



Brocade Fabric OS v5.2.1_NI1 Release Notes v1.0

June 6, 2007

Document History

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QuickLook for Fabric OS v5.2.1_NI1

If you are already using the most recent version of the Fabric OS v5.2.1_NI Release Notes, here are the changes in this version of the Release Notes.

- The list of the closed defects for Fabric OS v5.2.1_NI1 is added at the end of these release notes.

Fabric OS v5.2.1_NI Overview

Hardware

Fabric OS v5.2.1_NI supports interoperability of the Brocade 5000 in M-EOS environments operating in “McDATA Fabric 1.0” interop mode, or “M-EOS Native” fabric mode. This release of Fabric OS v5.2.1_NI may only be loaded on the Brocade 5000 Fibre Channel switch. Nearly all of the features and capabilities available on the Brocade 5000 with Fabric OS v5.2.1 are also available when using Fabric OS v5.2.1_NI. The Important Notes section of this document calls out differences in features between these two versions of Fabric OS.

The Brocade 5000 Switch

The Brocade 5000 switch is a 32-port auto-sensing 4/2/1 Gbit/sec Fibre Channel switch that includes advanced interoperability capability for McDATA fabrics, enhanced operating efficiency and optimized system design. The Brocade 5000 is targeted for use as a standalone switch in small SANs, or as an edge switch in larger SAN environments.

For customers that wish to deploy the Brocade 5000 as a standalone switch, or in an environment with other Brocade Fabric OS-based products, the Fabric OS v5.2.1 release should be used. Fabric OS v5.2.1_NI will only allow the Brocade 5000 to participate via direct E_Port connections with an M-EOS Native mode fabric.

Software

Web Tools in Fabric OS v5.2.1_NI supports the same capabilities for the Brocade 5000 that are supported in Fabric OS v5.2.1.

New Features in Fabric OS v5.2.1_NI

Interoperability Support with M-EOS Native Mode fabrics

When operating with Fabric OS v5.2.1_NI, the Brocade 5000 is able to fully participate in fabrics using M-EOS firmware and using M-EOS Native fabric mode. With Fabric OS v5.2.1_NI, the Brocade 5000 supports the “default zone”, domain and port number zoning, Safe Zoning mode, and all other capabilities required to support direct E_Port connections to M-EOS type Directors and switches. E_Ports are only supported between the Brocade 5000 and the following M-EOS type switches, running M-EOS 9.x:

- Mi10k 256-port FC Director
- M6140 140-port FC Director
- M6064 64-port FC Director
- Sphereon or M type 3016, 3032, 3232, 4300, 4400, 4500, 4700 and 3216 switches.

Other M-EOS type switches may be in the fabric, but they are not supported for direct ISL connections with the Brocade 5000. M-type blade switches are not supported in the fabric.

Optionally Licensed Software

This Fabric OS release includes all basic switch and fabric support software, as well as the following optionally licensed software, which is enabled via license keys:

- Brocade Extended Fabrics—Up to 500 km of switched fabric connectivity at full bandwidth over long distances
- Brocade ISL Trunking Over Extended Fabrics—Enhanced to enable trunking over long-distance links of up to 250 km
- Brocade Fabric Watch—Monitoring of mission-critical switch operations

Licensed Software as Standard

The following licensed software is available with the hardware and no additional purchase is necessary:

- Brocade Web Tools—Administration, configuration, and maintenance of fabric switches and SANs

Standards Compliance

This software conforms to the Fibre Channel 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. For a list of standards conformance, visit the following Brocade Web site: <http://www.brocade.com/sanstandards>

Technical Support

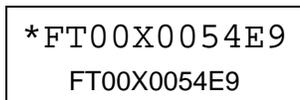
Contact your switch supplier for hardware, firmware, and software support, including product repairs and part ordering. To expedite your call, have the following information immediately available:

1. General Information

- Technical Support contract number, if applicable
- Switch model
- Switch operating system version
- Error numbers and messages received
- **supportSave** 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 and corresponding bar code are provided on the serial number label, as shown here.



The serial number label is on the switch ID pull-out tab located inside the chassis on the port side on the left

3. World Wide Name (WWN)

- Provide the license ID. Use the **licenseIDShow** command to display the license ID.

Important Notes

This section lists information you should consider before you use this firmware release.

Fabric OS Compatibility

The following table lists the earliest versions of Brocade software supported in this release, that is, the *earliest* supported software versions that interoperate. Brocade recommends using the *latest* software versions to get the greatest benefit from the SAN.

For a list of the effective end-of-life dates for all versions of Fabric OS, visit the following Brocade Web site: http://www.brocade.com/support/end_of_life.jsp

Fabric OS Interoperability with Brocade Switches and Firmware	
Switches: Brocade 5000	Fabric OS v5.2.1_NI
Fabric OS Interoperability with McDATA Switches and Firmware	
Intrepid 6140, 6064 and 10000	EOS v9.x
Sphereon or M type 3016, 3032, 3232, 4300, 4400, 4500, 4700 and 3216	EOS v9.x
M1620, M2640	EOSi 4.x & 5.x

Direct e-port attachment is only supported on the Intrepid directors and the Sphereon or M-type switches listed above.

Interoperability with M-type bladed switches is not supported and these switches should not be included in the fabric.

Firmware Upgrades and Downgrades

Fabric OS v5.2.1_NI firmware is supported only on Brocade 5000. Upgrade to v5.2.1_NI from v5.2.1 or downgrade from v5.2.1_NI to v5.2.1 will be disruptive and requires cold reboot.

A v5.2.1_NI configuration file cannot be used on the same switch after the switch has been downgraded to firmware version v5.2.1

When you downgrade to Fabric OS v5.2.1, the switch must be reconfigured to be in BRCD Native mode using interopMode CLI after successful installation of non v5.2.1_ni before reboot. Failure to do so will result in residual configuration that will interfere while operating with non v5.2.1, or when upgrading to NI version of firmware in future

Fabric Scalability

Fabric OS v5.2.1 NI supports the same basic fabric scalability as M-EOS version 9.x in McDATA Fabric Mode of operations.

FICON Support

No FICON support on this version of firmware.

Brocade PKI Certificates

As of May 15, 2005, Brocade no longer includes a PKI Certificate as part of the installed Secure Fabric OS. If you wish to activate Secure Fabric OS on a supported director or switch, you must contact Brocade to obtain a PKI certificate.

Refer to the *Secure Fabric OS Administrator's Guide*, Chapter 2, "Adding Secure Fabric OS to the Fabric," for a description of how to obtain certificates from the Brocade Certificate Authority.

Fabric OS

The following are known issues and important notes in this release of Fabric OS.

Area	Description
Zone Management	Zone configuration must be done from a McDATA switch in the fabric (with the exception that user could use "cfgdisable", "cfgclear" CLI commands to clear up Zone DB when switch is in the offline state), but user could launch WebTools/CLI of the Brocade 5000 switch from the EFCM to do basic switch and port configuration. Zone management on standalone switch is not supported.
WWN on Brocade 5000	<ul style="list-style-type: none">Each 5000 will be assigned with two WWN, one contains McDATA's OUI and the other contains Brocade's OUI to guarantee their uniqueness. McDATA's OUI will be used to support inter switch operations in v5.2.1_NI's M-EOS fabric mode while Brocade's OUI will be used in v5.2.1 (runs in either Brocade Native or Open mode). Brocade's OUI will be used in license as well as customer support related queries. Please use "licenseidshow" CLI command for Brocade OUI WWN.
Firmware upgrade/downgrade	<ul style="list-style-type: none">v5.2.1_ni Firmware can only be downloaded on Brocade 5000 platform.v5.2.1_ni is the first firmware capable of supporting M-EOS Native Fabric mode. The CLI/Management Interface does NOT restrict it to this mode. But, an attempt to download a configuration file not uploaded while in McDATA Fabric mode will be blocked. Download of a Fabric OS release that does not support M-EOS Native Fabric mode (like Fabric OS v5.2.1) will cause the switch to run in Brocade Native mode.
Safe Zoning	<ul style="list-style-type: none">In Order to allow Brocade 5000 into M-EOS Native fabric, Safe Zoning must be disabled in the fabric. This will allow the Brocade 5000 to join the fabric even though the zone sets do not match. Once the fabrics merge and zone merge has completed, Safe Zoning may be re-enabled if desired.
Security	Secure FOS not supported on this version of firmware.
Diagnostics	Spinfab and porttest are not supported.
Fabric Merge	E-ports are limited to connecting to M-EOS switches. A time of release, we support 7 E-ports connecting to M-EOS switches. This limit is due to support Non-Disruptive upgrade going forward. Please refer Brocade Administrative Guide Addendum for v5.2.1_NI release.
MS Platform DataBase	MS Platform Database is not supported in this version of firmware.
System boot	Not all Fabric OS services are available when the prompt becomes available during boot up. Wait for all the services to come up before using the switch.

Area	Description
Advanced Performance Monitoring	Advanced performance monitoring is not supported on this version of firmware.
Management – Proxy switches	Management of fabric wide operations for M-EOS Native fabric is supported only through M-Series switches. Any management application that manages an M-EOS Native fabric must use M-Series switch as proxy.
Webtools	When selecting an I10K from Fabric Tree, a web page launches with The page cannot be displayed because I10K doesn't support a web interface. Recommend using EFCM for fabric discovery and topology

Brocade Fabric OS Features supporting matrix

Feature	Supported on v5.2.1_NI M-EOS Native Fabric.	Notes
Access Control	ACL in strict mode: No ACL in non-strict mode (Tolerant and Absent): Yes	Distribution and enforcement limited to Brocade switches only.
Audit	Yes	
Beaconing	Yes	
Config Download/Upload	Yes	Please refer Brocade Fabric OS V5.2.1_NI Software Addendum
DHCP	Yes	
Environmental Monitor	Yes	
Error Event Management	Yes	
Extended Fabrics	Yes	LE is not recommended on this version of firmware. It is recommended to use LS mode for long distance with desired distance.
Fabric Device Management Interface(FDMI)	Yes	
Fabric Watch	Yes	
FICON (includes CUP)	No	
Interoperability	Fabric FOS (Brocade Native Mode) compatibility: No M-EOS Open Mode: No M-EOS Native Mode: Yes	Please refer Brocade Fabric OS V5.2.1_NI Software Addendum
IPoverFC	Broadcast frame will be forwarded to F_Port only and will not be forwarded to E_Port.	6064, 6140 will drop broadcast frame. 4500, 4700 will send broadcast frame to local F_Ports.

License	Yes	
Log Tracking	Yes	
N_Port ID Virtualization	Yes	
Network Time Protocol (NTP)	No	This feature relies upon a Brocade switch to be the principal for NTP server sync up, but who will become the principal is unpredictable behavior and hence feature is not supported.
Open E_Port	Yes	Auto negotiates the R_RDY mode by default. Uses "portcfgismode" to static configure the port. Auto negotiation will trigger McDATA switch error events which is expected (because of receiving wrong ELP revision).
Port mirroring	Yes	
Secure FOS	No	
SNMP	Yes	
Speed Negotiation	Yes	
Syslog Daemon	Yes	
Trunking	ISL between 5000 to 5000: Yes ISL between 5000 to McDATA: No	
ValueLineOptions (Static POD, DPOD)	Yes	
Web Tools	Yes	Please refer Brocade Fabric OS V5.2.1_NI Software Addendum
Admin Domains	No	

Fabric OS v5.2.1 Documentation

This section provides information on the documentation for Fabric OS v5.2.1_NI.

New Hardware Documentation

The following manuals support the Brocade 5000:

Brocade 5000 Hardware Reference Manual (Publication number: 53-1000424-01)

The Hardware Reference Manual is written for network administrators to provide a complete set of Brocade 5000 switch installation procedures and an overview of the switch hardware. This document is specific to the Brocade 5000 switch running Fabric OS v5.2.1.

Brocade 5000 QuickStart Guide (Publication number: 53-1000425-01)

The QuickStart guide is intended as an overview to help experienced installers unpack, install, and configure a Brocade 5000 switch quickly. For detailed installation and configuration instructions, refer to the *Brocade 5000 Hardware Reference Manual*.

Brocade 5000 Power Supply/Fan Assembly Replacement Procedure (Publication number: 53-1000426-01)

This document provides instructions to replace a power supply/fan assembly unit in the Brocade 5000 switch.

Brocade 5000 Rack Mounting Ears Installation Procedure (Publication number: 53-1000451-01)

This document provides instructions to install mounting ears to the switch and install the switch in a rack with the mounting ears.

Updated Software Documentation

The Brocade Fabric OS V5.2.x manual contains important last minute updates to the Fabric OS v5.2.0 Family Documentation set as well as instructions on using the DPOD feature. Use the Software Addendum and the Fabric OS v5.2.0 documentation set for instructions on administering a Fabric OS SAN.

The most recent Fabric OS v5.2.0 documentation manuals are available on the Brocade Partner Network: <http://partner.brocade.com/>.

Brocade Fabric OS V5.2.1_NI Software Addendum (Publication number: 53-1000429-02)

This Software Addendum is written for SAN administrators to provide a complete description of Fabric OS functions that are specific to the Brocade 5000 running in Native Interop mode on v5.2.1_NI.

New Software Documentation

Brocade 5000 Read Me First (Publication number: 53-1000559-01)

This document is written to help SAN administrators using McDATA fabrics incorporate the Brocade 5000 into their fabric using McDATA Fabric 1.0 interop mode.

Documentation Updates

This section provides information on last-minute additions and corrections to the documentation. The most recent Fabric OS v5.2.0/v5.2.1 documentation manuals are available on the Brocade Partner Network: <http://partner.brocade.com/>.

Brocade 5000 Hardware Reference Manual

(Publication Number 53-1000424-01)

On page 12, under the heading “Installation and Safety Considerations,” replace the following bullet:

“To install and operate the switch successfully, ensure that the following requirements are met:

- The primary AC input is 90-264 VAC (switch autosenses input voltage), 47-63 Hz.”

With:

“To install and operate the switch successfully, ensure that the following requirements are met:

- The primary AC input is 100-240 VAC (switch autosenses input voltage), 47-63 Hz.”

On page 30, under the heading “Facility Requirements,” replace the following bullet:

“Electrical:

- Primary AC input 90-264 VAC (switch autosenses input voltage), 47-63 Hz.”

With:

“Electrical:

- Primary AC input 100-240 VAC (switch autosenses input voltage), 47-63 Hz.”

On page 31, in Table 2 “Power Supply Specifications,” replace the “Input voltage value” with the following:

“100 - 244 VAC, Universal”

On page 11, under the heading “Items included with the Brocade 5000,” replace the following bullet:

“• Power plug current/voltage rating: 15A/125V”

With:

“• Power plug current/voltage rating: 1.4A/125V”

Brocade 5000 QuickStart Guide
(Publication Number 53-1000425-01)

On page 5, under the heading “Items included with the Brocade 5000,” replace the following bullet:

“• Power plug current/voltage rating: 15A/125V”

With:

“• Power plug current/voltage rating: 1.4A/125V”

On page , under the heading “Site Planning and Safety Guides,” replace the following bullet:

“The primary AC input is 90-264 VAC (switch auto-senses input voltage), 47-440 Hz.”

With:

“The primary AC input is 100-240 VAC (switch auto-senses input voltage), 47-440 Hz.”

Closed Defects in Fabric OS v5.2.1NI1

This table lists the defects that have been newly closed in Fabric OS v5.2.1_NI1.

Defects Newly Closed in Fabric OS v5.2.1b		
Defect ID	Severity	Description
DEFECT000084134	High	<p>Summary: Firmware upgrade from Fabric OS v5.2.1 to v5.2.1_ni is not seamless.</p> <p>Symptom: Customer cannot upgrade from Fabric OS v5.2.1 to v5.2.1_ni seamlessly. All WebTools and CLI support to perform functions on the switch is lost until a file is created and firmware commit is issued.</p> <p>Probability: High</p> <p>Risk of Fix: Low</p> <p>Reported in Release: V5.2.1</p>
DEFECT000086995	High	<p>Summary: FVT/CAT Downgrade from 6.0 --> 5.3 caused pdmd crash and the switch went to rolling reboot.</p> <p>Symptom: FVT/CAT Downgrade from 6.0 --> 5.3 caused pdmd crash and the switch went to rolling reboot</p> <p>Probability: High</p> <p>Risk of Fix: Low</p> <p>Reported in Release: V5.3.0</p>
DEFECT000087241	High	<p>Summary: Hot code load time on Brocade 5000 has reached the upper threshold.</p> <p>Symptom: When hot code load time is over the known threshold, the result might be a disruptive upgrade.</p> <p>Probability: Medium</p> <p>Risk of Fix: Medium</p> <p>Reported in Release: V5.2.2</p>