Brocade Fabric OS v6.3.1b
Release Notes v3.0

May 14, 2010

Document History

Document Title	Summary of Changes	Publication Date
Brocade Fabric OS v6.3.1b Release Notes v1.0	Initial release	April 20, 2010
Brocade Fabric OS v6.3.1b Release Notes v2.0	Update to clarify scope of Defect 277910 and FCIP feature restriction.	April 23, 2010
Brocade Fabric OS v6.3.1b Release Notes v3.0	Corrections, clarify Bottleneck Detection and related diagnostics enhancements, added information on TSB 2010-081-A.	May 14, 2010

Contents

Overview

Fabric OS (FOS) v6.3.1b is a patch release based on FOS v6.3.1. All hardware platforms and features supported in FOS v6.3.1 are also supported in v6.3.1b. This release also contains fixes for some important defects including those from the FOS v6.3.1 and v6.3.1a maintenance and patch releases, as well as FOS v6.3.0a, b, c, and d patch releases.

In addition to the fixes noted in the following section and listed in the defect tables at the end of this document, FOS v6.3.1b also includes support for a new OUI that will be used for future WWN assignments on all FOS-based platforms. This change has no impact on any current products or switch/fabric behaviors.

Resolution of Important Defects

FOS v6.3.1b includes fixes for the following important defects:

Defect 269942: During certain error conditions such as back-end frame drops, Tape Pipelining may fail. This may cause tape emulation to hang and not recover when using Tape Pipelining on the Brocade 7800 or FX8-24 blade platforms.

Defect 279401: Hot plugging FX8-24 blade into a chassis with SFPs installed in GE_Ports on that blade may cause switch panic.

Defect 274646: Brocade 8000 installed with factory-installed FOS v6.3.0 through v6.3.0c, v6.3.1 and v6.3.1a panics during firmware download.

Defect 280910: Various enhancements to help address fabric performance issues, such as overall sluggish performance with a fabric, SCSI timeout on hosts or fabric wide frame drops triggered by a device port being slow and backpressuring frames into fabric.

Defect 283637: During hot code load, HA recover time is very long. This condition is most often seen with a large number of Logical Switches configured on both fixed-port and chassis-based platforms using Virtual Fabrics.

Defect 286104: Ports on the FC8-48 become persistently disabled after upgrading from FOS v6.2.x to FOS v6.3.x when using FICON with Virtual Fabrics disabled.

Defect 286865: Different PID formats between edge and backbone fabrics, after a large number of device online/or insertion events, device import failed with FCR-1022 message.

Bottleneck Detection and Related Fabric Diagnostics Enhancements

FOS v6.3.1b includes several changes and enhancements as mentioned in defect 280910. These changes are not fully documented in existing Admin Guides or other materials but will be captured in future documentation and existing documentation updates and revisions. A brief summary of these enhancements follows:

- General improvements to Bottleneck Detection on both 4G and 8G platforms including **improved accuracy on reporting latency** and **reporting of latency values** in Bottleneck Detection events.

- **Identify credit lost condition** on 4G and 8G E_Ports and generate a RASLOG message (C2-5021) when detected. Unlike previous reporting that indicated when <u>all</u> credits for a VC were missing, this new capability reports on individual credit loss. This capability is enabled by default and is not configurable.

- New **option to configure the switch** "**edge hold time,**" allowing the switch to timeout frames for F_Ports sooner than for E_Ports. Proper use of this capability (disabled by default) reduces the likelihood of devices with high latencies causing frame drops in the core of the fabric and impacting other unrelated flows. Details on usage and recommended settings will be available in separate documentation.

- Support for **Class 3 frame transmit (Tx) timeout discard counters on 4G platforms** (previously 4G platforms only supported receive (Rx) timeout counters, reference Fabric Watch Administrator's Guide for details on use and configuration).

Additional Hardware Platform Support

Brocade Fabric OS v6.3.1 supports all platforms supported with FOS v6.3.0 plus the following:

- 5460 (embedded switch)
- 5470 (embedded switch)
- NC-5480 (embedded switch)
- Brocade VA-40FC

New Enhancements

FOS v6.3.1 supports the following new functionality:

- IPSec support on the Brocade 7800

- VLAN tagging (802.1p) support on 7800/FX8-24 FCIP links

- 10 to 1G tunnel/circuit connectivity configuration on FX8-24

    o Allows connection between 10GbE ports on an FX8-24 and 1GbE ports on a 7800 or FX8-24 through an Ethernet switch

- FIP (FCoE Initialization Protocol) v1.0 (FC-BB5v2.0 - was included in FOS v6.3.0b and later)

- Port Beaconing (also supported in FOS v6.2.1)

- Automatic assignment of slot-based licenses

- Access Gateway support on the Brocade 8000 (if using DCFM, v10.4 or later is required)

Optionally Licensed Software

Optionally licensed features in Fabric OS v6.3.1 include:

- **Brocade Ports on Demand** — Allows customers to instantly scale the fabric by provisioning additional ports via license key upgrade (applies to select models of switches).

- **Brocade Extended Fabrics** — Provides greater than 10km of switched fabric connectivity at full bandwidth over long distances (depending on platform this can be up to 3000km).

- **Brocade ISL Trunking** — Provides the ability to aggregate multiple physical links into one logical link for enhanced network performance and fault tolerance. Also includes Access Gateway ISL Trunking on those products that support Access Gateway deployment.

- **Brocade Advanced Performance Monitoring** — Enables performance monitoring of networked storage resources. This license includes the TopTalkers feature.

- **High Performance Extension over FCIP/FC** (formerly known as "FC-IP Services") (For the FR4-18i blade and Brocade 7500) — This license key also includes the FC-FastWrite feature and IPsec capabilities.

- **Brocade Accelerator for FICON** – This license enables unique FICON emulation support for IBM's Global Mirror (formerly XRC) application (including Hitachi Data Systems HXRC and EMC's XRC) as well as Tape Pipelining for all FICON tape and virtual tape systems to significantly improve XRC and tape backup/recovery performance over virtually unlimited distance for 7500, upgraded 7500E and FR4-18i.

- **Brocade Fabric Watch** — Monitors mission-critical switch operations. Fabric Watch also includes Port Fencing capabilities.

- **FICON Management Server** — Also known as "CUP" (Control Unit Port), enables host-control of switches in Mainframe environments.

- **ICL 16-link, or Inter Chassis Links** – This license provides dedicated high-bandwidth links between two

Brocade DCX chassis, without consuming valuable front-end 8Gb ports. Each chassis must have the 16-link ICL license installed in order to enable the full 16-link ICL connections. (Available on the DCX only, previously known as simply the "ICL License" for DCX.)

- **ICL 8-Link, or Inter Chassis Links** – This license activates all eight links on ICL ports on a DCX-4S chassis or half of the ICL bandwidth for each ICL port on the DCX platform by enabling only eight links out of the sixteen links available. This allows users to purchase half the bandwidth of DCX ICL ports initially and upgrade with an additional 8-link license to utilize the full ICL bandwidth at a later time. This license is also useful for environments that wish to create ICL connections between a DCX and a DCX-4S, the latter of which cannot support more than 8 links on an ICL port. Available on the DCX-4S and DCX platforms only (This license replaces the original ICL license for the DCX-4S and is new for the DCX).

- **Enhanced Group Management** — This license, available only on the DCX, DCX-4S and other 8G platforms, enables full management of the device in a datacenter fabric with deeper element management functionality and greater management task aggregation throughout the environment. This license is used in conjunction with Brocade's Data Center Fabric Manager (DCFM) application software.

- **Adaptive Networking** — Adaptive Networking provides a rich framework of capability allowing a user to ensure high priority connections obtain the network resources necessary for optimum performance, even in congested environments. The QoS SID/DID Prioritization and Ingress Rate Limiting features are the first components of this license, and are fully available on all 8G platforms.

- **Integrated Routing** — This license allows ports in a DCX, DCX-4S, 5300, 5100, 7800 or Brocade Encryption Switch to be configured as EX_Ports or VEX_Ports supporting Fibre Channel Routing. This eliminates the need to add an FR4-18i blade or use the 7500 for FCR purposes, and also provides double the bandwidth for each FCR connection (when connected to another 8G-capable port).

- **7500E Upgrade** (For the Brocade 7500E only) — This license allows customers to upgrade a 4-port (2 FC ports and 2 GE ports) 7500E base to a full 18-port (16 FC ports and 2 GE ports) 7500 configuration and feature capability. The upgraded 7500E includes the complete High Performance Extension license feature set.

- **Encryption Performance Upgrade** — This license provides additional encryption processing power. For the Brocade Encryption Switch or a DCX/DCX-4S, the Encryption Performance License can be installed to enable full encryption processing power on the BES or on all FS8-18 blades installed in the DCX/DCX-4S chassis.

- **DataFort Compatibility** — This license is required on the Brocade Encryption Switch/DCX/DCX-4S with FS8-18 blade(s) to read & decrypt NetApp DataFort-encrypted disk and tape LUNs. DataFort Compatibility License is also required on the Brocade Encryption Switch or DCX/DCX-4S Backbone with FS8-18 Encryption Blade(s) installed to write & encrypt the disk and tape LUNs in NetApp DataFort Mode (Metadata & Encryption Algorithm) so that DataFort can read & decrypt these LUNs. DataFort Mode tape encryption and compression is supported beginning with the FOS v6.2.0 release. Availability of the DataFort Compatibility license is limited; contact your vendor for details.

- **Server Application Optimization** — When deployed with Brocade Server Adapters, this license optimizes overall application performance for physical servers and virtual machines by extending virtual channels to the server infrastructure. Application specific traffic flows can be configured, prioritized, and optimized throughout the entire data center infrastructure. This license is not supported on the Brocade 8000.

- **FCoE** — This license enables Fibre Channel over Ethernet (FCoE) functionality on the Brocade 8000. Without the FCoE license, the Brocade 8000 is a pure L2 Ethernet switch and will not allow FCoE bridging or FCF capabilities. This license should always be installed with the 8000 FC Ports on Demand license.

- **8000 FC Ports on Demand** — This new license enables all eight FC ports on the Brocade 8000. (**IMPORTANT NOTE:** Most Brocade 8000 units shipped with FOS v6.1.2_CEE1 did not ship with this license and need to have it installed <u>prior</u> to upgrading to FOS v6.3.1. Failure to do so will result in

disabling of FC ports following the upgrade. Please contact Brocade to obtain this license key). This license should always be installed with the FCoE license.

- **7800 Port Upgrade** — This new license allows a Brocade 7800 to enable 16 FC ports (instead of the base four ports) and six GbE ports (instead of the base two ports). This license is also required to enable additional FCIP tunnels and also for advanced capabilities like tape read/write pipelining. The Brocade 7800 must have the Port Upgrade license installed to add FICON Management Sever (CUP) or Advanced Accelerator for FICON.

- **Advanced Extension** – This new license enables two advanced extension features: FCIP Trunking and Adaptive Rate Limiting. The FCIP Trunking feature allows multiple IP source and destination address pairs (defined as FCIP Circuits) via multiple 1GbE or 10GbE interfaces to provide a high bandwidth FCIP tunnel and failover resiliency. In addition, each FCIP circuit supports four QoS classes (Class-F, Hi, Medium and Low Priority), each as a TCP connection. The Adaptive Rate Limiting feature provides a minimum bandwidth guarantee for each tunnel with full utilization of the available network bandwidth without impacting throughput performance under high traffic load. This license is available on the 7800 and the DCX/DCX-4S for the FX8-24 on an individual slot basis.

- **10GbE FCIP** – This new license enables the two 10GbE ports on the FX8-24. With this license, two additional operating modes (in addition to 10 1GbE ports mode) can be selected:

    o   10 1GbE ports and 1 10GbE port, or

    o   2 10GbE ports

  This license is available on the DCX/DCX-4S for the FX8-24 on an individual slot basis.

- **Advanced FICON Acceleration** – This new licensed feature uses specialized data management techniques and automated intelligence to accelerate FICON tape read and write and IBM Global Mirror data replication operations over distance, while maintaining the integrity of command and acknowledgement sequences. This license is available on the 7800 and the DCX/DCX-4S for the FX8-24 on an individual slot basis.

Some models offer bundles that include 2 or more optionally licensed features. These bundles are defined for each unique product, and are outside the scope of this release note document.

Temporary License Support
The following licenses are available for 45-day temporary use, with a maximum of two temporary licenses per feature and per switch (90 days maximum):
- Fabric (E_Port) license
- Extended Fabric license
- Trunking license
- High Performance Extension license
- Advanced Performance Monitoring license
- Adaptive Networking license
- Fabric Watch license
- Integrated Routing license
- Server Application Optimization(support as a temporary license is new in FOS v6.3)
- Advanced Extension license (support is new in FOS v6.3)
- Advanced FICON Acceleration license (support is new in FOS v6.3)
- 10GbE FCIP license (support is new in FOS v6.3)

Note: Temporary Licenses for features available on a per slot basis enable the feature for any and all slots in the chassis.

Universal Temporary License Support

The following list of licenses are available as Universal Temporary licenses, meaning the same license key can be installed on any switch running FOS v6.3 or later that supports the specific feature. Universal Temporary license keys can only be installed once on a particular switch, but can be applied to as many switches as desired. Temporary use duration (the length of time the feature will be enabled on a switch) is provided with the license key. All Universal Temporary license keys have an expiration date upon which the license can no longer be installed on any unit.

- Fabric (E_Port) license
- Extended Fabric license
- Trunking license
- High Performance Extension license
- Advanced Performance Monitoring license
- Adaptive Networking license
- Fabric Watch license
- Integrated Routing license
- Server Application Optimization
- Advanced Extension license
- Advanced FICON Acceleration license
- 10GbE license
- FICON Management Server (CUP) license

Previously Licensed Software Now Part of Base FOS

The following capabilities are included as part of the base FOS capability and no additional purchase or licensing is necessary:

- Advanced Zoning and WebTools licenses are no longer necessary beginning with FOS v6.1. These features are automatically enabled on all products running FOS v6.1 or later.

Supported Switches

Fabric OS v6.3.1 supports the Brocade 300, 5410/5480/5424/5450/5460/5470/NC-5480, 4100, 4900, 5000, 5100, 5300, VA-40FC, 7500/7500E, 7600, 48000, Brocade Encryption Switch (BES), DCX/DCX-4S, 8000, and the new 7800. All supported products are qualified for Native Connectivity in interopmodes 2 and 3 for deployment in M-EOS fabrics with the exception of the Brocade 4100 and 8000.

Access Gateway mode is also supported by Fabric OS v6.3.1, and is supported on the following switches: the Brocade 300, 5100, VA-40FC, 8000*, 5480, 5450, 5460, 5470, NC-5480 and M5424.

* If using DCFM to manage a fabric with a Brocade 8000 in Access Gateway mode, version 10.4 or later is required

Note that FOS v6.3 does NOT support the following platforms and cannot be loaded on them, though these switches may participate in the same fabric as other switches using FOS v6.3:
- Brocade 200E
- All 4G embedded switches, including the 4012, 4016, 4018, 4020, 4024, 4424

Please refer to the *Supported Products and FOS Interoperability* table for the versions of FOS code that must be used on these platforms to interoperate with FOS v6.3. The above noted 4G platforms will continue to be supported by FOS v6.2.x.

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 FC standards conformance, visit the following Brocade Web site: *http://www.brocade.com/sanstandards*

The Brocade 8000 and FCOE10-24 blade conform to the following Ethernet standards:
- IEEE 802.1D   Spanning Tree Protocol
- IEEE 802.1s   Multiple Spanning Tree
- IEEE 802.1w   Rapid reconfiguration of Spanning Tree Protocol
- IEEE 802.3ad   Link Aggregation with LACP
- IEEE 802.3ae   10G Ethernet
- IEEE 802.1Q   VLAN Tagging
- IEEE 802.1p   Class of Service Prioritization and Tagging
- IEEE 802.1v   VLAN Classification by Protocol and Port
- IEEE 802.1AB   Link Layer Discovery Protocol (LLDP)
- IEEE 802.3x   Flow Control (Pause Frames)

The following draft versions of the Converged Enhanced Ethernet (CEE) and Fibre Channel over Ethernet (FCoE) Standards are also supported on the Brocade 8000 and FCOE10-24 blade:
- IEEE 802.1Qbb   Priority-based Flow Control
- IEEE 802.1Qaz   Enhanced Transmission Selection
- IEEE 802.1   DCB Capability Exchange Protocol (Proposed under the DCB Task Group of IEEE 802.1 Working Group)
- FC-BB-5   FCoE (Rev 2.0)

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, including the switch or fabric behavior immediately following the problem, and specific questions

    - Description of any troubleshooting steps already performed and the results

    - Serial console and Telnet session logs

    - Syslog message logs

2. **Switch Serial Number**

    The switch serial number is provided on the serial number label, examples of which are shown here:

    FT00X0054E9

The serial number label is located as follows:

- Brocade 4100, 4900, and 7500/7500E — On the switch ID pull-out tab located inside the chassis on the port side on the left

- Brocade Encryption Switch, VA-40FC, 300, 5000, 5100, and 5300 — On the switch ID pull-out tab located on the bottom of the port side of the switch

- Brocade 7600 — On the bottom of the chassis

- Brocade 7800 — On the pull-out tab on the front left side of the chassis underneath the serial console and Ethernet connection and on the bottom of the switch in a well on the left side underneath (looking from front)

- Brocade 8000 — On the switch ID pullout tab located inside the chassis on the port side on the left and also on the bottom of the chassis.

- Brocade 48000 — Inside the chassis next to the power supply bays

- Brocade DCX — Bottom right of the port side

- Brocade DCX-4S — Back, upper left under the power supply

3. **World Wide Name (WWN)**

   When the Virtual Fabric feature is enabled on a switch, each logical switch has a unique switch WWN. Use the **wwn** command to display the switch WWN.

   If you cannot use the **wwn** command because the switch is inoperable, you can get the primary WWN from the same place as the serial number, except for the Brocade DCX/DCX-4S. For the Brocade DCX, access the numbers on the WWN cards by removing the Brocade logo plate at the top of the non-port side. The WWN is printed on the LED side of both cards.

4. **License Identifier (License ID)**

   There is only one License Identifier associated with a physical switch or director/backbone chassis. This License Identifier is required as part of the ordering process for new FOS licenses.

   Use the **licenseId** command to display the License Identifier.

FOS Migration Considerations

This section contains important details to consider before migrating to or from this FOS release.

TSBs - *Critical Issues to Consider Prior to Installing This FOS Release*

Technical Support Bulletins (TSBs) are produced to provide detailed information about high priority defects or issues present in FOS releases. The following sections specify all current TSBs that have been identified as being a risk to or resolved with this specific version of Fabric OS. Please review carefully and refer to the complete TSB for relevant issues prior to migrating to this version of code. TSBs can be found at http://my.brocade.com under the "*Technical Documentation*" section of the "*documentation*" tab.

TSB Issues Outstanding in FOS v6.3.1b

Issues in the following list of TSBs are known to be potential <u>risks</u> to using FOS v6.3.1b and should be considered carefully prior to using this release of code:

TSB	Summary
None	There are no current TSBs outstanding for this FOS release.

TSB Issues Resolved in FOS v6.3.1b

Issues in the following list of TSBs are known FOS v6.3.x risks that have been <u>resolved</u> in FOS v6.3.1b. Note that the issues addressed in this list of TSBs may also be resolved in other FOS releases. Refer to the specific Release Notes for each release to verify resolution details.

TSB	Summary
2010-075-A (Defect 270261)	When upgrading a DCX, DCX-4S or Brocade 5300 from Fabric OS v6.2.2a or lower to FOS v6.3.1 or 6.3.0c or lower, the Compact Flash (CF) may report an access error. This will cause a reboot of the affected CP within the DCX/DCX-4S or Brocade 5300 to fail.
2010-076-A (Defect 284472)	After performing a non-disruptive firmware upgrade from Fabric OS v6.2.x to Fabric OS v6.3.0 through v6.3.0c or v6.3.1, the State Change Registration (SCR) value is not preserved in the Name Server database. After this occurs, the Name Server will not transmit Registered State Change Notifications (RSCN) to the devices on those ports. If a device does not receive an RSCN, it will not know when there is a change to the zoning configuration or device availability.
2010-081-A	After a non-disruptive upgrade to Fabric OS v6.2.x or higher, CDR-1003 messages may be posted during a supportSave operation. This may occur on a Brocade 200E, 4012, 4016, 4018, 4020, 4024, 4424, 4100, 4900, 7500, 7600 or 48000.

Recommended Migration Paths to FOS v6.3.1b

Migrating from FOS v6.1.x

For units currently operating at FOS v6.1.x, Brocade recommends using FOS v6.2.2b as a migration path to v6.3.1b in order to reduce risk of exposure to known issues at the v6.2.x code levels.

Migrating from FOS v6.2.x

For units currently operating at FOS v6.2.x, there are no special steps required to migrate to FOS v6.3.1b.

FOS Upgrades and Downgrades

Upgrading to Fabric OS v6.3.1 is only allowed from Fabric OS v6.2.0 or later. This policy to support only one-level migration, which began with FOS v6.0.0, provides more reliable and robust migrations for customers. By having fewer major changes in internal databases, configurations, and subsystems, the system is able to perform the upgrade more efficiently, taking less time and ensuring a truly seamless and non-disruptive process for the fabric. The one-release migration policy also reduces the large number of upgrade/downgrade permutations that must be tested, allowing Brocade to spend more effort ensuring the supported migration paths are thoroughly and completely verified.

Most products supported by Fabric OS v6.2.X or v6.1.2_CEEx can be upgraded to Fabric OS v6.3. The following is a list of products that can be upgraded to Fabric OS v6.3:

- 5424/5410/5480, 4100, 4900, 5000, 300, 5100, 5300, 7500/7500E, 7600, 8000, 48000, BES, DCX-4S and DCX.

Switches using Integrated Routing and operating with FOS v6.2.2x may <u>not</u> be upgraded directly to FOS 6.3.0/v6.3.0a/v6.3.0b. Units operating with IR and FOS v6.2.2x should be upgraded to FOS v6.3.0c, v6.3.1 or later firmware or first downgraded to a release prior to v6.2.2.

FOS does not support concurrent FC Routing (EX_Ports) and TopTalkers features.

If there are multiple node EGs (encryption groups) in a fabric, please complete firmwaredownload on one node at a time before downloading on another node.

The Brocade 8000 does not support non-disruptive hot code loads (HCL). Upgrading the Brocade 8000 from FOS v6.1.2_cee1 to FOS v6.3 or from FOS 6.3 to a later FOS version will be disruptive to the IO through the switch.

A code load of DCX or DCX-4s with one or more FCOE10-24 blades from FOS 6.3 to another version will disrupt traffic through the blade.

When upgrading a Brocade 8000 from FOS v6.1.2_CEE or v6.1.2_CEE1 to v6.3, verify that the unit has both the FCoE and FC POD licenses installed. Units missing these licenses that are upgraded to FOS v6.3 will lose functionality following a restart or disabling of ports. Note that when the FC POD license is installed on a unit with FOS v6.1.2, the *licenseShow* output will indicate that the license is "not applicable on this platform." This message can be ignored and will not appear once the unit has been upgraded to v6.3.

If a switch with FOS v6.2 in FIPS (Federal Information Processing Standards) mode with only LDAP authentication support is upgraded to v6.3, login will fail. A switch with v6.2 in FIPS mode must have both LDAP and local authentication configured before upgrading to v6.3. Once the switch is fully operational, the user can login to the switch and import the certificate again. If the switch is not in FIPS mode, users can login to the switch with LDAP after upgrading to v6.3 and then import the certificate.

Important Notes

This section contains information that you should consider before you use this Fabric OS release.

DCFM Compatibility

FOS v6.3.1 is compatible with Brocade's Data Center Fabric Manager (DCFM) v10.3.x management software. DCFM is a comprehensive SAN management application that enables end-to-end management of Brocade Data Center Fabrics. It is the next-generation successor product to existing Brocade management products, including Brocade Fabric Manager (FM) and Brocade Enterprise Fabric Connectivity Manager (EFCM).

DCFM 10.3 is available in three editions:
- *DCFM Professional:* a fabric management application that is ideally suited for small-size businesses that need a lightweight management product to manage their smaller fabrics. It manages one FOS fabric at a time, up to 1,000 switch ports, and provides support for Brocade FC switches, Brocade HBAs / CNAs, and Fibre Channel over Ethernet (FCoE) / Converged Enhanced Ethernet (CEE) switches
- *DCFM Professional Plus*: a SAN management application designed for medium-size businesses for managing up to 4 physical fabrics (FOS, M-EOS and Mixed fabrics) up to 2,560 switch ports. It supports Brocade director products (DCX-4S, 48Ks, etc.), FC switches, Fibre Channel Over IP (FCIP) switches, Fibre Channel Routing (FCR) switches/ Integrated Routing (IR) capabilities, Fibre Channel over Ethernet (FCoE) / Converged Enhanced Ethernet (CEE) switches, and Brocade HBAs / CNAs. Enterprise-class customers looking to manage departmental SANs can consider deploying this product as well

- *DCFM Enterprise*: a SAN management application designed for enterprise-class customers for managing up to 24 physical fabrics and up to 9,000 switch ports. DCFM Enterprise supports all the hardware platforms and features that DCFM Professional Plus supports, and also adds support for the Brocade DCX Director product, and Fiber Connectivity (FICON) capabilities

Existing EFCM v9.6.x/9.7.x and FM v5.4/5.5 customers are provided an easy migration path to DCFM Enterprise.

DCFM Management Considerations

- When managing a Brocade 8000 in Access Gateway Mode, DCFM 10.4.0 or later is required. Use of earlier DCFM releases will prevent management of zoning on the fabric.

- DCFM v10.3.x and earlier cannot manage FOS switches or fabrics using Administrative Domains (ADs). Environments using ADs must use DCFM v10.4 or later or use the CLI or WebTools for management.

EFCM and Fabric Manager Compatibility

With the introduction of DCFM, both EFCM and Fabric Manager (FM) have been put into sustaining mode. Consequently, neither EFCM nor FM are qualified or supported for management of switches operating with FOS v6.3 firmware. Very basic evaluation has shown that there are significant compatibility issues between FM and FOS v6.3, including (but not limited to) compromised functionality in the zoning dialog and performance graphs, port enabling/disabling, and the FICON wizard.

WebTools Compatibility

- FOS v6.3 is supported with JRE 1.6.0 Update 13.

- If the JRE v1.6.0 version is not at Update 13, the DCFM server / client and B-model Element Manager (Web Tools) Crashes on launch

- WebTools Tunnel and TCP graphs only support Tooltips for the first enabled TCP connection graph.

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.

When using the Virtual Fabrics feature, it is highly recommended that all switches participating in a fabric with a logical switch use the latest firmware available for those switches. All switches must be operating at minimum firmware levels noted in the FOS Interoperability table below.

When using any of Brocade's encryption platforms (Brocade Encryption Switch or Brocade FS8-18 blade in a DCX or DCX-4S) it is required that switches attached to hosts and targets or those that are part of the encryption flow be operating with minimum specified levels:

- 2Gb/4Gb platforms must operate with FOS v5.3.1b or later

- 4Gb/8Gb platforms must operate with FOS v6.1.0e, v6.1.1 or later (4Gb platforms may use v5.3.1b but are recommended to use the v6.x versions)

- M-EOS platforms must operate with M-EOS v9.8.0 or later for McDATA Fabric Mode (interopmode 2) or M-EOS 9.9.0 or later for Open Fabric Mode environments (interopmode 3)

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

Supported Products and FOS Interoperability	
Brocade 2000-series switches	Not supported, end of support (December 2007)
Brocade 3200, 3800	Not supported.
Brocade 3000	v3.2.1c [1] [6] [7]
Silkworm 3016, 3250, 3850 and Brocade 3900, 4100, 4900, 24000, 7500, 7500E, 5000, 200E, 48000	v5.3.2 (2G and 4G platforms) and v6.1.0e and later [5] (4G platforms only)
Silkworm 12000	v5.0.x [6] [7]
Brocade 4012, 4016, 4018, 4020, 4024, 4424	v5.3.1b, v6.1.0e and later [5]
Brocade 5410, 5480, 5424	v6.2.0
Brocade 8000	v6.1.2_CEE1 or later
Brocade 7800, DCX and DCX-4S with FCOE10-24 or FX8-24 blades	v6.3.0
Brocade DCX, 300, 5100, 5300	v6.1.0e and later [5]
Brocade DCX-4S	v6.2.0
Brocade DCX with FS8-18 blade(s), Brocade Encryption Switch	v6.1.1_enc
Brocade DCX/DCX-4S/48000 with FA4-18 blade(s), Brocade 7600	v5.2.x or later (DCX requires v6.0.x or later, DCX-4S requires 6.2.x or later)
Mi10k, M6140, ED-6064, ES-3232, ES-4300, ES-4400, ES-4500, ES-4700 (McDATA Fabric Mode and Open Fabric Mode) [2] [4]	M-EOS v9.9.5 or later [3]
McDATA ED-5000 32-port FC director	Not Supported
Multi-Protocol Router interop	
Brocade 7420	XPath v7.4.1 [8]
Brocade 7500 and FR4-18i blade	v5.1.0 and higher [8]
McDATA SANRouters 1620 and 2640	Not Supported

Table Notes:

[1] All zoning and fabric operations performed in a fabric with products running older versions of FOS should be done via interfaces to products running the latest version of FOS. This is particularly important for Brocade 3XXX series switches that do not support zoning configuration for newer products.

[2] Other M-EOS models may participate in a fabric with FOS v6.3, but may not be directly attached via E_Port to any products running FOS v6.3. The McDATA ED-5000 director may not participate in a mixed M-EOS/FOS fabric.

[3] It is highly recommended that M-EOS products operate with the most recent version of M-EOS released and supported for interoperability. M-EOS 9.9.5 is the only version of code that has been fully qualified for interoperability with FOS v6.3. M-EOS 9.7.2 is the minimum version of firmware that is supported to interoperate with FOS 6.3. For support of frame redirection in McDATA Fabric Mode (interopmode 2), M-series products must use M-EOS v9.8 or later. For support of frame redirection in McDATA Open Fabric Mode (interopmode 3), M-series products must use M-EOS v9.9 or later. Only the ES-4400, ES-4700, M6140, and Mi10k may have devices directly attached that are having data encrypted or unencrypted.

[4]When routing to an M-EOS edge fabric using frame redirection, the M-EOS fabric must have a FOS-based product in order to configure the frame redirection zone information in the edge fabric.

[5]When directly attached to a Host or Target that is part of an encryption flow.

[6]Products operating with FOS versions less than v5.3.1b or v6.1.0e may not participate in a logical fabric that is using XISLs (in the base fabric).

[7]These platforms may not be directly attached to hosts or targets for encryption flows.

[8]McDATA 1620 and 2640 SANRouters should not be used with XPath or FOS-based routing (FCR) for connections to the same edge fabric.

Fabric OS v6.3.1 software is fully qualified and supports the blades for the 48000 platform noted in the following table:

48000 Blade Support Matrix	
Port blade 16, 32 and 48-port 4Gbit blades (FC4-16, FC4-32, FC4-48), 16, 32 and 48-port 8Gbit blade (FC8-16, FC8-32, FC8-48), and the 6-port 10G FC blade (FC10-6)	Supported with any mix and up to 8 of each. No restrictions around intermix. The 48000 must run Fabric OS v6.0 or later to support the FC8-16 port blade and Fabric OS v6.1 or later to support the FC8-32 and FC8-48 port blades.
Intelligent blade	Up to a total of 4 Intelligent blades (includes iSCSI, FCIP/FCR and Application blade), FC4-16IP, FR4-18i, and FA4-18 respectively. See below for intermix limitations, exceptions, and a max of each blade.
iSCSI blade (FC4-16IP)	Up to a maximum of 4 blades of this type
FC-IP/FC Router blade (FR4-18i)	Up to a maximum of 2 blades of this type. This can be extended under special circumstances but must be approved by Brocade's Product Team. Up to 8 FR4-18i blades can be installed if they are used only for FC FastWrite or FCIP without routing.
Virtualization/Application Blade (FA4-18)	Up to a maximum of 2 blades of this type.
Encryption Blade (FS8-18), Extension Blade (FX8-24), FCoE/CEE Blade (FCOE10-24)	Not supported.

Fabric OS v6.3.1 software is fully qualified and supports the blades for the DCX/DCX-4S noted in the following table:

DCX/DCX-4S Blade Support Matrix	
16-, 32- and 48-port 8Gbit port blades (FC8-16, FC8-32, FC8-48) and the 6-port 10G FC blade (FC10-6)	Supported with FOS v6.0 and above with any mix and up to 8/4 of each. No restrictions around intermix.
Intelligent blade	Up to a total of 8/4 intelligent blades. See below for maximum supported limits of each blade.
FC-IP/FC Router blade (FR4-18i)	Up to a maximum of 4 blades of this type. This can be extended under special circumstances, but must be approved by Brocade's Product Team. Up to 8 FR4-18i blades can be installed in a DCX if they are used only for FC FastWrite or FCIP without routing.

DCX/DCX-4S Blade Support Matrix	
Virtualization/Application Blade (FA4-18)	Up to a maximum of 4 blades of this type.
Encryption Blade (FS8-18)	Up to a maximum of 4 blades of this type.
Extension Blade (FX8-24)	Up to a maximum of 2 blades of this type.
FCoE/CEE Blade (FCOE10-24)	Up to a maximum of 2 blades of this type. Cannot be used in a chassis with other intelligent blades (can only be installed concurrently with FC8-XX and/or FC10-6 blades)

Note: the iSCSI FC4-16IP blade is not qualified for the DCX/DCX-4S.

Power Supply Requirements for Blades in 48k and DCX/DCX-4S Chassis					
Blades	Type of Blade	48K @200-240 VAC (Redundant configurations)	DCX/DCX-4S @110 VAC (Redundant configurations)	DCX/DCX-4S @200-240 VAC (Redundant configurations)	Comments
FC4-16, FC 4-32, FC4-48, FC8-16, FC8-32	Port Blade	2 Power Supplies	2 Power Supplies	2 Power Supplies	• Distribute the Power Supplies evenly to 2 different AC connections for redundancy.
FC10-6, FC 8-48	Port Blade	4 Power Supplies	Not Supported	2 Power Supplies	
FR4-18i, FC4-16IP*, FA4-18	Intelligent Blade	4 Power Supplies	Not Supported	2 Power Supplies	
FS8-18, FX8-24, FCOE10-24	Intelligent Blade	NA	Not Supported	DCX: 2 or 4 Power Supplies DCX-4S: 2 Power Supplies	• For DCX with three or more FS8-18 Blades, (2+2) 220VAC Power Supplies are required for redundancy. • For DCX with one or two FS8-18 Blades, (2) 220VAC Power Supplies are required for redundancy. • For DCX-4S, (2) 220VAC Power Supplies provide redundant configuration with any number of FS8-18 Blades. • For both DCX and DCX-4S with FX8-24 blades, (1+1) 220VAC Power Supplies are required for redundancy.

*Note: the iSCSI FC4-16IP blade is not qualified for the DCX/DCX-4S.

FOS Feature Compatibility in Native Connectivity Modes

Some FOS features are not fully supported when operating in the native connectivity modes for deployment with M-EOS based products. All Brocade models that are supported by Fabric OS v6.3.1 support both interopmodes 2 and 3 with the exception of the Brocade 4100 and 8000 and DCX/DCX-4S with one or more FCOE10-24 blades.

The following table specifies the support of various FOS features when operating in either interopmode 2 (McDATA Fabric Mode) or interopmode 3 (Open Fabric Mode) with Fabric OS v6.3.

FOS Features (supported in interopmode 0)	FOS v6.3	
IM = Interopmode	IM 2	IM 3
L2 FOS Hot Code Load	Yes	Yes
FOS Hot Code Load with FCR	Yes	Yes
Zone Activation Support	Yes	Yes[11]
Traffic Isolation Zones[1]	Yes	No
Frame Redirection (devices attached to FOS)[1]	Yes	Yes[11]
Frame Redirection (devices attached to M-EOS) [1]	Yes	Yes[11]
Frame Redirection over FCR[10]	Yes	Yes[11]
FCR Fabric Binding (route to M-EOS fabric with Fabric binding) [9]	Yes	Yes
L2 Fabric Binding	Yes	No*
DCC policies	No	No
SCC policies	Yes[4]	No*
E/EX_Port Authentication	Yes	Yes
ISL Trunking (frame-level)	Yes[2]	Yes[2]
Dynamic Path Selection (DPS, exchange based routing)	Yes[3]	Yes[3]
Dynamic Load Sharing (DLS, port based routing)	Yes	Yes
Virtual Channels (VC RDY)	Yes[2]	Yes[2]
FICON Management Server (Cascading)	Yes	No*
FICON MIHPTO	Yes	No*
Full Scalability (to maximum M-EOS fabric limits)	Yes	Yes
Adaptive Networking: QoS	No	No
Adaptive Networking: Ingress Rate Limiting	No*	No*
Advanced Performance Monitoring (APM)	No*	No*
APM: TopTalkers	No*	No*
Admin Domains	No	No
Secure Fabric OS[5]	N/A	N/A
Fabric Watch	Yes	Yes
Ports on Demand (POD)	Yes	Yes
NPIV	Yes	Yes
Timer Server function (NTP)	No	No
Open E_Port[6]	N/A	N/A
Broadcast Zoning	No	No
FDMI	No	No
Remote Switch	No	No
Port Mirroring	Yes	Yes
Extended Fabrics	Yes	Yes[7]
Alias Server	No	No
Platform Service	No	No
FCIP (VE_Ports)	Yes	Yes

FOS Features (supported in interopmode 0)	FOS v6.3	
IM = Interopmode	IM 2	IM 3
IPFC (IP over FC)	Yes[8]	Yes[8]
M-EOS ALPA 0x13 configuration	Yes	Yes
VE to VEX Port	Yes	Yes
Integrated Routing[9]	Yes[9]	Yes
Domain Offset Support	Yes	Yes
239 Domain Support (available on Mi10k only)	N/A	Yes
Masterless F_PORT Trunking (AG connect to FOS switches only)	Yes	Yes
FC10-6-to-FC10-6 ISL	Yes	Yes
RASLOG Events on duplicate WWNs	Yes	Yes
Virtual Fabrics	Yes	Yes
Logical Fabric using LISLs (XISLs in Base Fabric)	No	No
Port Fencing	Yes	Yes
Bottleneck Detection	Yes	Yes

* indicates the feature is available but not officially tested or supported

1. Requires M-EOS 9.7 or later for redirection between devices attached to FOS switches, M-EOS 9.8 for redirection between devices attached to M-EOS switches, M-EOS 9.9 for use in McDATA Open Fabric Mode. Supported M-EOS platforms include M4400, M4700, M6140, and Mi10k.
2. Only allowed between FOS-based switches
3. DPS is supported outbound from FOS-based switches. (M-EOS can provide reciprocal load balancing using OpenTrunking).
4. SCC policies only supported in conjunction with L2 Fabric Binding support
5. Not supported in FOS 6.0 or later
6. Mode 3 only qualified with M-EOS switches
7. Not on FCR
8. Only supported locally within the FOS switch
9. All routers (EX_Ports) must reside in a backbone fabric running in interopmode 0 only. Only edge fabrics with devices imported to the backbone fabric or other edge fabrics may be operating in IM2 or IM3.
10. To support Frame Redirection to an edge M-EOS fabric, there must be at least one FOS switch in the edge fabric to configure Frame Redirection Zones.
11. Only Frame Redirection Zones may be configured on FOS platforms and sent to fabrics operating in McDATA Open Fabric Mode (interopmode 3). M-EOS 9.9 is required to support FR Zones in McDATA Open Fabric Mode.

Note: FICON Cascaded CUP with M-EOS and FOS qualified only on select platforms.

SAS Version Requirements for FA4-18 and Brocade 7600:

SAS v3.4.0 is the supported SAS version for FOS v6.3.1.
- When upgrading from FOS v6.2 to v6.3.1 and SAS 3.3.0 to SAS 3.4.0, first upgrade FOS v6.2 to v6.3.1 and then upgrade SAS from 3.3.0 to 3.4.0.
- When downgrading from FOS v6.3.1 to v6.2 and SAS 3.4.0 to SAS 3.3.0, first downgrade SAS from 3.4.0 to 3.3.0 and then downgrade FOS from v6.3.1 to v6.2. If the switch is downgraded to v6.2 prior to the SAS downgrade to v3.3, the switch will fault.

Scalability

All scalability limits are subject to change. Limits may be increased once further testing has been completed, even after the release of Fabric OS. For current scalability limits for Fabric OS, refer to the *Brocade Scalability Guidelines* document, available under the *Technology and Architecture Resources* section at http://www.brocade.com/compatibility

Other Important Notes and Recommendations

FCIP, FCIP Trunking and High Bandwidth (Brocade 7800 and FX8-24)

- The maximum supported MTU size for the Brocade 7800/FX8-24 is 1500 with FOS v6.3.1.

- FCIP connections are supported only between the Brocade 7800/FX8-24 and another 7800/FX8-24. FCIP tunnels are not supported between the 7800/FX8-24 and the previous generation Brocade 7500/FR4-18i platforms.

- When additional circuits (and the network bandwidth provided by those circuits) are added to an already active tunnel, there is a short period of time where some frame loss can occur due to the process to re-fresh the internal FC frame routing tables in the switch. Therefore, additional circuits should only be added during low I/O periods utilizing the FCIP Tunnel being modified. In addition, if the circuit operation (addition/deletion) to the tunnel increases/decreases the total tunnel bandwidth, an FCIP Tunnel (VE port) disable/enable sequence should be performed after the addition/deletion of the circuit. This will allow the switch to adjust the internal routes to utilize the new bandwidth fully.

- Switching modes between 10G and 1G is disruptive for FCIP traffic.

- Keep alive timeout (milliseconds) - Valid range is 500ms to 7,200,000ms (inclusive). Default value is 10000ms (10 seconds). If FICON is configured the recommended value is 1000 ms (1 second), otherwise the recommended value is the default of 10 seconds. For impairment networks with 100ms latency and 0.5% packet loss, keep-alive time out should be configured as 30seconds. If the local and remote circuit configurations' Keep Alive Timeout values do not match, the tunnel will use the lower of the two configured values.

- Software compression (available on the 7800) modes 2 and 3 are not supported in FICON environments; they are supported only in Open Systems environments.

- Software compression (mode 2, 3) generally gives a better compression ratio, but not the throughput/bandwidth across all six GE ports. Software compression is recommended for low throughput links and supports throughput up to 2Gbps across all 6 GE ports.

- In order to perform the following operations it is necessary to delete the FCIP configuration on the affected ports first:
    - o Switching modes between 1G/10G/Dual
    - o Moving VE/GE port between logical switches

- The FX8-24 supports three different operating modes:
    1) Ten 1-GbE ports mode (default)
    2) Ten 1GbE ports and one 10GbE port
    3) Two 10GbE ports

    Modes 2 and 3 require the slot-based 10 GbE FCIP license.

- ARL (Adaptive Rate Limiting) is not supported on 10G tunnels.

- IPv6, Diffserv and "Inband Management" are not supported on the Brocade 7800 or FX8-24.

- IPSec is not supported on the Brocade FX8-24.

- FOS v6.3 only supports up to four 1 Gig Circuits per VE/FCIP Tunnel for the 1 gig interfaces. A VE/FCIP Tunnel created over the 10 Gig Interfaces will be limited to 10 circuits created using IPIFs on the same 10 GbE port (and no more than 1G per circuit).

- As a recommended best practice, the VE tunnel shouldn't be over-subscribed (e.g. 8G FC traffic over 500Mbps tunnel). General guidelines are 2:1 subscription without compression and 4:1 with compression.

- Non-disruptive firmware activation on FOS v6.3 will disrupt I/O traffic on FCIP links.

- Fibre Channel Routing (VEX) is not supported on the Brocade FX8-24 blade but is supported on the Brocade 7800.

- Differences between the Brocade 7800/FX8-24 platforms and previous generation 7500/FR4-18i platforms include:

    o On the 7800, the GbE port does not directly correlate to a VE port

    o On the FX8-24, GbE ports 0-9 or 10GbE port 1 (xge1) correspond to VE ports 12-21, and 10 GbE port 0 (xge0) corresponds to VE ports 22-31

    o The CLI syntax for the 7800/FX8-24 varies from the 7500/FR4-18i. Please refer to the *Brocade Fabric OS Command Reference* document for FOS v6.3 for details.

- Both ends of a tunnel must be identically configured for Compression, FW and Tape pipeline options. If a mismatch exists, the tunnel will not be established and the TCP virtual connections will be removed.

- Under Traffic Isolation Zone, configurations with fail over enabled, Non-TI zone traffic will use the dedicated path if no other E or VE paths through the fabric exist, or if the non-dedicated paths are not the shortest paths. (A higher bandwidth tunnel with multiple circuits will become shortest path compared to a single tunnel).

- A VE/VEX Tunnel and E/EX FC port cannot connect to the same domain at the same time.

- The Recommended Keep Alive Timeout must be the same on tunnel/circuits on the switches on both sides of a link.

- Brocade 7800 or FX8-24 cannot receive a ping from an external device (for example – Windows PC).

- Latency measurements supported on FCIP Tunnels (Tested limit under FOS v6.3.1):
    o 1GbE - 200ms round trip time and 1% Loss
    o 10GbE – 50ms round trip and 0.1% Loss

- Brocade 7800 supports Optical and Copper Media types on GE0 and GE1 interfaces. Copper Media type is default on GE0/GE1 ports and does not support auto-sense functions.

- When inserting a 4G SFP in GE ports of an FX8-24 blade or 7800 switch, users may occasionally see one of the following:
    o "No_Light" or "Unknown" for GE ports in switchshow output. Removing and re-inserting the optic should correct this indication.
    o "Can't read serial data" in sfpshow output. Issuing the sfpshow command again should resolve this.

FCoE/CEE (Brocade 8000 and FCOE10-24)

- The Brocade 8000 balances the FCoE bandwidth across all six port groups (each port group contains four ports). To get optimum performance for FCoE traffic it is recommended that the user distribute server CNA connections across these six port groups.

- Hot plugging a CP with firmware level less than FOS v6.3.0 into a DCX or DCX-4S with an active FCOE10-24 blade will result in the new standby CP not being HA synchronized. To avoid this scenario, upgrade the code on the standby CP directly to match the version on the active CP.

- Brocade recommends that Converged Mode be enabled on all interfaces connected to CNAs.

- When operating in Converged Mode, tagged traffic on the native VLAN of the switch interface is processed normally. The host should be configured not to send VLAN tagged traffic on the switch's native VLAN.

- The Converged Network Adapter (CNA) may lose connectivity to the Brocade 8000/FCOE10-24 if the CNA interface is toggled repeatedly over time. This issue is related to the CNA and rebooting the CNA restores connectivity.

- Although the Brocade 8000 and FCOE10-24 support the configuration of multiple CEE maps, it is recommended to use only one CEE map on all interfaces connected to CNAs. Additionally, CEE maps are not recommended for use with non-FCoE traffic. QoS commands are recommended for interfaces carrying non-FCoE traffic.

- It is recommended that Spanning Tree Protocol and its variants be disabled on CEE interfaces that are connected to a server.

- The Fabric Provided MAC Address (FPMA) and the Fibre Channel Identifier (FCID) assigned to a VN_Port cannot be associated with any single front-end CEE port on which the FLOGI was received.

- LLDP neighbor information may be released before the timer expires when DCBX is enabled on a CEE interface. This occurs only when the CEE interface state changes from active to any other state. When the DCBX is not enabled, the neighbor information is not released until the timer expires, irrespective of the interface state.

- The FCoE Login Group Name should be unique in a fabric wide FCoE Login Management Configuration. The merge logic is designed to modify the Login Group Name during merge when Login group names in participating configurations conflict with each other. The current OUI of 00051E is being used by Brocade, while assigning the WWNs to 8000s, DCXs and DCX4Ss, which would make only the last 3 bytes as different for any two 8000s, DCXs or DCX4Ss. Considering this assignment method, the merge logic would rename the login group by including the last 3 bytes of WWN in the login group name, so that they are unique in the merged configuration.

- For switches having different OUI indices from the 8 assigned to Brocade (for ex: 00051E and 006069), WWNs can differ in more than 3 bytes. In this case, after normal merge and a rename as per above described logic, login group names can be the same for WWNs differing only in OUIs. The merge logic would drop one of the Login Groups to satisfy the requirement to keep the Login Group Name unique in the fabric wide configuration.

- Ethernet switch services must be explicitly enabled using the command *"fosconfig –enable ethsw"* before powering on an FCOE10-24 blade. Failure to do so will cause the blade to be faulted (fault 9).

- In order to support non-disruptive firmware upgrades on the DCX/DCX-4S, a new service "ethsw" is being introduced to enable Ethernet switching on FCOE10-24 in FOS v6.3. LAN switching is disabled by default in FOS v6.3. The user must explicitly enable Ethernet switch service to prevent FC traffic interruption using the command *"fosconfig –enable ethsw"*. Upgrading from FOS v6.x to FOS v6.3 is non-disruptive. User can enable ethsw after upgrade without FC traffic interruption.

- The Brocade 8000 does not support non-disruptive hot code loads (HCL). Upgrading the Brocade 8000 from FOS v6.1.2_cee1 to FOS v6.3 or from FOS 6.3 to a later FOS version will be disruptive to the IO through the switch.

- A code load of DCX or DCX-4s with one or more FCOE10-24 blades from FOS 6.3 to another version will disrupt traffic through the blade.

- Upgrades from FOS 6.3 to future releases will be non-disruptive to data traffic and will have behavior similar to a CP failover. "ethsw" remains unchanged.

- Downgrade from FOS v6.3 to FOS v6.1.2_CEEx is **disruptive** if *"ethsw'* is enabled on FOS v6.3.

- Downgrade from FOS v6.3 to FOS v6.1.2_CEEx is non-disruptive if *"ethsw"* has never been enabled with FOS v6.3

- HA Failover of CP blades in DCX or DCS-4s will also result in disruption of traffic through the FCOE10-24 blades.

- Connecting a Brocade 8000 to an FCR-capable switch with fcrbcast config enabled will cause a storm of broadcast traffic resulting in termination of iswitchd.

- When rebooting a DCX or DCX-4S with an FCOE10-24 blade, Qlogic CNA and LSAN zoning, the switch will become very unresponsive for a period of time. This is due to the CNA sending excessive MS queries to the switch.

- An FCOE10-24 blade installed in the highest numbered slot of a DCX or DCX-4S chassis does not send out FIP unsolicited advertisements. Therefore, it does not support FCoE functionality when installed in this slot.

Virtual Fabrics:

- On Virtual Fabrics capable platforms, the Virtual Fabrics feature must be enabled in order to utilize the related capabilities including Logical Switches and Logical Fabrics. On units that ship with FOS v6.3 installed, the Virtual Fabrics feature is enabled by default on capable platforms.

- When creating Logical Fabrics that include switches that are not Virtual Fabrics capable, it is possible to have two Logical Switches with different FIDs in the same fabric connected via a VF incapable switch. Extra caution should be used to verify the FIDs match for all switches in the same Logical Fabric.

- In order to support non-disruptive Hot Code Load on a Brocade 5100 with VF enabled, the total zoning DB size for the entire chassis should not exceed 1MB.

- A switch with Virtual Fabrics enabled may not participate in a fabric that is using Password Database distribution or Administrative Domains. The Virtual Fabrics feature must be disabled prior to deploying in a fabric using these features.

- Virtual Fabrics is not supported on Brocade 7800.

- VF dedicated ISLs are supported on FX8-24 blade. XISLs are not supported.

- On a Brocade 5100 with Virtual Fabrics enabled, ports may be re-initialized causing frame drops during a hot code load if the switch has a zoning database that is 1MB or larger in size. To prevent this from occurring, ensure the zoning DB is less than 1MB when activating new firmware.

Licensing Behavior:

- When operating a switch with Fabric OS v6.3, some licenses may display as "Unknown." This is due to changes in licensing requirements for some features that no longer require a license key that may still be installed on a switch.

- If a Universal temporary license is enabled for a slot-based license feature, the license expiration date displays as "NA" in Web Tools. Use the **licenseshow** command to display the correct expiration date.

Encryption Behavior for the Brocade Encryption Switch (BES) and FS8-18:

- If the data encryption group (Encryption Group) gets into a state where the Group Leader BES reports that another BES is NOT a member node of the encryption group, and the BES member node still indicates that it IS part of the encryption group, the following recovery action can be performed to re-merge the nodes into the encryption group:

    1. On the Group Leader BES, execute the CLI command *"cryptocfg –dereg –membernode <WWN of member node>"*

    2. Wait for 30 seconds

    3. Execute the CLI command *"cryptocfg –reg –membernode <WWN membernode> <certificate file name> <ipaddr of member node>"*

    This is a rare situation that has been noted in a test environment where there were intermittent management network connectivity problems. A fix for this issue will be provided in an upcoming patch release.

- The *"cryptocfg –manual_rekey –all"* command should not be used in environments with multiple encryption engines (FS8-18 blades) installed in a director-class chassis when more than one

encryption engine has access to the same LUN. In such situations, use the *"cryptocfg –manual_rekey <CTC> <LUN Num> <Initiator PWWN>"* command to manually rekey these LUNs.

- In the event an HA Cluster is configured within an Encryption Group with containers configured for "auto" Failback Mode, the following procedure must be followed when upgrading from FOS v6.2.x to v6.3.1. Note: This procedure is only required under the above-mentioned conditions:

    1. Before the firmware upgrade, change the Failback Mode to "manual" for all containers configured as "auto"

        a. Take note of which Encryption Engines currently own which containers

    2. Upgrade all nodes in the Encryption Group to v6.3.1 one node at a time

    3. After all nodes have been successfully upgraded, using the notes taken in step 1a, manually invoke the failback of the containers to the correct Encryption Engine using the following command:

        "cryptocfg –failback –EE <WWN of hosting node> [slot num] <WWN of second node in HAC> [slot num]

    4. Once the manual failback completes, change the Failback Mode back to "auto" from "manual" if it was changed in step 1

- When adding Nodes to an Encryption Group, ensure all Node Encryption Engines are in an Enabled state.

- When host clusters are deployed in an Encryption environment, please note the following recommendations:

    o If two EEs (encryption engines) are part of a HAC, configure the host/target pair such that they form a multipath from both EEs. Avoid connecting both the host/target pairs to the same EE. This connectivity does not give full redundancy in case of EE failure resulting in HAC failover.

    o Since quorum disk plays a vital role in keeping the cluster in sync, please configure the quorum disk to be outside of the encryption environment.

- During an online upgrade from FOS v6.2.0x to v6.3.1, it is expected to see the IO link status reported as "Unreachable" when the cryptocfg command is invoked. However, once all the nodes are upgraded to v6.3.1, the command will accurately reflect the status of the IO Link. The IO link status should be disregarded during the code upgrade process.

- The "–key_lifespan" option has no effect for "cryptocfg –add –LUN", and only has an effect for "cryptocfg --create –tapepool" for tape pools declared "-encryption_format native". For all other encryption cases, a new key is generated each time a medium is rewound and block zero is written or overwritten. For the same reason, the "Key Life" field in the output of "cryptocfg --show -container -all –stat" should always be ignored, and the "Key life" field in "cryptocfg --show –tapepool –cfg" is only significant for native-encrypted pools.

- The Quorum Authentication feature requires a compatible DCFM release that supports this feature. Note, all nodes in the EG must be running FOS v6.3.0 or later for quorum authentication to be properly supported.

- In a DCX or DCX-4S with FOS 6.3.1 and FS8-18 encryption blades installed, you must set the quorum size to zero and disable the system card on the blade prior to downgrading to a FOS version earlier than FOS 6.3.0.

- The System Card feature requires a compatible DCFM release that supports this feature. Note, all nodes in the EG must be running FOS v6.3.0 or later for system verification to be properly supported.

- The Brocade Encryption switch and FS8-18 blade do not support QoS. When using encryption or Frame Redirection, participating flows should not be included in QoS Zones.

- Brocade encryption devices can be configured for either disk or tape operation. The ability to configure multiple Crypto-Target Containers defining different media types on a single encryption engine (Brocade Encryption Switch or FS8-18 Blade) is not supported. FS8-18 Encryption Blades can be configured to support different media types within a common DCX/DCX-4S chassis.

- When using Brocade Native Mode, in LKM installations, manual rekey is highly recommended. If auto rekey is desired, the key expiry date should be configured only when the LUN is created. Never modify the expiry date after configuring a LUN. If you modify the expiry time, after configuring the LUN the expiration date will not update properly.

- SKM is supported with Multiple Nodes and Dual SKM Key Vaults. Two-way certificate exchange is supported. Please refer to the Encryption Admin Guide for configuration information. If using dual SKMs on BES/FS8-18 Encryption Group, then these SKM Appliances must be clustered. Failure to cluster will result in key creation failure. Otherwise, register only one SKM on the BES/FS8-18 Encryption Group.

- When the tape key expires in the middle of write operation on the tape, the key is used to append the data on the tape media. When the backup application rewinds the media and starts writing to Block-0 again and if the key is expired then a new key is created and used henceforth. The expired key thereafter is marked as read only and used only for restore of data from previously encrypted tapes.

- For dual LKM configuration on the Brocade Encryption Switch (BES) or a DCX/DCX-4S with FS8-18 blades as the primary and secondary key vaults, these LKM appliances must be clustered (linked). Failure to cluster will result in key creation failure. Otherwise, register only one LKM on the BES/FS8-18 Encryption Group. Please refer to the Encryption Admin Guide for configuration information.

- The RKM Appliance A1.6, SW v2.5 is supported. The procedure for setting up the RKM Appliance with BES or a DCX/DCX-4S with FS8-18 blades is located in the Encryption Admin Guide.

- Support for registering a 2nd RKM Appliance on BES/FS8-18 is blocked. If the RKM Appliances are clustered, then the virtual IP address hosted by a 3rd party IP load balancer for the RKM Cluster must be registered on BES/FS8-18 in the primary slot for Key Vault IP.

- With Windows and Veritas Volume Manager/Veritas Dynamic Multipathing, when LUN sizes less than 400MB are presented to BES for encryption, a host panic may occur and this configuration is not supported in the FOS v6.3.1 release.

- HCL from FOS v6.2.x to v6.3.1 is supported. Cryptographic operations and I/O will be disrupted but other layer 2 traffic will not.

- Relative to the BES and a DCX with FS8-18, all nodes in the Encryption Group must be at the same firmware level of FOS v6.2 or v6.3 before starting a rekey or First Time Encryption operation. Make sure that existing rekey or First Time Encryption operations complete before upgrading any of the encryption products in the Encryption Group. Also, make sure that the upgrade of all nodes in the Encryption Group to FOS v6.3.1 completes before starting a rekey or First Time Encryption operation.

- To clean up the stale rekey information for the LUN, follow one of the following two methods:

    Method 1:

    1. First, modify the LUN policy from "encrypt" to "cleartext" and commit. The LUN will become disabled.

    2. Enable the LUN using "cryptocfg --enable –LUN". Modify the LUN policy from "clear-text" to "encrypt" with "enable_encexistingdata" to enable the first time encryption and do commit. This will clear the stale rekey metadata on the LUN and the LUN can be used again for encryption.

    Method 2:

    1. Remove the LUN from Crypto Target Container and commit.

2. Add the LUN back to the Crypto Target Container with LUN State="clear-text", policy="encrypt" and "enable_encexistingdata" set for enabling the First Time Encryption and commit. This will clear the stale rekey metadata on the LUN and the LUN can be used again for encryption

- nCipher / Thales key vault support troubleshooting tips:

  o Regarding NCKA key vault (KV) communication with a Brocade encryption group, the default communication port setting for the NCKA KV is 37208, however, the Brocade encryption members and leader use 9000 so this needs to be reset on NCKA. Additionally, the following is a checklist of things to review if the initial attempt to connect to the KV fails:

    ▪ Check physical and logical connection via a ping on port 9000, this should be the first check.

    ▪ For the group leader node, the kac client cert and the kv cert files are to be identical.

    ▪ For group member nodes the kv file is to be the same as the kv file on the group leader node.

    ▪ Crosscheck to ensure the private key file corresponds to the kac public cert file on any node.

- Host encrypted tape I/O may fail to start when the Primary LKM of an LKM key vault cluster is down. When the primary LKM is down, key creation requests can be rejected by the secondary LKM. NetApp is aware of this issue and is tracking it internally with their defect management tool. The workaround in this case is to wait until the offline LKM comes back online and retry.

- In an environment with a mixed FW version (FOS 6.2.x + 6.3.1) Encryption Group, the IO link state reported for 6.2.x nodes is unreachable. During a rolling upgrade from 6.2.0x release to 6.3.1, it is expected to see the IO link status reported as "Unreachable" when the cryptocfg –show -loc command is invoked. However, once all the nodes are upgraded to the 6.3.1 release, then the show command will accurately reflect the status of the IO Link. The IO link status while performing the rolling upgrade from 6.2.0 to 6.3.1 release can be ignored until all nodes have been upgraded to 6.3.1.

Mace39:root> cryptocfg --show -loc

```
EE Slot:            0
   SP state:           Online
   Current Master KeyID:   43:f1:bd:dc:91:89:f2:f1:6a:a1:48:89:7b:d0:5f:59
   Alternate Master KeyID: 3a:a4:5b:86:90:d5:69:26:29:78:f8:3b:f9:b2:9c:b9
   HA Cluster Membership:  hac39_115
   EE Attributes:
      Link IP Addr   : 10.32.50.36
      Link GW IP Addr: 10.32.48.1
      Link Net Mask  : 255.255.240.0
      Link MAC Addr  : 00:05:1e:53:8a:86
      Link MTU       : 1500
      Link State     : UP
      Media Type     : DISK
      System Card Label   :
      System Card CID     :

   Remote EE Reachability :
```

Node WWN/Slot	EE IP Addr	EE State	IO Link State
10:00:00:05:1e:53:77:80/0	10.32.53.107	EE_STATE_ONLINE	Non-Reachable
10:00:00:05:1e:53:b7:ae/0	10.32.53.105	EE_STATE_ONLINE	Non-Reachable

Adaptive Networking/Flow-Based QoS Prioritization:

- When using QoS in a fabric with 4G ports or switches, FOS v6.0 or later must be installed on all products in order to pass QoS info. E_Ports from the DCX to other switches must come up <u>after</u> FOS v6.0 is running on the switches.

- Flow based QoS is NOT supported on FC8 blades in the Brocade 48000.

- Any products that are not capable of operating with FOS 6.0 may NOT exist in a fabric with Flow based QoS. Major problems will occur if previous generation 2G products exist in the fabric.

- The resolution for defect 250438 included in this release changes the default behavior of the Adaptive Networking QoS feature. Please refer to the *Documentation Updates* section of this document for further details.

- QoS is supported on AG switches with FOS 6.3.0 and later. The fabric switches should be running 6.3 in order to support QoS. If the fabric switch is 6.2, QoS must be disabled on either switch or AG.

Access Gateway

- When running Adaptive Networking in AG mode note the following:

    o QoS takes precedence over ingress rate limiting
    o Ingress Rate Limiting is not enforced on trunked ports.

FCR

- IPFC over FCR is now disabled by default. Switches that are upgraded to FOS v6.3 will retain their configuration settings for IPFC over FCR. The change to the default configuration only applies to new units shipping with FOS v6.3 or units running v6.3 that are reset to a default configuration. Use *fcrbcast - - enable* to explicitly enable IPFC over FCR.

- Broadcast frame forwarding is not supported in an FCR fabric with a Brocade 8000. By default, broadcast frame forwarding is disabled on the FC router. If your edge fabric includes a Brocade 8000, do not enable broadcast frame forwarding on the FC router because this can degrade FCR performance when there is excessive broadcast traffic.

- With FC8 blades, the switch must be disabled to change the backbone fabric ID

- With routing and dual backbone fabrics, the backbone fabric ID must be changed to keep the IDs unique.

- When using FC Routing in a backbone to edge configuration with an Mi10K in the edge fabric, users may experience slow throughput for hosts attached to the Mi10K. Users may encounter this following a bounced IFL connection between the backbone and edge fabric. This slowdown can be resolved by disabling/enabling the Mi10K ports for the hosts that are impacted.

- Mi10K Directors operating with firmware prior to M-EOSn v9.9.5 may experience repeated system faults when attached as an FCR edge switch to a Brocade 7800 EX Port. To avoid this, ensure that the Mi10K is operating with M-EOSn v9.9.5 or later when in an edge fabric that will be attached to a Brocade 7800 FCR Backbone.

FC FastWrite

- When an FC FastWrite Initiator is moved to a port that doesn't have FC FastWrite enabled, I/O will recover and revert to the slow path route (non FC FastWrite). This is a behavioral change from FOS v6.2.x.

Traffic Isolation over FCR

- All switches and Fibre Channel Routers both in edge and backbone fabrics must be running FOS v6.1.0 or later in order to support this feature.

- In order for Traffic Isolation over FCR to function properly, the associated TI zones in each fabric (both edge fabrics and backbone fabric) need to have failover ENABLED.

- TI over FCR is only supported in edge-to-edge configurations. There is no support for TI in backbone to edge routing configurations.

Integrated Routing

- To allow Hot Code Load on a Brocade 5100 when using Integrated Routing, the edge switch connected to the 5100 must be running Fabric OS v6.1 or later code.

- Integrated Routing EX_Ports are only supported in the base switch on a switch with VF enabled.

- Integrated Routing and TopTalkers (Fabric Mode) are not concurrently supported in FOS v6.3. To use Integrated Routing, be sure to disable Fabric Mode TopTalkers prior to configuring EX_Ports first.

Native Connectivity

- FOS-based platforms operating in interopmodes 2 or 3 should never be deployed in a fabric without at least one M-series switch. FOS switches in interopmode 3 (McDATA Open Fabric Mode) do not support configuration of zoning without an M-series switch in the fabric. When migrating from M-series to B-series switches, all B-series switches should be configured to interopmode 0 (Brocade Native mode) once the last M-series switch has been removed from the fabric.

- M-EOSc switches may exhibit a behavior where they block all attached devices with a reason indication of "Blocked Temporarily, Internal". Users that experience this may have power cycled the M-series switch while it was participating in a fabric with Frame Redirection zoning, a capability used for FOS-based application or encryption services . If the switch is still participating in the fabric with Frame Redirection, issue the "cfgsave" command from a Brocade FOS-based switch with the Frame Redirection zone in its defined zone database. If the M-EOS switch is no longer attached to the fabric with Frame Redirection zoning, issue the "Config.Zoning.deleteSplZoneSet" command via CLI to the M-EOS switch.

FCS Automatic Distribution

- When using the FCS Automatic Distribution feature in Fabric OS v6.0 or later, all switches in the fabric must be running FOS v6.0 or later. Only manual distribution can be used, if any switches are running FOS v5.x or earlier,

- FOS v6.0 or later will only allow FCS automatic distribution when in strict mode, requiring only switches with FOS v6.0 or later.

FCAP

- Due to limitations with the certificates, FCAP authentication cannot be supported on user defined logical switches. FCAP will continue to function with existing certificates for non-VF and the default logical switch of VF enabled switches. (Note: authutil is not restricted from other logical switches, at this time, so this can still be enabled on unsupported LS.)

- pkicert(1.06) utility may cause evm errors, so each new switch should be isolated from fabric, in non-vf mode, to install new certificates.

- For FIPS mode, certificates need to be installed prior to FIPS activation.

FL_Port (Loop) Support

- The FC8-48 blade supports attachment of loop devices in the DCX and DCX-4S.

- Virtual Fabrics must be enabled on the chassis and loop devices may only be attached to ports on a 48-port blade assigned to a non-Default Logical Switch operating with the default 10-bit addressing mode (they may not be in the default Logical Switch).

- A maximum of 144 ports may be used for connectivity to loop devices in a single Logical Switch within a chassis.
- Loop devices continue to be supported when attached to ports on the FC8-16, FC8-32, FC4-16 and FC4-32 blades with no new restrictions.

Port Mirroring

- On the Brocade 5300, the port mirroring feature has a limitation where all port mirror resources must stay within the same ASIC port group. The resources are the configure mirror port, Source Device, and Destination Device or ISL, if the Destination Device is located on another switch. The ASIC port groups are 0-15, 16-31, 32-47, 48-63, and 64-79. The routes will be broken if the port mirror resources are spread across multiple port groups.

- Port Mirroring is not supported on the Brocade 7800.

10G Interoperability

- 10G interop between FC10-6 and McDATA blades is not supported due to a HW limitation, however the FC10-6 is supported in a chassis running in Interopmode 2 or 3 (FC10-6 to FC10-6 connections only). An FC10-6 blade will not synchronize with a McDATA 10G blade. However, the inability to synchronize will not negatively impact the system.

Port Fencing

- For Port Fencing, once the trigger threshold is exceeded (e.g. for ITWs or CRCs or LRs), Fabric Watch will wait for approximately six seconds to see if the port is going offline. If it is still online at the next poll cycle, FW will fence the port. Extensive testing has shown that ports that are in the process of going offline may exhibit bursts of errors. Waiting the additional six seconds to check the port status helps prevent false positives and unnecessarily fencing a port (e.g. during a server reboot).

- When using the Port Fencing feature, you must first run the fwalarmsfilterset command. This command enables the port and allows you to receive Port Fencing messages.

- The state changes counter used by Fabric Watch in FOS v6.3 has been updated to ignore any toggling of F-ports due to planned internal mechanisms such as throttling and trunking. There are some FOS CLI commands such as portcfgspeed, portCfgTrunkPort etc that implicitly disable/enable ports after configuration.

- Fabric Watch monitors state change for LISL ports though it is not being displayed in Fabric Watch CLI commands.

- The Port Fencing feature is not supported for Loss of Sync (LOS) and Link Failure (LF) areas of Port/F-port/E-port classes. State change area can be used in place of LOS/LF areas for Port Fencing.

ICLs

- If a DCX with an 8-link ICL license is connected to a DCX with a 16-link license, the DCX with the 16-link license will report enc_out errors. The errors are harmless, but will continue to increment. These errors will not be reported if a DCX with a 16-link license is connected to a DCX-4S with only 8-link ICL ports.

- If ICL ports are disabled on only one side of an ICL link, the enabled side may see enc_out errors.

Extended Fabrics and R_RDY Flow Control

Beginning with Fabric OS v5.1, Brocade supported the Extended Fabrics feature in conjunction with R_RDY flow control (R_RDY flow control mode can be enabled via portCfgISLMode command). R_RDY flow control mode that uses IDLE primitives does not support Brocade frame-based Trunking for devices such as Time Division Multiplexor (TDM.) In order to overcome this limitation and provide support for frame-based Trunking with Extended Fabrics, Fabric OS v6.2.0 and later has been enhanced to support interoperability with these distance extension devices.

Fabric OS v6.3.1 allows Extended Fabrics E_Ports to operate in VC_RDY mode using either ARB or IDLE primitives as fill words. This allows frame-based Trunking to be supported on Extended Fabrics E-ports even when IDLE primitives are configured for these ports when operating in native VC_RDY mode. Prior to this change, frame-based Trunking was supported only when ARB primitives were used in VC_RDY mode. With Fabric OS v6.2 or later, frame-based Trunking is supported on Extended

Fabrics E_Ports regardless of whether IDLE or ARB primitives are used when operating in native VC_RDY mode.

Implementation

The portcfglongdistance CLI parameter "VC Translation Link Init" is now overloaded to specify if the long distance link should use IDLE or ARB primitives. By default, vc_init is enabled. If vc_init is enabled, the long distance link will use ARB primitives. If vc_init is disabled, the link will use IDLE primitives.

Note: Buffer-to-Buffer Credit Recovery feature is not supported on Extended Fabrics E_Port when it is configured to use IDLE primitives. The user must disable buffer-to-buffer credit recovery feature using the command portcfgcreditrecovery and specifying the disable option; otherwise, the link will continuously reset.

The Adaptive Networking SID/DID Traffic Prioritization QoS feature is not supported on Extended Fabrics E_Ports when IDLE primitives are configured on these ports. This is because in this mode only data Virtual Channels are available while QoS related virtual channels are not available.

When connecting to an extension device that does not support ARB primitives (such as some TDM products), the following configuration must be used:

portcfgqos -disable <port>
portcfgcreditrecovery –disable <port>
portCfgLongDistance <port> <LD|LD> 0 <distance>

The fabric parameter "fabric.ops.mode.longdistance" is now deprecated and should not be used.

Miscellaneous

- During non-disruptive firmware upgrades, E_Ports in R-RDY mode may cause some frame drops on the E-port links.

- Modem capability for the 48000 is not supported in FOS v6.2.0 and later.

- The *portCfgFillWord* command, applicable to 8G-capable ports, has been enhanced with FOS v6.3.1 to provide two new configuration options (Modes 2 and 3). The available settings include:

Mode	Link Init/Fill Word
Mode 0	IDLE/IDLE
Mode 1	ARBF/ARBF
Mode 2	IDLE/ARBF
Mode 3	If ARBF/ARBF fails use IDLE/ARBF

Although this setting only affects devices logged in at 8G, changing the mode is disruptive regardless of the speed at which the port is operating. The setting is retained and applied any time an 8G device logs in. Upgrades to FOS v6.3.1 from prior releases supporting only modes 0 and 1 will not change the existing setting, but switches reset to factory defaults with FOS v6.3.1 will be configured to Mode 0 by default. The default setting on new units may vary by vendor.

Modes 2 and 3 are compliant with FC-FS-3 specifications (standards specify the IDLE/ARBF behavior of Mode 2, which is used by Mode 3 if ARBF/ARBF fails after 3 attempts). For most environments, Brocade recommends using Mode 3, as it provides more flexibility and compatibility with a wide range of devices. In the event that the default setting or Mode 3 does not work with a particular device, contact your switch vendor for further assistance.

Documentation Updates

This section provides information on last-minute additions and corrections to the documentation. The most recent Fabric OS v6.3 documentation manuals are available on the Brocade Partner Network: *http://partner.brocade.com/*. The updates noted in this section are in addition to those included in the Fabric OS v6.3.0a, v6.3.0b and v6.3.0c Release Notes.

Note: The *FOS FCIP Admin Guide* and *FOS Command Reference Manuals* have been updated to reflect new support and changes in FOS v6.3.1.

Brocade Access Gateway Administrator's Guide (Publication Number 53-1001760-01)

On page 10, in the section "Access Gateway Mapping," add the following section:

Brocade 8000 mapping differences

The Brocade 8000 contains up to 24 internal FCoE ports and eight external Fibre Channel ports. In Access Gateway mode, the FCoE ports are configured as F_Ports, while the Fibre Channel ports are configured as N_Ports. The FCoE ports are divided into six groups or trunks consisting of four ports each. All four ports in a group are mapped to one N_Port. Although you can change the default F_Port group to N_Port mapping for these groups (refer to "Default port mapping" on page 13), consider the following when working with these FCoE ports:

- All four FCoE ports in the port group are mapped to the same Fibre Channel N_Port.

- You cannot map individual FCoE ports within the same port group to different Fibre Channel ports.

- Any Access Gateway operation that involves moving F_Ports will move all FCoE ports in the group.

- All four FCoE ports in a group will failover or failback to one Fibre Channel N port.

- All four FCoE ports are considered as a unit for rebalancing.

On page 11 under the "Default Port Mapping" section, add the following information for Brocade 8000 default F_Port to N_Port mapping:

Brocade Model	Total Ports	F_Ports	N_Ports	Default F_ to N_Port Mapping
8000	32	8-31 FCoE ports mapped as F_Ports.	0-7 Fibre Channel ports mapped as N_Ports with failover, and failback policy enabled.	8-11 mapped to 0 12-15 mapped to 1 16-19 mapped to 2 20-23 mapped to 3 24-27 mapped to 4 28-31 mapped to 5

Defects

Closed with Code Change in Fabric OS v6.3.1b

This section lists the defects with Critical, High and Medium Technical Severity closed with a code change as of April 20, 2010 in Fabric OS v6.3.1b.

Defect ID: DEFECT000269942	Technical Severity: High
Summary: On the Brocade 7800 and FX8-24, with emulated tape and tape pipeline, if there is frame drop on back end, read tape pipeline does not handle the error and causes tape access to hang. Back end read IO recovery needs enhanced for tape emulation .	
Symptom: When running emulated tape and tape pipeline on the Brocade 7800 and FX8-24 blade running FOS 6.3.1 or 6.3.1a, tape access can hang when there is a frame drop on the back end.	
Feature: FCIP	**Function:** Emulation
Probability: Medium	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000274646	Technical Severity: High
Summary: Brocade 8000 installed with FOS v6.3.0 through v6.3.0c, v6.3.1 and v6.3.1a panics doing firmwaredownload.	
Symptom: Switch panic reported during firmware download. This only applies to Brocade 8000s factory installed with FOS v6.3.0 through v6.3.0c, v6.3.1 and v6.3.1a.	
Workaround: Before upgrading from FOS v6.3.0 through v6.3.0c, v6.3.1 or v6.3.1a, check if /dev/altera is present in secondary partition. If not present, copy it from primary partition via "cp /dev/altera /mnt/dev/altera".	
Feature: CEE-Infrastructure	**Function:** Zues Driver
Probability: High	
Found in Release: FOS6.4.0	

Defect ID: DEFECT000277910	Technical Severity: High
Summary: FCR iswitchd skips slot recovery during warm boot with no base switch, causing devices not to get imported after adding a base switch.	
Symptom: After having gone through warm recovery with no base switch configured, devices are not getting imported after adding a base switch to switches with VF and FCR configured. Switch stays in initializing state in an EtoE FCR fabric. This impacts Brocade DCX, DCX-4S, 5300 and 5100 platforms only.	
Workaround: Hafailover/hareboot and then toggling the EX_Port to recover or make sure base switch is configured before hafailover/hareboot.	
Feature: 8G FCR	**Function:** FCR Daemon
Probability: High	
Found in Release: FOS6.4.0	

Defect ID: DEFECT000278461	Technical Severity: High
Summary: During hot code load, BP did not reboot after relocation of the internal image.	
Symptom: Under very rare condition, sometime intelligent switch lost communication between BP and CP and cause firmware download to fail with raslog SULB-1035 and switch would come up faulty. This impacts Brocade 7500 and 7600	
Workaround: reboot for the new image to take effect.	
Feature: Infrastructure	Function: Firmware Download
Probability: Low	
Found in Release: FOS6.4.0	

Defect ID: DEFECT000279401	Technical Severity: High
Summary: Internal race condition and semaphore lock contention caused FX8-24 initialization to fail and switch to panic after blade hot plugged into the chassis	
Symptom: FX8-24 fails to initialize and causes a switch panic after being hot plugged into the chassis.	
Workaround: Remove the GE SFP(s), put the blade in chassis and insert the SFPs after firmware auto-leveling is completed.	
Feature: Striker/Spike Platform Services	Function: BFOS
Probability: Low	
Found in Release: FOS6.4.0	

Defect ID: DEFECT000280910	Technical Severity: High
Summary: Added various optional RAS features to help identify slow drain device(s), handle stuck Virtual Channels (VC), and credit loss conditions. Improved bottleneck detection on both 4G and 8G platforms. Added transmit timeout counter support for 4G switches	
Symptom: Customer notices fabric performance being sluggish, SCSI timeout on hosts or fabric wide frame drop. These can be triggered by several causes including a device port being slow, or credit issue that backpressure frames into fabric. The Fabric will drop frames after a holding time is exceeded. This release has optional RAS features that can be turned on to help customers detect the existence of such problems and to identify the trouble spot or problem device(s). It also allows setting different hold times at edge fabric to alleviate congestion if appropriate.	
Feature: FABRIC WATCH	Function: PORT FENCING
Probability: Low	
Found in Release: FOS6.4.0	

Defect ID: DEFECT000283637	Technical Severity: High
Summary: Race condition encountered during extensive writes to compact flash causes long HA recovery times during hot code load	
Symptom: Long HA recover times seen during hot code load. This can cause link reset or frame drops when credit is not returned in time. Affects the VF environment and connecting switch operating under single virtual channel credit model more extensively and can happen on both director and switch platforms.	
Feature: Infrastructure	Function: PDM/PortCfg
Probability: Low	
Found in Release: FOS6.4.0	

Defect ID: DEFECT000284426	Technical Severity: High
Summary: Brocade 5470 encountering extremely high enc out errors on ports connected to 3rd party HBAs may experience link related problems	
Symptom: High "enc out" errors in the porterrshow CLI, which may cause link related problems.	
Feature: Embedded Platform Services	**Function:** Balzer3
Probability: High	
Found in Release: FOS6.4.0	

Defect ID: DEFECT000286104	Technical Severity: High
Summary: With FMS enabled and switch in VF mode, all ports on the FC8-48 become persistently disabled after upgrading from FOS v6.2.x to FOS v6.3.x.	
Symptom: After upgrading from FOS v6.2.x to FOS v6.3.x on systems with FC8-48 blades installed, VF disabled and fmsmode enabled, all ports on the FC8-48 blades become persistently disabled without warning.	
Workaround: Manually re-enable ports, no other viable workaround at this time	
Feature: Field Escalation	**Function:** FICON
Probability: High	
Found in Release: FOS6.3.0	**Service Request ID:** 423415
Where Else Fixed: FOS6.4.0	

Defect ID: DEFECT000286238	Technical Severity: High
Summary: Memory issues in manageability modules causes OOM panic during configDownload	
Symptom: Customer may experiences switch panic or cannot execute any command after shared memory segments or memory shortage. It can be exposed via: • Create and remove logical switch multiple times • Perform configdownload with a large configuration file or repeat configdownload • Run repeat perfresourceshow commands with option "eeRes" or "fportRes" • Launch port admin and select GbE port tab and keep it open for long time (2 hours) • Cald is busy to respond back to rpcd for some xml requests that cause stale shared memory segments	
Feature: OS Services	**Function:** Other
Probability: Low	
Found in Release: FOS6.4.0	

Defect ID: DEFECT000286865	Technical Severity: High
Summary: Different PID formats between edge and backbone fabrics, after a large number of device online/or insertion events, device import failed with FCR-1022 message	
Symptom: If backbone and edge fabric have different switch PID formats such as when edge fabric is in IM2 mode, while backbone fabric is not, importing another device into the backbone will fail with [FCR-1022] " Local proxy device slot entries exhausted" in raslog. Both 4G and 8G FCRs are impacted and are more likely to be seen if there is frequent device offline/online in edge fabrics.	
Feature: Field Escalation	**Function:** FCR
Probability: Low	
Found in Release: FOS6.1.0	**Service Request ID:** 423429
Where Else Fixed: FOS6.4.0	

Defect ID: DEFECT000288756		Technical Severity: High
Summary:	Not able to download fabricwatch settings to switch when there are mismatched names (LinkReset/LReset) used in the configuration file	
Symptom:	Unable to replicate Fabric Watch setting to switch using DCFM. Switch fails with raslog [CONF-1023], 357, SLOT 7 | FID 128, INFO, , configDownload failed for switch. This will ONLY happen when there is linkreset setting in configuration files, such as "thresh.cust.eport.Linkreset.above"	
Workaround:	Once the switch is disabled, the configuration downloaded, and the switch re-enabled, the configuration can be modified and downloaded without any problems. Or remove or comment out the link reset settings in the .cfg file.	
Feature: Field Escalation		Function: Management Services
Probability: Medium		
Found in Release: FOS6.3.0		
Where Else Fixed: FOS6.4.0		

Defect ID: DEFECT000289981		Technical Severity: High
Summary:	Under very rare condition of a heartbeat lost while active is running FOS v6.3.x and standby CP is running FOSv6.2.x, switch was reset.	
Symptom:	Directors cold boot. This can only happen when heart beat was lost (such as backend Ethernet connection had transient problem) while standby CP is on FOSv6.2.x and active CP is running FOS6.3.x on directors, during firmware download.	
Feature: High Availability		Function: Switch hareboot/HCL
Probability: Low		
Found in Release: FOS6.2.0		

Defect ID: DEFECT000297978		Technical Severity: High
Summary:	Zoned terminated while activating zoning from DCFM	
Symptom:	Unexpected reboot and failover if attempt to push zone DB from DCFM in IM2/IM3 fabrics only.	
Workaround:	Use CLI (or ECFM for non-TI/Redirect zones) in IM2/IM3	
Feature: FC Services		Function: Zoning
Probability: Medium		
Found in Release: FOS6.4.0		

Defect ID: DEFECT000263476		Technical Severity: Medium
Summary:	In fabric router environment, WWN for a device is showing up in multiple edge fabrics.	
Symptom:	Proxy devices for the same host/target could be created in unintended fabric which could cause traffic be sent to the wrong fabric and host does not see target. It happens when there is frequent F port bounce (1-2 sec) in FCR fabric. This impacts all FCR platforms such as 7500, FR4-18i and 8G Integrated Router platforms. This defect only exists in FOS v6.3.x.	
Feature: 8G FCR		Function: FCR Daemon
Probability: Medium		
Found in Release: FOS6.4.0		

Defect ID: DEFECT000269189	Technical Severity: Medium
Summary: SERDES tuning values to support BR–804 HBA	
Symptom: Fine tune SERDES value for BR–804 HBA support. This change only applies to Brocade 5480 platform.	
Feature: Embedded Platform Services	**Function:** Bulova
Probability: Medium	
Found in Release: FOS6.3.0	
Where Else Fixed: FOS6.4.0, FOS6.3.1 a	

Defect ID: DEFECT000270651	Technical Severity: Medium
Summary: 4G switch does not responding to Link Reset primitives correctly	
Symptom: Under a small timing condition, after reboot or switchdisable and switchenable, or when device detect credit shortage, devices sent a LR to switch and switch does not respond to it and link went down. This only applies to 4G switches/directors.	
Workaround: portdisable/portenable the ports a few times	
Feature: FICON	**Function:** MS-FICON
Probability: Low	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000281765	Technical Severity: Medium
Summary: AG NPIV port disabled as "initiator/target connected on N_Port" after upstream BES switch was rebooted or a FS8-18 executes a Power On Self Test (POST).	
Symptom: When bpportloopbacktest is run as part of a POST on BES or FS8-18, loop back mode caused the FLOGI frames from the AG ports on AG switch to loopback and further disable these AG ports . Switchshow on AG switch reports: 0 0 5a0000 id N8 In_Sync FC Disabled (Initiator/Target connected to N-Port) 1 1 5a0100 id N8 No_Sync FC Disabled (Initiator/Target connected to N-Port)	
Workaround: Disable POST on BES or chassis with FS8-18 or reenable the AG ports manually	
Feature: Diagnostics	**Function:** Other
Probability: High	
Found in Release: FOS6.4.0	

Defect ID: DEFECT000281774	Technical Severity: Medium
Summary: After Brocade7800 reboot, seeing PLOGI aborts due to F_RJT for the ACCEPT frame	
Symptom: Host cannot see target if PLOGI comes in before RSCN is propagated on Brocade 7800 and FX8-24 on VE port, due to backend port programming did not complete in time. This applies to both FICON and non-FICON setup but only extension platform and on VE ports.	
Feature: Striker/Spike Platform Services	**Function:** Spike Platform Module
Probability: Medium	
Found in Release: FOS6.4.0	

Defect ID: DEFECT000283519	Technical Severity: Medium
Summary: Encryption switch panic due to daemon termination.	
Symptom: In corner case, BES switch or FS8-18 did not handle an error case correctly with key attribute retrieval operation in daemon kacd.	
Feature: Data Security	Function: Key Vault
Probability: Low	
Found in Release: FOS6.3.0	Service Request ID: 421755
Where Else Fixed: FOS6.4.0	

Defect ID: DEFECT000284435	Technical Severity: Medium
Summary: Switch panic after daemon iswitchd coredump	
Symptom: With two FCRs in the back bone and both are connect to same edge fabric through EX-ports, and edge fabric has MEOS in IM2 mode, upon receiving periodic GE_PT from M-EOS switches, FCR did not handle properly cause memory issues. Later iswitchd could coredump due to access to the bad memory. switch is reboot/hafailover when it happens.	
Feature: 8G FCR	Function: FCR Daemon
Probability: Low	
Found in Release: FOS6.2.1	Service Request ID: 421137
Where Else Fixed: FOS6.4.0	

Defect ID: DEFECT000287036	Technical Severity: Medium
Summary: portCfgFillWord enhancement for various 8G devices	
Symptom: In portCfgFillWord with fillword mode 3, a 3rd party device cannot come up on line. Workaround the device issue by adding OLS as the trigger for the auto-switch from arb/arb to idle/arb when port is configured to mode 3. In addition, for Brocade-804 Mez HBA, regardless what the mode setting is on the port, it will operate at mode 1 internally with embedded switch Brocade 5480.	
Feature: 8G Platform Services	Function: FOS Kernel Drivers
Probability: Low	
Found in Release: FOS6.3.1	
Where Else Fixed: FOS6.3.1, FOS6.4.0	

Defect ID: DEFECT000287423	Technical Severity: Medium
Summary: Brocade 7800 and FX8-24 does not always auto-restart after detection of a critical error.	
Symptom: FOS 6.3.1 and 6.3.1a may not always auto-restart depending on the critical error encountered. A manual reboot may be needed to recover Brocade 7800, and slotpower off/on to recover FX8-24.	
Feature: Striker/Spike Platform Services	Function: Blade Driver
Probability: High	
Found in Release: FOS6.3.1	

Defect ID: DEFECT000287809	Technical Severity: Medium
Summary: Race condition on BES/FS8-18 node join/leave event causes encryption switch cluster to update continuously and support save not to finish	
Symptom: Supportsave hangs after unplugging and then plugging in the network cable on BES/FS8-18 platforms	
Feature: Data Security	Function: Infrastructure
Probability: Low	
Found in Release: FOS6.3.1	

Defect ID: DEFECT000288832	Technical Severity: Medium
Summary: On Brocade 5460 platform, firmware version was being set to the FOS default value string, not the proper version string	
Symptom: Firmware version string always shows FOS default on Brocade 5460, not the correct version through 3rd party SVP.	
Feature: Embedded Platform Services	Function: Sys-Control/Environment Monitor
Probability: Low	
Found in Release: FOS6.3.1	

Defect ID: DEFECT000290539	Technical Severity: Medium
Summary: On the Brocade 300, 5100, and 5300 switches shipped from the factory with FOS v6.3.0a, b, c, d, v6.3.1 and v6.3.1a, the assignment of PIDs (FCIDs) is non-deterministic.	
Symptom: If customer has factory installed switches (Brocade 5300, 5100 and Brocade 300), shipped with FOS v6.3.0a,b,c,d, FOS v6.3.1, and FOS v6.3.1a, the area field of the PIDs will be assigned based on the order ports are recognized and brought up by the system the first time (and only the first time) it is booted. Each Switch port PID's area will not equal its port number, which may impact servers (such as FICON servers, or static PID binding servers) that need their area equal to the port numbers to login to the fabric successfully. This issue does not impact switches that are upgraded from FOS v6.2.x to v6.3.0a,b,c,d, v6.3.1 and v6.3.1a, as PIDs are persistent across reboot and upgrade once they are assigned. An example of non-port based assigned PIDs from switchshow: 0 0 401700 -- N8 No_Module FC 1 1 401500 -- N8 No_Module FC	
Workaround: In environments with devices that rely on the area of the PID to match the port number, users should bind PIDs using the portaddress --bind [slot_number/]port_number [16-bit_address] command prior to allowing devices to log in to switch.	
Feature: 8G Platform Services	Function: PID management
Probability: Medium	
Found in Release: FOS6.3.1	

Defect ID: DEFECT000290556	Technical Severity: Medium
Summary: Host fails to discover LUNs when more than 64 LUNs are added to BES from Storage Array	
Symptom: The host which implements strict FCP/FCP-2 protocol frame fields checking for EOF delimiter will not detect LUNs when more than 64 LUNs are added to BES from storage array. This also impacts FS8-18 blades.	
Feature: Data Security	**Function:** Disk Encryption
Probability: Medium	
Found in Release: FOS6.3.0	**Service Request ID:** 426663

Defect ID: DEFECT000298120	Technical Severity: Medium
Summary: Port based routing frame were out of order when FCP image pairs concurrently initiate exchanges as originators over GE ports	
Symptom: 3rd party device has very poor performance over FCIP link between two Brocade 7800 over 1G GE port. Same issue applies to FX8-24 blades.	
Feature: FCIP	**Function:** FCIP Performance
Probability: Medium	
Found in Release: FOS6.3.1	**Service Request ID:** 429767

Closed with Code Change in Fabric OS v6.3.1a

This section lists the defects with Critical, High and Medium Technical Severity closed with a code change as of February 26, 2010 in Fabric OS v6.3.1a.

Defect ID: DEFECT000249582	Technical Severity: High
Summary: DPC crash caused Brocade 7600 or FA4-19 blade goes to faulty.	
Symptom: When BP is rebooted in a middle of a PCI access cycle, the PCI cycle is not getting terminated properly. This result in a DPC crash. Customer could see Brocade 7600 or FA4-18 reports faulty during boot and raslog BL-1020 indicated switch timing out while initializing ASIC chips.	
Feature: FA4-18 Platform Services	**Function:** 1250: ANZIO DRIVER
Probability: Low	
Found in Release: FOS6.2.0	

Defect ID: DEFECT000272207	Technical Severity: High
Summary: Enhancement request to add a user selectable parameter to adjust SFP polling during high CPU load situation.	
Symptom: The new parameter is under System category of configurechassis CLI: %> configurechassis Configure... System (yes, y, no, n): [no] y system.cpuLoad: (10..121) [121] 20 Default is 121, represent CPU instantaneous load average of 1.21, first number in load average in uptime or top command. So by default, CPU will poll sfp when load is 1.21 or lower. Use this parameter to adjust SFP polling to avoid laser fault condition [C2-5678] causes links to reset under high CPU load.	
Feature: Field Escalation	**Function:** OS: Infrastructure
Probability: High	
Found in Release: FOS6.2.1	**Service Request ID:** 409677

Defect ID: DEFECT000277488	Technical Severity: High
Summary: Observed ASSERT - Failed expression: fabSysDynamicAreaSupported(sw->sw_inst) after firmwarecommit	
Symptom: Observed HAM-1007 and HAM-1009 MANUALLY REBOOT the system for recovery - auto-reboot is disabled. Sometime both CPs fail and switch cannot boot up. This happens only when a configuration file for dynamic area mapping is corrupted which is very rare.	
Workaround: Remove the port2Bound file in /etc/fabos/port2Bound files in both active CP and standby CPs, also in both partitions on both CP, after that, reboot the switch.	
Feature: 8G Platform Services	**Function:** FOS Kernel Drivers
Probability: Low	
Found in Release: FOS6.4.0	

Defect ID: DEFECT000280165	Technical Severity: High
Summary: Switch detected termination of daemons due to bad EOFa frames are forward to application rather than dropped in 8G driver	
Symptom: Under rare situation (such as marginal hardware), switch may see corrupted EOF frames forwarded to CPU for processing. 8G driver did not drop such frame and passed to upper layer application demons. This can cause switch panic or hafailvoer.	
Feature: 8G Platform Services	Function: FOS Kernel Drivers
Probability: Low	
Found in Release: FOS6.4.0	

Defect ID: DEFECT000282795	Technical Severity: High
Summary: Host failed to discover tapes due to a VI/VT database mismatch between the switches that are part of the same Encryption Group	
Symptom: Host will not able to discovery Tape devices that are part of the same EG	
Workaround: Issue "cryptocfg --commit" again to sync up the VT/VI database across nodes in the EG.	
Feature: Data Security	Function: Tape Encryption
Probability: Low	
Found in Release: FOS6.3.1	
Where Else Fixed: FOS6.3.1, FOS6.3.0 c	

Defect ID: DEFECT000283046	Technical Severity: High
Summary: GID_PN from a VI for any other Virtual Entity instantiated on the same port (same area) succeeds even though the entities are not zoned with VI	
Symptom: Zoning restriction did not work for NPIV/loop ports when one device tries to get other device information on the same port using name based queries (GID_PN, GID_NN). This could cuase SAS attempt to talk to devices fail.	
Feature: SAS	Function: VI
Probability: High	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000269189	Technical Severity: Medium
Summary: SERDES tuning values to support BR–804 HBA	
Symptom: Fine tune SERDES value for BR–804 HBA support. This change only applies to Brocade 5480 platform.	
Workaround: No	
Feature: Embedded Platform Services	Function: Bulova
Probability: Medium	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000270261	Technical Severity: Medium
Summary: CP/switch fails to boot on DCX, DCX-4s and Brocade 5300.	
Symptom: CP does not boot on power up or fails during hafailover with CF access error; "HDA: drive not ready" message sometimes are seen on console.	
Workaround: Reboot switch again	
Feature: OS Services	Function: Linux Kernal
Probability: Low	
Found in Release: FOS6.2.0	

Defect ID: DEFECT000272847	Technical Severity: Medium
Summary: 8-bit area address is not properly range checked	
Symptom: Firmware upgrade may fail with segment fault from FOS 6.3.x to a future FOS release when there is multiple LS non-continuous switch instances.	
Feature: Quattro	Function: Kernel Driver
Probability: Medium	
Found in Release: FOS6.4.0	

Defect ID: DEFECT000279687	Technical Severity: Medium
Summary: Switch panic after detecting termination of process webd:1130	
Symptom: Perform multiple configdownload through DCFM or CLI can trigger memory issues with webd. most time webd will restart and at time this could trigger switch panic.	
Feature: Field Escalation	Function: Web Management
Probability: Low	
Found in Release: FOS6.2.1	Service Request ID: 416939

Defect ID: DEFECT000279834	Technical Severity: Medium
Summary: Encountered "(SAS) Application installation failed. Switch does not support SAS." message on Brocade 7600 when upgrade/downgrade SAS	
Symptom: SAS upgrade fails with "(SAS) Application installation failed. Switch does not support SAS." message. This happens when a race condition triggers a CLI (slotshow) that firmwaredownload relies fails.	
Workaround: Try firmwaredownload again to upgrade SAS when it fails	
Feature: FIRMWARE DOWNLOAD	Function: Firmware Download
Probability: Medium	
Found in Release: FOS6.3.1	

Defect ID: DEFECT000283300	Technical Severity: Medium
Summary: TCP connection is torn down prematurely.	
Symptom: Failure to clean up the locally managed socket caused application to read from stale sockets and drop the TCP connection. This only impact encryption platforms (BES, FS8-18)	
Feature: Data Security	Function: HA Cluster
Probability: Medium	
Found in Release: FOS6.3.1	

Defect ID: DEFECT000283740	Technical Severity: Medium
Summary: Host hangs while scanning LUNs.	
Symptom: Customer can scan 2 cleartext LUNs (0 and 1) but cannot scan encrypted LUNs 2-7 on some device types.	
Feature: Field Escalation	Function: Encryption
Probability: Low	
Found in Release: FOS6.3.0	Service Request ID: 421053

Defect ID: DEFECT000284472	Technical Severity: Medium
Summary: SCR is not properly registered in the name server	
Symptom: After upgrade from FOS v6.2.x to FOS v6.3.0x or FOS v6.3.1, reboots/bounce a target port, RSCNs are not sent to all devices the target is zoned with. Hosts are unable to see the target until all hosts port are bounced. This defect only happened with FOS v6.3.x upgrade. It impacts all platforms with FC ports, both Ficon and non-ficon enviorment.	
Workaround: need to bounce port to recover, or upgrade to the version with fix	
Feature: Field Escalation	Function: Fabric Services
Probability: High	
Found in Release: FOS6.3.0	Service Request ID: 421925

Defect ID: DEFECT000285251	Technical Severity: Medium
Summary: DPC Online event is not delivered to storage application due to a timer issue	
Symptom: DPC-0 Online is not delivered to Storage Application. This applies to FA4-8 and AP7600 only.	
Feature: FA4-18 Platform Services	Function: Blade FOS SW
Probability: High	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000285372	Technical Severity: Medium
Summary: VI/VTs goes OFFLINE post a DPC crash.	
Symptom: In a rare DPC crash case, RSCN was not sent out in time, caused VI/VT goes offline. This is limited to FA4-18 and AP7600 platforms.	
Feature: FA4-18 Platform Services	Function: 1250: OS SUPPORT
Probability: Medium	
Found in Release: FOS6.4.0	

Closed with Code Change in Fabric OS v6.3.1

This section lists the defects with Critical, High and Medium Technical Severity closed with a code change as of January 22, 2010 in Fabric OS v6.3.1.

Defect ID: DEFECT000279946	Technical Severity: Critical
Summary: Customer unable to remove Admin domains, SFC rejected errors sent by AD3	
Symptom: When execute command cfgdisable, gets the following message:Too many devices found (>120) in default zone.	
Workaround: 1. Migrated all devices to AD0 before as outlined in the AD migrate instructions. 2. Remove the devices from the ADs using the: ad --select 255 ad --remove <ADnum> -d "<devices to remove separated by semicolon>" ad --apply 3. Perform 'ad --clear –f' followed by 'ad --apply' from the AD255 context and this should remove the ADs properly.	
Feature: Field Escalation	**Function:** Fabric Services
Probability: Medium	
Found in Release: FOS6.2.0	**Service Request ID:** 412409

Defect ID: DEFECT000240850	Technical Severity: High
Summary: With SNMP severity set to 3, the DCX sends out traps when a core blade is inserted, but not when it is removed	
Symptom: Traps not sent out when a core blade is removed and SNMP severity set to 3	
Feature: Field Escalation	**Function:** Management Services
Probability: Medium	
Found in Release: FOS6.1.0	**Service Request ID:** 361769

Defect ID: DEFECT000260338	Technical Severity: High
Summary: After blade fault, port was taken off line at ASIC level but offline SCN was not sent to applications such as routing module, fspfd, fabric which created an inconsistent view between application and kernel on the port state of the faulted blade.	
Symptom: After a blade fault, a replacement blade would fault due to frame count mismatch during POST, as there are still frames sent to offline port by upper layer application, fabric unstable as fabric attempts to build fabric through offline port, and hosts connected to the replacement blade have problem logging back into the fabric with "Switch not ready for F or L port" message.	
Feature: Field Escalation	**Function:** ASIC Driver
Probability: Low	
Found in Release: FOS6.2.0	**Service Request ID:** 391827
Where Else Fixed: FOS6.2.2	

Defect ID: DEFECT000261638	Technical Severity: High
Summary:	TI zones become disabled when telnet times out following TI zone change
Symptom:	Set telnet timeout to 1 minute, logout/login to have timeout take effect, created new TI zone, waited for telnet session to timeout, log back into switch and issue cfgsave; cfgsave actually pushes data, which shouldn't occur as the session timed out. Without properly terminating stale transaction before processing a new TI zone can result in erroneous TI zone properties list and trigger other fabric-wide instability events such as no route, rtwr errors in fabric etc.
Feature: Field Escalation	Function: Fabric Services
Probability: Medium	
Found in Release: FOS6.1.1	Service Request ID: 394553
Where Else Fixed: FOS6.2.2	

Defect ID: DEFECT000263300	Technical Severity: High
Summary:	switchshow shows all PIDs the same after reboot
Symptom:	After switch came back up from reboot, nsshow was empty, all the PIDs are the same for all the ports that all online, and all online ports have the same address due to recovery messed up port to area map on pizza box for FOS 6.1->6.2->6.3 warm upgrade code path.
Feature: 8G Platform Services	Function: PID management
Probability: Low	
Found in Release: FOS6.3.0	Service Request ID: 398903

Defect ID: DEFECT000265158	Technical Severity: High
Summary:	Under very uncommon Fabric Watch setting, Fabric Watch daemon can crash.
Symptom:	If fwalarms is turned off and Errlog is turned on in Fabric Watch configuration, Fabric Watch daemon can crash and lead to switch panic.
Workaround:	In the threshold alarm matrix configuration for all port related thresholds, disable ErrLog and Port Fencing (using fwconfigure) this will avoid the above functions from being called (on any threshold events) and leaking or enable fwalarmsfilterset
Feature: Field Escalation	Function: Panic / OOM
Probability: Low	
Found in Release: FOS6.2.0	Service Request ID: 398779
Where Else Fixed: FOS6.2.2	

Defect ID: DEFECT000267411	Technical Severity: High
Summary:	Executing configdownload caused fcoed died
Symptom:	switch got rebooted
Feature: CEE-FCOE	Function: FCOE Daemon
Probability: Medium	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000267476	Technical Severity: High
Summary: Brocade 7800 panic during overnight workload	
Symptom: Brocade 7800 switch crashed and FCIP I/O stopped during overnight workload over 4G Tunnel testing.	
Feature: Striker/Spike Platform Services	Function: Blade Driver
Probability: Low	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000268714	Technical Severity: High
Summary: ONMD is crashing continuously when the links were coming up	
Symptom: Saving the configuration with LLDP disabled leads to crash when switch rebooted	
Feature: CEE-LAYER2	Function: LLDP
Probability: High	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000269513	Technical Severity: High
Summary: Non-VF mode on DCX, enabled the F-Port Trunk and then enabled the Dynamic Area Addressing mode, changing to DAA mode cause Trunk area to be disabled.	
Symptom: Check F-Port Trunk using "porttrunkarea --show enabled", it returned "No ports have Trunk Area enabled" and there was no F-Port TRUNK anymore.	
Feature: 8G Platform Services	Function: Other
Probability: Low	
Found in Release: FOS6.4.0	

Defect ID: DEFECT000269997	Technical Severity: High
Summary: Cascaded CUP failure when channel on Brocade 48000 8G blade and E Port is on different chip	
Symptom: no cascaded CUP connectivity when channel on Brocade 48000 8G blade and E port are on different ASIC chip.	
Feature: 8G ASIC Driver	Function: C2 ASIC driver
Probability: High	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000270038	Technical Severity: High
Summary: Daemon crash on logical switch creation-deletion	
Symptom: Fabric daemon panic due to the shared memory info got corrupted during logical switch creation-deletion testing loop.	
Feature: FC Services	Function: Zoning
Probability: Low	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000270373	Technical Severity: High
Summary:	On Brocade 7800, no NPIV devices (including AG) can log into ports in the first quad of FR4-18 blade /Brocade 7500
Symptom:	The AG port gets disabled with a message stating NPIV not supported on Fabric port although NPIV is enabled on the 7800 ports. The same NPIV based device logs in as expected with the FLOGIs + FDISCs in any other port from 4-31.
Feature: 4G Platform Services	Function: FOS Kernel Drivers
Probability: Medium	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000270813	Technical Severity: High
Summary:	Switch is not accessible through Web Tools after firmware upgrade to FOS v6.3.0a
Symptom:	After upgrade from v6.2.x to v6.3.x Web Tools cannot be accessed via name or across a NAT network connection. In either instance the following message is displayed; Not a Management IP Address, The IP address given is not one of the management addresses. Use 10.100.2.108 . With NAT the real address of the switch is displayed. On a non-NAT environment access via IP address works. Access via Switchname gets the same response again displaying the switch ip address.
Workaround:	Access switch via IP address
Feature: Mgmt Embedded - HTTP	Function: Other
Probability: High	
Found in Release: FOS6.3.0	Service Request ID: 408403

Defect ID: DEFECT000271111	Technical Severity: High
Summary:	RTWR messages are logged when more than 16 dynamic paths are setup to remote domains
Symptom:	On Brocade 5300, 300, and 8G embedded switches, when more than 16 dynamic path routes are set up to remote switches, it is possible that parity errors can be generated by the switch and indicated by internal raslog C2-5658. Customer can experience path loss and traffic interruption.
Workaround:	Limit the number of dynamic paths on these platforms. Note: if there are more than 16 dynamic paths already on these platforms, upgrade to the fixed release could be a cold recovery
Feature: Field Escalation	Function: Fabric Services
Probability: Medium	
Found in Release: FOS6.2.1	Service Request ID: 406617

Defect ID: DEFECT000273098	Technical Severity: High
Summary: Response time for small read request between FCIP connection takes over 10 msec.	
Symptom: Observe 2-4ms delay between the time something arrives on the GE port until its sent out the FC port	
Workaround: Do not run low IO rate traffic. Only occurs when low IO rate traffic is passing through the FCIP Tunnel.	
Feature: FCIP	Function: FCIP I/O
Probability: Low	
Found in Release: FOS6.3.0	Service Request ID: 409943

Defect ID: DEFECT000273131	Technical Severity: High
Summary: FCOE10-24 getting into Faulty (21) mode during stress testing.	
Symptom: Backend port fault triggered blade fault with raslog: [EM-1034], 22744, SLOT 4	CHASSIS, ERROR, , Slot 2 set to faulty, rc=20015.	
Feature: CEE-Infrastructure	Function: ANVIL DRIVER
Probability: Low	
Found in Release: FOS6.4.0	

Defect ID: DEFECT000273514	Technical Severity: High
Summary: FC FastWrite host cannot see target after target port bounce due to cam setup problem on backend port used by FC FastWrite	
Symptom: Not able to recover FC FastWrite paths after device maintenance was performed, or remote target port is bounced.	
Feature: Field Escalation	Function: FCIP Flipper/ASIC
Probability: Medium	
Found in Release: FOS6.2.0	Service Request ID: 410681
Where Else Fixed: FOS6.2.2 a	

Defect ID: DEFECT000275630	Technical Severity: High
Summary: DCX crashed while attempting to change TE Port from LAG to trunk mode	
Symptom: When port is changed from standard mode LAG to trunk port, the switch crashed due to ssmd core dump.	
Feature: CEE-SYSTEM SERVICES	Function: SSM
Probability: High	
Found in Release: FOS6.4.0	

Defect ID: DEFECT000277444		Technical Severity: High
Summary:	Switch may panic after executing fcplunquery or iscsicfg CLI command for tgt entity on FC4-16IP.	
Symptom:	FCPd termination occurred if PRLI or Report LUN query timeout during fcplunquery/iscsicfg CLI and LOGO response comeback without a message queue to process it. This only impacts FOS v6.2.2 and FOSv6.3.0c	
Feature: FC Services		Function: FCP
Probability: Low		
Found in Release: FOS6.4.0		
Where Else Fixed: FOS6.2.2 a		

Defect ID: DEFECT000277814		Technical Severity: High
Summary:	FCOE10-24 blade installed in the highest slot in a chassis based system does not send out UA's (unsolicited advertisements)	
Symptom:	FCOE10-24 blade installed in highest slot is up and running but will not support any FCoE because there is no UA's being transmitted from the blade	
Workaround:	Install FCOE10-24 to lower slot	
Feature: CEE-FCOE		Function: FCOE PROTOCOL
Probability: High		
Found in Release: FOS6.3.0		

Defect ID: DEFECT000278788		Technical Severity: High
Summary:	Switch displays incorrect information upon userconfig --show command execution	
Symptom:	changes to the admin password on a switch are not being recorded properly. - Specifically the "Password Last Change Date" shows incorrect date (1 day off).	
Feature: UNDETERMINED		Function: UNDER REVIEW
Probability: Low		
Found in Release: FOS6.2.0		Service Request ID: 416529

Defect ID: DEFECT000244679		Technical Severity: Medium
Summary:	Fabric Watch SFP messages logged invalid value	
Symptom:	I2C read values of 0xFF and I2C NACK error case are not properly handled caused improbable/unpredictable values to be reported by Fabric Watch on SFP.	
Feature: Field Escalation		Function: EM / Hil / Sysctrl
Probability: Low		
Found in Release: FOS6.1.1		Service Request ID: 370901

Defect ID: DEFECT000252641	Technical Severity: Medium
Summary: Configdownload doesn't load the tstimezone info.	
Symptom: Setup tstimezone, upload the configuration to a ftp server. After changing the tzh and tzm in the config.txt file to a new value, and running configdownload to put the config.txt file on the switch. Issue tstimezone command, the timezone is not changed.	
Workaround: Setup tstimezone through CLI.	
Feature: Fabric Infrastructure	**Function:** Time Server
Probability: High	
Found in Release: FOS6.3.0	
Where Else Fixed: FOS6.2.2	

Defect ID: DEFECT000254565	Technical Severity: Medium
Summary: After upgrade to FOSv6.x, script fails due to rsh switch with user account credential and execute command "ifmodeshow" output errors and inaccurate output.	
Symptom: Telnet works, rsh with root credential work, only rsh using user credential gets "ifmodeshow eth0": ioctl(ETHTOOL_GSET) failed.	
Workaround: Set suid permissions for ethmode: chmod +s /fabos/libexec/ethmode	
Feature: Field Escalation	**Function:** OS: Linux
Probability: Medium	
Found in Release: FOS6.0.1	**Service Request ID:** 382985
Where Else Fixed: FOS6.2.2	

Defect ID: DEFECT000258327	Technical Severity: Medium
Summary: 4G SFPs do not consistently show data in sfpshow on Brocade 7800 GbE ports	
Symptom: 4G SFP data is not shown on Brocade 7800 GbE ports, sfpshow reports"Cannot read serial data", or correct sfp serial number or 'nothing at all'.	
Feature: Striker/Spike Platform Services	**Function:** BCM Driver
Probability: Medium	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000258330	Technical Severity: Medium
Summary: EX_Port Rejected Fabric Binding for Edge Fabric in IM3	
Symptom: Fabric binding will not work in 239 domain mode in IM3 with FCR	
Feature: 8G FCR	**Function:** FCR Security
Probability: Low	
Found in Release: FOS6.3.0	
Where Else Fixed: FOS6.2.2	

Defect ID: DEFECT000260099	Technical Severity: Medium
Summary: Support auto-assignment of slot-Based licenses and address slot based license issues	
Symptom: slot based license feature is enhanced.	
Feature: License	Function: License
Probability: Low	
Found in Release: FOS6.4.0	

Defect ID: DEFECT000260552	Technical Severity: Medium
Summary: Fabric Watch messages logged with values above 100%.	
Symptom: Fabric Watch FW-1186 & FW1190 messages are being logged with percentages above 100%, which is not possible. This is likely to happen during the first Fabric Watch polling cycle after slotstatsclear command has been issued.	
Feature: Field Escalation	Function: Management Services
Probability: Low	
Found in Release: FOS6.2.0	Service Request ID: 384439
Where Else Fixed: FOS6.2.2	

Defect ID: DEFECT000260572	Technical Severity: Medium
Summary: Zone changes of Fabric Class does not work	
Symptom: 'Zoning Changes' of 'Fabric class areas' in fwconfigure does not function correctly	
Feature: Fabric Infrastructure	Function: Fabric Watch
Probability: Low	
Found in Release: FOS6.3.0	
Where Else Fixed: FOS6.2.2 a	

Defect ID: DEFECT000260700	Technical Severity: Medium
Summary: Unable to load IF.mib and SW.mib in AdventNet MIB Browser	
Symptom: The user will not be able to load IF.mib and SW.mib	
Feature: Mgmt Embedded - SNMP	Function: Other
Probability: High	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000261246	Technical Severity: Medium
Summary: HA synchronization lost after a switch with trunk ports panic and manual reboot was needed to recover.	
Symptom: After hafailover, HA component did not get fabric stable due to race condition with trunk ports dropping EFP response. This condition is rare but if it happens, manual reboot is needed to recover.	
Feature: Field Escalation	Function: Management Services
Probability: Low	
Found in Release: FOS6.2.0	Service Request ID: 393141

Defect ID: DEFECT000261663	Technical Severity: Medium
Summary:	Clean up printf to eliminate error and error message: "ssnGet: Unable to get WWN info.sw=0 rc=-5"
Symptom:	The following message may pop up to console while firmware is in process of committing: "ssnGet: Unable to get WWN info.sw=0 rc=-5".
Feature: System Controls/EM	Function: DCX/DCX-4S
Probability: Medium	
Found in Release: FOS6.3.0	
Where Else Fixed: FOS6.2.2	

Defect ID: DEFECT000262942	Technical Severity: Medium
Summary: Faulty CP is not displayed in Web Tools	
Symptom: The display of the CP blade disappears from Web Tools when the CP blade became faulty.	
Feature: WebMgmt	Function: Switch Explorer/Switch View
Probability: Medium	
Found in Release: FOS6.2.0	Service Request ID: 399755

Defect ID: DEFECT000263500	Technical Severity: Medium
Summary: After using ipaddrset, incorrect CP hostname is displayed on standby CP	
Symptom: Login prompt of StandbyCP show incorrectly after set Host name of CP Blade by ipaddrset -cp command	
Feature: Field Escalation	Function: OS: Infrastructure
Probability: High	
Found in Release: FOS6.2.1	Service Request ID: 399361
Where Else Fixed: FOS6.2.2 a	

Defect ID: DEFECT000263704	Technical Severity: Medium
Summary: Byte Streaming support on 7500/FR4-18i does not work with 3rd party Optimizers	
Symptom: 1250 panics when running byte streaming code when connected through a 3rd party optimizer.	
Feature: Legacy FCIP (7500/FR4-18i)	Function: FCIP I/O
Probability: Low	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000263889	Technical Severity: Medium
Summary:	Brocade 200E and 4G based embedded platform speed negotiation fails when lock port as G_Port
Symptom:	Switch port cannot come on line when reboot connected server sometimes. This applies to Brocade 200E and 4G embedded platforms only.
Feature: Field Escalation	Function: ASIC Driver
Probability: Low	
Found in Release: FOS6.2.1	Service Request ID: 400493
Where Else Fixed: FOS6.2.2	

Defect ID: DEFECT000263930	Technical Severity: Medium
Summary: portbeacon command is not found	
Symptom: User cannot turn on/off port beacon on FOS v6.3.0x	
Feature: 4G Platform Services	Function: Sys-Control/Environment Monitor
Probability: High	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000264548	Technical Severity: Medium
Summary: CALD failed, but no failover happened – cald stuck as <defunct>	
Symptom: CALD panic occurred at customer site, CPs became out of sync, and a manual reboot was required of the active CP to recover. The ps output still contains cald, however it is in a <defunct> state. 4 0 30056 2497 16 0 0 0 - Z ? 0:01 _ cald <defunct>	
Workaround: Manually reboot.	
Feature: Field Escalation	Function: Management Services
Probability: Low	
Found in Release: FOS6.2.0	Service Request ID: 400805
Where Else Fixed: FOS6.2.2	

Defect ID: DEFECT000265119	Technical Severity: Medium
Summary: Rebooting backbone host is unable to discover common zone target in the edge fabric.	
Symptom: Timing window exists where a SID zone miss could drop a frame. Initiator that does not retry PLOGI will fail to discover targets of edge fabric.	
Workaround: Workaround (recovery) is to disable/enable the target.	
Feature: Striker/Spike Platform Services	Function: VEX
Probability: Medium	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000265165	Technical Severity: Medium
Summary: DCX/DCX-S4 experiences repeat assert panic on emd during high temperature testing.	
Symptom: During power off/on switch test with DCX/DCX-4S under stressed environment condition, switch experienced panic rather than blade fault. This could happen when blades get too hot, or there is a bad temperature sensor, or a spurious sensor reading.	
Feature: Field Escalation	Function: EM / Hil / Sysctrl
Probability: Low	
Found in Release: FOS6.2.0	

Defect ID: DEFECT000265327	Technical Severity: Medium
Summary: Observe C2-5464/5465 errors every time power cycling switch with FCoE ports.	
Symptom: Cold reboot switch, observe internal raslog flood due logical port to FCoE virtual user port mapping error.	
Feature: 8G ASIC Driver	Function: C2 ASIC driver
Probability: Medium	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000265647	Technical Severity: Medium
Summary: Bottleneck configurations are not backed up in AG	
Symptom: Configuration back up on AG does not have the bottleneck configurations.	
Feature: FC Services	Function: Bottleneck Management
Probability: Low	
Found in Release: FOS6.4.0	

Defect ID: DEFECT000265865	Technical Severity: Medium
Summary: ARB(ff) usage as fill words for 8Gb connectivity does not abide by the standards	
Symptom: IDLE/ARBFF mode 2 is now available and added mode 3 which will perform mode 1 (ARBF/ARBFF) via hardware state machine; Depends on device behavior, different modes are configurable.	
Feature: 8G ASIC Driver	Function: ASIC Driver
Probability: Low	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000267596	Technical Severity: Medium
Summary: When port cfgdefault is issued on VE port, error messages are POSTED on DP and CP	
Symptom: portcfgdefault 4/22: Port 182 NPIV Limit Set to 126! Unknown Error	
Workaround: Do not issue the portCfgDefault command on FX8-24/7800 VE ports.	
Feature: FCIP	Function: FCIP Port
Probability: Medium	
Found in Release: FOS6.4.0	

Defect ID: DEFECT000267637	Technical Severity: Medium
Summary: Access Gateway responding to misdirected LOGO on 48-port blade.	
Symptom: When AG switch is connecting to a secondary port on FC4-48 or FC8-48. If the primary port goes down, some frames might be wrongly routed to the AG switch's secondary port, AG respond to these frame with ACC rather than drop.	
Workaround: Do not put AG switch at the secondary port on 48-port blades	
Feature: Field Escalation	Function: Access Gateway
Probability: Low	
Found in Release: FOS6.1.1	Service Request ID: 404527

Defect ID: DEFECT000268665	**Technical Severity**: Medium
Summary: During reboot, the NPIV device is sending the explicit logout. Switch does not clean up route properly.	
Symptom: NPIV tape devices may not be seen by any of the hosts	
Feature: FC Services	**Function**: NPIV
Probability: Low	
Found in Release: FOS6.3.0	**Service Request ID**: 405453
Where Else Fixed: FOS6.2.2 a	

Defect ID: DEFECT000268808	**Technical Severity**: Medium
Summary: portlog parameters are not persistent after hafailover	
Symptom: After hafailover, the portlog parameters "debug" and "Portlog events enable" goes back to default, or setting in previous reboot rather than the new setting before hafailover.	
Feature: Infrastructure	**Function**: Config Download
Probability: Low	
Found in Release: FOS6.3.0	**Service Request ID**: 405519

Defect ID: DEFECT000268938	**Technical Severity**: Medium
Summary: After reboot Brocade 8000 switch, monitored flood of internal RASLOG message on FCOE/NPIV port.	
Symptom: WWN entries are actually logged into the switch but observe flood of FCOE-5026 internal raslog meesage as: WARNING, Brocade8000, fcoe_process_login_rsp: AVL entry deleted for WWN : 10:00:88:88:33:00:00:02 , fcoe_login.c, line 1840. No other functional impact.	
Feature: CEE-FCOE	**Function**: FCOE DRIVER
Probability: Low	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000269267	**Technical Severity**: Medium
Summary: After upgrade from FOS v6.2.x to FOS v6.3.0b/c and then downgrade back down to FOSv6.2.0x, observe critical message "BKSW-5002 " swd_drv.c, line: 1323	
Symptom: Observed kSWD: SWDIoctl: pid=480 request unknown IOCTL type 1074026240 after downgrade due to a new file descriptor introduced in FOS v6.3.0b/c.	
Feature: High Availability	**Function**: HA infrastructure
Probability: Medium	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000269632	Technical Severity: Medium
Summary: FCIP tunnel bounce with impairment test..	
Symptom: Observe tunnel bounce while testing with following impairment test: * 100msec latency * corrupt 1 byte in 1 frame in 200k * drop 1 frame in 500k frames	
Workaround: Identify and fix cause of TCP Network retransmissions. Reduce tunnel maximum data rate to level that does not experience packet loss or corruption on the network.	
Feature: FCIP	Function: FCP TCP/IP Stack
Probability: Low	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000269691	Technical Severity: Medium
Summary: Support for arrays that support SPC-2 - LSN identification	
Symptom: Some array, although it supports SPC-3 but indicates in the standard inquiry data that it supports SPC-2. This causes the LUN to show up with a different LUN number on a different path.	
Feature: Data Security	Function: Disk Encryption
Probability: Low	
Found in Release: FOS6.4.0	

Defect ID: DEFECT000269935	Technical Severity: Medium
Summary: Loop port takes long time to come up in IM2/IM3 mode	
Symptom: There is a time window during ELP process, it can cause a loop port to take more than 15 to 20 sec to come up	
Feature: FC Services	Function: Fabric
Probability: Low	
Found in Release: FOS6.4.0	

Defect ID: DEFECT000270065	Technical Severity: Medium
Summary: Observed VE tunnel bounce after a hareboot on edge switch on Brocade 7800	
Symptom: iswitchd disable port due to fspf timeout prematurely during hafailover under heavy load.	
Feature: 8G FCR	Function: FCR Daemon
Probability: Low	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000270325	Technical Severity: Medium
Summary:	Switch no longer shows the error message to indicate an invalid zone name and enforcement of 64 characters on zone name is conflicting.
Symptom:	zonecreate 3zone2,"1,1" no longer report error. There is no other functional impact as the zone is not enabled. cfgcreate/zonecreate is also updated to prevent the creation of a cfg/zone name greater than with 64 chars but allow zone/alias names greater than 64 chars in the list.
Feature: Field Escalation	Function: Fabric Services
Probability: Low	
Found in Release: FOS6.2.1	Service Request ID: 404027

Defect ID: DEFECT000270381	Technical Severity: Medium
Summary:	Configure terminal/config terminal 0 fails sometimes with message IMISH DEBUG CONNECT
Symptom:	When tests does '<telnet session open> => cmsh => configure terminal => <does some configuration>=> <close telnet session>' sequence repeatedly to configure/unconfigure the DUT, sometimes, the 'configure terminal' command fails, and the 'config' prompt was not obtained.
Feature: CEE-MANAGEABILITY	Function: CLI
Probability: Low	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000270683	Technical Severity: Medium
Summary:	LDAP 2008 support
Symptom:	User name/password authentication may fail.
Feature: FOS Security	Function: LDAP
Probability: Low	
Found in Release: FOS6.4.0	
Where Else Fixed: FOS6.2.2 a	

Defect ID: DEFECT000272519	Technical Severity: Medium
Summary:	Change requirement to remove trial license before allowing non-trial license installation.
Symptom:	Customer need to remove trial licenses prior to installing permanent license for same feature.
Feature: License	Function: License
Probability: High	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000272635	Technical Severity: Medium
Summary: After setting the SNMPv3 by "snmpconfig --set snmpv3", the "snmp.snmpv3Keys.*.usmPrivKeySize:" parameter does not begin from a new line	
Symptom: switch failed configDownload with following message: snmp.snmpv3Usm.0.usmPrivProtocol:6 Invalid Value. Process function of configdownload failed for filter snmp, lrc = -1	
Feature: Field Escalation	**Function**: SNMP
Probability: High	
Found in Release: FOS6.2.1	**Service Request ID**: 405179
Where Else Fixed: FOS6.2.2 a	

Defect ID: DEFECT000273580	Technical Severity: Medium
Summary: "lscfg --show" on FS8-18 reports problem on port number higher than 15	
Symptom: "ASIC not ready" errors after the blade removal and insertion of the FS8-18 Blade. Obaserve FW-5002 in internal raslog when this happens.	
Feature: FC4-16IP Platform Services	**Function**: FC4-16IP Blade Driver
Probability: High	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000274458	Technical Severity: Medium
Summary: Handle command timeout for cvlm/cvlc commands and CAL call optimization to address weblinker crash	
Symptom: Blade faulted and weblinker crash when blade is stressed with heavy IO and constant stats gathering	
Feature: Data Security	**Function**: Disk Encryption
Probability: Medium	
Found in Release: FOS6.4.0	

Defect ID: DEFECT000274882	Technical Severity: Medium
Summary: DCX doesn't output FW-1003/FW-1004 after hafailover/reboot if user sets fwsettocustom.	
Symptom: DCX could not output FW-1003/FW-1004 after hafailover/reboot if user sets the fwsettocustom. This cause customer does not get notified on temperature etc event change when it's over threshold value.	
Feature: Field Escalation	**Function**: High Availability
Probability: High	
Found in Release: FOS6.2.2	**Service Request ID**: 413945
Where Else Fixed: FOS6.2.2 a	

Defect ID: DEFECT000275158	Technical Severity: Medium
Summary: Observed CALD panic in 256 ports switch after stress test switchdisable/switchenable	
Symptom: Switch panic observed when large number of F_Port has top talkers installed on the switch.	
Feature: Mgmt Embedded - CAL	Function: Other
Probability: Medium	
Found in Release: FOS6.4.0	

Defect ID: DEFECT000275255	Technical Severity: Medium
Summary: ssmd is crashing when certain cli is executed	
Symptom: clearing counters of acl's whose name starts with numeric value or just a numeric value will cause crashing of ssm. For example: sw0# clear counters access-list mac 2acl_std or sw0#clear counters access-list mac 10 Now ssm will get crashed.	
Feature: CEE-SYSTEM SERVICES	Function: ACL
Probability: Medium	
Found in Release: FOS6.3.1_cee	

Defect ID: DEFECT000277671	Technical Severity: Medium
Summary: FW-1434 message when systemverification or portloopbacktest run on DCX	
Symptom: During diag test, switch report: 2009/12/02-15:02:50, [FW-1434], 5, SLOT 7	FID 128, WARNING, sw0, Switch status change contributing factor Blade: 1 blade failures (MARGINAL). Once diag test complete, Fabric Watch reports switch is healthy.	
Feature: Field Escalation	Function: Management Services
Probability: High	
Found in Release: FOS6.2.2	Service Request ID: 413595
Where Else Fixed: FOS6.2.2 a	

Defect ID: DEFECT000278326	Technical Severity: Medium
Summary: DCX 8-Link ICL license only brings up 4 Links when connected to DCX-4S	
Symptom: Based on the way the physical connections are made on an ICL between a DCX and DCX-4S, only half of the expected E-Ports (links) are coming online when a 8-Link ICL license is installed.	
Feature: FC Services	Function: Fabric
Probability: Medium	
Found in Release: FOS6.4.0	

Closed with Code Change in Fabric OS v6.3.0d

This section lists the defects with Critical, High and Medium Technical Severity closed with a code change as of March 22, 2010 in Fabric OS v6.3.0d.

Defect ID: DEFECT000274646	Technical Severity: High
Summary: Brocade 8000 installed with FOS v6.3.0 through v6.3.0c, v6.3.1 and v6.3.1a panics doing firmwaredownload.	
Symptom: Switch panic reported during firmware download. This only applies to Brocade 8000s factory installed with FOS v6.3.0 through v6.3.0c, v6.3.1 and v6.3.1a.	
Workaround: Before upgrading from FOS v6.3.0 through v6.3.0c, v6.3.1 or v6.3.1a, check if /dev/altera is present in secondary partition. If not present, copy it from primary partition via "cp /dev/altera /mnt/dev/altera".	
Feature: CEE-Infrastructure	Function: Zues Driver
Probability: High	
Found in Release: FOS6.4.0	

Defect ID: DEFECT000283637	Technical Severity: High
Summary: During hot code load, HA recover time is very long.	
Symptom: Under race condition, when extensive writing to compact flash happens during hafailover, observe long HA recover time on switch. This could cause link reset or frame drop when connecting switch did not see credit being returned in time. This is observed more often in, but not limited to, VF environment and connecting switch is operating under single virtual channel credit model. It applies to both director and switch platforms.	
Feature: Infrastructure	Function: PDM/PortCfg
Probability: Low	
Found in Release: FOS6.4.0	

Defect ID: DEFECT000286104	Technical Severity: High
Summary: Ports on the FC8-48 become persistently disabled after upgrading from FOS v6.2.x to FOS v6.3.x.	
Symptom: After upgrading from FOS v6.2.x to FOS v6.3.x on systems with FC8-48 blades installed, VF disabled and fmsmode enabled, all ports on the FC8-48 blades to become persistently disabled without warning.	
Workaround: Manually re-enable ports, no other viable workaround at this time	
Feature: Field Escalation	Function: FICON
Probability: High	
Found in Release: FOS6.3.0	Service Request ID: 423415

Defect ID: DEFECT000289029	Technical Severity: High
Summary: DCX reboots continuously as Access Gateway config file is corrupt on FOS v6.3.0x	
Symptom: Under very rare condition, access gateway configuration files are corrupted and caused switch bring up to timeout. Switch is reboot repeatedly by HA manager in an attempt to recover switch with raslog: [HAM-1007]…, Need to reboot the system for recovery, reason: System bring up timed out, … [HAM-1008]…,Rebooting the system for recovery - auto-reboot is enabled, This only applies to FOS v6.3.0x and non-AG platforms. It does not apply to FOS v6.3.1 and later, or Pre-FOSv6.3.0 releases.	

Workaround: Follow the procedure show below to remove the corrupted files and upgrade to a version of FOS that incorporates a fix for this problem
 	
1. Execute the following commands to stop the recover reboot process on both CPs
    a. touch /etc/fabos/config/no_reboot_recover
    b. touch /mnt/etc/fabos/config/no_reboot_recover
2. Execute the following commands remove the corrupted AG files on both CPs
    a. rm /etc/fabos/persistent_NPIV_config
    b. rm /mnt/etc/fabos/persistent_NPIV_config
3. Reboot the switch
4. After the switch comes back up use the commands list below to remove the recover file again on both CPs.
    a. rm /etc/fabos/config/no_reboot_recover
    b. rm /mnt/etc/fabos/config/no_reboot_recover
5. Upgrade the switch to FOS v6.3.0d or v6.3.1 and later.	

Feature: Access Gateway Services	**Function:** Daemon
Probability: Low	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000270261	Technical Severity: Medium
Summary: CP/switch fails to boot on DCX, DCX-4s and Brocade 5300.	
Symptom: The CP or switch fails to reboot, boot up on power up or fails during hafailover. The following CF access error message, "HDA: drive not ready" is usually seen on the console when this occurs.	
Feature: OS Services	**Function:** Linux Kernal
Probability: Low	
Found in Release: FOS6.2.0	
Where Else Fixed: FOS6.2.2 b, FOS6.3.1 a	

Defect ID: DEFECT000284472	Technical Severity: Medium
Summary: State Change Registration (SCR) value is not properly registered in the name server.	
Symptom: When performing a firmware upgrade from Fabric OS v6.2.x to Fabric OS v6.3.0 through v6.3.0c or v6.3.1 the SCR registration inside the Name Server is lost at the time of upgrade. As a result, devices attached to the upgraded switch are not notified of changes to other devices in common zones or other changes to the zoning configuration. This impacts all platforms with FC ports in both FICON and non-FICON environment.	
Workaround: There are no non-disruptive workarounds to correct this problem. The customers may choose to perform the following disruptive action. Perform a portdisable/portenable on all the affected ports within the zone. However, because of its disruptive nature, Brocade does not recommend this procedure.	
Feature: Field Escalation	Function: Fabric Services
Probability: High	
Found in Release: FOS6.3.0	Service Request ID: 421925
Where Else Fixed: FOS6.3.1 a	

Closed with Code Change in Fabric OS v6.3.0c

This section lists the defects with Critical, High and Medium Technical Severity closed with a code change as of December 18, 2009 in Fabric OS v6.3.0c.

Defect ID: DEFECT000265272	Technical Severity: Critical
Summary: Brocade 48000 with FR4-18i cannot see new device across LSAN after upgrade from FOS v5.x non-disruptively all the way to FOS v6.2.x.	
Symptom: Customer unable to bring new devices on line, bounce host port causes path lose between host and target. internal raslog has: [BL-5238], , Pinball Consistency check failure: error = -2, rsc = 1, data1 = -1, data2 = 11, OID:0x43310881, marathon_fcr.c, line: 2296, comp:emd, ltime:2009/09/17-18:47:02:676934; This only applies 4G routers and problem only shows after upgrade to FOS v6.2.x.	
Feature: Field Escalation	Function: ASIC Driver
Probability: High	
Found in Release: FOS6.2.0	Service Request ID: 402497
Where Else Fixed: FOS6.2.2	

Defect ID: DEFECT000270541	Technical Severity: Critical
Summary: On DCX, FCR fails to route traffic on 8G EX ports after code upgrade from FOS v6.1 to FOS v6.2, followed by hafailover and ports activities	
Symptom: DCX running FOS v6.1 with 8G EX ports (Integrated routing, IR) as pre-condition, upgrade to FOSv6.2 based code, if there is additional hafailover, then add new device, bounce device ports could trigger route problem, cause host cannot see device.	
Feature: Field Escalation	Function: FCR
Probability: High	
Found in Release: FOS6.2.0	Service Request ID: 409197
Where Else Fixed: FOS6.2.2	

Defect ID: DEFECT000269315	Technical Severity: High
Summary: Switch panic occurred when 3rd party management application performed repeat FCP LUN emulation queries.	
Symptom: When a 3rd party device gives a bad response to a FCP LUN request, or does not respond at all, FCPD will retry query and stuck the thread. Any new FCP LUN request that comes in from management application will spawn a new thread to handle it. Eventually, FCPD spawns up to the maximum number of allowed threads and the switch panics.	
Feature: Field Escalation	Function: Fabric Services
Probability: Low	
Found in Release: FOS6.2.1	Service Request ID: 407027
Where Else Fixed: FOS6.2.2	

Defect ID: DEFECT000270712	Technical Severity: High
Summary: Host failed to discover tapes due to a VI/VT database mismatch between the switches that are part of the same Encryption Group	
Symptom: Host will not able to discovery Tape devices that are part of the same EG	
Workaround: Issue "cryptocfg --commit" again to sync up the VT/VI database across nodes in the EG.	
Feature: Data Security	Function: Tape Encryption
Probability: Low	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000271290	Technical Severity: High
Summary: Brocade 5424 - SERDES settings do not get push correctly on v6.3.0x	
Symptom: Incorrect SERDES settings used.	
Feature: Embedded Platform Services	Function: Superhawk2
Probability: Medium	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000273043	Technical Severity: High
Summary: When running FCoE feature related scripts over multiple SMIA clients the Common Access Library Daemon (CALD) detects a memory increase on the Brocade 8000 switch. Other FOS based products do not exhibit the same behavior when running the same scripts.	
Symptom: 34MB memory increase seen in Common Access Library Daemon (CALD) when running 10 SMIA clients over FCoE.	
Feature: CEE-MANAGEABILITY	Function: CAL INTERFACE
Probability: Low	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000267497	Technical Severity: Medium
Summary: When CP restarts DPC-0, sassvrd sees ECONNRESET on DPC1 connection and BP freezes for 10 seconds	
Symptom: On one DPC failure, second DPC on the same switch also experience disruption.	
Feature: FA4-18 Platform Services	Function: MISC
Probability: Low	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000268872	Technical Severity: Medium
Summary: The command fcoe loginshow displays unexpected values when a third party CNA is moved between switches.	
Symptom: Unexpected values are seen in response to the loginshow command.	
Feature: CEE-FCOE	Function: FCOE DRIVER
Probability: High	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000269956	Technical Severity: Medium
Summary: OPT 322202 - IPC failure message displayed on one of the nodes when using the cryptocfg --show -groupmember -all command	
Symptom: Customer will not be able to use "cryptocfg --show -groupmember -all" CLI to know the health of the EG, EEs in the EG when this very remote corner case is hit. However there is no impact to health of EG or EE states in the EG and no impact to any datapath. The health of EG can be determined alternately by issuing "cryptocfg --show -groupcfg" and "cryptocfg --show -localEE" CLIs on each of the Node in the EG	
Workaround: Issue "cryptocfg --show -groupcfg" and "cryptocfg --show -localEE" commands instead to know the health of EG	
Feature: Data Security	**Function:** Tape Encryption
Probability: Low	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000270309	Technical Severity: Medium
Summary: Running FOS commands give error: shmInit: shmget failed: No space left on device	
Symptom: Unable to execute FOS commands on default switch after performing multiple cfgenable with TI zones	
Feature: FC Services	**Function:** Name Server
Probability: Low	
Found in Release: FOS6.3.0	
Where Else Fixed: FOS6.2.2	

Defect ID: DEFECT000270368	Technical Severity: Medium
Summary: 1GB FCIP tunnel with 2 rate limited circuits is unable to move full I/O workload to remaining circuit when 1 circuit fails.	
Symptom: In a multi circuit FCIP tunnel configuration circuit failover over 1G tunnels may not failover to other available circuits.	
Feature: FCIP	**Function:** FCIP Performance
Probability: Medium	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000270562	Technical Severity: Medium
Summary: FICON XRC Emulation - READTRACK_STATUS_ACCEPT flag cleared on Tunnel Down and Selective Reset causes Abort Sequences later	
Symptom: Slow read track performance when XRC emulation is enabled, MVS IO errors are generated when an invalid selective reset frame is sent to the controller.	
Workaround: Disable FICON XRC Emulation	
Feature: FCIP	**Function:** FCIP Performance
Probability: High	
Found in Release: FOS6.2.0	

Defect ID: DEFECT000271177	Technical Severity: Medium
Summary: Additional information of the EE status in the current command that displays the overall status of the EG, nodes and RKM(cryptocfg --show --groupcfg)	
Symptom: Customer will have to invoke "cryptocfg --show -groupcfg", "cryptocfg --show -groupmember -all" or "cryptocfg --show -localEE" on all nodes to know the overall state of EG including EE state across EG. There is no one place where Customer will get the EE state across EG in the same command which provides the EG health	
Feature: Data Security	Function: Infrastructure
Probability: Low	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000271220	Technical Severity: Medium
Summary: Unexpected termination of raslogd triggered switch panic or hafailover.	
Symptom: When auditing is on for security class, a race condition in raslogd triggered switch to panic.	
Workaround: disable auditing via: Auditcfg --disable	
Feature: Field Escalation	Function: RAS Logging / Tracing
Probability: Low	
Found in Release: FOS6.1.0	Service Request ID: 409971

Defect ID: DEFECT000272183	Technical Severity: Medium
Summary: IFCCs encountered when processing Read Channel Extender Capabilities with XRC Emulation	
Symptom: IFCCs when IPLing systems with SDM LPARs	
Workaround: Disable FICON XRC Emulation	
Feature: FCIP	Function: FCIP I/O
Probability: Low	
Found in Release: FOS6.2.0	

Defect ID: DEFECT000272203	Technical Severity: Medium
Summary: RNID frame type field from the host is corrupted internally when the host is connected over FCIP.	
Symptom: Corrupted RNID request is received from the host and rejected. As a result, the switch is unable to get FICON CHPID online to VSM (Virtual Tape Subsystem) over an emulated or non-emulated VE tunnel. E-Port between switches functions correctly.	
Workaround: Disable FICON Tape Emulation	
Feature: FCIP	Function: FCIP Port
Probability: Low	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000272842	Technical Severity: Medium
Summary: Switch does not broadcast Unsolicited FIP Discovery Advertisements	
Symptom: If the CNA expects UAs from the FCF even if the solicited advertisement had the "D" bit set, it will logout of the FCF after about 20 seconds.(Tomcat does not logout, Emulex logs out)	
Feature: CEE-FCOE	Function: FCOE Daemon
Probability: Low	
Found in Release: FOS6.3.1	

Defect ID: DEFECT000274208	Technical Severity: Medium
Summary: After upgrade to FOS v6.2.x, 4G AP blade observes credit problem on virtual channel 0	
Symptom: Customer after upgrade to FOS v6.2.x, experience frame drop on SAS, FCIP, FC FastWrite and observe host cannot see target, FCIP tunnel do not come up problems.	
Workaround: Port bounce, POR of Brocade 7600. If it is 48K with an FA4-18 blade then port bounce, slotpower off/on of FA4-18 or POR.	
Feature: Field Escalation	Function: ASIC Driver
Probability: High	
Found in Release: FOS6.2.1	Service Request ID: 412817

Defect ID: DEFECT000274953	Technical Severity: Medium
Summary: Rekey sessions supposed to be pending cannot be persisted when the EE hosting node fails over	
Symptom: Customer will have to restart the rekey individually for those LUNs for which the rekey sessions could not be automatically started if HA Cluster failover happens before keys were successfully created for all LUNs under rekey.	
Workaround: Start the rekey sessions for LUNs on individual basis	
Feature: Data Security	Function: Re-key
Probability: Low	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000275108	Technical Severity: Medium
Summary: Restore Master Key from recovery cards does not put EE Online when all EEs in the EG were zeroized	
Symptom: When a customer zeroizes all EEs in the EG and restores the Master Key from recovery smart cards will not put EE online	
Workaround: Restore MK the second time.	
Feature: Data Security	Function: Security Processor
Probability: Low	
Found in Release: FOS6.3.0	

Closed with Code Change in Fabric OS v6.3.0b

This section lists the defects with Critical, High and Medium Technical Severity closed with a code change as of December 7, 2009 in Fabric OS v6.3.0b.

Defect ID: DEFECT000259050	**Technical Severity**: Critical
Summary: FICON emulation failing.	
Symptom: MVS IOS444I error messages when trying to vary paths online to extended DASD devices.	
Workaround: Disable FICON XRC Emulation	
Feature: Field Escalation	**Function:** FCIP
Probability: Low	
Found in Release: FOS6.2.0	**Service Request ID**: 389217
Where Else Fixed: FOS6.3.0	

Defect ID: DEFECT000261125	**Technical Severity**: High
Summary: In a large fabric with 50+ switches, firmware download (HCL) on Brocade DCX failed on the standby CP.	
Symptom: In a large fabric with 50+ switches, non-disruptive Firmwaredownload may fail on a standby CP of a DCX switch.	
Workaround: Run firmwaredownload again.	
Feature: FIRMWARE DOWNLOAD	**Function:** Firmware Download
Probability: Low	
Found in Release: FOS6.3.0	
Where Else Fixed: FOS6.2.2	

Defect ID: DEFECT000261231	**Technical Severity**: High
Summary: RASLOG flood occurs with internal RASLOG with following weblinkerfcg message on multiple switches in fabric: "weblinkerfcg:1024 attempts to send message type(26) to invalid dest(IPSIPC:1024/0), comm.c, line: 453, comp:weblinker, ltime:2009/07/28-11:39:	
Symptom: Due to excessive internal messages from one of the applications, other important RASLOG messages may be lost from the limited log space on each switch.	
Feature: FCIP	**Function:** FCIP CP
Probability: High	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000261418	**Technical Severity**: High
Summary: Panic Reboot on Brocade DCX after using fwshow command.	
Symptom: Switch reboot occurs after running the command "fwshow --disable --port".	
Feature: Field Escalation	**Function:** Management Services
Probability: High	
Found in Release: FOS6.2.0	**Service Request ID**: 394347
Where Else Fixed: FOS6.2.2, FOS6.2.1 b	

Defect ID: DEFECT000261593	Technical Severity: High
Summary: Switch went to faulty state after which supportsave takes very long time to complete	
Symptom: Brocade 7600 becomes faulty and supportSave takes very long time.	
Feature: FA4-18 Platform Services	Function: ASIC Driver
Probability: High	
Found in Release: FOS6.2.1	

Defect ID: DEFECT000261797	Technical Severity: High
Summary: Brocade SMI failed to discover all switches over EX port	
Symptom: After hafailover, application fails to discover some switches over EX port due to, SMI reports "LOGIN FAILED" after GPL2 query targeted to translate domain is rejected.	
Feature: Field Escalation	Function: FCR
Probability: Medium	
Found in Release: FOS6.2.0	Service Request ID: 392369
Where Else Fixed: FOS6.2.2, FOS6.2.1 a	

Defect ID: DEFECT000261946	Technical Severity: High
Summary: Upgrade from 6.2.0g to 6.3.0 ldap certificates are missing	
Symptom: Customer may not be able to log into switch when using LDAP authentication.	
Workaround: Log into serial console and reimport the ldap certificate(s). The degree to which the user will be locked out would depend on how the LDAP environment was setup.	
Feature: FOS Security	Function: LDAP
Probability: High	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000263464	Technical Severity: High
Summary: Device connectivity lost when zone enabled on Brocade 7800	
Symptom: Lost device connectivity	
Feature: Striker/Spike Platform Services	Function: Routing
Probability: High	
Found in Release: FOS6.3.1	

Defect ID: DEFECT000264398	Technical Severity: High
Summary: Common Access Layer Daemon (CALD) panics due to segmentation fault	
Symptom: A fabric that contains switches running firmware older then FOS v5.2.x could send an internal query to directors that was not properly set up to handle switches with more than 256 ports. This query can result in the switch with greater than 256 ports.	
Feature: Field Escalation	Function: Management Embedded
Probability: Medium	
Found in Release: FOS6.2.0	
Where Else Fixed: FOS6.2.2, FOS6.2.1 b	

Defect ID: DEFECT000265414	Technical Severity: High
Summary: Kernel panic when performing POR on DCX	
Symptom: Switch crash and reboot.	
Feature: 8G ASIC Driver	Function: C2 ASIC driver
Probability: Low	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000265511	Technical Severity: High
Summary: Brocade 7800 DP crashed after connecting 10G ports to Anue impairment box	
Symptom: Tunnel does not come up.	
Feature: FCIP	Function: FCP TCP/IP Stack
Probability: Low	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000265695	Technical Severity: High
Summary: Strict fabric wide policy conflict occurs after HA failover	
Symptom: Switch segmented out of fabric.	
Feature: FC Services	Function: ESS
Probability: Low	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000265697	Technical Severity: High
Summary: Block port is not being displayed in IPL file after host blocks port in-band	
Symptom: IPL file is not updated.	
Feature: FICON	Function: Ficud
Probability: Low	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000265834	Technical Severity: High
Summary: RLIR in IM2 fabric is using domain with offset stripped	
Symptom: RLIR or DRLIR generated by FOS did not contain domain offset of 0x60 in PID & TAG fields when running IM2 mode.	
Feature: FICON	Function: MS-FICON
Probability: High	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000267476	Technical Severity: High
Summary: 7800 panic during overnight workload	
Symptom: 7800 switch crashed and FCIP I/O stopped.	
Feature: Striker/Spike Platform Services	Function: Blade Driver
Probability: Low	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000267481	Technical Severity: High
Summary: Internal FICON error when doing port swap.	
Symptom: Internal FICON error	
Feature: FICON	Function: Other
Probability: Low	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000269111	Technical Severity: High
Summary: No NPIV devices (including AG) can log into ports of the 7800 when port is changed from EX port to NPIV after non-disruptive upgrade	
Symptom: NPIV ports cannot login.	
Feature: Striker/Spike Platform Services	Function: Spike Platform Module
Probability: Low	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000269604	Technical Severity: High
Summary: FICON Emulation not handling Abort Sequence correctly and causing DSO FICON CRC Errors	
Symptom: IO Errors during XRC RRS processing and eventual suspend of the session that encounters the error.	
Workaround: Disable FICON XRC Emulation	
Feature: FCIP	Function: FCIP I/O
Probability: Low	
Found in Release: FOS6.2.0	

Defect ID: DEFECT000246346	Technical Severity: Medium
Summary: During stress testing, after multiple VLAN configuration changes, logins from the CNA are unsuccessful.	
Symptom: Multiple VLAN configuration changes result in FLOGI being ignored.	
Feature: CEE-FCOE	Function: FCOE Daemon
Probability: Medium	
Found in Release: FOS6.1.3_cee	

Defect ID: DEFECT000246883	Technical Severity: Medium
Summary: Pre-FIP LOGO with Invalid WWNN (non-existent fabric device) is accepted	
Symptom: Incorrect device logout.	
Feature: CEE-FCOE	Function: FCOE DRIVER
Probability: High	
Found in Release: FOS6.1.3_cee	

Defect ID: DEFECT000247639	Technical Severity: Medium
Summary: Switch responds to FIP FLOGI when SP bit is on and FP bit is off	
Symptom: Incorrect FIP FLOGI response sent by switch.	
Feature: CEE-FCOE	Function: FCOE DRIVER
Probability: Low	
Found in Release: FOS6.1.3_cee	

Defect ID: DEFECT000248213	Technical Severity: Medium
Summary: FIP FLOGI accepted when host supports only spma	
Symptom: Incorrect FIP FLOGI request is accepted rather than rejected.	
Feature: CEE-FCOE	Function: FCOE DRIVER
Probability: Low	
Found in Release: FOS6.1.3_cee	

Defect ID: DEFECT000255703	Technical Severity: Medium
Summary: Brocade 8000 floods FCP traffic on two ports to CNAs	
Symptom: Brocade 8000 sends FCP traffic to the wrong CNA.	
Feature: CEE-FCOE	Function: FCOE DRIVER
Probability: High	
Found in Release: FOS6.1.2_cee	Service Request ID: 384593

Defect ID: DEFECT000257211	Technical Severity: Medium
Summary: Weblinker.fcg terminates several times during third party host scan.	
Symptom: When third party host scan was run, http daemon died and restart several times may trigger temporary management service interruption.	
Feature: Field Escalation	Function: Web Management
Probability: Medium	
Found in Release: FOS6.2.0	Service Request ID: 386535
Where Else Fixed: FOS6.2.2	

Defect ID: DEFECT000258696	Technical Severity: Medium
Summary: Switch responds with advertisement to solicitation with SP bit on	
Symptom: Customer will see a response to a solicitation with SP bit on.	
Feature: CEE-FCOE	Function: FCOE DRIVER
Probability: Low	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000259855	Technical Severity: Medium
Summary: When FCoE max login has been reached, need to change debug log to customer visible RASLOG, to indicate FCoE login has been reached.	
Symptom: Customer may not know the reason for login reject in case FCoE login limit has been reached.	
Feature: CEE-FCOE	Function: FCOE DRIVER
Probability: Medium	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000261132	Technical Severity: Medium
Summary: In a large fabric with more than 56 switches, edge Brocade DCX panics due to termination of msd during fabric reconfiguration.	
Symptom: While doing switchdisable; agshow; switchenable loop on a large fabric with AG device, switch panics.	
Feature: Fabric Infrastructure	Function: MANAGEMENT SERVER
Probability: Low	
Found in Release: FOS6.3.0	
Where Else Fixed: FOS6.2.2, FOS6.2.1 a	

Defect ID: DEFECT000261754	Technical Severity: Medium
Summary: Observing ffdc data files during continuous interface flap	
Symptom: Interface flapping/ bad cable shows to many ras log messages	
Workaround: Shut down the port and replace the faulty cable and enable the port	
Feature: CEE-Infrastructure	Function: ANVIL DRIVER
Probability: High	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000263948	Technical Severity: Medium
Summary: FIP: when CNA send FIP ver=0, switch should not validate MAC descriptor field for backwards compatibility	
Symptom: Switch rejects login due to backward incompatibility.	
Feature: CEE-FCOE	Function: FCOE DRIVER
Probability: Medium	
Found in Release: FOS6.3.1	

Defect ID: DEFECT000264578	Technical Severity: Medium
Summary: Supportsave did not remove ffdc files. Continued to get ffdc files warning	
Symptom: Supportsave command did not clear FFDC files. FFDC file warning message persisted until a second support save was taken.	
Feature: RAS	Function: FFDC/Supportsave
Probability: Low	
Found in Release: FOS6.3.0	Service Request ID: 399193
Where Else Fixed: FOS6.2.2	

Defect ID: DEFECT000265225	Technical Severity: Medium
Summary: Unsupported SFP amber flashing state is cleared by plugging an optical cable into the SFP. Actual port status is not affected.	
Symptom: An unsupported SFP installed in an FX8-24 can have the amber LED extinguished if a cable is plugged into the SFP. The actual port status is not changed but the visible indication of a fault (flashing amber) is extinguished.	
Feature: Striker/Spike Platform Services	Function: Spike Platform Module
Probability: Medium	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000265396	Technical Severity: Medium
Summary: Web Tools shows iodset off but CLI shows it is enabled.	
Symptom: Incorrect IOD configuration state is displayed through Web Tools.	
Workaround: Using CLI to view the configured IOD state when IOD is enabled with Lossless DLS	
Feature: WebMgmt	Function: WT Platform Support
Probability: Low	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000265398	Technical Severity: Medium
Summary: Brocade Encryption Switch went faulty during rekey operation	
Symptom: Brocade Encryption Switch faulted, rekey failed and required a power cycle.	
Feature: Data Security	Function: Re-key
Probability: Low	
Found in Release: FOS6.2.1	Service Request ID: 401091

Defect ID: DEFECT000265399	Technical Severity: Medium
Summary: BES did not rejoin Encryption Group after reboot	
Symptom: Encryption switch cannot rejoin Encryption Group resulting in split.	
Feature: Data Security	Function: Infrastructure
Probability: Low	
Found in Release: FOS6.2.1	Service Request ID: 401091

Defect ID: DEFECT000265530	Technical Severity: Medium
Summary: I/O traffic get flooded in to port 16	
Symptom: Incorrect port showing I/O traffic.	
Feature: CEE-Infrastructure	Function: ANVIL DRIVER
Probability: Medium	
Found in Release: FOS6.3.1	

Defect ID: DEFECT000265563	Technical Severity: Medium
Summary: Web Tools launch fails with license error/doget failed from DCFM	
Symptom: While launching the Web tools, in some corner cases HTTP request for authentication may result in failure. A subsequent Web tools session clears this issue.	
Feature: WebMgmt	Function: Webstart
Probability: Medium	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000265753	Technical Severity: Medium
Summary: Improve BES error handling when the backend tape target is not responsive	
Symptom: Host cannot recover if backend tape target become not responsive during BES initiated commands.	
Feature: Data Security	Function: Tape Encryption
Probability: Medium	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000267358	Technical Severity: Medium
Summary: sfpshow: smart data is not refreshed by polling loop for GE type ports	
Symptom: Newer smart data (for GE type ports) such as SFP temperature and power are not updated by the automatic polling loop that occurs roughly every 5 minutes.	
Feature: Striker/Spike Platform Services	Function: Spike Platform Module
Probability: High	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000267415	Technical Severity: Medium
Summary: Supportsave does not capture all the FID with index greater than 3	
Symptom: Information for FID with index greater than 3 is not captured in supportSave.	
Feature: VF Infrastructure	Function: LS Config CLI
Probability: Medium	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000268955	Technical Severity: Medium
Summary: links on the AG (port 19) went into a disabled state with the reason: "NPIV not supported by Fabric port". However, the edge switch port (7/27) had NPIV enabled.	
Symptom: port on AG switch become disabled.	
Feature: Access Gateway Services	Function: Daemon
Probability: Low	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000269138	Technical Severity: Medium
Summary: In the Element Manager, under switch admin, we selected FCoE Login and got an error message of "FCoE Login Management is disabled in the switch; make sure you enable it to view the chassis".	
Symptom: "FCoE Login" tab name causes confusion. It needs to be changed to "FCoE Login Group".	
Feature: WebMgmt	Function: WT Platform Support
Probability: High	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000269286	Technical Severity: Medium
Summary: portdisable xge0 did not actually disable the port although RAS log and switchshow show it is disabled, the FCIP tunnels are still up and running.	
Symptom: xge0 port on FX8-24 is not properly disabled when running portdisable CLI.	
Feature: Striker/Spike Platform Services	Function: BFOS
Probability: Medium	
Found in Release: FOS6.3.1	

Closed with Code Change in Fabric OS v6.3.0a

This section lists the defects with Critical, High and Medium Technical Severity closed with a code change as of September 28, 2009 in Fabric OS v6.3.0a.

Defect ID: DEFECT000263579	Technical Severity: Critical
Summary: Switch panic occurred when management application performed repeat FCP LUN emulation queries through SMI interface or application polling a switch that had password changed multiple times.	
Symptom: Switch panic is experienced. Switch console logs Out of Memory kill.	
Workaround: Disable SMI agents.	
Feature: Field Escalation	**Function:** Panic / OOM
Probability: High	
Found in Release: FOS6.2.1	**Service Request ID:** 399773

Defect ID: DEFECT000247761	Technical Severity: High
Summary: Sysshutdown on Brocade 5480 may cause panic and reboots	
Symptom: Switch panic during sysshutdown	
Workaround: Use CLI "shutdown" command.	
Feature: Embedded Platform Services	**Function:** Bulova
Probability: High	
Found in Release: FOS6.2.0	**Service Request ID:** 375389

Defect ID: DEFECT000254576	Technical Severity: High
Summary: Brocade FR4-18i heartbeat dead causes reboot.	
Symptom: Processor on FR4-18i blade reboots while traffic is running over FCIP links. May cause CP failover to take place, only traffic on the FR4-18i blade is disrupted.	
Feature: Field Escalation	**Function:** FCIP Flipper/ASIC
Probability: Low	
Found in Release: FOS6.2.0	**Service Request ID:** 374539

Defect ID: DEFECT000259327	Technical Severity: High
Summary: After changing domain offset followed by 'hafailover'-"Unknown LSR type" messages started scrolling continuously on console log for Brocade DCX-4S, DCX and 48000 switches running in Interopmode2.	
Symptom: After changing the domain offset, followed by 'hafailover' on CP1, CP0 immediately started posting "Unknown LSR type" messages continuously on console log.	
Workaround: Run hafailover to failover to other CP.	
Feature: FC Services	**Function:** FSPF
Probability: Low	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000262164	Technical Severity: High
Summary: Under heavy traffic on 10G tunnel, continuous tunnel modification can cause traffic to halt	
Symptom: FCIP I/O traffic disruption during tunnel modification.	
Workaround: Slot power off/on the Brocade FX8-24 blade.	
Feature: FCIP	Function: Compression
Probability: Medium	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000262167	Technical Severity: High
Summary: I/O fails to across VE link when failover is done on a trunked EX port	
Symptom: Medusa I/O on a host connected to storage across a VE link times out and stops when replication software I/O is running across the same link.	
Feature: Striker/Spike Platform Services	Function: VEX
Probability: High	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000262247	Technical Severity: High
Summary: Zoning fails with "Transaction Commit failed. Loss of an E-port to a neighboring Mi10k in the middle of a zone push operation caused the zoning request to fail. Zoning fails with "Transaction Commit failed. Reason code 2 (26) - "Aca Was Rejected: Remote Switch Busy, Retry in a few seconds"	
Symptom: Zoning fails with "Transaction Commit failed. Reason code 2 (26) - "Aca Was Rejected: Remote Switch Busy, Retry in a few seconds"	
Workaround: FC Services	
Feature: Zoning	Function: Low
Probability: 396077	Risk of Fix: (Not Checked)
Found in Release: v6.2.0d	Service Request ID: FOS6.2.0
Publications	

Defect ID: DEFECT000262261	Technical Severity: High
Summary: Traffic cannot run across edge to edge topology when compression and FastWrite are enabled.	
Symptom: I/O traffic is unable to run.	
Feature: FCIP	Function: FCIP I/O
Probability: High	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000262333	Technical Severity: High
Summary: SFP power supply values are not displayed correctly after doing a non-disruptive firmware upgrade to FOS v6.2.1 or FOS v6.3.0	
Symptom: SFP voltage may show incorrect values	
Workaround: Execute the same command again to get the correct values.	
Feature: 8G Platform Services	**Function:** FOS Kernel Drivers
Probability: Medium	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000262419	Technical Severity: High
Summary: Under impairment, network configuration with high compressible data may result in tunnel bounce	
Symptom: FCIP tunnel may go up and down in an impairment network configuration with highly compressible data I/O.	
Workaround: Tunnel will recover after going down.	
Feature: FCIP	**Function:** FCP TCP/IP Stack
Probability: Medium	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000262516	Technical Severity: High
Summary: Tunnel did not come up due to configuration mismatch for tape pipelining, one side shows "Write only" and other side shows "Write/Read"	
Symptom: VE tunnel configuration not coming up.	
Feature: FCIP	**Function:** FCIP CLI
Probability: Medium	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000262891	Technical Severity: High
Summary: Ports go offline with link reset	
Symptom: High CPU load from external SAN management application such as doing supportsave from Brocade DCFM is causing laser flt / link reset on port.	
Feature: 4G ASIC Driver	**Function:** PORT
Probability: High	
Found in Release: FOS6.2.1	**Service Request ID:** 397469

Defect ID: DEFECT000263397	Technical Severity: High
Summary:	Brocade DCX running FOS v6.2.1 & M6140 running M-EOS v9.9.0 - Nameserver database counts do not match for FOS and M-EOS switches in same fabric
Symptom:	Host cannot see device due to name server has no entries about the device. This happens when there is a HBA capable of RHBA command and EOS (McDATA) switch in the same fabric.
Feature: FC Services	Function: FDMI
Probability: Medium	
Found in Release: FOS6.2.1	Service Request ID: 398757

Defect ID: DEFECT000264566	Technical Severity: High
Summary:	Switch panic triggered by size-64 kernel message buffer being used up in virtual fabric with logical ISL configured
Symptom:	Switch panic will be observed. Configuration requires VF with LISL configured. Prior to panic, cat /proc/slabinfo as root will show a large number on size-64 block: slabinfo: size-64 7583624 7583624
Workaround: Configure only DISLs between switches.	
Feature: Logical Fabric	Function: Kernel Driver
Probability: High	
Found in Release: FOS6.2.1	

Defect ID: DEFECT000264640	Technical Severity: High
Summary:	Configdownload does download some of the FCoE setting in FOS v6.3.0 that prevents factory install
Symptom:	Prohibit factory install; missing entries are: fcoe.et.cfg:0x0, fcoe.fcmap:0x0 fcoe.fip.advintvl:0x0, fcoe.lg:0x0, fcoe.rcs.gen_number:0x0
Feature: CEE-FCOE	Function: FCOE PROTOCOL
Probability: High	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000264650	Technical Severity: High
Summary:	History Buffer is updated according to Port Address rather than Port Number
Symptom:	Port reference provided to FICON host by the Director History Buffer for port parameter changes is incorrect. In reading the switch configuration to gather updates for port parameter changes, FICON host may reference a different port than the one that has changed state.
Feature: FICON	Function: Ficud
Probability: High	
Found in Release: FOS6.3.1	

Defect ID: DEFECT000247754	Technical Severity: Medium
Summary: Brocade switch gets nsd panic in interopmode 3 when running FOS v6.2.	
Symptom: Customer may notice NSd panic	
Feature: Field Escalation	Function: Fabric Services
Probability: High	
Found in Release: FOS6.2.0	

Defect ID: DEFECT000253083	Technical Severity: Medium
Summary: Transient detected error on internal link causes blade to be faulted	
Symptom: Port blade will be faulted with "reason=5"	
Workaround: Slotpoweroff and slotpoweron clears the fault	
Feature: 8G ASIC Driver	Function: C2 ASIC driver
Probability: Medium	
Found in Release: FOS6.2.0	Service Request ID: 378361

Defect ID: DEFECT000260664	Technical Severity: Medium
Summary: After downgrading from FOS v6.3.0 to 6.2.0x, the bit count in fwconfigure – Eport – StateChange is 63.	
Symptom: Once the user has a specific Eport StateChange configuration, if the command "fwconfigure – eport – ST" is run after downgrading FOS 6.3.0 to 6.2.0x, the threshold is set at 63. This value is not allowable in FOS v6.2.x since port fencing does not support State change in FOS v6.2.x.	
Feature: Fabric Infrastructure	Function: Fabric Watch
Probability: Low	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000261654	Technical Severity: Medium
Summary: During non-disruptive upgrade of FOS v6.3.0 on a Brocade5300 switch, "Software 'verify' error seen on console	
Symptom: Software verify error when upgrading between two firmware versions.	
Feature: Fabric Infrastructure	Function: Fabric Watch
Probability: Low	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000261978	Technical Severity: Medium
Summary: Retransmit and Out of order counters in portshow fciptunnel output do not show correct values.	
Symptom: Portshow fciptunnel dose not show correct counter value.	
Feature: FCIP	Function: FCIP CLI
Probability: High	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000261982	Technical Severity: Medium
Summary: For some reason, if the first tunnel, the first circuit is not numbered 0, portshow fciptunnel all -c will add the line with "16 0 unknwn Disable ----- 0s 0.00 0.00 0 0/0 0"	
Symptom: Incorrect tunnel/circuit number shown.	
Feature: FCIP	Function: FCIP CLI
Probability: Medium	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000262329	Technical Severity: Medium
Summary: Configdefault does not delete the FCIP configurations even after chassis reboot.	
Symptom: FCIP configuration cannot be restored to the default setting via configdefault.	
Feature: FCIP	Function: FCIP CP
Probability: Medium	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000263562	Technical Severity: Medium
Summary: Brocade switch drops frames received from host when the switch is unable to determine a valid state for the back end tape	
Symptom: Frames from host to tape device are dropped by the switch.	
Feature: Field Escalation	Function: Encryption
Probability: Medium	
Found in Release: FOS6.2.0	

Defect ID: DEFECT000263775	Technical Severity: Medium
Summary: Switch View:In Striker face plate image, 10GE ports should be renamed as XGE ports.	
Symptom: Different naming for the same port may mislead the user.	
Feature: WebMgmt	Function: Switch Explorer/Switch View
Probability: High	
Found in Release: FOS6.3.0	

Defect ID: DEFECT000263805	Technical Severity: Medium
Summary: Ifname for xGIGE ports should show as in CLI.	
Symptom: The ifName value returned for xGIGE port does not match with the CLI output.	
Feature: Mgmt Embedded - SNMP	Function: Other
Probability: Medium	
Found in Release: FOS6.3.1	

Defect ID: DEFECT000264469		Technical Severity: Medium
Summary:	Support of large ITL nexus in tape to handle multiplex/multistream environment	
Symptom:	If the IT (target containers with initiator) is greater than 200, decreased performance is seen for some containers.	
Workaround:	Reduce the number of IT configuration (target containers with initiators) to 200.	
Feature: OS Services		**Function:** Linux Kernal
Probability: Medium		
Found in Release: FOS6.3.0		**Service Request ID:** 394589

Defect ID: DEFECT000264871		Technical Severity: Medium
Summary:	NS does not send subsequent PLOGI ACC following a sequence where NPIV device sends LOGO before link down.	
Symptom:	NPIV tape devices may not be seen by any of the hosts	
Feature: FC Services		**Function:** Name Server
Probability: Medium		
Found in Release: FOS6.3.0		**Service Request ID:** 397897

Defect ID: DEFECT000264971		Technical Severity: Medium
Summary:	Unlike FC ports, GE ports will stick at No_Sync when you swap Invalid/Non-Brocade branded SFP to Valid Brocade SFP.	
Symptom:	GE ports will not come on line if unsupported SFP have been plugged in previously.	
Workaround:	Portdisable and portenable after inserting supported SFP.	
Feature: Striker/Spike Platform Services		**Function:** BFOS
Probability: Medium		
Found in Release: FOS6.3.0		

Defect ID: DEFECT000265149		Technical Severity: Medium
Summary:	SFP hot-plug: Copper SFP can get into illegal state: Port State=Online and Port Phys=No_Light and link led=OFF	
Symptom:	Copper SFP on 7800 shows no LED light, while port is online and working.	
Feature: Striker/Spike Platform Services		**Function:** Spike Platform Module
Probability: Low		
Found in Release: FOS6.3.0		