting your flash.**

Firmware download	Fabric OS v4.1.x and v4.2.x nondisruptive firmware download allows for firmware downgrades and upgrades; however, you might see warning messages such as the following:
	
	`0x239 (fabos): Switch: 0, Info PDM-NOTFOUND, 4, File not found`
	
	`(/etc/fabos/mii.0.cfg)`
	
	These warnings can be ignored.

Fabric OS Area	Description
HA switch reboot failure	When a switch reboot or a failover occurs before POST is complete, the HA resynchronization is disrupted. HA will not resynchronize until POST completes. **CAUTION: Allow POST to complete before performing a switch reboot or failover, to avoid disruptive failover.**

Invalid Gateway IP address error message	The user will see the following message on the console during startup when the Ethernet IP and Gateway IP addresses are set to the defaults:
	`SIOCADDRT: Invalid argument`
	`.....`
	`ip.c:311:Invalid gateway IP address 0.0.0.0`
	This is a display issue only and does not affect the functionality of the switch.

IP addresses	**CAUTION: Do not set a switch or CP IP address for the Ethernet interface to 0.0.0.0.**
License removal	When a user removes a license from the switch, the optionally licensed feature is not disabled until the switch is rebooted or a switch disable or enable is performed.
LTO 2 tape drive support	When using the LTO 2 tape drive, the user must enter the following command on both Fabric OS v3.x andv4.x: `switch>` **`portcfggport`** ***`port# where drive is plugged in`*** This allows the tape drive to function in point-to-point mode rather than in loop mode.
OS hardware	Bringing up port blades during a failover could cause the port cards to come up in a disabled state. This is a rare occurrence; when this happens, bring up the port blade again, after the failover on the SilkWorm 12000 (2109-M12) or 24000 (2109-M14) director.
rsh and rlogin	The programs rsh and rlogin are not supported in this release. If you try to use an rsh or rlogin client, Fabric OS rejects the login attempt; however, because most rsh/rlogin clients continue to retry the login for several seconds before timing out, your system appears to hang.
Security, default password length	The initial login prompt for a switch accepts a maximum password length of eight characters. Any characters beyond the eighth are ignored.
Security, empty policies	**CAUTION: If telnet, API, and serial port access policies are empty, the user will not be able to communicate with the switch.** **Workaround:** Contact your switch provider for the recovery procedure.
Security, error counter	Telnet security errors that arrive in quick succession will be recorded as a single violation by the telnet error counter. For example, a login error from a host whose IP address is 192.168.44.247 will be logged as follows: `"Security violation: Login failure attempt via TELNET/SSH/RSH.  IP Addr: 192.168.44.247"` If another login violation occurs immediately, the message remains the same and only the error counter is incremented.
Security, fabric segment	When two secure fabrics are continuously joined and separated while the CPU is under heavy load, the fabric will segment after approximately 30 cycles.

Fabric OS Area	Description
Security, FCS list	Adding switches to the FCS list does not automatically join the switches in a secure fabric. Add the switches to the FCS list of the new switches and the target fabric. Reset the version stamp to 0 and either reset the E_Ports or perform a switch disable and enable for the switches to join.
Security, HTTP policy	If HTTP_Policy is empty, you will not be able to log in and will receive a "Page not found" error. This is expected behavior for this policy.
Security, invalid certficate	Web Tools and Fabric OS are not consistent in how they report switch certificate status. Web Tools reports a valid certificate with extra characters appended to it as invalid, whereas Fabric OS accepts the certificate and allows a **secmodeenable** command to complete successfully.
Security, PKICERT utility, CSR syntax	Before using the PKICERT utility to prepare a certificate signing request (CSR), ensure that there are no spaces in the switch names of any switches in the fabric. The Web site that processes the CSRs and generates the digital certificates does not accept switch names containing spaces; any CSRs that do not conform to this requirement are rejected.
Security, PKICERT utility, installing certificates	PKICERT version 1.0.6 is the most current version of the PKICERT utility. When running the PKICERT utility to install switch certificates in a fabric that did not previously contain switch certificates and now includes a SilkWorm 24000 director, select the option to specify that certificates are installed on only those switches that do not currently contain certificates. SilkWorm 24000 directors are delivered with switch certificates preinstalled. Switches that were originally shipped with Fabric OS versions 2.5/3.0/4.0 and have never installed and enabled Secure Fabric OS do not have certificates installed. Should you need to reinstall switch certificates in a SilkWorm 24000 director, follow these guidelines: • The host running PKICERT 1.0.6 must be connected to a proxy switch running Fabric OS versions 2.6.2/3.1.2/4.2.0 or later. • All other non-SilkWorm 24000 switches in the fabric can run v2.6.1/v3.1/v4.1 or newer firmware.
Security, sectelnet	If you try to log in to a switch through a sectelnet client while that switch is in the process of either booting or shutting down, you might see the message, "Random number generation failed." The message is printed by the sectelnet client because the switch telnet service is not running (the service has either already been shut down, if the switch is shutting down, or is not yet established, if the switch is booting). If the switch is booting, wait a few seconds and try again.
Security, secure mode	If an upgrade from Fabric OS version 4.0.x to 4.1.x/4.2.x is performed, followed by a downgrade to Fabric OS version 4.0.x and upgrade back to Fabric OS version 4.1.x/4.2.x, the switch password state is reset and will prompt the user for new secure mode passwords.
Security, secure mode, passwd telnet	**CAUTION: Using the "passwd" telnet command in secure mode to change the password results in all sessions using that password being logged out, including the session that changed the password.** This is expected behavior. The session will terminate if you change the password in secure mode.

Fabric OS Area	Description
Security, SLAP fail counter and two switches	The SLAP counter is designed to work when all the switches in the fabric are in secure mode. All the switches in the fabric must be in secure mode for accurate SLAP statistics.
Security, SSH login	To properly connect SSH login, wait for secure mode to complete before rebooting or performing HA failover on the SilkWorm 12000 or 24000 director. If secure mode is enabled and a reboot occurs before secure mode completes, SSH login will not connect and will go to the wrong MAC address because the active CP changes after an HA failover.
Single domain	For this release, the SilkWorm 24000 (2109-M14) director can be configured only as a single domain, as opposed to two logical domains in the SilkWorm 12000 (2109-M12) director. In other words, all port blades and slots are a part of that single switch.
WWN card FRU repair	If an HA failover or power cycle occurs during a FRU replacement on the WWN card, the SilkWorm 12000 (2109-M12) or 24000 (2109-M14) director becomes nonoperational. **CAUTION: When performing a FRU replacement on a WWN card, complete the FRU procedure before attempting an HA failover or power cycling the chassis.**
Zoning	To use zoning in a non-RCS (reliable commit service) mode fabric (that is, in a fabric containing switches with firmware versions other than v2.6.x, v3.1, and v4.1), Brocade recommends that all appropriate Zoning licenses be installed on all the switches in the fabric before attempting to bring a switch in to the fabric. Furthermore, if the Zoning license is to be removed, the user must make sure it is reinstalled properly on the affected switch before attempting the **cfgenable** zoning operation. Failure to follow these steps can cause inconsistency of zoning configuration on the affected switches should a zoning operation be attempted from a remote switch in the fabric. On the affected switches, an error message will appear on the console or telnet session (or by issuing the **errShow** or **errDump** command), indicating that the Zoning license was missing.
Zoning	**Issue:** Domain 0 in a zoning configuration file is invalid but has not been previously enforced. **Workaround:** Prior to upgrading a switch to Fabric OS v4.2.0, ensure that the fabric's zoning configuration does not contain domain ID 0, which is used for zoning. This is specific only to v4.x switches.

Commands Modified in v4.2.0

portCfgLPort

The **portCfgLPort** command now supports a *mode2* option. Specify 1 to configure the L_Port as a half duplex L_Port. Specify 0 to configure the L_Port as a full duplex L_Port. The default value is 0.

Refer to the *Brocade Fabric OS Reference Manual*, publication number 53-0000519-08, for more information.

Documentation Updates

This section provides information on last-minute additions or corrections to the documentation.

The following Brocade Fabric OS v4.2.0 publications have been revised to clarify switch-specific details and include minor updates.

Title	Part Number
Advanced Web Tools Administrator's Guide	53-0000522-06
Brocade MIB Reference Manual	53-0000521-07
Diagnostic and System Error Message Reference Manual	53-0000515-08
Fabric Manager User's Guide	53-0000823-06
Fabric OS Procedures Guide	53-0000518-04
Fabric OS Reference Manual	53-0000519-08
SilkWorm 12000 Control Processor Card Replacement Procedure	53-0000153-07

The latest documentation is available from the Brocade Web site through Brocade Connect.

Brocade SilkWorm 12000 Hardware Reference Manual
(Publication number 53-0000148-05)

The following statement within the “Operating Information for Power Supplies” section on page 2-12 is incorrect:

> “The left power connector provides power to the power supplies in power supply bays #1 and #3 (color-coded blue), which provide power to the left side of the chassis (slots 1-5). The right power connector provides power to the power supplies in power supply bays #2 and #4 (color-coded yellow), which provides power to the right side of the chassis (slots 6-10).”

As long as one power supply is operating, all the card slots (1-10) have power. The statement should read:

> “The left power connector provides power to the power supplies in power supply bays #1 and #3 (color-coded blue). The right power connector provides power to the power supplies in power supply bays #2 and #4 (color-coded yellow).”

Brocade Fabric OS Features Guide v4.2.0

(Publication number 53-0000395-01)

On page 6-1, change this text:

> "**Note**
> Long distance among SW3200 (F08), SW3250 (H08), SW3800 (F16), SW3850 (H16), SW3900 (F32), SW12000 (M12), and SW24000 (M14) ports is *not* supported when the long distance fabric-wide parameter fabric.ops.mode.longDistance is set."

To the following:

> "**Note**
> Long distance among SilkWorm 3200, SilkWorm 3250, SilkWorm 3800, SilkWorm 3850, SilkWorm 3900, SilkWorm 12000, and SilkWorm 24000 ports is not supported when the long-distance fabric-wide parameter fabric.ops.mode.longDistance is set, except in specific cases. If you find it necessary to set this parameter, contact your switch provider for information about supported configurations."

Brocade Fabric OS Reference Manual v4.2.0

(Publication number 53-0000519-08)

The following commands have been added or modified in the documentation:

- **burninLevel**
- **configure**
- **portCfgGPort**
- **portCfgislMode**
- **portCfgLongDistance**
- **portCfgShow**
- **setMfgMode**
- **spinJitter**
- **voltageMargin**

Each change is detailed next.

burninLevel

Sets the diagnostics burn-in level.

SYNOPSIS **burninlevel** [*level* | **-show**]

AVAILABILITY admin

DESCRIPTION

Use this command to select or display the burn-in level. When the burn-in level is set to a value other than 0, the diagnostic daemon program performs burn-in testing in place of the power-on self-test (POST) phase II each time a switch blade is powered on. The mode becomes active as soon as this command is executed so that it does not require a reboot to take effect.

When a burn-in level other than 0 is selected, actual behavior is determined by the configuration of the diagnostics daemon and the burn-in scripts run.

A useful application of this command is to store errors on the local persistent error storage on which the error occurs. This happens when the burn-in level is other than 0. This preserves the errors prior to returning a board for service. For multibladed products, this is the independent blade, and for fixed-port-

count products, this is the chassis-persistent storage. The error logs are viewed using the **burninErrShow** command.

OPTIONS

level The burn-in level sets to this value.

-show If specified, or if *level* is not specified, the current burn-in level setting displays.

EXAMPLE

To set the diagnostic burn-in level:

```
switch:admin> burninlevel -show
Burnin level is 0.
```

SEE ALSO

burninErrShow, **burninName**, **diagDisablePost**, **diagEnablePost**, **diagSetBurnin**

configure

Changes the Domain, R_A_TOV, and E_D_TOV fields in Table 2-2, as follows:

Field	Default	Range
Domain	1	varies
R_A_TOV	10000	E_D_TOV * 2 to 12000
E_D_TOV	2000	1000 to R_A_TOV / 2

diagModeShow

Displays diagnostic mode configuration.

SYNOPSIS **diagmodeshow**

AVAILABILITY all users

DESCRIPTION

Use this command to display the current settings for several diagnostic configuration parameters. This command is most often used by burn-in scripts to display a summary of the configuration settings that were in effect when the script was run.

NOTE

Any automated use of this command should rely on only the names of the specific variables, not on their exact positions in the output.

OPTIONS

none

EXAMPLE

To display the diagnostic mode:

```
switch:admin> diagModeShow
diag.mode* parameters saved in flash:
        diag.mode.burnin                = 0
        diag.mode.burnin.level          = 0
        diag.mode.burnin.firstPowerUp   = Thu Feb 28 01:36:12 2002
```

```
        diag.mode.esd                   = 0
        diag.mode.gbic                  = 0
        diag.mode.splb                  = 0
        diag.mode.lab                   = 0
        diag.mode.mfg                   = 0
        diag.mode.bplb                  = 0
        diag.ports                      = TEST (type=INDEX, sz=512): 100.
        Burnin passnum                  = 1
        Burnin nExec                    = 0
        Silkworm Mode                   = OFF
        Disable Modes Print             = OFF
```

SEE ALSO

burninLevel, **diagEsdPorts**, **setEsdMode**, **setGbicMode**, **setLabMode**, **setMfgMode**, **setSplbMode**

diagStatus

Displays currently running diagnostic tests.

SYNOPSIS **diagstatus** [*slotno*]

AVAILABILITY all users

DESCRIPTION

Use this command to display currently running diagnostic test names.

OPTIONS

slotno Specifies the slot to display. If omitted, all blades in the system are assumed.

EXAMPLES

To display currently running diagnostic tests:

```
switch:admin> diagstatus

Diagnostic status for slot: 1.
Diag executing "NONE"

Diagnostic status for slot: 2.
Diag executing "NONE"

Diagnostic status for slot: 3.
Diag executing "NONE"

Diagnostic status for slot: 4.
Diag executing "NONE"
--- <output truncated> ---
```

miniCycle

Runs a functional test of internal and external transmit and receive paths at full speed.

SYNOPSIS **minicycle** [**--slot** *number*][**-nmegs** *count*][**-lb_mode** *mode*][**-spd_mode** *mode*] [**-ports** *itemlist*]

AVAILABILITY admin

DESCRIPTION

Use this command to verify the intended functional operation of an ASIC pair (miniswitch) at the maximum or selected speed by setting up the routing hardware so that frames received by port M are retransmitted by way of port N. Likewise, frames received by port N are retransmitted by way of port M. Each port M sends two frames to its partner, port N.

This test is run as a series of eight path tests. Each port on the ASIC pair is exchanging frames with one port on the adjacent ASIC in the same miniswitch. At the end of a path test, the frames are captured and the routing is changed so that each port exchanges frames with the next port on the adjacent ASIC of the same miniswitch.

Unlike implementation of the **spinsilk** command, a port is only exchanging frames with one other port at a time under the **miniCycle** command. Just like with **spinSilk**, all ports are active and exchanging frames simultaneously with **miniCycle**.

The path number being tested determines the partner port N for each port M (bold and italic in the following example):

```
path 0: 0-8, 1-9, 2-10, 3-11, 4-12, 5-13, 6-14, 7-15
path 1: 7-8, 0-9, 1-10, 2-11, 3-12, 4-13, 5-14, 6-15
path 2: 6-8, 7-9, 0-10, 1-11, 2-12, 3-13, 4-14, 5-15
path 3: 5-8, 6-9, 7-10, 0-11, 1-12, 2-13, 3-14, 4-15
path 4: 4-8, 5-9, 6-10, 7-11, 0-12, 1-13, 2-14, 3-15
path 5: 3-8, 4-9, 5-10, 6-11, 7-12, 0-13, 1-14, 2-15
path 6: 2-8, 3-9, 4-10, 5-11, 6-12, 7-13, 0-14, 1-15
path 7: 1-8, 2-9, 3-10, 4-11, 5-12, 6-13, 7-14, 0-15
```

Note

The port numbers are relative to the ASIC pair. This test does not route frames from one ASIC-pair to another.

Ports cabled to other ports fail if port loopback mode is selected, and the port must have media and loopback plugs installed. For best coverage, you should use self-loopback plugs and port loopback mode (**-lb_mode 1**), as each port's external connectivity will be tested.

The frames are continuously transmitted and received in all ports in parallel. The port LEDs flicker green rapidly while the test runs.

The path test method is as follows:

1. Clear port statistics and error counters.
2. Enable ports for specified self-loopback mode.
3. Configure up the routing table so that when port M receives frames, the frames are routed back to the partner port N, and vice versa.
4. Transmit two frames by way of port M and two frames by way of port N. The following four patterns will be used for the four frames, one pattern each:
   - 1000 bytes of CSPAT
   - 480 bytes of RDRAM_PAT
   - 2112 bytes of BYTE_LFSR

- 200 bytes of RANDOM

5. Periodically check status:
   a. Each port has not died.
   b. Each port's frames-transmitted counter is still incrementing.
   c. Each port's statistic error counters are nonzero:

      `ENC_in, CRC_err, TruncFrm, FrmTooLong, BadEOF, Enc_out, BadOrdSet, DiscC3`.

6. Until one of the following is met:
   a. The number of frames requested is met on all selected ports.
   b. All ports are eventually marked bad.
   c. The user aborts the procedure.

The path test is repeated for each path, unless it is aborted by a keyboard interrupt. The data is *not* read and checked as was done in **portLoopbackTest** and **crossportTest**. There is no CPU intervention during a path test, other than the periodic checks of the hardware counters. At the end of a path test, all statistics and routes are reset for the next path test.

An example of the data used is as follows:

```
CSPAT:       0x7e, 0x7e, 0x7e, 0x7e, ...
RDRAM_PAT:   0xff, 0x00, 0xff, 0x00, ...
BYTE_LFSR:   0x69, 0x01, 0x02, 0x05, ...
RANDOM:      0x25, 0x7f, 0x6e, 0x9a, ...
```

Because this test includes the media and the fiber cable loopback plug in its test path, its results combined with the results of **portLoopbackTest** and **spinSilk** can be used to determine which components of the switch are faulty.

OPTIONS

--slot *number* Specifies the slot number on which the diagnostic operate. The ports specified are relative to this slot number. The default is set to 0 and designed to operate on fixed port count products.

-nmegs *count* Specifies the number of million frames to send per path test. The path test will progress until the specified number of frames has been transmitted on each port. The default value for *count* is 1, so the total number of frames sent will be at least 8 million (1 million frames * 8 paths).

-lb_mode *mode* Selects the loopback point for the test. By default, **miniCycle** uses external (SERDES) loopback.

Mode	Description
1	Port loopback (loopback plugs)
2	External (SERDES) loopback
5	Internal (parallel) loopback
7	Backend bypass and port loopback
8	Backend bypass and SERDES loopback
9	Backend bypass and internal loopback

-spd_mode *mode* Specifies the speed mode for the test. This parameter is only used for BLOOM-based products, for which this parameter controls the speed at which each port operates. For 1G-only products, this parameter is ignored. The exact operation of modes 3 through 6 depends on the loopback mode selected. When speed modes 3 through 6 are used with cables, they must be connected EVEN->ODD, or the test fails.

Mode	Description
0	Run test at both 1G and 2G.
1	Set all ports' speed to lock at 1 Gbit.
2	Set all ports' speed to lock at 2 Gbit (default).

For **-lb_mode** set to 1, the following speed modes are available to test the speed negotiation.

Mode	Description
3	Set all even ports' speed for autonegotiate. Set all odd ports' speed for 1 Gbit/sec.
4	Set all even ports' speed for autonegotiate. Set all odd ports' speed for 2 Gbit/sec.
5	Set all odd ports' speed for autonegotiate. Set all even ports' speed for 1 Gbit/sec.
6	Set all odd ports' speed for auto-negotiate. Set all even ports' speed for 2 Gbit/sec.

For **-lb_mode** set to 2, the following speed modes are available to test FIFO underrun.

Mode	Description
3,5	Set all even ports' speed for 2 Gbit/sec. Set all odd ports' speed for 1 Gbit/sec.
4,6	Set all even ports' speed for 1 Gbit/sec. Set all odd ports' speed for 2 Gbit/sec.

-ports *itemlist* Specifies a list of blade ports to test. By default, all the blade ports in the specified slot (**--slot**) will be used. Refer to **itemlist** for further details. If all ports in the ASIC pair are not specified, only paths between selected ports are tested.

```
ASIC-pair 0: -ports 0-15
ASIC-pair 1: -ports 16-31
ASIC-pair 2: -ports 32-47
ASIC-pair 3: -ports 48-63
```

EXAMPLES

To run a functional test on slot 1 using external (SERDES) loopback:

```
switch:admin> minicycle --slot 1 -lb_mode 2
Running minicycle ..............
One moment please ...
Path 0 ... Spinning ...
Path 1 ... Spinning ...
```

```
Path 2 ... Spinning ...
Path 3 ... Spinning ...
Path 4 ... Spinning ...
Path 5 ... Spinning ...
Path 6 ... Spinning ...
Path 7 ... Spinning ...
Test Complete: minicycle Pass 1 of 1
Duration 0 hr, 1 min & 4 sec (0:1:4:409).
 passed.
```

To run a functional test on ports 0, 1, 2, and 8 using port loopback:

```
switch:admin> minicycle -ports 0,1,2,8 -lb_mode 1
Back Plane Loop Back mode is ON.

Running mini Cycle .............
One moment please ...
Path 0 ... Spinning ...
Path 1 ... skipped.
Path 2 ... skipped.
Path 3 ... skipped.
Path 4 ... skipped.
Path 5 ... skipped.
Path 6 ... Spinning ...
Path 7 ... Spinning ...
Test Complete: "minicycle" Pass 1 of 1
Duration 0 hr, 0 min & 23 sec (0:0:23:100).
 passed.
```

DIAGNOSTICS

When it detects failure(s), the test reports one or more of the following error messages:

DATA

ERR_STAT_2LONG

ERR_STAT_BADEOF

ERR_STAT_BADOS

ERR_STAT_C3DISC

ERR_STAT_CRC

ERR_STAT_ENCIN

ERR_STAT_ENCOUT

ERR_STAT_TRUNC

ERR_STATS_2LONG

ERR_STATS_BADEOF

ERR_STATS_BADOS

ERR_STATS_C3DISC

ERR_STATS_CRC

ERR_STATS_ENCIN

ERR_STATS_ENCOUT

ERR_STATS_TRUNC

EPI1_STATUS_ERR

FDET_PERR

FINISH_MSG_ERR

FTPRT_STATUS_ERR

INIT

LESSN_STATUS_ERR

MBUF_STATE_ERR

MBUF_STATUS_ERR

NO_SEGMENT

PORT_ABSENT

PORT_DIED

PORT_ENABLE

PORT_M2M

PORT_STOPPED

PORT_WRONG

RXQ_FRAME_ERR

RXQ_RAM_PERR

STATS

STATS_C3FRX

STATS_FRX

STATS_FTX

TIMEOUT

XMIT

SEE ALSO

backport, **camtest**, **centralmemorytest**, **cmemretentiontest**, **cmitest**, **crossporttest**, **itemlist**, **portloopbacktest**, **portregtest**, **spinsilk**, **sramretentiontest**

portCfgGPort

Add a note regarding the command behavior on a SilkWorm 3200, as follows:

> "**Note:** On the SilkWorm 3200, a fabric license is required for the **portCfgGPort** command to function properly; otherwise, a "fabric support required" message displays."

portCfgislMode

Add a note regarding coexistence with the **portCfgLongDistance** command, as follows:

"**Note: portCfgislMode** and **portCfgLongDistance** cannot both be enabled at the same time; otherwise, fabric segmentation occurs."

portCfgLongDistance

Add a note regarding coexistence with the **portCfgislMode** command, as follows:

"**Note: portCfgislMode** and **portCfgLongDistance** cannot both be enabled at the same time; otherwise, fabric segmentation occurs."

portCfgShow

Add the following to the end of the display output descriptions:

"**Disabled due to Buffer** displays whenever the port is disabled due to lack of buffers. The value sets when available buffers in the associated quad are not enough to assign to this port, which usually results from configuration of long-distance ports in the quad.

Locked Loop HD displays the half duplex mode of this L_Port. It only displays when providing the [*slotnumber*/][*portnumber*]. Refer to **portCfgLongDistance** for more information."

Replace the command output example with the following:

```
switch:user> portcfgshow
Ports of Slot 1    0  1  2  3    4  5  6  7    8  9 10 11   12 13 14 15
-----------------+--+--+--+--+----+--+--+--+----+--+--+--+----+--+--+--
Speed             AN AN AN AN   AN AN AN AN   AN AN AN AN   AN AN AN AN
Trunk Port        .. .. .. ..   .. .. .. ..   .. .. .. ..   .. .. .. ..
Long Distance     .. .. .. ..   .. .. .. ..   .. .. .. ..   .. .. .. ..
VC Link Init      .. .. .. ..   .. .. .. ..   .. .. .. ..   .. .. .. ..
Locked L_Port     .. .. .. ..   .. .. .. ..   .. .. .. ..   .. .. .. ..
Locked G_Port     .. .. .. ..   .. .. .. ..   .. .. .. ..   .. .. .. ..
Disabled E_Port   .. .. .. ..   .. .. .. ..   .. .. .. ..   .. .. .. ..
ISL R_RDY Mode    .. .. .. ..   .. .. .. ..   .. .. .. ..   .. .. .. ..
Persistent Disable.. .. .. ..   .. .. .. ..   .. .. .. ..   .. .. .. ..

Ports of Slot 4    0  1  2  3    4  5  6  7    8  9 10 11   12 13 14 15
-----------------+--+--+--+--+----+--+--+--+----+--+--+--+----+--+--+--
Speed             AN AN AN AN   AN AN AN AN   AN AN AN AN   AN AN AN AN
Trunk Port        .. .. .. ..   .. .. .. ..   .. .. .. ..   .. .. .. ..
Long Distance     .. .. .. ..   .. .. L2 ..   .. L1 L2 ..   .. .. .. L2
VC Link Init      .. .. .. ..   .. .. ON ..   .. ON ON ..   .. .. .. ON
Locked L_Port     .. .. .. ..   .. .. .. ..   .. .. .. ..   .. .. .. ..
Locked G_Port     .. .. .. ..   .. .. .. ..   .. .. .. ..   .. .. .. ..
Disabled E_Port   .. .. .. ..   .. .. .. ..   .. .. .. ..   .. .. .. ..
ISL R_RDY Mode    .. .. .. ..   .. .. .. ..   .. .. .. ..   .. .. .. ..
Persistent Disable.. .. .. ..   .. .. .. ..   .. .. .. ..   .. .. .. ..

where AN:AutoNegotiate, ..:OFF, ??:INVALID.
switch:user> portcfgshow 4/15
```

```
    Area Number:                63
    Speed Level:                AUTO
    Trunk Port                  OFF
    Long Distance               OFF
    VC Link Init                OFF
    Locked L_Port               OFF
    Locked G_Port               OFF
    Disabled E_Port             OFF
    ISL R_RDY Mode              OFF
    Persistent Disable          OFF
    Disabled due to Buffer      NO
    Locked Loop HD              OFF
```

setMfgMode

Sets or displays diagnostic MFG mode.

SYNOPSIS **setmfgmode** [*mode* | **-show**]

AVAILABILITY admin

DESCRIPTION

This command enables MFG mode if *mode* is nonzero and disables MFG mode if not. The mode is saved in flash memory and stays in that mode until the next execution of **setmfgmode**. The mode becomes active as soon as this command is executed; it does not require a reboot to take effect.

When enabled, MFG mode modifies the behavior of the diagnostic test methods and power-on self-test (POST) scripts. The exact behavior of this mode varies but most commonly consists of enabling extra manufacturing-specific tests and data patterns.

OPTIONS

mode Specifies the MFG mode value. 0 disables MFG mode; any other value enables MFG mode.

-show If specified, or if no *mode* is given, the current MFG mode displays.

EXAMPLES

To display the current MFG mode:

```
switch:admin> setmfgmode -show
Mfg Mode is 0 (Disabled)
```

spinJitter

Measures line-speed jitter.

SYNOPSIS **spinjitter** [**--slot** *number*] [**-nmegs** *count*] [**-lb_mode** *mode*] [**-spd_mode** *mode*] [**-ports** *itemlist*]

AVAILABILITY admin

DESCRIPTION

This test uses the same procedures as **spinsilk** but with a special pattern for line-speed jitter measurement. The test uses the following pattern:

```
jCRPAT   be d7 23 47 6b 8f b3 14 5e fb 35 59 be d7 23 47
```

For details about the procedures used in this test, refer to **spinsilk**.

OPTIONS

--slot *number* Specifies the slot number on which the diagnostic operates. The ports specified are relative to this slot number. The default is set to 0 and designed to operate on fixed-port-count products.

-nmegs *count* Specifies the number of frames to send, in millions. The test progresses until the specified number of frames transmits on each port. The default value is 10, which represents 10 million frames.

-lb_mode *mode* Selects the loopback point for the test. By default, **spinjitter** uses port loopback.

Mode	Description
0	Cable loopback
1	Port loopback (loopback plugs)
2	External (SERDES) loopback
3	Silkscreen loopback
5	Internal (parallel) loopback

-spd_mode *mode* Specifies the speed mode for the test. This parameter is used for BLOOM-based products only, for which it controls the speed at which each port operates. For 1G-only products, this parameter is ignored. The exact operation of modes 3 through 6 depends on the loopback mode selected. When speed modes 3 through 6 are used with cables, they must be connected EVEN->ODD or the test fails.

Mode	Description
0	Run test at both 1G and 2G (default).
1	Set all ports' speed to lock at 1 Gbit.
2	Set all port's speed to lock at 2 Gbit.

For **-lb_mode** set to 0, 1, the following speed modes are available to test the speed negotiation.

Mode	Description
3	Set all even ports' speed for autonegotiate. Set all odd ports' speed for 1 Gbit/sec.
4	Set all even ports' speed for autonegotiate. Set all odd ports' speed for 2 Gbit/sec.
5	Set all odd ports' speed for autonegotiate. Set all even ports' speed for 1 Gbit/sec.
6	Set all odd ports' speed for autonegotiate. Set all even ports' speed for 2 Gbit/sec.

For **lb_mode** set to 2, 3, the following speed modes are available to test FIFO underrun.

Mode	Description
3,5	Set all even ports' speed for 2 Gbit/sec. Set all odd ports' speed for 1 Gbit/sec.
4,6	Set all even ports' speed for 1 Gbit/sec. Set all odd ports' speed for 2 Gbit/sec.

-ports *itemlist* Specifies a list of user ports to test. By default, all the user ports in the specified slot (**--slot**) will be used. Refer to **itemlist** for further details.

EXAMPLES

To measure line-speed jitter:

```
switch:admin> spinjitter -ports 1/0 - 1/2
Running SpinJitter .............
One moment please ...Ports Segmented (0)
switchName:     SW12000A
switchType:     10.1
switchState:    Offline
switchRole:     Disabled
switchDomain:   1 (unconfirmed)
switchId:       fffc01
switchWwn:      10:00:00:60:69:80:03:0c
switchBeacon:   OFF
blade1: Beacon: OFF
blade2: Beacon: OFF
blade3: Beacon: OFF
blade4: Beacon: OFF

Area Slot Port Gbic Speed State
=====================================
  0    1    0   id    2G   Online    Testing  ......
  1    1    1   id    2G   Online    Testing  ......
  2    1    2   id    2G   Online    Testing  ......
--- <output truncated> ---
```

DIAGNOSTICS

When it detects failure(s), the test might report one or more of the following error messages:

DATA

EPI1_STATUS_ERR

ERR_STAT

ERR_STATS

ERR_STATS_2LONG

ERR_STATS_BADEOF

ERR_STATS_BADOS

ERR_STATS_C3DISC
ERR_STATS_CRC
ERR_STATS_ENCIN
ERR_STATS_ENCOUT
ERR_STATS_TRUNC
ERR_STAT_2LONG
ERR_STAT_BADEOF
ERR_STAT_BADOS
ERR_STAT_C3DISC
ERR_STAT_CRC
ERR_STAT_ENCIN
ERR_STAT_ENCOUT
ERR_STAT_TRUNC
FDET_PERR
FINISH_MSG_ERR
FTPRT_STATUS_ERR
INIT
LESSN_STATUS_ERR
MBUF_STATE_ERR
MBUF_STATUS_ERR
NO_SEGMENT
PORT_ABSENT
PORT_DIED
PORT_ENABLE
PORT_M2M
PORT_STOPPED
PORT_WRONG
RXQ_FRAME_ERR
RXQ_RAM_PERR
STATS
STATS_C3FRX
STATS_FRX
STATS_FTX
TIMEOUT
XMIT

SEE ALSO

backport, **camtest**, **centralmemorytest**, **cmemretentiontest**, **cmitest**, **crossporttest**, **itemlist**, **portloopbacktest**, **portregtest**, **spinsilk**, **sramretentiontest**

statsClear

Clears port and diagnostic statistics.

SYNOPSIS **statsclear** [**--slot** *number*] [**-uports** *itemlist*] [**-bports** *itemlist*] [**-use_bports** *value*]

AVAILABILITY admin

DESCRIPTION

Use this command to clear the port and diagnostics statistics for the specified list of blade or user ports.

OPTIONS

--slot *number*	Specifies which slot to operate on. If this option is not specified, the default slot is assumed. The default slot is 0 and designed to operate on fixed-port-count products if **-use_bports** sets with a nonzero value.
-uports *itemlist*	Specifies the list of user ports to clear.
-bports *itemlist*	Specifies the list of blade ports to clear.
-use_bports *value*	If *value* is nonzero, then the diagnostics statistics for the blade ports specified in **–bports** clears; otherwise, the user ports specified in **-uports** clears. The default value is 0.

EXAMPLES

To clear port and diagnostic statistics:

```
switch:admin> statsclear -bports 1/10-1/62 -use_bports 1
```

SEE ALSO

itemlist

voltageMargin

Sets the slot voltage margin.

SYNOPSIS **voltagemargin** [**--slot** *number*] **-margin** *value*

AVAILABILITY admin

DESCRIPTION

Use this command to set the voltage margin for a slot that can be specified by **--slot**.

OPTIONS

--slot *number*	If specified, its voltage margin sets. The default is 0 and is designed to operate on fixed-port-count products.
-margin *value*	Specifies the margin value. *value* must be HIGH, LOW, or NOMINAL.

EXAMPLES

To set the voltage margin on slot 3 to LOW:

```
switch:admin> voltagemargin --slot 3 -margin LOW
```

Brocade Fabric OS Procedures Guide v4.2.0

(Publication number 53-0000518-03)

On page 2-7, after the following paragraph:

> "Domain IDs are assigned dynamically when a switch is enabled. However, the domain ID can be set manually in order to control the number, or to resolve a Domain ID conflict when merging fabrics."

Add this Note:

> "**Note:** If a switch already has a domain ID when enabled, and that domain ID conflicts with a switch already in the fabric, the conflict is automatically resolved. The process can take several seconds, during which time traffic is delayed, potentially causing timeouts."

On page 6-3, change the second bullet from the bottom of the page to the following:

- "Do not set the long-distance fabric **fabric.ops.mode.longDistance** parameter in fabrics where Brocade Extended Fabrics ports are configured only on v3.x or v4.x switches, except in specific cases. If you find it necessary to set this parameter, contact your switch provider for information about supported configurations."

Brocade Fabric OS Procedures Guide v4.2.0

(Publication number 53-0000518-04)

On page 2-5, the existing Note (see following) is incorrect:.

> "**Note**
> Once a switch is running v4.2.0 firmware (or higher), it is recommended that all directly connected switches be running v2.6.2, v3.1.2, or v4.2.0 before a subsequent firmware download is performed. Refer to the Firmware Download section "Upgrading Firmware on the SilkWorm 3250, 3850, 3900" on page 4-3 for more detailed information."

The Note should read:

> "**Note**
>
> Once a switch is running v4.2.0 firmware (or higher), Brocade recommends that all directly connected switches be running v2.6.1, v3.1.0, or v4.1.0 (or higher) before a subsequent firmware download is performed. Refer to the firmware download section "Upgrading Firmware on the SilkWorm 3250, 3850, 3900" on page 4-3 for more detailed information."

On page 6-3, change the second bullet from the bottom of the page to the following:

- "Do not set the long-distance fabric **fabric.ops.mode.longDistance** parameter in fabrics where Brocade Extended Fabrics ports are configured only on v3.x or v4.x switches, except in specific cases. If you find it necessary to set this parameter, contact your switch provider for information about supported configurations."

Brocade MIB Reference Manual

(Publication number 53-0000521-06)

In Chapter 4, "Entity MIB Objects," remove the **entPhysicalContainsTable** information on page 4-14. The correct information appears on page 4-20.

Brocade Secure Fabric OS User's Guide v2.6.2/3.1.2/4.2.0

(Publication number 53-0000526-03)

On page 2-3, following the paragraph:

"All switches that are shipped with Fabric OS v3.1.2 or v4.2.0 installed already have the required PKI objects and a digital certificate. If a switch no longer has the required PKI objects, refer to section 'Recreating PKI Objects if Required' on page 2-19 for information on recreating the PKI objects. If a switch no longer has the required digital certificate, refer to section 'Obtaining the Digital Certificate File' on page 2-14 for information on obtaining digital certificates."

Add the following paragraph:

"Switch digital certificates are checked when a switch joins a fabric, either because the switch is added to the fabric or because the switch is booting. Changes to the certificate—for example, if the certificate is removed or corrupted—might not be noticed until the switch is rebooted."

On page 3-2, following the second paragraph of "Enabling Secure Mode":

"Secure Mode is enabled using the **secmodeenable** command. This command must be entered through a **sectelnet**, Secure Shell, or serial connection to the switch designated as the primary FCS switch. The command fails if any switch in the fabric is not capable of enforcing Secure Fabric OS policies. If the primary FCS switch fails to participate in the fabric, the role of the primary FCS switch moves to the next available switch listed in the FCS policy."

Add the following note:

"**Note**

To activate security, all switches in the fabric are automatically rebooted. All I/O should be stopped prior to running the **secmodeenable** command."

SilkWorm 3250/3850 Hardware Reference Manual

(Publication number 53-0000623-01)

Brocade Secure Fabric OS was omitted from the list of supported (optional) features for the SilkWorm 3250 and 3850 on page 1-5 of the *SilkWorm 3250/3850 Hardware Reference Manual*. The complete list should read:

"The SilkWorm 3250 and 3850 supports the following optional Brocade software, which can be activated with the purchase of the corresponding license key:

- Brocade Advanced Zoning
- Brocade ISL Trunking
- Brocade Fabric Watch
- Brocade Advanced Performance Monitoring
- Brocade Extended Fabrics
- Brocade Remote Switch
- Brocade Secure Fabric OS

For further information on any of these features, refer to the *Brocade Fabric OS Features Guide* or the *Brocade Secure Fabric OS User's Guide*."

Defects Closed in Fabric OS v4.2.0c

Defects Closed In Fabric OS v4.2.0c		
Defect ID	**Severity**	**Description**
DEFECT000037586	High	Summary: F port stays in IN_SYNC state after cluster node reset with specific application. Symptom: switchshow shows port In_Sync or No_Light. Solution: Relaxing busy_bufs checking during link init state LR3 before sending out IDLEs. Workaround: portdisable and then portenable. Service Request# RQST00000025132
DEFECT000038306	High	Summary: Web Tools/PerfMon fails to display the LUN-based performance data. Symptom: Web Tools and Performance Monitor fails to display the - SCSI Read/Write on a Lun per port - SCSI Read on a Lun per port - SCSI Write on a Lun per port Solution: Fixed Web Tools such that the SCSI LUN mask value sent to backend from WT GUI is correct, and also fixed Performance Monitor to read the LUN value passed from Web Tool correctly. Service Request# RQST00000027460
DEFECT000038702	High	Summary: Switch fails to send swFabricWatchTrap Symptom: Remove and insert the ISL several times, observe that switch fails to send swFabricWatchTrap for events in the following areas: - eportSync - eportSignal - eportState - fopportLink - fopportSync - fopportSignal - fopportState Solution: Change the interface called to get thresholds on errors for a port, as the port may be offline by the time we decide to send a trap. Service Request# RQST00000026464

Defects Closed In Fabric OS v4.2.0c		
Defect ID	**Severity**	**Description**
DEFECT000040920	High	Summary: One side of link stuck in NB_ST_DB_WT state and other side in NB_ST_FULL Symptom: Disable all the switches in a large fabric and re-enable them again, the core switch will show some of the links in NB_ST_DB_WT state, while the other side of the link is in NB_ST_FULL (using nbrstateshow) Solution: Neighbor states reached FULL state then became INIT again, because DeadTimeout timer kicks in. As a result, between two switches, one neighbor state stuck in DB Wait and the other in FULL state as the finite state machine between the two neighbors interleave. Fixed by checking the dead timeout handler for proper state transaction. Customer Impact: This happens in large fabrics with many F ports such as a large fabric using Brocade Fibre Channel Router. The fix for this problem has been verified. Probability: Low
DEFECT000041350	High	Summary: During exchange flush on timeout, open sequence iu is not freed properly caused Out Of Memory (OOM) to happened and switch reset. Symptom: In a corner case, such as sequence timeout due to a bad frame in the sequence, switch reset with: Out of Memory: Killed process 594 (zoned). VM size = 7712 KB, Runtime = 393 minutes, CPU time = 32 sec. Solution: Added freeing of seq_iu when exchange flush on timeout. This is done only for open sequences as closed sequences are being delivered to an upper layer. seq_iu is also freed as part of do_abts with seq_queue. Customer Impact: This problem is seen on large fabrics (including those used with a Fibre Channel Router) when all core switches are disabled and enabled while doing large zoning DB propagation with a marginal GBIC. To have the OOM condition to happen, it has to be a large frame sequence and at least one of the frames is corrupted. The window in which a large frame sequence with at least one of the frame corrupted required the test above to be executed continuously for at least 120 iterations or equivalent of 5 hours. The exposure is small, the fix has been verified. Probability: Low

Defects Closed In Fabric OS v4.2.0c		
Defect ID	**Severity**	**Description**
DEFECT000042053	High	Summary: Switch reboot with CF Error: hda: status timeout... Symptom: Observed switch reboot with following message logged on switch console: hda: status timeout: status=0xd0 { Busy } hda: no DRQ after issuing WRITE ide0: reset timed-out, status=0x80 hda: status timeout: status=0x80 { Busy } hda: drive not ready for command ide0: reset timed-out, status=0x80] end_request: I/O error, dev 03:01 (hda), sector 75792 end_request: I/O error, dev 03:01 (hda), sector 75800 end_request: I/O error, dev 03:01 (hda), sector 71632 end_request: I/O error, dev 03:01 (hda), sector 71640 XFS: device 0x301- XFS write error in file system meta-data block 0x117d0 in ide0(3,1) end_request: I/O error, dev 03:01 (hda), sector 74128 end_request: I/O error, dev 03:01 (hda), sector 74136 end_request: I/O error, dev 03:01 (hda), sector 109020 I/O error in filesystem ("ide0(3,1)") meta-data dev 0x301 block 0x1a9dc ("xlog_iodone") error 5 buf count 3584 xfs_force_shutdown(ide0(3,1),0x2) called from line . Watchdog Exception: current process c2c04000, r1=c2c059f0 . Solution: Once the write time-out occurs, instead of recover by issue two soft resets, the new recovery method is to wait for 1 second after software reset, then trigger IDE reset. This fix is now complete for all platforms. Service Request# RQST00000028804
DEFECT000042325	High	Summary: msd core dump caused by memory corruption Symptom: kSWD:Detected unexpected termination of: "[5] msd:0'RfP=677,RgP=677,DfP=0,died=1,rt=25856913, dt=42732,to=50000, aJc=25805413,aJp=25788843,abiJc=700419400,abiJp=700402800 ,aSeq=1555,kSeq=0,kJc=0,kJp=0,J=25814181,rs=2' Solution: The function msV2_upload_packet had an error path which copies a string into the payload of an IU of insufficient size. The fix is to make sure the allocated IU is big enough to hold the string to avoid memory corruption. Service Request# RQST00000028859

Defects Closed In Fabric OS v4.2.0c		
Defect ID	**Severity**	**Description**
DEFECT000043176	High	Summary: rcsd coredump after trying a cfgdisable Symptom: Run cfgdisable on a core switch in a large fabric, it responded with "The Fabric was busy, try again later". Shortly after, rcsd core dumped. Solution: If a sync dump happens in the middle of a zone transaction, the sync dump is postponed to wait for the zone transaction to finish. If it is postponed for too long, it triggers the Software Watchdog (SWD). Change the wait to a timed wait and refresh SWD if the timer expires. Customer Impact: This problem can happen if zoning transaction is occurring at the same time as an HA failover. This problem has been fixed and verified. Probability: Low
DEFECT000043208	High	Summary: fspfd coredump in a large fabric. Symptom: Observed ASSERT (newPdbP != NULL) on console log. Solution: Blade drive reported an output port in which FSPF doesn't have a path associated with after hafailover, as route change has not being prorogated to blade driver yet. The fix clean up all the routes that use this port in blade driver and re-adding the route. Customer Impact: This problem was seen in large fabrics (including having a Fibre Channel Router in the fabrics.) This problem has been fixed and verified. Probability: Low
DEFECT000043590	High	Summary: E port goes off line while zone merge is in progress causes zoning commands to stuck Symptom: While the switch is doing merge operation on a ISL, unplug that ISL or disable the switch, then run cfg commands, these commands can not complete. Solution: In E port off line case, update zoning global state machine to match with zoning E port state machine.
DEFECT000044132	High	Summary: When accessing the help command it is possible to break into restricted shell and gain full access to switch Symptom: admin user gained root access Solution: less command is rebuild in secure mode. Service Request# RQST00000029450

Defects Closed In Fabric OS v4.2.0c		
Defect ID	**Severity**	**Description**
DEFECT000044829	High	Summary: PLOGI ACC is dropped after disabling/enabling a lot of ports Symptom: Host does not see target after disable/enable many F ports at the same time. Solution: When Dynamic Load Sharing (DLS) is enabled in large fabric, domain routes takes a long time to settle down, PLOGI ACC could get dropped due to this delay. The fix is to remove DLS calculations when F_Port is up. Customer Impact: This problem was seen on large fabrics with many F ports, when disabling/enabling many ports at the same time. This has been seen with Brocade Fibre Channel Router in the fabric. This problem is fixed and verified. Probability: Low
DEFECT000038565	Medium	Summary: islShow does not showing "switchName" for all ISLs going to the router. Solution: islshow assumes node name to be NAA type 1 of the port name and converts them accordingly; However, this is an invalid assumption. Fixed by getting the node name from flogi database. Customer Impact: This command only fails to show the correct switch name and WWN when working with the Brocade Fibre Channel Router feature. Impact is minimal and there are other commands that can be used to get the correct information. Probability: High
DEFECT000040182	Medium	Summary: Reports of a fan at 0 RPM and FAN RPM fails to return to normal Solution: Two problems fixed: 1. Fabric Watch now checks for i2cError and state provided through EM interface to display correct RPM. 2. Do not permanently fault fans for machines that don't have removable fans. Workaround: Fans that have been faulted can be restored to service without interrupting i/o traffic by doing hareboot as a CLI command. Service Request# RQST00000028136

Defects Closed In Fabric OS v4.2.0c		
Defect ID	**Severity**	**Description**
DEFECT000041061	Medium	Summary: portstats do not match portperfshow output. Solution: Added update of the 64-bit counters for TX/RX words/frames to switch_poll_ports on a 5 second period to insure that the ASIC registers were read and added into the 64-bit counters before they rolled over. Service Request# RQST00000022536
DEFECT000041678	Medium	Summary: Ethernet port failed to send MAC address after link negotiation Symptom: Ethernet interface hang. Switch could not send any packets after IP negotiation and lost connectivity. Solution: Soft reset of the EMAC when RXDE errors occurred. This eliminated the RX FIFO overflows that were occurring with the packet generator traffic and which resulted in hangs of the EMAC. Service Request# RQST00000028673
DEFECT000044190	Medium	Summary: In some cases where domain becomes unreachable and reachable again, RSCNs will not be retried, thus generate inconsistencies in the Name Server database Symptom: Disable all the device ports in a fabric, and nsallshow still show devices on switch name server database. Solution: Build timer for each new reachable domain. When timer expiries and the local switch didn't receive a fetch from the new domain, then it would send a single PID online RSCN to the new domain, which would trigger the fetch to recover any missing RSCN. Customer Impact: This problem was seen in large fabrics when disabling all device ports on a switch. This has been seen with Brocade Fibre Channel Router in the fabric. This problem has been fixed and verified. Probability: Low
DEFECT000044777	Medium	Summary: Application 'evmd'(pid 890) got exception 11 and SWD panic on evmd occurred right after coredump Symptom: Switch panic due to evmd got exception 11 caused by access to data structure without protection. Solution: Added mutex protection to data structure in API_rpcd area.

Defects Closed in Fabric OS v4.2.0b

Defects Closed In Fabric OS v4.2.0b		
Defect ID	**Severity**	**Description**
DEFECT000040165	High	Summary: CP blade chip initialization fails leading to internal routing error and switches disabled. Customer Symptom: Occasional faults for the port/CP blades happen either during switch brings up or when new port blades are plugged-in or during power up after POST get completed. The failure is less likely if POST is disabled. When this failure happens, the slotshow command indicates the blade is faulted. Solution: Chip initialization has not completed before timeout happens. Corrected the flag setting and extended chip initialization timeout. SR#. RQST00000028155
DEFECT000040331	High	Summary: Slotshow command returns incorrect "Faulty" status when CP blade slider down. Customer Symptom: When moving the slider on the active CP when the standby is running post, CP states inconsistent with the position of the slider or spurious power failure states, FAULTY (50), may result. Solution: During the discovery part of early recovery, if the Environmental Monitor (EM) finds a blade in POST it pushes down a “shutdown slot”. The “shutdown slot” was returned to EM as an SCN to do a shutdown_sync operation, which immediately powers off the blade. The delayed response makes this look like a power failure. The fix is to make sure that even “shutdown slot” requests will not result in a shutdown SCN being returned. SR#. RQST00000028216
DEFECT000040441	Medium	Summary: Zoning transaction aborted logged at Error level causes Call Home. Customer Symptom: End user uses API to intentionally abort zone transaction and saw following in errlog: Error ZONE-TRANS_ABORT, 2, Zone transaction aborted – Solution: Change log level from Error to Info when abort zone transaction. SR#. RQST00000028262

Defects Closed In Fabric OS v4.2.0b		
Defect ID	**Severity**	**Description**
DEFECT000040515	High	Summary: Setting PID format to VC Encoding or re-setting to other PID format from VC Encoding through Web tools and enabling switch causes Software Watchdog reboot. Customer Symptom: Observes following in errlog caused by Performance Monitor assertion on VC Encoding mode: Switch: 0, Critical kSWD-kSWD_GENERIC_ERR_CRITICAL, 1, kSWD: Detected unexpected termination of: "[12 psd:0'RfP=623,RgP=623,DfP=0,died=1,rt=17817486,dt=50714,to=50000, aJc=17765986,aJp=17749385,abiJc=477796000,abiJp= Solution: Remove the option (switch panic trigger) from CLI and web tool configure menu and configure help page; "fabric.ops.mode.vcEncode.0" will still be seen in the switch configuration database, which will be addressed in a future release. Workaround: Do not change VC Encoding settings. SR#. RQST00000028276
DEFECT000040606	High	Summary: Panic rebooting seen from emd on both CPs after lowering slider on port blade at start of cold recovery. Customer Symptom: If a powered on port blade's slider is opened while no active CP is available to power it off, then the switch will continuously reboot on alternating sides until one of the workarounds is performed. Some scenarios on no active CP is available would be at the very beginning of a cold fail-over, or while both CPs have been powered off via slider, or after both CPs have just been rebooted, and a cold recovery follows. Solution: Do not notify system module of powering down slot during cold recovery sequence since it is not needed. Workaround: Power cycle the whole switch, or Close the port blade slider on not yet powered off port blade, or Unseat the port blade. SR#. RQST00000028329

Defects Closed In Fabric OS v4.2.0b		
Defect ID	**Severity**	**Description**
DEFECT000040608	High	Summary: SW24000 (2109-M14) only needs 2 power supplies to have redundant power; However, Fabric Watch will generate an error that reports a faulty power supply in the empty slot when power slots are not fully populated. Customer Symptom: Fabric Watch reports error on empty power slot as following: Switch: 0, Warning FW-BELOW1, 3, envPS004 (Env Power Supply 4) is below low boundary. current value : 0 (1 OK/0 FAULTY). (faulty) Solution: Fix Fabric Watch to not monitor slot that power supply is not present. SR#. RQST00000028330
DEFECT000040852	High	Summary: Critical diag errors occurred during a temperature cycle at 0 degrees C caused blade to be faulted. Customer Symptom: SilkWorm 24000 (2109-M14) experiencing this issue will fault the card reporting the error. The rest of the system will continue to operate in a normal mode. Solution: Corner case in handling exception frames while running diagnostics at low temperature (below 0 degrees C). Modified the driver. Workaround: The card can be recovered by power cycling the card or switch reboot. SR#. RQST00000028400
DEFECT000041453	High	Summary: Zone daemon asserts caused switch to panic during fabric reconfiguration. Customer Symptom: Switch reboot with: ASSERT - Failed expression: (d >= 0) && (a_p >= 0), file = public.c, line = 1620, user mode Solution: Fix a race condition where a remote switch requests login data at the same time that the local domain becomes invalid.
DEFECT000041595	High	Summary: False error message is generated for power supply. Customer Symptom: Switch: 0, Critical EM-SENSOR_RESET, 1, Slot 0 is being reset Sensor(s) has exceeded max limits Solution: Added filtering for MAX voltage values: 0xFF

Defects Closed in Fabric OS v4.2.0a

Defects Closed In Fabric OS v4.2.0a		
Defect ID	**Severity**	**Description**
DEFECT000040631	High	Summary: SilkWorm 3250 (2005-H08) and SilkWorm 3850 (2005-H16) mistakenly set FAN to faulty. Customer Symptom: Diag falsely reports fan failure with following error messages during manufacture R/I run: 0x2ec (fabos): Mar 03 08:12:25 Switch: 0, Error EM-FAN_POLICY, 2, One fan failed. 0x2ec (fabos): Mar 03 08:42:30 Switch: 0, Error EM-FAN_POLICY, 2, One fan failed. Solution: Added filter to two consecutive values that are greater than 30% above normal settings.