

# Brocade Fabric OS v7.0.1

## Release Notes v1.0

December 15, 2011

### Document History

Document Title	Summary of Changes	Publication Date
Brocade Fabric OS v7.0.1 Release Notes v1.0	Initial Release	December 15, 2011

© 2011 Brocade Communications Systems, Inc. All Rights Reserved.

Brocade, the B-wing symbol, DCX, Fabric OS, and SAN Health are registered trademarks, and Brocade Assurance, Brocade NET Health, Brocade One, CloudPlex, MLX, VCS, VDX, and When the Mission Is Critical, the Network Is Brocade are trademarks of Brocade Communications Systems, Inc., in the United States and/or in other countries. Other brands, products, or service names mentioned are or may be trademarks or service marks of their respective owners.

Notice: This document is for informational purposes only and does not set forth any warranty, expressed or implied, concerning any equipment, equipment feature, or service offered or to be offered by Brocade. Brocade reserves the right to make changes to this document at any time, without notice, and assumes no responsibility for its use. This informational document describes features that may not be currently available. Contact a Brocade sales office for information on feature and product availability. Export of technical data contained in this document may require an export license from the United States government.

The authors and Brocade Communications Systems, Inc. shall have no liability or responsibility to any person or entity with respect to any loss, cost, liability, or damages arising from the information contained in this book or the computer programs that accompany it.

Notice: The product described by this document may contain “open source” software covered by the GNU General Public License or other open source license agreements. To find-out which open source software is included in Brocade products, view the licensing terms applicable to the open source software, and obtain a copy of the programming source code, please visit <http://www.brocade.com/support/oscd>.

Export of technical data contained in this document may require an export license from the United States Government.

# Contents

<b>Overview .....</b>	<b>5</b>
<b>New Feature Descriptions .....</b>	<b>6</b>
Enhanced Optical ICL Topology Support for DCX8510.....	6
Support for Dynamic Fabric Provisioning: Fabric Assigned World Wide Name .....	6
VCS/VDX6730 to FC SAN Connectivity.....	6
FCIP Enhancements .....	6
<b>Optionally Licensed Software.....</b>	<b>7</b>
<b>Temporary License Support .....</b>	<b>9</b>
<b>Supported Switches.....</b>	<b>9</b>
<b>Standards Compliance .....</b>	<b>9</b>
<b>Technical Support.....</b>	<b>10</b>
<b>FOS Migration Considerations .....</b>	<b>12</b>
TSBs - Critical Issues to Consider Prior to Installing This FOS Release .....	12
TSB Issues Outstanding in FOS v7.0.1.....	12
TSB Issues Resolved in FOS v7.0.1.....	12
Recommended Migration Paths to FOS v7.0.1 .....	12
FOS Upgrade and Downgrade Special Considerations.....	13
<b>Important Notes.....</b>	<b>14</b>
Brocade Network Advisor Compatibility .....	14
DCFM Compatibility .....	14
WebTools Compatibility .....	14
SMI Compatibility.....	15
Fabric OS Compatibility .....	15
<b>Blade Support.....</b>	<b>18</b>
<b>Scalability.....</b>	<b>22</b>
<b>Other Important Notes and Recommendations .....</b>	<b>22</b>
Adaptive Networking/Flow-Based QoS Prioritization .....	22
Access Gateway .....	22
Brocade HBA/Adapter Compatibility .....	23
D-Port.....	23
Encryption Behavior for the Brocade Encryption Switch (BES) and FS8-18 .....	23
FCIP (FR4-18i, Brocade 7800 and FX8-24) .....	25
FCoE/DCB/CEE (Brocade 8000 and FCOE10-24).....	26
FCR and Integrated Routing.....	28
FICON.....	28
FL_Port (Loop) Support.....	28
ICLs on DCX/DCX-4S .....	28
Native Connectivity (M-EOS interoperability).....	29

Port Mirroring .....	29
Port Statistics.....	29
Virtual Fabrics .....	29
Zoning.....	29
Miscellaneous .....	30
<b>Defects .....</b>	<b>31</b>
Open Defects in Fabric OS v7.0.1.....	31
Closed with Code Change in Fabric OS v7.0.1.....	36
Closed with Code Change in Fabric OS v7.0.0c.....	51
Closed with Code Change in Fabric OS v7.0.0b - August 24, 2011 .....	54
Closed with Code Change in Fabric OS v7.0.0a - GA June 2, 2011 .....	63

## Overview

FOS v7.0.1 introduces support for the following new 16G FC hardware platforms:

- Brocade 6505 entry level 16G FC switch
  - Supports 12-24 16 Gbps FC ports
  - Ports are capable of operating at 2/4/8/16 Gbps FC for open systems
  - Supports D-port and Forward Error Correction (FEC) with 16G SFP+
  - Supports Access Gateway mode
  - Supports Condor3 ASIC enabled VC level credit recovery
  - Supports Advanced Performance Monitoring E-port Top Talkers
  - Also supports all features supported on Brocade 300 platform
  - **Does not support** Encryption/Compression on ISLs, 10G capability, Integrated Routing
  
- FC8-32E and FC8-48E Condor3 based 8G blades for DCX8510-8 and DCX8510-4
  - Support automatic VC-level credit recovery (enabled by Condor3 ASIC) to ensure application performance and availability
  - Support Advanced Performance Monitoring E-port Top Talkers
  - Support Integrated Routing
  - Also support features and functions that are supported on Condor2 based 32 and 48 ports 8G blades (FC8-32 and FC8-48)
  - **Do not support** D-port, FEC on front-end ports, Encryption/Compression, 10G FC

In addition to new hardware support, there are additional features, support, and enhancements in FOS v7.0.1, including:

- Enhanced Optical ICL topology support for DCX8510
  - Support for up to nine DCX8510 chassis in “full mesh” configuration using optical ICLs
  - Support for ICL connectivity with up to eight DCX8510 chassis in a “core-edge” topology
  - Enterprise ICL license support on DCX8510
- Support for Dynamic Fabric Provisioning: Fabric Assigned World Wide Name capability
- Disruptive upgrade of DCX to DCX8510
- VCS/VDX6730 to FC SAN connectivity
- FCIP feature support: ESCON and Bus/Tag printer emulation support

## New Feature Descriptions

### Enhanced Optical ICL Topology Support for DCX8510

FOS v7.0.1 supports the following enhanced topologies using optical ICLs:

- Support for up to nine DCX8510 chassis in full mesh configuration using optical ICLs
- Support for ICL connectivity with up to eight DCX8510 chassis in core-edge topology

This increased support delivers massive scalability, significantly reduces cabling complexity, and also makes more ports available for device connectivity.

FOS v7.0.1 also adds support for Enterprise ICL license on DCX8510 platforms. Description of this license can be found in the “Optionally Licensed Software” section of this document.

### Support for Dynamic Fabric Provisioning: Fabric Assigned World Wide Name

In order to simplify and accelerate server deployment and improve operational efficiency, FOS v7.0.1 provides Fabric Assigned WWN or FA-PWWN capability. This feature allows users to create a virtual WWN for a server instead of using the server's physical port WWN (PWWN) to create zoning and LUN mapping/masking. When a FA-PWWN capable server is attached to the SAN, this feature allows the fabric to assign this virtual WWN to that server. This feature requires servers to be using Brocade HBAs/Adapters. Please consult Brocade HBA/Adapter driver documentation and Release Notes to confirm minimum requirements for this feature. For Brocade Network Advisor support, please consult Brocade Network Advisor documentation and Release Notes.

### VCS/VDX6730 to FC SAN Connectivity

This feature enables connectivity between hosts (using FCoE) connected to VCS/VDX platforms and FC storage connected to FC SAN via FCR. An E-port on a VDX6730 platform running NOS v2.1.1 is connected to an EX\_port on an FCR running FOS v7.0.1 to enable this functionality.

#### Note:

- Integrated Routing license is not required to share devices between VDX/VCS Ethernet fabric and FC SAN fabric.
- It is recommended to use 5300, DCX/DCX-4S, DCX8510-8, DCX8510-4 for FCR functionality for higher scalability.
- A new FCR EX\_port mode 5 is used to connect VCS/VDX6730 to FCR

### FCIP Enhancements

FOS v7.0.1 enables ESCON and Bus/Tag printer emulation support on FCIP platforms.

This feature provides near native performance for FICON Extended paths to remote ESCON or Bus and Tag printers. Enabling FICON Printer emulation requires the Advanced FICON Acceleration license. This feature is supported on 7800 and FX8-24.

## Optionally Licensed Software

Fabric OS v7.0.1 includes all basic switch and fabric support software, as well as optionally licensed software that is enabled via license keys.

Optionally licensed features supported in FOS v7.0.1 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 Fabric or E\_Port**— This license enables a switch to connect to a multi-switch fabric via E\_Ports, forming ISL connections. Note: This license is only required on select embedded switch models and does not apply to any fixed-port or chassis-based platforms. All fixed-port and chassis-based platforms support E\_Ports as part of their default FOS capabilities.

**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 Top Talkers feature.

**Brocade Fabric Watch** — Monitors mission-critical switch operations and provides notification if established limits or thresholds are exceeded. Fabric Watch includes Port Fencing capabilities.

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

**Note:** The FC-FastWrite feature is not supported on FR4-18i in FOS v7.0 or later.

**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 FR4-18i.

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

**Enhanced Group Management** — This license enables full management of devices in a data center fabric with deeper element management functionality and greater management task aggregation throughout the environment. This license is used in conjunction with Brocade Network Advisor application software and is applicable to all FC platforms supported by FOS v7.0 or later.

**Adaptive Networking with QoS**—Adaptive Networking provides a rich framework of capability allowing a user to ensure high priority connections obtain the bandwidth necessary for optimum performance, even in congested environments. The QoS SID/DID Prioritization and Ingress Rate Limiting features are included in this license, and are fully available on all 8Gb and 16Gb platforms.

**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.

**Integrated Routing**— This license allows any port in a DCX8510-8, DCX8510-4, Brocade 6510, DCX-4S, DCX, 5300, 5100, 7800, or Brocade Encryption Switch to be configured as an EX\_Port or VEX\_Port (on some platforms) supporting Fibre Channel Routing. This eliminates the need to add a dedicated router to a fabric for FCR purposes.

**Encryption Performance Upgrade** — This license provides additional encryption processing power. For the Brocade Encryption Switch or a DCX/DCX-4S/DCX8510-8/DCX8510-4, the Encryption Performance License

can be installed to enable full encryption processing power on the BES or on all FS8-18 blades installed in a DCX/DCX-4S/DCX8510-8/DCX8510-4 chassis.

**DataFort Compatibility** – This license is required on the Brocade Encryption Switch or DCX/DCX-4S/DCX8510-8/DCX8510-4 with FS8-18 blade(s) to read and decrypt NetApp DataFort-encrypted disk and tape LUNs. DataFort Compatibility License is also required on the Brocade Encryption Switch or DCX/DCX-4S/DCX8510-8/DCX8510-4 Backbone with FS8-18 Encryption Blade(s) installed to write and encrypt the disk and tape LUNs in NetApp DataFort Mode (Metadata and Encryption Algorithm) so that DataFort can read and decrypt these LUNs. DataFort Mode tape encryption and compression is supported beginning with the FOS v6.2.0 release on DCX platforms. Availability of the DataFort Compatibility license is limited; contact your vendor for details.

**Brocade 8000 FC Ports on Demand** – This license enables all eight FC ports on the Brocade 8000.

**Advanced Extension** – This 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, High, 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/DCX8510-8/DCX8510-4 for the FX8-24 on an individual slot basis.

**10GbE FCIP/10G Fibre Channel** – This license enables the two 10GbE ports on the FX8-24 or the 10G FC capability on FC16-xx blade ports. On the Brocade 6510, this license enables 10G FC ports. This license is available on the DCX/DCX-4S/DCX8510-8/DCX8510-4 on an individual slot basis.

- **FX8-24:** With this license assigned to a slot with an FX8-24 blade, two additional operating modes (in addition to 10 1GbE ports mode) can be selected; 10 1GbE ports and 1 10GbE port, or 2 10GbE ports
- **FC16-xx:** Enables 10G FC capability on an FC16-xx blade in a slot that has this license
- **Brocade 6510:** Enables 10G FC capability on the switch

**Advanced FICON Acceleration** – This 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/DCX8510-8/DCX8510-4 for the FX8-24 on an individual slot basis.

**7800 Upgrade** – This 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.

**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.

**ICL 8-Link** – 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.

**ICL POD License** – This license activates ICL ports on core blades of DCX8510 platforms. An ICL 1st POD license only enables half of the ICL ports on CR16-8 core blades of DCX8510-8 or all of the ICL ports on CR16-4 core blades on DCX8510-4. An ICL 2nd POD license enables all ICL ports on CR16-8 core blades on a DCX8510-8 platform. (The ICL 2<sup>nd</sup> POD license does not apply to the DCX8510-4.)

**Enterprise ICL License** – This license enables connecting more than four DCX8510 platforms within a single fabric using optical ICLs to deliver massive scalability. This license augments but does not replace existing licensed ICL support (ICL POD licenses are still required to enable ICL ports) for larger ICL-based topologies of 5



to 10 DCX8510 chassis per fabric. This license is required to be installed on every DCX8510 chassis with ICLs in a fabric when an ICL based topology exceeds the four chassis limit. This license is only recognized/displayed when operating with FOS v7.0.1 and later.

## Temporary License Support

The following licenses are available in FOS v7.0.1 as Universal Temporary or regular temporary licenses:

- 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 license
- Advanced Extension license
- Advanced FICON Acceleration license
- 10GbE FCIP/10G Fibre Channel license
- FICON Management Server (CUP) license
- Enterprise ICL license

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

Temporary and Universal Temporary licenses have durations and expiration dates established in the licenses themselves. FOS will accept up to two temporary licenses and a single Universal license on a unit. 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.

## Supported Switches

Fabric OS v7.0.1 supports the Brocade 300, 5410/5424/5450/5460/5470/5480/NC-5480, 5100, 5300, VA-40FC, Brocade Encryption Switch (BES), DCX/DCX-4S, 8000, 7800, 6505, 6510, DCX8510-8 and DCX8510-4.

Access Gateway mode is also supported by Fabric OS v7.0.1, and is supported on the following switches: the Brocade 300, 5100, VA-40FC, 8000, 5450, 5460, 5470, 5480, NC-5480, M5424, 6510, 6505.

## 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 and associated files
  - For dual CP platforms running FOS v6.2 and above, the supportsave command gathers information from both CPs and any AP blades installed in the chassis
- 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:



The serial number label is located as follows:

- Brocade Encryption Switch, VA-40FC, 300, 5100, 5300, 6510, 6505 – On the switch ID pull-out tab located on the bottom of the port side of the switch
- 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 DCX, DCX8510-8 – Bottom right of the port side
- Brocade DCX-4S, DCX8510-4 – 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 and DCX8510-8/DCX8510-4. For the Brocade DCX/DCX-4S and DCX8510-8/DCX8510-4 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 v7.0.1

Issues in the following list of TSBs are known to be potential risks to using FOS v7.0.1 and should be considered carefully prior to using this release of code:

TSB	Summary
None	

#### TSB Issues Resolved in FOS v7.0.1

Issues in the following list of TSBs are known FOS v7.0.x risks that are not exposures in FOS v7.0.1. 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
None	

## Recommended Migration Paths to FOS v7.0.1

### Migrating from FOS v7.0

Any 8G or 16G platforms running any FOS v7.0.0x release can be non-disruptively upgraded to FOS v7.0.1.

### Migrating from FOS v6.4.x

DCX/DCX-4S units running any FOS v6.4.x release can be non-disruptively upgraded to FOS v7.0.1.

Any 8G platforms (other than DCX/DCX-4S) that are currently operating at lower than FOS v6.4.1a must be upgraded to FOS v6.4.1a or later before non-disruptively upgrading to FOS v7.0.1. Upgrading these platforms from any FOS v6.4.x release **lower than FOS v6.4.1a to FOS v7.0.1 will cause disruption to FC traffic.**

Upgrading any 8G platform operating at FOS v6.4.1a or later to FOS v7.0.1 is non-disruptive to FC traffic.

### Migrating from FOS v6.4.1\_fcoe1

The upgrade from FOS v6.4.1\_fcoe1 to FOS v7.0.1 is non-disruptive to both FC and FCoE traffic on DCX and DCX-4S.

**Note:** Upgrading from FOS v6.4.1\_fcoe or FOS v6.4.x releases other than v6.4.1\_fcoe1 to FOS v7.0.1 will be disruptive to FCoE traffic going through FCOE10-24 blades in DCX/DCX-4S. When loading FOS v7.0.1 with Brocade Network Advisor v11.1.1/11.1.1a, there is no warning flagging this FCoE traffic disruption.

### Migrating from FOS v6.3.x

To non-disruptively migrate from FOS v6.3.x to v7.0.1, units should first load FOS v6.4.1a or later (v6.4.1b should be used for encryption platforms, units operating in Access Gateway mode, or units with ports configured as EX or VEX for FCR), and then migrate to FOS v7.0.1.

## FOS Upgrade and Downgrade Special Considerations

The DCX/DCX-4S units running any FOS v6.4.x can be non-disruptively upgraded to FOS v7.0.1. This upgrade is non-disruptive to FC traffic only. When loading FOS v7.0.1 to a DCX chassis with FCOE10-24 blades with Brocade Network Advisor v11.1.1/11.1.1a, there is no warning flagging FCoE traffic disruption.

The DCX/DCX-4S units running FOS v6.4.1\_fcoe1 can be non-disruptively upgraded to FOS v7.0.1. This upgrade is non-disruptive to both FCoE traffic through FCOE10-24 blades and FC traffic.

Non-disruptive upgrade to FOS v7.0.1 on 8G switches is allowed from **FOSv6.4.1a** or later.

**Disruptive** upgrades to Fabric OS 7.0.1 are allowed and supported from FOS 6.3 (up to a two-level migration) using the optional “-s” parameter with the *firmwaredownload* command.

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 to FOS v7.0 .1 will be disruptive to the I/O through the switch.

FC FastWrite , EX\_Ports, and TCP byte streaming on FR4-18i must be disabled prior to upgrading to FOS v7.0.1. Failure to do so will cause the upgrade to be blocked.

Upgrading a switch currently operating in interopmode 2 or 3 to FOS v7.0.1 is disruptive. The interopmode must be changed to 0 prior to upgrading to FOS v7.0.1, as interopmodes 2 and 3 are not supported on FOS v7.0.1. Changing the interopmode is an offline operation.

## Important Notes

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

### Brocade Network Advisor Compatibility

Brocade® Network Advisor provides the industry's first unified network management solution for data, storage, and converged networks. It supports Fibre Channel Storage Area Networks (SANs), Fibre Channel over Ethernet (FCoE) networks, Layer 2/3 IP switching and routing networks, wireless networks, application delivery networks, and Multiprotocol Label Switching (MPLS) networks. In addition, Brocade Network Advisor supports comprehensive lifecycle management capabilities across different networks through a seamless and unified user experience. It is the next-generation successor product to legacy Brocade management products (Brocade Data Center Fabric Manager (DCFM), Brocade Fabric Manager (FM) and Brocade Enterprise Fabric Connectivity Manager (EFCM)).

Brocade Network Advisor is available with flexible packaging and licensing options for a wide range of network deployments and for future network expansion. Brocade Network Advisor 11.1.0 is available in

- SAN-only edition
- IP-only edition
- SAN+IP edition.

For SAN Management, Network Advisor 11.1 is available in three editions:

- **Network Advisor 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 and up to 1,000 switch ports. It provides support for Brocade FC switches, Brocade HBAs / CNAs, and Fibre Channel over Ethernet (FCoE) switches.
- **Network Advisor Professional Plus:** a SAN management application designed for medium-size businesses or departmental SANs for managing up to four physical or virtual fabrics (FOS, M-EOS and Mixed fabrics) and up to 2,560 switch ports. It supports Brocade backbone and director products (DCX8510-4/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) / DCB switches, and Brocade HBAs / CNAs.
- **Network Advisor Enterprise:** a management application designed for enterprise-class SANs for managing up to 24 physical or virtual fabrics and up to 9,000 switch ports. Network Advisor SAN Enterprise supports all the hardware platforms and features that Network Advisor Professional Plus supports, and adds support for the Brocade DCX Backbone (DCX8510-8/DCX) and Fiber Connectivity (FICON) capabilities.

More details about Network Advisor's new enhancements can be found in the Network Advisor 11.1 Release Notes, Network Advisor 11.1 User Guide, and Network Advisor 11.1 Installation, Migration, & Transition Guides.

#### Note:

Brocade Network Advisor 11.0 and DCFM 10.4 cannot manage switches running FOS v7.0 or later.

Brocade Network Advisor 11.1.3 is required to manage Brocade 6505 platform.

### DCFM Compatibility

DCFM is not qualified or support the management of switches operating with FOS v7.0 and later firmware versions. **You must first upgrade DCFM to Network Advisor 11.1 or later if you are planning to upgrade devices to FOS v7.0 or you risk losing management connectivity.**

### WebTools Compatibility

FOS v7.0.1 is qualified and supported only with Oracle JRE 1.6.0 update 24.

## SMI Compatibility

- It is important to note that host SMI-S agents cannot be used to manage switches running FOS v7.0.1
- If users want to manage a switch running FOS v7.0.1 using SMI-S interface, they must use Brocade Network Advisor's integrated SMI agent.

## 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.

To ensure that a configuration is fully supported, always check the appropriate SAN, storage or blade server product support page to verify support of specific code levels on specific switch platforms prior to installing on your switch. Use only FOS versions that are supported by the provider.

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](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	Direct E-port connections are not supported – must use FCR
Brocade 3000	Direct E-port connections are not supported – must use FCR v3.2.1c <sup>3</sup>
Silkworm 3016, 3250, 3850, 3900, 24000	Direct E-port connections are not supported – must use FCR
4100, 4900, 7500, 7500e, 5000, 200E, 48K Brocade 4012, 4016, 4018, 4020, 4024, 4424	v6.2.2 or later <sup>6</sup>
Silkworm 12000	v5.0.x <sup>3</sup> (Direct E_Port connections are not supported – must use FCR)
Brocade 5410, 5480, 5424, 5450, 5460, 5470, NC-5480	v6.2.0 or later <sup>6</sup>
Brocade DCX, 300, 5100, 5300	v6.1.0e and later <sup>2 6</sup>
VA-40FC	v6.2.1_vfc <sup>6</sup> , v6.2.2 or later <sup>6</sup>
Brocade DCX-4S	v6.2.0 or later <sup>6</sup>
Brocade DCX with FS8-18 blade(s), Brocade Encryption Switch	v6.1.1_enc or later <sup>6</sup>
Brocade 7800, DCX and DCX-4S with FCOE10-24 or FX8-24 blades	V6.3.0 or later
Brocade 8000	V6.1.2_CEE1 or later
Brocade DCX/DCX-4S with FA4-18 blade(s)	DCX requires v6.0.x or later <sup>6</sup> , DCX-4S requires 6.2.x or later <sup>5 6</sup>
Brocade DCX8510-8/DCX8510-4	FOS v7.0 or later
Brocade 6510	FOS v7.0 or later
Brocade 6505	FOS v7.0.1 or later
48000 with FA4-18 blade(s), Brocade 7600	V6.2.2 or later <sup>6</sup>

Supported Products and FOS Interoperability	
Secure Fabric OS (on any model)	Not Supported
Mi10k, M6140, ED-6064, ES-3232, ES-4300, ES-4400, ES-4500, ES-4700 (McDATA Fabric Mode and Open Fabric Mode) <sup>1</sup>	Direct E_Port connections are not supported – must use FCR. M-EOS v9.9.5 or later
McDATA ED-5000 32-port FC director	Not Supported

Multi-Protocol Router Interoperability	
Brocade 7420	Not supported
Brocade 7500 and FR4-18i blade	V6.2.2 and higher <sup>4 6</sup>
McDATA SANRouters 1620 and 2640	Not Supported

NOS (VDX Platform) Interoperability	
Brocade VDX6710, VDX6720, VDX6730	NOS v2.1.1 or later <sup>7</sup>

Table Notes:

- <sup>1</sup> 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.
- <sup>2</sup> When directly attached to a Host or Target that is part of an encryption flow.
- <sup>3</sup> These platforms may not be directly attached to hosts or targets for encryption flows.
- <sup>4</sup> McDATA 1620 and 2640 SANRouters should not be used with FOS-based routing (FCR) for connections to the same edge fabric.
- <sup>5</sup> FA4-18 is not supported in a DCX/DCX-4S that is running FOS v7.0 or later
- <sup>6</sup> If operating with **FOS v6.2.2e or earlier**, Adaptive Networking QoS must be disabled when connecting to 16G FC platform. Otherwise, ISL will segment.
- <sup>7</sup> Connectivity to FC SAN is established via VDX6730 connected to FCR running FOS v7.0.1 or later. FCR platforms supported include 5100, VA-40FC, 5300, 7800, DCX, DCX-4S, DCX8510-8, DCX8510-4, 6510. For higher FCR backbone scalability (refer to separate “Brocade SAN Scalability Guidelines” documentation for details), please use 5300, DCX, DCX-4S, DCX8510-8, DCX8510-4.



**Zoning Compatibility Note:**

Users are recommended to upgrade to the following versions of firmware when interoperating with a switch running FOS v7.0 or later in the same layer 2 fabric to overcome some of the zoning operations restrictions that otherwise exist:

Main code level	Patch code levels with full zoning compatibility
FOS v6.2	FOS v6.2.2d or later
FOS v6.3	FOS v6.3.2a or later
FOS v6.4	FOS v6.4.1 or later

If there are switches running FOS versions lower than the above listed patch levels in the same fabric as a switch with FOS v7.0 or later, then cfsave and cfsenable operations **initiated** from these switches will fail if the zoning database is greater than 128KB. In such scenarios zoning operations such as cfsave/cfsenable can still be performed successfully if initiated from a switch running FOS v7.0 or later.

## Blade Support

Fabric OS v7.0.1 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-, 48- and 64-port 8Gbit port blades (FC8-16, FC8-32, FC8-48, FC8-64) and the 6-port 10G FC blade (FC10-6)	Supported with FOS v6.0 and above (FC8-64 requires FOS v6.4) 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.
FCIP/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 FCIP without routing. <b>Note:</b> FR4-18i cannot coexist with FX8-24 in FOS v7.0 or later FR4-18i does not support EX-ports, FC FastWrite and WAN optimization features in FOS v7.0 or later FR4-18i supports VEX ports on FOS v7.0 or later
Virtualization/Application Blade (FA4-18)	Not supported on FOS v7.0 or later
Encryption Blade (FS8-18)	Up to a maximum of 4 blades of this type.
Next Generation Distance Extension Blade (FX8-24)	Up to a max of 4 blades of this type. <b>Note:</b> FR4-18i cannot coexist with FX8-24 in FOS v7.0 or later
FCoE/L2 CEE blade FCOE10-24	Up to a max of 4 blades of this type. <b>Not supported in the same chassis with other intelligent blades or the FC8-64 port blade.</b>
FC16-32, FC16-48	Not supported

**Table 1 Blade Support Matrix for DCX and DCX-4S with FOS v7.0.1**

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

Fabric OS v7.0.1 software is fully qualified and supports the blades for the DCX8510-8 and DCX8510-4 noted in the table below.

DCX8510-8/DCX8510-4 Blade Support Matrix	
FC16-32, FC16-48 16G FC blades	Supported starting with FOS v7.0
FC8-64 64 port 8Gbit port blade	With any mix and up to 8/4 of each. No restrictions around intermix. <b>Note:</b> FC8-16, FC8-32, FC8-48 blades are <b>not</b> supported on DCX8510 platforms
FC8-32E, FC8-48E Condor3 based 8G blades	Supported starting with FOS v7.0.1 <sup>1</sup>
FC10-6	Not supported.
Intelligent blade	Up to a total of 8/4 intelligent blades. See below for maximum supported limits of each blade.
FCIP/FC Router blade (FR4-18i)	Not supported.
Virtualization/Application Blade (FA4-18)	Not supported
Encryption Blade (FS8-18)	Up to a maximum of 4 blades of this type.
Next Generation Distance Extension Blade (FX8-24)	Up to a maximum of 4 blades of this type.
FCoE/L2 CEE blade FCOE10-24	Not supported

**Table 2 Blade Support Matrix for DCX8510-8 and DCX8510-4 with FOS v7.0.1**

Note: The iSCSI FC4-16IP blade is not qualified for the DCX8510-8/DCX8510-4.

1. Note that 16G SFP+ is not supported in FC8-32E and FC8-48E blades

Power Supply Requirements for Blades in DCX/DCX-4S				
Blades	Type of Blade	DCX/DCX-4S @110 VAC (Redundant configurations)	DCX/DCX-4S @200-240 VAC (Redundant configurations)	Comments
FC10-6, FC8-16, FC8-32, FC 8-48, FC8-64	Port Blade	2 Power Supplies	2 Power Supplies	<ul style="list-style-type: none"> <li>Distribute the Power Supplies evenly to 2 different AC connections for redundancy.</li> </ul>
FR4-18i	Intelligent Blade	Not Supported	2 Power Supplies	
FS8-18, FX8-24, FCOE10-24	Intelligent Blade	Not Supported	DCX: 2 or 4 Power Supplies  DCX-4S: 2 Power Supplies	<ul style="list-style-type: none"> <li>For DCX with three or more FS8-18 Blades, (2+2) 220VAC Power Supplies are required for redundancy.</li> <li>For DCX with one or two FS8-18 Blades, (2) 220VAC Power Supplies are required for redundancy.</li> <li>For DCX-4S, (2) 220VAC Power Supplies provide redundant configuration with any supported number of FS8-18 Blades.</li> <li>For both DCX and DCX-4S with FX8-24 blades, (1+1) 220VAC Power Supplies are required for redundancy.</li> </ul>

Table 3 Power Supply Requirements for DCX and DCX-4S

Typical Power Supply Requirements Guidelines for Blades in DCX 8510-8					
(For specific calculation of power draw with different blade combinations, please refer to Appendix A: Power Specifications in the 8510-8 Backbone Hardware Reference Manual)					
Number of Ports	Blades	Type of Blade	DCX 8510-8 @110 VAC (Redundant configurations)	DCX 8510-8 @200-240 VAC (Redundant configurations)	Comments
Any combination of 8Gb or 16Gb ports with QSFP ICLs	FC8-64, FC16-32	Port Blade	4 Power Supplies	2 Power Supplies	200-240VAC: 1+1 Power Supplies 110VAC: 2+2 <sup>1</sup> Power Supplies
256 16Gb ports + QSFP ICLs	FC16-32, FC16-48 (Maximum of fully populated FC16-32 blades)	Port Blade	4 Power Supplies	2 Power Supplies	200-240VAC: 1+1 Power Supplies 110VAC: 2+2 <sup>1</sup> Power Supplies Max 8 FC16-32 port blades
192 16Gb Ports & max 2 intelligent boards (FX8-24 /FS8-18/combination) with QSFP ICLs	FC16-32, FC16-48, FX8-24, FS8-18	Port / Intelligent Blade	4 Power Supplies	2 Power Supplies	200-240VAC: 1+1 Power Supplies 110VAC: 2+2 <sup>1</sup> Power Supplies Max four FC16-48 port blades and max 2 Intelligent blades
336 16Gb ports + QSFP ICLs	FC16-48 (Maximum of seven FC16-48 blades, with one empty port blade slot)	Port Blade	4 Power Supplies	2 Power Supplies	200-240VAC: 1+1 Power Supplies 110VAC: 2+2 <sup>1</sup> Power Supplies Max 7 FC16-48 port blades
384 16Gb ports + QSFP ICLs	FC16-32, FC16-48	Port Blade	Not Supported	4 Power Supplies	200-240VAC: For DCX 8510-8, four (2+2) <sup>1</sup> 220V AC Power Supplies are required
Any combination of 8Gb or 16Gb ports and intelligent blades with QSFP ICLs	FC16-32, FC16-48, FC8-64, FS8-18, FX8-24	Intelligent Blade /Combination	Not Supported	4 Power Supplies	For DCX 8510-8, four (2+2) <sup>1</sup> 220V AC Power Supplies are required when any special purpose blade are installed

<sup>1</sup>When 2+2 power supply combination is used, the users are advised to configure the Fabric Watch setting for switch marginal state to be two power supplies. Users can use the CLI switchstatuspolicyset to configure this value if the current value is set to zero. In FOS v7.0.x, the default setting for the marginal state due to missing power supplies is incorrectly set to zero (Defect 000349586), which will prevent Fabric Watch from generating notifications when the switch enters the marginal state due to missing power supplies.

**Table 4 Power Supply Requirements for DCX 8510-8**

Typical Power Supply Requirements Guidelines for Blades in DCX 8510-4 (For specific calculation of power draw with different blade combinations, please refer to Appendix A: Power Specifications in the 8510-4 Backbone Hardware Reference Manual)					
Number of Ports	Blades	Type of Blade	DCX 8510-4 @110 VAC (Redundant configurations)	DCX 8510-4 @200-240 VAC (Redundant configurations)	Comments
96 ports max with QSFP ICLs	FC16-32	Port Blade	2 Power Supplies	2 Power Supplies	1+1 redundancy with 110 or 200-240 VAC power supplies
Any combination of 8Gb or 16 Gb ports and intelligent blades with QSFP ICLs	FC16-32, FC16-48, FC8-64, FS8-18, FX8-24	Intelligent Blade /Combination	Not Supported	2 Power Supplies	200-240VAC: 1+1 Power Supplies

**Table 5 Power Supply Requirements for DCX 8510-4**

## 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

### Adaptive Networking/Flow-Based QoS Prioritization

- Any 8G or 4G FC platform running FOS v6.2.2e or lower version of firmware cannot form an E-port with a 16G FC platform when Adaptive Networking QoS is enabled at both ends of the ISL. Users must disable QoS at either end of the ISL in order to successfully form an E-port under this condition.  
Users can disable QoS via `portcfgQos -disable` command. Please consult Fabric OS Command Reference manual for details related to `portcfgQoS` command.
- When using QoS in a fabric with 4G ports or switches, FOS v6.2.2 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 AFTER 6.2.2 is running on those switches.

### Access Gateway

- AG cascading is not supported on Brocade 6510, Brocade 6505 in FOS v7.0.1.
- Users who want to utilize Access Gateway's Device-based mapping feature in the ESX environments are encouraged to refer to the SAN TechNote GA-TN-276-00 for best implementation practices. Please follow these instructions to access this technote:
  - Log in to <http://my.brocade.com>
  - Go to Documentation > Tech Notes.
  - Look for the Tech Note on Access Gateway Device-Based Mapping in VMware ESX Server.

## Brocade HBA/Adapter Compatibility

- Brocade HBA/Adapter should be using driver version 2.3.0.2 or later when attached to 16G ports on Brocade switches.

## D-Port

- FOS v7.0.0a and later support the execution of D-Port tests concurrently on up to eight ports on the switch.
- D-Port tests may only be executed on ports configured for “*portcfglongdistance port# LO*” or normal port distance mode. Executing D-Port tests on long distance ports may cause tests to fail due to time out exceeded.
- Support of D-Port is extended to R\_RDY flow control mode. The R\_RDY mode is useful for active DWDM links that do not work in VC\_RDY or EXT\_VC\_RDY flow control modes.
- A new sub-option “-dwdm” is added to “portcfgdport --enable” CLI to configure D-Port over **active** DWDM links. The “-dwdm” option will not execute the optical loopback test while performing D-Port tests as the **active** DWDM links do not provide necessary support to run optical loopback tests.

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

- SafeNet’s KeySecure hosting NetApp’s LKM (SSKM) is supported for data encryption operations with FOS v7.0.1
  - Use of SSKM with the Brocade encryption solution is only supported for SSKM operating in PVM mode. Please see SSKM documentation for operating in PVM mode for details. Operation in HVM mode is not supported.
  - It is recommended to use Tight VNC connection to access the management console for SSKM and LKM key vaults instead of remote desktop. If remote desktop is used, customer may encounter the following errors related to smart card reader:
    - Error communicating with smart card reader.
    - Card reader already in use by default key.
    - Unable to complete TEP/TAP process as window for selecting card and entering password does not appear.
  - Please refer to SafeNet Keysecure install documentation for setting up and initially configuring the SSKM key vaults. There are some changes between setting up the SSKMs and the LKMs. Please refer SafeNet or NetApp documentation for any LKM to SSKM migration procedures. This migration is not tested/supported with FOS v7.0.1 or later.
  - The following is tested and supported with FOS v7.0.1
    - Platform Serial Number: 27CJNQ1
    - Platform FW Version: SSKM-1.0-03
    - Platform Firmware Build ID: 0.5\_secure
    - DB version: 166
    - SEP FW ID: SEPLuna TDB
    - SEP HW ID: Luna K6 TBD
    - SEP SW ID: 6.2.0 TBD
    - System Card FW ID: 200.5
    - Management console version: 1.0 build 18.
- For crypto tape operations, please ensure to use Emulex FC HBA firmware/drivers 2.82A4/7.2.50.007 or higher. Use of lower level firmware/drivers may result in hosts not being able to access their tape LUNs through a crypto target container.
- If the migration to FOS v7.0 or later does not occur from 6.4.1a, 6.4.1b, or 6.4.2, the following will result
  - BES will reboot if auto reboot is enabled otherwise it needs to be rebooted manually for recovery2010/11/08-04:54:35:485488, [FSS-1009], 4424/886, CHASSIS, ERROR,

MACE, FSS Error: fcswo-vs: MISMATCH: component., svc.c, line: 2462, comp:FSSK\_TH, ltime:2010/11/08-04:54:35:485484

- Adding of 3PAR Session/Enclosure LUNs to CTCs is now supported. Session/Enclosure LUNs (LUN 0xFE) used by 3PAR InServ arrays must be added to CryptoTarget (CTC) containers with LUN state set to “cleartext”, encryption policy set to “cleartext”. BES/FS8-18 will not perform any explicit enforcement of this requirement.
- The “*cryptocfg -manual\_rekey -all*” command should not be used in environments with multiple encryption engines (FS8-18 blades) installed in a DCX/DCX-4S/DCX8510 chassis with 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.
- When host clusters are deployed in an Encryption environment, please note the following recommendations:
  - If two EEs (encryption engines) are part of a HAC (High Availability Cluster), 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 the case of EE failure resulting in HAC failover.
  - 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.
- 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 or Brocade Network Advisor release (DCFM 10.3 or later for pre-FOS v7.0 and Network Advisor 11.1 or later for FOS v7.0 or later) 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.
- The System Card feature requires a compatible DCFM or Brocade Network Advisor release (DCFM 10.3 or later for pre-FOS v7.0 and Network Advisor 11.1 or later for FOS v7.0 or later) 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.
- HP SKM & ESKM are supported with Multiple Nodes and Dual SKM/ESKM Key Vaults. Two-way certificate exchange is supported. Please refer to the Encryption Admin Guide for configuration information. If using dual SKMs or ESKMs on BES/FS8-18 Encryption Group, then these SKM / ESKM Appliances must be clustered. Failure to cluster will result in key creation failure. Otherwise, register only one SKM / ESKM on the BES/FS8-18 Encryption Group.
- The RSA RKM Appliance A1.6, SW v2.7.1.1 is supported. The procedure for setting up the RKM Appliance with BES or a DCX/DCX-4S/DCX8510 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 or later release.



- Hot Code Load from FOS v6.4.1a to FOS v7.0 or later is supported. Cryptographic operations and I/O will be disrupted but other layer 2 FC traffic will not be disrupted.
- When disk and tape CTCs are hosted on the same encryption engine, re-keying cannot be done while tape backup or restore operations are running. Re-keying operations must be scheduled at a time that does not conflict with normal tape I/O operations. The LUNs should not be configured with auto rekey option when single EE has disk and tape CTCs.
- Gatekeeper LUNs used by SYMAPI on the host for configuring SRDF/TF using in-band management must be added to their containers with LUN state as “cleartext”, encryption policy as “cleartext” and without “-newLUN” option.
- For new features added to encryption in FOS v6.4.0, such as, disk device decommissioning, combined disk-tape encryption support on the same encryption engine, and redundant key ID metadata option for replication environments, all the nodes in the encryption group must be running FOS v6.4.0 or higher versions of FOS. Firmware downgrade will be prevented from FOS v6.4.0 to a lower version if one or more of these features are in use.
- Special Notes for HP Data Protector backup/restore application
  - Tape Pool encryption policy specification:
    - On Windows Systems, HP Data Protector can be used with tape pool encryption specification only if the following pool label options are used:
      - Pick from Barcode
      - User Supplied – Only 9 characters or less

For other options, behavior defaults to Tape LUN encryption policy.

    - On HP-UX systems, HP Data Protector cannot be used with tape pool encryption specification for any of the pool options. The behavior defaults to Tape LUN Encryption Policy.
  - Tape LUN encryption policy specification:
    - No restrictions, tape LUN encryption policy specification can be used with HP Data Protector on HP-UX and Windows systems.
- BES/FS8-18 will reject the SCSI commands WRITE SAME and EXTENDED COPY, which are related to VAAI (vStorage APIs for Array Integration) hardware acceleration in vSphere 4.1. This will result in non-VAAI methods of data transfer for the underlying arrays, and may affect the performance of VM related operations.

### **FCIP (FR4-18i, Brocade 7800 and FX8-24)**

- Any firmware activation will disrupt I/O traffic on FCIP links.
- Latency measurements supported on FCIP Tunnels:
  - 1GbE & 10GbE - 200ms round trip time and 1% loss.
- After inserting a 4G SFP in GE ports of an FX8-24 blade or 7800 switch, sometimes “sfpshow” output might display “Cannot read serial data!”. Removing and re-inserting the SFP should resolve this issue. It is recommended that users perform sfpshow immediately after inserting the SFP and ensure SFP is seated properly before connecting the cables.
- When running FOS v7.0.0 or later, if any of the following features are enabled in the FCIP configuration, a downgrade operation to pre-FOS v7.0.0 will be blocked until the features are removed from the FCIP configuration:
  - InBand Management
  - Multigigabit Circuit

- Shared GE among Logical Switches
- Auto-mode compression option
- VE as XISL
- 10GigE lossless failover
- Modified QoS percentages
- 10GigE ARL
- IP Configuration where multiple GigEs have same subnet values
- For a tunnel configuration on 1GE ports that has more than 4 circuits
- Teradata emulation enabled
- Circuits configured explicitly to be listeners or an initiators

### **FCoE/DCB/CEE (Brocade 8000 and FCOE10-24)**

- When upgrading a Brocade 8000 or DCX/DCX-4S with one or more FCOE10-24 blades from FOS v6.x to FOS v7.0.0 or later, the user should carefully review Chapter 5 of the FOS v7.0.0 Converged Enhanced Ethernet Administrator's Guide.
- FOS v7.0 or later supports a new optimized model for provisioning FCoE with fewer configuration steps to enable FCoE on DCB ports. These changes do not allow the Brocade 8000 to retain FCoE configuration information following an upgrade to FOS v7.0 or later. After the upgrade to FOS v7.0 or later, all FCoE edge ports will need to be provisioned with the new model before any FIP FLOGIs will take place
- Although including Brocade 8000 in the path of TI (Traffic Isolation) and ETI (Enhanced Traffic Isolation) Zones is not prohibited, it is not supported. Configuring Brocade 8000 in the TI/ETI Zone path is not recommended and will result in undefined behavior.
- Ethernet L2 traffic with xSTP Hello timer set to less than or equal to 3 seconds may experience momentary traffic disruption during HA failover.
- 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 coming up.
- 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.
- When operating in Converged Mode, tagged frames coming with a VLAN tag equal to the configured native VLAN are dropped.
- 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.
- The Brocade 8000 and FCOE10-24 support only one CEE map on all interfaces connected to CNAs. Additionally, CEE map is not recommended for use with non-FCoE traffic. QoS commands are recommended for interfaces carrying non-FCoE traffic.
- Before upgrading to FOS v6.4.1\_fcoe/v6.4.1\_fcoe1/v7.0.0 or later, if the CEE map "default" value already exists, the same "default" value is preserved after upgrading to FOS v6.4.1\_fcoe/v6.4.1\_fcoe1/v7.0.0 or later. However, if the CEE map "default" is not configured before upgrading to FOS v6.4.1\_fcoe/v6.4.1\_fcoe1/v7.0.0 or later, then after upgrading to FOS

v6.4.1\_fcoe/v6.4.1\_fcoe1/v7.0.0 or later, the following CEE map “default” will be created automatically:

```
cee-map default
priority-group-table 1 weight 40 pfc
priority-group-table 2 weight 60
priority-table 2 2 2 1 2 2 2 2
```

- When upgrading from FOS v6.3.x or v6.4.x to FOS v6.4.1\_fcoe/v6.4.1\_fcoe1/v7.0.0 or later, the CEE start up configuration dcf.conf file will be incompatible with the FCoE provisioning changes implemented in v6.4.1\_fcoe and later releases. Users can save the dcf.conf file as a backup and apply it once the firmware upgrade is completed to get the DCX/DCX-4S to the same startup configuration as in the older release.
- It is recommended that Spanning Tree Protocol and its variants be disabled on CEE interfaces that are connected to an FCoE device.
- 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. If there is a login group name conflict, the merge logic would rename the login group by including the last three bytes of the switch WWN in the login group name. As long as the OUI of the switch WWNs are identical this merge logic guarantees uniqueness in any modified login group name (switches with the same OUI will have unique last 3 bytes in WWN). However, if the participating switches have different OUIs but identical last three bytes in the switch WWNs, then the merge logic will fail to guarantee uniqueness of login group names. This will result in one of the login groups being dropped from the configuration. This means, no device can login to the login group that is dropped as a result of this name conflict. Users must create a new login group with a non-conflicting name to allow device logins.
- 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). Users can enable ethsw after upgrading firmware without FC traffic interruption.
- The Brocade 8000 does not support non-disruptive hot code loads (HCL). Upgrading the Brocade 8000 to FOS v7.0.1 or downgrading from v7.0.1 is disruptive to the IO through the switch.
- Upgrading firmware on a DCX or DCX-4S with one or more FCOE10-24 blades from FOS v6.4.1\_fcoe1 to FOS v7.0 or later will be non-disruptive to FCoE traffic through FCOE10-24 blades and FC traffic.
- Upgrading firmware on a DCX or DCX-4S with one or more FCOE10-24 blades from FOS v6.3.x, v6.4.x, and v6.4.1\_fcoe to FOS v7.0 or later will be disruptive to any traffic through the FCOE10-24 blades.
- Connecting 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.
- The Brocade 8000 and FCOE10-24 can handle 169 small FCoE frames in bursts. If you are using the Brocade 8000 or FCOE10-24, and you delete a large number of v-ports with HCM, some of the v-ports may not appear to be deleted. To correct this, disable and re-enable FCoE with the following CLI commands:

```
switch:admin>fcoe -disable slot/port
```

```
switch:admin>fcoe -enable slot/port
```

- When a FCOE10-24 blade is powered off during configuration replay, the interface specific configuration won't get applied. Later when FCOE10-24 blade is powered on, all physical interfaces will come up with default configurations. User can execute "copy startup-config running-config" command to apply the new configuration after powering on the FCOE10-24 blade.
- When IGMP Snooping is disabled on a VLAN, all configured IGMP groups are removed from that VLAN. User has to reconfigure the IGMP groups after enabling the IGMP snooping on that VLAN.

## FCR and Integrated Routing

- 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.
- VEX edge to VEX edge device sharing will not be supported.
- To allow Hot Code Load on Brocade 5100 when using Integrated Routing, the edge switch connected to the 5100 must be running Fabric OS v6.1 or later code.

## FICON

- For FICON qualified releases, please refer to the *Appendix: Additional Considerations for FICON Environments* section for details and notes on deployment in FICON environments. (This appendix is only included for releases that have completed FICON qualification).

## FL\_Port (Loop) Support

- FL\_Port is not supported on FC16-32, FC16-48, FC8-32E, FC8-48E, Brocade 6510, and Brocade 6505.
- The FC8-48 and FC8-64 blade support attachment of loop devices.
  - Virtual Fabrics must be enabled on the chassis and loop devices may only be attached to ports on a 48-port or 64-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 in 10-bit dynamic area mode on DCX-4S.
- A maximum of 112 ports may be used for connectivity to loop devices in a single Logical Switch within a chassis in 10-bit dynamic area mode on DCX.
- Loop devices continue to be supported when attached to ports on the FC8-16, FC8-32 with no new restrictions.

## ICLs on DCX/DCX-4S

- 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.

## Native Connectivity (M-EOS interoperability)

- A switch running FOS v7.0 or later cannot form E-port connectivity with any M-EOS platform. A switch running FOS v7.0 or later can only operate in Brocade native mode (interopmode 0). Connectivity between M-EOS platforms and a switch running FOS v7.0 or later is supported via FCR.

## 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 configured 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.

## Port Statistics

- On Condor3-based (16G FC) ports, the enc\_in (number of encoding errors inside of frames) and enc\_out (number of encoding errors outside of frames) counters will not be updated when a port is *operating* at either 10G or 16G speed. This is due to the different encoding scheme used at 10G and 16G speeds when compared to 8G/4G/2G speeds. Because of this, Fabric Watch alerts and Port Fencing based on ITW (Invalid Transmission Word) thresholds will not function as these enc\_in and enc\_out counters will not be incremented when operating at either 10G or 16G (ITW is computed based on enc\_in and enc\_out counters). Also any CLI or GUI that displays enc\_in and enc\_out counters will show no incrementing of these counters when a port is operating at either 10G or 16G.

Both enc\_in and enc\_out counters contain valid information when a Condor3-based port is operating at speeds **other than** 10G and 16G.

## Virtual Fabrics

- 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.
- 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.

## Zoning

- There are limitations to zoning operations that can be performed from a FOS v6.x switch that is in the same fabric as a FOS v7.0 or later switch if the FOS v6.x switch is not running the recommended firmware version. Please see Fabric OS Interoperability section for details.

Beginning with the FOS v6.2.0 release, all WWNs containing upper-case characters are automatically converted to lower-case when associated with a zone alias and stored as part of a saved configuration on a switch. For example, a WWN entered as either "AA.BB.CC.DD.EE.FF.GG.HH" or "aa.bb.cc.dd.ee.ff.gg.hh" when associated with a zone alias will be stored as "aa.bb.cc.dd.ee.ff.gg.hh" on a switch operating with FOS v6.2.0 or later.

This behavioral change in saved zone alias WWN members will not impact most environments. However, in a scenario where a switch with a zone alias WWN member with upper case characters (saved on the switch with pre-FOS v6.2.0 code) is merged with a switch with the same alias member

WWN in lower case characters, the merge will fail, since the switches do not recognize these zoning configurations as being the same.

For additional details and workaround solutions, please refer to the latest FOS Admin Guide updates or contact Brocade Customer Support.

## Miscellaneous

- Using a Windows anonymous FTP server for supportsave collection

When using anonymous ftp, to avoid long delays or failure of simultaneous supportsave collections when AP blades are present in a director chassis, the number of unlimited anonymous users for a Windows FTP server should be configured as follows:

Number of anonymous FTP connections = (Number of director chassis) + (Number of installed Application Blades x 3)

- RASlog message AN-1010 may be seen occasionally indicating “Severe latency bottleneck detected”. Even though it is a “Warning” message, it is likely to be a false alarm and can be ignored.
- POST diagnostics for the Brocade 5100 have been modified beginning with FOS v6.3.1b and v6.4.0 to eliminate an “INIT NOT DONE” error at the end of an ASIC diagnostic port loopback test. This modification addresses BL-1020 Initialization errors encountered during the POST portloopbacktest. (Defect 263200)
- It is important to note that the outputs of slotshow -p and chassisshow commands also display the maximum allowed power consumption per slot. These are absolute maximum values and should not be confused with the real-time power consumption on 16G blades. The chassisshow command has a “Power Usage (Watts):” field that shows the actual power consumed in real-time on 16G blades.
- Class 3 frames that have been trapped to CPU will be discarded in the following scenarios on DCX/DCX-4S/DCX8510 during the following conditions:
  - HA failover on DCX/DCX-4S/DCX8510 platforms while running FOS v7.0 or later firmware
  - Firmware upgrade from v7.0 to a later release on Brocade 300, 5100, VA-40FC, 5300, 6510
  - Firmware upgrade from v7.0.1 to a later release on Brocade 6505
- The QSFP information in the sfpshow output will indicate the ID field as all zeros. This is as designed.

```
ras080:FID128:root> sfpshow 5/32
QSFP No: 8 Channel No:0
Identifier: 13 QSFP+
Connector: 12 MPO Parallel Optic
Transceiver: 0000000000000000 16_Gbps id
```
- It is recommended that for directors with more than 300 E\_Ports, the switch be disabled prior to executing the “switchCfgTrunk” command (used to disable or enable trunking on the switch).
- During non-disruptive firmware upgrades, E\_Ports in R-RDY mode may cause some frame drops on the E-port links.
- For the configure command, in FOS v6.4, or later the default value that displays for Maximum Logins per switch is different than the value that displays in FOS v6.3.x. The default value has not changed; it was displayed incorrectly in FOS v6.3.x, and is now corrected.

## Defects

### Open Defects in Fabric OS v7.0.1

This section lists defects with High or Medium Technical Severity open in Fabric OS v7.0.1 as of December 15, 2011. While these defects are still formally "open," they are unlikely to impede Brocade customers in their deployment of Fabric OS v7.0.1 and have been deferred to a later release.

None of these defects have the requisite combination of probability and severity to cause significant concern to Brocade customers.

Note that when a workaround to an issue is available, it is provided; otherwise, no recommended workaround is available at this time.

<b>Defect ID:</b> DEFECT000329211		<b>Technical Severity:</b> High	
<b>Summary:</b> Encountered a DataPath panic on the Brocade 7800 when portcfgdefault was executed on VE port (with a circuit in test mode)			
<b>Symptom:</b> User experiences temporary FCIP traffic disruption after executing portcfgdefault on a VE port that has TPERF running.			
<b>Workaround:</b> Avoid executing "portcfgdefault" on a VE port that has TPerf running.			
<b>Feature:</b> FCIP		<b>Function:</b> FCIP Port	<b>Probability:</b> Low
<b>Found in Release:</b> FOS7.0.0			

<b>Defect ID:</b> DEFECT000355346		<b>Technical Severity:</b> High	
<b>Summary:</b> Replacing a failed FX8-24 blade may result in one circuit on a crossport configured tunnel getting stuck "In Progress..."			
<b>Symptom:</b> A crossport circuit fails to complete initialization and the user doesn't have the full bandwidth of the tunnel.			
<b>Feature:</b> FCIP		<b>Function:</b> FCP TCP/IP Stack	<b>Probability:</b> Low
<b>Found in Release:</b> FOS7.0.0			

<b>Defect ID:</b> DEFECT000369926		<b>Technical Severity:</b> High	
<b>Summary:</b> Emulated I/O that traverses multiple hops in a VF base fabric and one of those links is a VE tunnel with FastWrite enabled.			
<b>Symptom:</b> FastWrite fails in a multihop VE-XISL configuration.			
<b>Feature:</b> Striker/Spike Platform Services		<b>Function:</b> VF	<b>Probability:</b> High
<b>Found in Release:</b> FOS7.0.1			

<b>Defect ID:</b> DEFECT000381543		<b>Technical Severity:</b> High	
<b>Summary:</b> Device Discovery between backbone fabric and edge fabric fails after changing FCR switch domain ID.			
<b>Symptom:</b> Host fails to discover target across backbone to edge routing.			
<b>Workaround:</b> Reboot the hosts.			
<b>Feature:</b> 8G FCR		<b>Function:</b> Other	<b>Probability:</b> Medium
<b>Found in Release:</b> FOS7.0.1			

## Open Defects in Fabric OS v7.0.1

<b>Defect ID:</b> DEFECT000342944		<b>Technical Severity:</b> Medium
<b>Summary:</b> WebTools dialog does not include FID in the error message resulting from Config Download failure on DCX with multiple logical switches.		
<b>Symptom:</b> If configdownload fails for a particular fid while being performed through WebTools , the displayed error message does not include the logical switch FID.		
<b>Feature:</b> FOS-Infrastructure	<b>Function:</b> Config Download	<b>Probability:</b> Low
<b>Found in Release:</b> FOS7.0.0		

<b>Defect ID:</b> DEFECT000348045		<b>Technical Severity:</b> Medium
<b>Summary:</b> Fabric Watch is not properly triggering E-Port state change events.		
<b>Symptom:</b> Fabric Watch logs will not include E-Port state changes events.		
<b>Workaround:</b> Use Fabric Watch Port Class to monitor state changes.		
<b>Feature:</b> Field Escalation	<b>Function:</b> Fabric Services	<b>Probability:</b> Medium
<b>Found in Release:</b> FOS6.3.2		<b>Service Request ID:</b> SR 586189

<b>Defect ID:</b> DEFECT000367062		<b>Technical Severity:</b> Medium
<b>Summary:</b> Manually stopping D-Port tests may result in software verify error.		
<b>Symptom:</b> User sees the following software verify error message after manually stopping D-Port tests. "VERIFY - Failed expression: (SM_SUCCESS == dp_return)"		
<b>Workaround:</b> Workaround is to leave D-Port tests running to completion and not stop them.		
<b>Feature:</b> FC Services	<b>Function:</b> D-port	<b>Probability:</b> Medium
<b>Found in Release:</b> FOS7.0.1		

<b>Defect ID:</b> DEFECT000367436		<b>Technical Severity:</b> Medium
<b>Summary:</b> Fabric Watch email alerts use the default switch name instead of current switch name in the "Sent From" field.		
<b>Symptom:</b> The 'sent from' field name in a Fabric watch email alert is the default switch name instead of current switch name for the FID.		
<b>Feature:</b> FABRIC WATCH	<b>Function:</b> Other	<b>Probability:</b> High
<b>Found in Release:</b> FOS7.0.1		

<b>Defect ID:</b> DEFECT000367477		<b>Technical Severity:</b> Medium
<b>Summary:</b> SSH "Allowed User" usernames are converted to all lower case when saved to the configuration file.		
<b>Symptom:</b> Sshutil command will fail for the usernames containing upper case letters.		
<b>Workaround:</b> Run sshutil command with username converted to all lower case letters, or avoid configuring usernames with upper case letters.		
<b>Feature:</b> FOS Security	<b>Function:</b> SSH	<b>Probability:</b> Medium
<b>Found in Release:</b> FOS7.0.1		



## Open Defects in Fabric OS v7.0.1

<b>Defect ID:</b> DEFECT000369286		<b>Technical Severity:</b> Medium	
<b>Summary:</b> Inconsistency in handling of unsupported port speed configuration after replacing an FC16-xx blade with an FC8-xxE blade.			
<b>Symptom:</b> After replacing an FC16-xx blade with an FC8-xxE blade, ports previously configured to fixed 10G speed will be reset to auto speed negotiation while ports previously configured to fixed 16G will be persistently disabled.			
<b>Workaround:</b> Manually correct the configured port speed and reenable the port.			
<b>Feature:</b> 16G ASIC Driver		<b>Function:</b> General	<b>Probability:</b> High
<b>Found in Release:</b> FOS7.0.1			

<b>Defect ID:</b> DEFECT000371302		<b>Technical Severity:</b> Medium	
<b>Summary:</b> CEE/FCoE: protocol spanning tree config is not visible after spanning tree shut/no shut			
<b>Symptom:</b> If the customer changes the path cost to custom and does a shut/no shut the configuration will have flat set as standard but rest of the config will remain as custom.			
<b>Workaround:</b> Reconfigure "port-channel path-cost custom" and then configure "port-channel path-cost standard".			
<b>Feature:</b> CEE-LAYER2		<b>Function:</b> STP	<b>Probability:</b> Medium
<b>Found in Release:</b> FOS7.0.1			

<b>Defect ID:</b> DEFECT000373589		<b>Technical Severity:</b> Medium	
<b>Summary:</b> The error message for a duplicate user assigned FAPWWN will show the slot/port as -1/-1 if the port is in a different logical switch.			
<b>Symptom:</b> If the user attempts to assign a WWN that has already been assigned to a port in a different logical switch, the following message is displayed: "Error: Virtual Port WWN is already mapped (FID <xxx>, Switch port -1/-1)." This does not indicate the actual physical port with the duplicate WWN assignment.			
<b>Workaround:</b> Login to the FID indicated in the error message and issue "fapwwn --show all" to identify which port has the WWN already assigned.			
<b>Feature:</b> Fabric Provisioning		<b>Function:</b> CLI	<b>Probability:</b> High
<b>Found in Release:</b> FOS7.0.1			

<b>Defect ID:</b> DEFECT000374924		<b>Technical Severity:</b> Medium	
<b>Summary:</b> Port Admin Dialog: FC8-32E and FC8-48E blades will list speed combo values which are not supported on these platforms.			
<b>Symptom:</b> User will see speed combo values for FC8-32E and FC8-48E blades, but these settings are not valid for these blade types.			
<b>Feature:</b> WebMgmt		<b>Function:</b> Ports Admin	<b>Probability:</b> High
<b>Found in Release:</b> FOS7.0.1			

## Open Defects in Fabric OS v7.0.1

<b>Defect ID:</b> DEFECT000375412		<b>Technical Severity:</b> Medium
<b>Summary:</b> Sending Test Email from Web Tools does not work if DNS has not been properly configured.		
<b>Symptom:</b> Sending Test Email from Web Tools does not work.		
<b>Workaround:</b> DNS configuration needs to be in place and accurate for e-mail functionality to work correctly.		
<b>Feature:</b> WebMgmt	<b>Function:</b> Switch Admin	<b>Probability:</b> Medium
<b>Found in Release:</b> FOS7.0.1		

<b>Defect ID:</b> DEFECT000376141		<b>Technical Severity:</b> Medium
<b>Summary:</b> Devices imported into VDX fabric clusters via FC Router with be listed as "Device type: Physical Unknown(initiator/target)"		
<b>Symptom:</b> Issuing "show name-server" on a VDX switch will display all imported SAN devices as unknown FC4 Type, "Device type: Physical Unknown(initiator/target)".		
<b>Workaround:</b> User could login to the remote SAN fabric directly to acquire the FC4 Type information.		
<b>Feature:</b> 8G FCR	<b>Function:</b> Other	<b>Probability:</b> High
<b>Found in Release:</b> FOS7.0.1		

<b>Defect ID:</b> DEFECT000378573		<b>Technical Severity:</b> Medium
<b>Summary:</b> CEE/FCoE: MSTP instance cost is not changing after configuring the spanning tree cost and changing the mstp mode		
<b>Symptom:</b> MSTP instances are not assigned proper costs when port-channel path-cost is changed.		
<b>Workaround:</b> User needs to unconfigure the port-channel path-cost.		
<b>Feature:</b> CEE-LAYER2	<b>Function:</b> MSTP	<b>Probability:</b> Low
<b>Found in Release:</b> FOS7.0.1		

<b>Defect ID:</b> DEFECT000378642		<b>Technical Severity:</b> Medium
<b>Summary:</b> Performance Monitor Dialog: with Java 1.7.0, the selections for port/blade are not listed on the port throughput, port error and blade aggregate throughput graphs.		
<b>Symptom:</b> User will not see the port/blade selection on the port throughput, port error and blade aggregate throughput graphs.		
<b>Workaround:</b> User can manually enter the port number in the slot, port format to display the desired graph. For blade aggregate throughput, manually entering just the slot number will display the appropriate graph.		
<b>Feature:</b> WebMgmt	<b>Function:</b> Performance Monitor	<b>Probability:</b> High
<b>Found in Release:</b> FOS7.0.1		

## Open Defects in Fabric OS v7.0.1

<b>Defect ID:</b> DEFECT000381334	<b>Technical Severity:</b> Medium	
<b>Summary:</b> Mode 1 portloopbacktest fails on FC16 blades in either slot 7 or 8 of 8510-4		
<b>Symptom:</b> User sees failure message when running portloopbacktest BLADE ID 0x60 in slot 7 reset, mode:5 condor3_fpl_lli_ns_status[3518]: slot 7 chip 0 asic port 24 has LOS peerSlot -1 (null) asicChip 0 asicPort 0 FAILED to set speed 16 G BLADE ID 0x60 in slot 7 reset, mode:5 SKIPPED!.		
<b>Feature:</b> Field Escalation	<b>Function:</b> Diagnostics	<b>Probability:</b> High
<b>Found in Release:</b> FOS7.0.0	<b>Service Request ID:</b> 679251	

## Closed with Code Change in Fabric OS v7.0.1

This section lists the defects with Critical, High and Medium Technical Severity closed with a code change as of December 15, 2011 in Fabric OS v7.0.1.

<b>Defect ID:</b> DEFECT000326023	<b>Technical Severity:</b> High
<b>Summary:</b> HA-Failover of switch seen when running IP over FC with multi-frame sequences.	
<b>Symptom:</b> With IPFC configuration, run IPFC Broadcast frames with multi frames in sequence, observe switch fails over or hareboot after some run time.	
<b>Feature:</b> Field Escalation	<b>Function:</b> Panic / OOM
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS6.4.0	<b>Service Request ID:</b> 487819
<b>Where Else Fixed:</b> FOS6.4.2 b GA	

<b>Defect ID:</b> DEFECT000329676	<b>Technical Severity:</b> High
<b>Summary:</b> On FOSv6.3.2c and v6.4.0a or later, unstable links trigger continuous frame tracing to CPU for processing.	
<b>Symptom:</b> CPs cold recovery when continuous stream of frames are trapped to CPU, overloading the processor. This is reported on 4G directors and is less likely to be triggered on 8G switch/directors. Note: FOS 6.4.2 had improvement, and additional change is back ported from FOS7.0.0GA to FOS6.4.2b in this area to throttle further. FOS 6.3.2e pulled in the same enhancement.	
<b>Feature:</b> Field Escalation	<b>Function:</b> ASIC Driver
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS6.4.0	<b>Service Request ID:</b> 501279
<b>Where Else Fixed:</b> FOS6.4.2, FOS7.0.0 GA, FOS6.4.2 b GA	

<b>Defect ID:</b> DEFECT000336580	<b>Technical Severity:</b> High
<b>Summary:</b> SNMP: FA-MIB: ConnUnitLinkTable did not return all the VE ISL entries	
<b>Symptom:</b> The user will not get all the FCIP ISL link information in ConnUnitLinkTable	
<b>Feature:</b> Mgmt Embedded - SNMP	<b>Function:</b> Other
<b>Probability:</b> Medium	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000337102	<b>Technical Severity:</b> High
<b>Summary:</b> Non-decryptable DF mode tape causes FPGA/blade fault	
<b>Symptom:</b> When a non-decryptable DF mode tape is processed by the BES, it can cause a DECRYPT_DECOMPRESS timeout/failure, which in some instances can cause other tape jobs to fail. In the most serious case, the BES or FS8-18 will fault, aborting all tape jobs.	
<b>Feature:</b> Field Escalation	<b>Function:</b> Encryption
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS6.3.2	<b>Service Request ID:</b> 516651

## Closed with Code Change Defects in Fabric OS v7.0.1

<b>Defect ID:</b> DEFECT000345301	<b>Technical Severity:</b> High
<b>Summary:</b> In FCR configurations with Speed Tags, if LSAN Binding is added, binding is not being properly enforced.	
<b>Symptom:</b> If LSAN Binding is added to an FCR configuration with Speed Tags already defined, binding may not be properly enforced and devices may not get properly imported/exported.	
<b>Workaround:</b> Removal of stale configuration	
<b>Feature:</b> 8G FCR	<b>Function:</b> FCR Daemon
<b>Probability:</b> Medium	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000346417	<b>Technical Severity:</b> High
<b>Summary:</b> Data Encryption: if tape device is improperly identified as a disk device, BES could hang and go faulty.	
<b>Symptom:</b> BES switch is hanging/going faulty and stopping all tape backup operations. Seeing message [CVLC-1009], ... Wrong device type: should be tape, found disk.	
<b>Feature:</b> Field Escalation	<b>Function:</b> Encryption
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS6.4.0	<b>Service Request ID:</b> 585157
<b>Where Else Fixed:</b> FOS6.4.2 a	

<b>Defect ID:</b> DEFECT000348660	<b>Technical Severity:</b> High
<b>Summary:</b> After FCIP links in an FCR backbone fabric bounce several times, FCR is not translating all SID/DIDs properly.	
<b>Symptom:</b> Customer cannot access device after the FCIP links have bounced multiple times. Frames with same SID/DID were sent to device after proxy translation failed in a backbone to edge FCR setup.	
<b>Feature:</b> Field Escalation	<b>Function:</b> FCR
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS6.2.2	<b>Service Request ID:</b> 602521
<b>Where Else Fixed:</b> FOS6.3.2 c, FOS6.4.2 a	

<b>Defect ID:</b> DEFECT000350136	<b>Technical Severity:</b> High
<b>Summary:</b> Encrypted/Compressed E-Port trunk goes down following CP failover	
<b>Symptom:</b> Encrypted link goes down after hfailover and gets stuck at G-Port.	
<b>Workaround:</b> Slotpoweroff /slotpoweron the blade	
<b>Feature:</b> 16G ASIC Driver	<b>Function:</b> In-flight encryption/compression
<b>Probability:</b> Medium	
<b>Found in Release:</b> FOS7.0.0	

## Closed with Code Change Defects in Fabric OS v7.0.1

<b>Defect ID:</b> DEFECT000350457	<b>Technical Severity:</b> High
<b>Summary:</b> Access Gateway N-port stuck in G-port after firmware upgrade with QoS enabled on attached Fabric switch	
<b>Symptom:</b> AG N_Port could be stuck in G_Port after firmware upgrade.	
<b>Workaround:</b> If this issue is encountered, disable QoS on the Fabric switch for the impacted link	
<b>Feature:</b> Field Escalation	<b>Function:</b> Access Gateway
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS6.3.1	<b>Service Request ID:</b> 610119
<b>Where Else Fixed:</b> FOS6.3.2 c, FOS6.4.2 a	

<b>Defect ID:</b> DEFECT000350463	<b>Technical Severity:</b> High
<b>Summary:</b> Unable to configure ports as extended distance using CLI on 6510 10G ports without extended fabric license	
<b>Symptom:</b> The intention is that you should be able to configure any non-default Extended Fabric mode on a licensed 10G FC port without requiring the Extended Fabric license – non-10G ports still require the Extended Fabric license for this operation.  On the 6510 pizza box, for 10G ports, from CLI you cannot configure anything but the default Extended Fabric modes without an Extended Fabric license present.  On DCX8510 family CLI, the Extended Fabric configuration behaves as expected for licensed 10G ports (no Extended Fabric license is required for any extended distance modes).	
<b>Feature:</b> WebMgmt	<b>Function:</b> Switch Admin
<b>Probability:</b> High	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000350660	<b>Technical Severity:</b> High
<b>Summary:</b> D-port failing when more than 4-ports are initiated simultaneously	
<b>Symptom:</b> D-port tests fail on some ports when run on more than 4 links simultaneously.	
<b>Workaround:</b> Toggle the port	
<b>Feature:</b> FC Services	<b>Function:</b> D-port
<b>Probability:</b> Medium	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000351152	<b>Technical Severity:</b> High
<b>Summary:</b> Name server assert triggered switch panic	
<b>Symptom:</b> Switch reboot or hfailover observed when Admin Domain (AD) database was not in sync and there was port offline event on local/remote switch.	
<b>Feature:</b> Field Escalation	<b>Function:</b> Fabric Services
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS6.4.1	<b>Service Request ID:</b> 618539
<b>Where Else Fixed:</b> FOS6.4.2 b GA	

## Closed with Code Change Defects in Fabric OS v7.0.1

<b>Defect ID:</b> DEFECT000353445	<b>Technical Severity:</b> High
<b>Summary:</b> Out of band bulk requests (SMI) can cause Name Server to panic in frame redirection environments.	
<b>Symptom:</b> Multiple name server panics observed in conjunction with applications which performs GXX_ID (such as GCS_ID) queries via out of band.	
<b>Workaround:</b> Avoid GXX_ID (like GCS_ID) queries via out of band (through RPC) querying with ID of device that is part of frame redirection	
<b>Feature:</b> Field Escalation	<b>Function:</b> Fabric Services
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS6.3.1	<b>Service Request ID:</b> 627097
<b>Where Else Fixed:</b> FOS6.4.2 b GA	

<b>Defect ID:</b> DEFECT000354348	<b>Technical Severity:</b> High
<b>Summary:</b> Not receiving the RAS log Cx-5021 message for front port partial credit loss on an EX-Port	
<b>Symptom:</b> Customer will be unaware if EX_Ports are leaking credit.	
<b>Feature:</b> 8G FCR	<b>Function:</b> FCR Daemon
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000356094	<b>Technical Severity:</b> High
<b>Summary:</b> IDLE not being sent after NOS - results in other issues and eventually causes G_Port.	
<b>Symptom:</b> Customer simply notices that one side the ISL becomes a G_Port, while the peer remains an E_Port.	
<b>Feature:</b> Field Escalation	<b>Function:</b> Fabric Services
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS6.2.2	<b>Service Request ID:</b> 602057

<b>Defect ID:</b> DEFECT000356468	<b>Technical Severity:</b> High
<b>Summary:</b> Access Gateway does not clean up frame exchange properly if FLOGI/FDISC comes in from different ports together with same exchange ID (OX-ID).	
<b>Symptom:</b> 3rd party application reports migration failure between servers.	
<b>Feature:</b> Field Escalation	<b>Function:</b> Access Gateway
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS6.3.2	<b>Service Request ID:</b> 629273
<b>Where Else Fixed:</b> FOS6.4.2 b GA	

## Closed with Code Change Defects in Fabric OS v7.0.1

<b>Defect ID:</b> DEFECT000359518	<b>Technical Severity:</b> High
<b>Summary:</b> Cannot remove configured Admin Domain if defzone is configured as "allaccess"	
<b>Symptom:</b> Customer unable to remove admin domains when defzone –allaccess is set (which is an invalid configuration, involving an unlikely "loophole" to configure.)	
<b>Workaround:</b> remove zone files from switch and reboot	
<b>Feature:</b> Field Escalation	<b>Function:</b> Fabric Services
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS6.2.2	<b>Service Request ID:</b> 336453

<b>Defect ID:</b> DEFECT000362720	<b>Technical Severity:</b> High
<b>Summary:</b> If an F_Port trunk has gone down and stays offline, the switch may panic during code upgrade.	
<b>Symptom:</b> Director may experience hafaifover and switches reboot caused by kernel panic while doing zone check.	
<b>Feature:</b> Field Escalation	<b>Function:</b> Panic / OOM
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS6.3.2	<b>Service Request ID:</b> 653815

<b>Defect ID:</b> DEFECT000364137	<b>Technical Severity:</b> High
<b>Summary:</b> FabricWatch Port Class is not monitoring ICL ports. E-Port Class monitors are monitoring ICL ports.	
<b>Symptom:</b> ICL Ports will not report any threshold warnings and will not be fenced for Port Class attributes.	
<b>Feature:</b> FABRIC WATCH	<b>Function:</b> PORT FENCING
<b>Probability:</b> High	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000364443	<b>Technical Severity:</b> High
<b>Summary:</b> Compact Flash became 100% full on BES after switch panic.	
<b>Symptom:</b> BES crashed and rebooted and left a large corefile which is saved in Compact Flash, causing it to fill up.	
<b>Feature:</b> Field Escalation	<b>Function:</b> OS: Linux
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS6.4.1	<b>Service Request ID:</b> 660833
<b>Where Else Fixed:</b> FOS6.4.2 b GA	

<b>Defect ID:</b> DEFECT000364799	<b>Technical Severity:</b> High
<b>Summary:</b> After downgrading from v7.0.0 to v6.4.x, a route rebalance or recalculation will cause some ICL paths to be blocked.	
<b>Symptom:</b> Connectivity between devices lost after route change.	
<b>Workaround:</b> Disable all ICL ports and then enable all ICL ports	
<b>Feature:</b> UNDETERMINED	<b>Function:</b> UNDER REVIEW
<b>Probability:</b> High	
<b>Found in Release:</b> FOS6.4.2	



## Closed with Code Change Defects in Fabric OS v7.0.1

<b>Defect ID:</b> DEFECT000364945	<b>Technical Severity:</b> High
<b>Summary:</b> Unable create 4th tunnel with crossport circuits in chassis with multiple FX8-24 blades.	
<b>Symptom:</b> Unable create more than three tunnels with crossport circuit configuration in a chassis with multiple FX8-24 blades.	
<b>Feature:</b> FCIP	<b>Function:</b> Other
<b>Probability:</b> High	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000365069	<b>Technical Severity:</b> High
<b>Summary:</b> ICL Ports on 8510 directors show "Mod_Val" on 1 out of 4 ports on a QSFP.	
<b>Symptom:</b> Event log indicates bad QSFP requiring reseal or replacement.	
<b>Workaround:</b> Reseating QSFP may correct the issue	
<b>Feature:</b> 16G Hardware	<b>Function:</b> 16G QSFP
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000365071	<b>Technical Severity:</b> High
<b>Summary:</b> QSFP port status is not refreshed in WebTools port admin window.	
<b>Symptom:</b> Insertion/Removal of QSFP is not reflected in Port Admin window.	
<b>Workaround:</b> Refresh, or close and re-open Port Admin window	
<b>Feature:</b> WebMgmt	<b>Function:</b> Ports Admin
<b>Probability:</b> Medium	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000365075	<b>Technical Severity:</b> High
<b>Summary:</b> QSFP ICL ports are being fenced due to excessive state changes even though current high threshold value is not exceeded	
<b>Symptom:</b> QSFP ICL links are getting fenced unexpectedly.	
<b>Feature:</b> FABRIC WATCH	<b>Function:</b> PORT FENCING
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000368931	<b>Technical Severity:</b> High
<b>Summary:</b> Deprecate FruReplace CLI command in FOS	
<b>Symptom:</b> Use of FruReplace command in the process of performing replacement of a defective WWN card will result with a potential failed transfer leaving the replacement WWN card unusable.	
<b>Feature:</b> FOS-Infrastructure	<b>Function:</b> Other
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS7.0.0	<b>Service Request ID:</b> 673189

## Closed with Code Change Defects in Fabric OS v7.0.1

<b>Defect ID:</b> DEFECT000369610	<b>Technical Severity:</b> High
<b>Summary:</b> Emulated FICON Tape Read Channel Program can grow too large, resulting in FICON Protocol timeouts and aborts	
<b>Symptom:</b> FICON Abort during tape read emulation	
<b>Feature:</b> FCIP	<b>Function:</b> FCIP I/O
<b>Probability:</b> High	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000369703	<b>Technical Severity:</b> High
<b>Summary:</b> Host could not Link up on 8G FC port when the port is configured at a fixed speed of 4G or 8G.	
<b>Symptom:</b> When an 8G capable port is configured at fixed speed of 4G or 8G, and remote is configured as speed auto negotiation, and there is only 1 port connected to the remote, after switch reboot, or slotpoweroff/slotpoweron, sometime this port cannot sync up. Portdisable/portenable cannot recover. When there are more than 1 links connected, this problem is not observed.	
<b>Feature:</b> Field Escalation	<b>Function:</b> ASIC Driver
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS6.2.2	<b>Service Request ID:</b> 672599

<b>Defect ID:</b> DEFECT000370943	<b>Technical Severity:</b> High
<b>Summary:</b> Network scanning application causing high CPU utilization by CNM daemon.	
<b>Symptom:</b> Possible module timeouts seen during processing intensive actions such as SupportSave.	
<b>Feature:</b> Data Security	<b>Function:</b> HA Cluster
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS6.4.2	<b>Service Request ID:</b> 123606

<b>Defect ID:</b> DEFECT000373075	<b>Technical Severity:</b> High
<b>Summary:</b> Linux kernel bug causing panic on switch running FOS v6.4.2	
<b>Symptom:</b> Kernel panic and reboot of switch	
<b>Feature:</b> Field Escalation	<b>Function:</b> Panic / OOM
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS6.4.2	<b>Service Request ID:</b> 680849

<b>Defect ID:</b> DEFECT000375295	<b>Technical Severity:</b> High
<b>Summary:</b> F_Port stuck in Disabled (N-Port Offline for F-Port) after AG reboot	
<b>Symptom:</b> F_Ports on some access gateways are stuck in F_Port Disabled state (N-Port Offline for F-Port) and observe raslog reports: [AG-1005], FDISC response was dropped.	
<b>Feature:</b> Field Escalation	<b>Function:</b> Access Gateway
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS6.2.2	<b>Service Request ID:</b> 684505

## Closed with Code Change Defects in Fabric OS v7.0.1

<b>Defect ID:</b> DEFECT000317392	<b>Technical Severity:</b> Medium
<b>Summary:</b> systemverification failing on 7800.	
<b>Symptom:</b> systemverification test fails	
<b>Feature:</b> Diagnostics	<b>Function:</b> Other
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS6.3.1	
<b>Where Else Fixed:</b> FOS7.0.0 GA	

<b>Defect ID:</b> DEFECT000319548	<b>Technical Severity:</b> Medium
<b>Summary:</b> ceeporloopbacktest and ceeporledtest does not properly process all parameters on the Brocade 8000	
<b>Symptom:</b> Customer cannot utilize all options of the CEE port diagnostic tests	
<b>Feature:</b> Diagnostics	<b>Function:</b> Other
<b>Probability:</b> High	
<b>Found in Release:</b> FOS6.4.0	<b>Service Request ID:</b> 451771
<b>Where Else Fixed:</b> FOS7.0.0 GA, FOS6.4.1 b	

<b>Defect ID:</b> DEFECT000335811	<b>Technical Severity:</b> Medium
<b>Summary:</b> Brocade 5450 switches crashed when latest version of enclosure management SW was used.	
<b>Symptom:</b> Brocade 5450 platform may panic if used with newer version of MMB that uses new ISMIC block which was previously not supported.	
<b>Workaround:</b> Use initial qualified MMB version	
<b>Feature:</b> Field Escalation	<b>Function:</b> Panic / OOM
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS6.2.0	<b>Service Request ID:</b> 530085
<b>Where Else Fixed:</b> FOS6.4.2 a	

<b>Defect ID:</b> DEFECT000336933	<b>Technical Severity:</b> Medium
<b>Summary:</b> Switch sends ELP to device after the device sends FLOGI during power-up sequence	
<b>Symptom:</b> When connected to 4G switch, during a specific storage device power-up sequence, host cannot access target.	
<b>Feature:</b> Field Escalation	<b>Function:</b> ASIC Driver
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS6.1.2	<b>Service Request ID:</b> 444823
<b>Where Else Fixed:</b> FOS6.4.2	

## Closed with Code Change Defects in Fabric OS v7.0.1

<b>Defect ID:</b> DEFECT000339701	<b>Technical Severity:</b> Medium
<b>Summary:</b> Even after removing the device from the LSAN zoning, nsinfo.html for switch is not updated with removed devices.	
<b>Symptom:</b> nsinfo.html may not be updated with devices that have been removed from an LSAN zone.	
<b>Feature:</b> 8G FCR	<b>Function:</b> FCR Daemon
<b>Probability:</b> Medium	
<b>Found in Release:</b> FOS6.4.2	

<b>Defect ID:</b> DEFECT000342412	<b>Technical Severity:</b> Medium
<b>Summary:</b> TPERF session may not be able to be restarted until all user disabled GE ports on the test tunnel are re-enabled.	
<b>Symptom:</b> If a user disables GigE ports on a TPERF test tunnel while a TPERF session is in progress and the TPERF session is subsequently terminated, TPERF may not be able to be restarted until the disabled GigE ports are re-enabled.  When in this state, if the user attempts to re-start TPERF, they will get a message indicating that a TPERF session is already in progress.	
<b>Feature:</b> FCIP	<b>Function:</b> FCIP CLI
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000342738	<b>Technical Severity:</b> Medium
<b>Summary:</b> Enhancement to BE credit loss detection and recovery	
<b>Symptom:</b> Previously, if backend credit is lost, the user needs to reseal the blade to recover. This release added user configuration options to generate link reset, port re-init, or blade fault upon detection of backend credit loss.	
<b>Feature:</b> 8G ASIC Driver	<b>Function:</b> ASIC Driver
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS7.0.0	
<b>Where Else Fixed:</b> FOS6.3.2 c, FOS6.4.2 a	

<b>Defect ID:</b> DEFECT000345346	<b>Technical Severity:</b> Medium
<b>Summary:</b> For 16G platforms, configdefault may lead to an invalid port speed configuration state if ports in the same group are in different logical switches.	
<b>Symptom:</b> If configdefault is executed in the default switch, portcfgoctetspeedcombo settings will get set to default on all logical switches.	
<b>Feature:</b> ConfigMgmt	<b>Function:</b> Config Download
<b>Probability:</b> Medium	
<b>Found in Release:</b> FOS7.0.0	

## Closed with Code Change Defects in Fabric OS v7.0.1

<b>Defect ID:</b> DEFECT000346554	<b>Technical Severity:</b> Medium
<b>Summary:</b> When devices send LOGO and then FLOGI, without a port toggle, the route is not set up, causing PLOGIs to peer device to be dropped.	
<b>Symptom:</b> Devices unable to communicate with peer devices after logout/login sequence.	
<b>Feature:</b> Field Escalation	<b>Function:</b> ASIC Driver
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS6.4.1	<b>Service Request ID:</b> 567863

<b>Defect ID:</b> DEFECT000348516	<b>Technical Severity:</b> Medium
<b>Summary:</b> Switch failed to go active due to ASIC initialization failure.	
<b>Symptom:</b> 4G Switch/blade may fail chip initialization, resulting in switch not going online. This is observed more often under higher temperature with portloopback test.	
<b>Feature:</b> Field Escalation	<b>Function:</b> ASIC Driver
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS6.4.1	<b>Service Request ID:</b> 590691
<b>Where Else Fixed:</b> FOS6.4.2 b GA	

<b>Defect ID:</b> DEFECT000349008	<b>Technical Severity:</b> Medium
<b>Summary:</b> DP panicked after modifying metric on FCIP Circuit using a crossport with IPsec enabled	
<b>Symptom:</b> After modifying the metric on a standby FCIP Circuit of a crossport with IPsec enabled, the tunnels for that DP complex go down due to a software fault on the DP.	
<b>Workaround:</b> Disable IPsec on FCIP tunnel	
<b>Feature:</b> FCIP	<b>Function:</b> Other
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000349730	<b>Technical Severity:</b> Medium
<b>Summary:</b> IO is not distributed evenly across circuits in FCIP tunnel after multiple FCIP circuits are disabled	
<b>Symptom:</b> If user disables multiple circuits in an FCIP tunnel, traffic may not be evenly distributed across remaining circuits.	
<b>Feature:</b> FCIP	<b>Function:</b> Other
<b>Probability:</b> Medium	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000349839	<b>Technical Severity:</b> Medium
<b>Summary:</b> DCX 8510-4 inundated with [PS-5011] internal messages	
<b>Symptom:</b> List of TopTalker flows will not be accurate since some flows are not being monitored.	
<b>Feature:</b> Performance Monitor	<b>Function:</b> Top Talker
<b>Probability:</b> Medium	
<b>Found in Release:</b> FOS7.0.0	

## Closed with Code Change Defects in Fabric OS v7.0.1

<b>Defect ID:</b> DEFECT000350157	<b>Technical Severity:</b> Medium
<b>Summary:</b> pdmd memory increase seen on the standby CP of a DCX 8510-8 with max LS creation and fully populated EX-Ports after a long period of time with I/O running	
<b>Symptom:</b> pdmd memory usage may increase on the standby CP of 8510-8 with max LS creation and fully populated EX-Ports after a long period of I/O running..	
<b>Feature:</b> License	<b>Function:</b> License
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000354157	<b>Technical Severity:</b> Medium
<b>Summary:</b> Brocade FCOE LACP PDU length is non-standard	
<b>Symptom:</b> Nonstandard size LACP PDUs being discarded at the remote end and Brocade switch could not form a dynamic LAG with a 3rd party switch.	
<b>Feature:</b> CEE-LAYER2	<b>Function:</b> LACP
<b>Probability:</b> Medium	
<b>Found in Release:</b> FOS6.3.1_dcb	<b>Service Request ID:</b> Defect Origin is Cus
<b>Where Else Fixed:</b> FOS6.4.2 b GA	

<b>Defect ID:</b> DEFECT000354900	<b>Technical Severity:</b> Medium
<b>Summary:</b> Severity level for SCN-1002 is set to "Warning" instead of "Error"	
<b>Symptom:</b> SCN-1002 are displayed as Warnings.	
<b>Feature:</b> Mgmt Embedded - SNMP	<b>Function:</b> Other
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000357181	<b>Technical Severity:</b> Medium
<b>Summary:</b> During switch/blade initialization, FX8-24 blades forward BDPUs broadcast frames	
<b>Symptom:</b> If STP/BDPU guard is enabled on an ethernet switch port, in some cases during a reboot of 7800/FX8-24 customer will see their ethernet switch ports fenced offline due to rx'ing a BDPUs packet.	
<b>Feature:</b> Field Escalation	<b>Function:</b> FCIP
<b>Probability:</b> Medium	
<b>Found in Release:</b> FOS6.4.0	

<b>Defect ID:</b> DEFECT000357783	<b>Technical Severity:</b> Medium
<b>Summary:</b> Tape device connected to BES is dropping frames.	
<b>Symptom:</b> Tape Device Driver is failing with a check condition - illegal command while trying to retrieve a drive dump.	
<b>Feature:</b> Data Security	<b>Function:</b> Tape Encryption
<b>Probability:</b> Medium	
<b>Found in Release:</b> FOS6.4.1	<b>Service Request ID:</b> 635267

## Closed with Code Change Defects in Fabric OS v7.0.1

<b>Defect ID:</b> DEFECT000358533	<b>Technical Severity:</b> Medium
<b>Summary:</b> Cold recovery observed when devices are not LSAN zoned but are exchanging ELS frames.	
<b>Symptom:</b> Cold recovery after a CP Failover or during Firmware Download. This is observed under rare conditions, in FCR fabrics. Devices that are not LSAN zoned somehow know the PROXY ID of the other device and send ELS frames. These frames sent between the devices that are not LSAN zoned, are not properly freed.	
<b>Workaround:</b> Use LSAN zone or make sure devices t statically remember old proxy IDs	
<b>Feature:</b> Field Escalation	<b>Function:</b> Panic / OOM
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS6.4.2	<b>Service Request ID:</b> 638173
<b>Where Else Fixed:</b> FOS6.4.2 b GA	

<b>Defect ID:</b> DEFECT000358538	<b>Technical Severity:</b> Medium
<b>Summary:</b> FFDC does not pull kernel data during OOM (Out Of Memory) condition.	
<b>Symptom:</b> OOM occurs, but FFDC file has no information on kernel mtrace.	
<b>Feature:</b> Infrastructure	<b>Function:</b> Other
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS6.4.2	

<b>Defect ID:</b> DEFECT000358765	<b>Technical Severity:</b> Medium
<b>Summary:</b> Switchshow displayed the GigE port of BR7500/FR4-18i as "FCIP Copper"	
<b>Symptom:</b> BR7500 and FR4-18i has optical SFP in GigE port, but switchshow displayed it as "Copper". There is no other functional impact.	
<b>Workaround:</b> Run the portcfgdefault CLI on the GE ports	
<b>Feature:</b> Legacy FCIP (7500/FR4-18i)	<b>Function:</b> FCIP CLI
<b>Probability:</b> High	
<b>Found in Release:</b> FOS6.4.2	<b>Service Request ID:</b> 629097
<b>Where Else Fixed:</b> FOS6.4.2 b GA	

<b>Defect ID:</b> DEFECT000359287	<b>Technical Severity:</b> Medium
<b>Summary:</b> Access Gateway crashes upon receiving bad frame(s) from devices.	
<b>Symptom:</b> switch panic when device send ELS_LOGO with SID 0 and DID as Login server.	
<b>Workaround:</b> Avoid sending LOGO with SID 0 to AG	
<b>Feature:</b> Access Gateway Services	<b>Function:</b> Daemon
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS6.3.2	

<b>Defect ID:</b> DEFECT000359611	<b>Technical Severity:</b> Medium
<b>Summary:</b> msd not freeing resources after RPL/DPL queries.	
<b>Symptom:</b> Switch panic or failover due to OOM condition.	
<b>Feature:</b> Field Escalation	<b>Function:</b> Panic / OOM
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS6.3.1	<b>Service Request ID:</b> 641499

## Closed with Code Change Defects in Fabric OS v7.0.1

<b>Defect ID:</b> DEFECT000362362	<b>Technical Severity:</b> Medium
<b>Summary:</b> FC16-32 blade fails POST (FAULTY-51)	
<b>Symptom:</b> After power cycling an 8510, FC16-32 port blade is set to Faulty-51.	
<b>Workaround:</b> Power cycle the blade or the chassis	
<b>Feature:</b> Diagnostics	<b>Function:</b> Post Diags
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000363516	<b>Technical Severity:</b> Medium
<b>Summary:</b> "tracestore" thread hogging CPU for extensive periods of time after executing a polling script.	
<b>Symptom:</b> "tracestore" thread has high CPU utilization for extensive periods of time.	
<b>Feature:</b> Field Escalation	<b>Function:</b> OS: Infrastructure
<b>Probability:</b> Medium	
<b>Found in Release:</b> FOS6.3.1	<b>Service Request ID:</b> 647161

<b>Defect ID:</b> DEFECT000363608	<b>Technical Severity:</b> Medium
<b>Summary:</b> Parity error detected on FCOE switch during supportsave collection	
<b>Symptom:</b> Switch might fault during supportsave when non-significant parity errors were detected. This only impacts FCOE switches	
<b>Feature:</b> Field Escalation	<b>Function:</b> ASIC Driver
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS6.3.2	
<b>Where Else Fixed:</b> FOS6.4.2 b GA	

<b>Defect ID:</b> DEFECT000364788	<b>Technical Severity:</b> Medium
<b>Summary:</b> Unreliable speed negotiation may be encountered when BR5470 Cu ports are connected to a 3rd party HBA.	
<b>Symptom:</b> 3rd party HBA's are not properly negotiating to the correct speeds	
<b>Feature:</b> 8G ASIC Driver	<b>Function:</b> PORT
<b>Probability:</b> Medium	
<b>Found in Release:</b> FOS6.3.2	
<b>Where Else Fixed:</b> FOS6.4.2 b GA	

<b>Defect ID:</b> DEFECT000366323	<b>Technical Severity:</b> Medium
<b>Summary:</b> FICON - IEBCOPY job fails during read pipelining on the Brocade 7800/FX8-24 blade.	
<b>Symptom:</b> IEBCOPY may fail when read pipelining is enabled. Other tape jobs will not be impacted	
<b>Feature:</b> FCIP	<b>Function:</b> Emulation
<b>Probability:</b> High	
<b>Found in Release:</b> FOS6.4.0	<b>Service Request ID:</b> 658691



## Closed with Code Change Defects in Fabric OS v7.0.1

<b>Defect ID:</b> DEFECT000367452	<b>Technical Severity:</b> Medium
<b>Summary:</b> Using "switchcfgpersistentdisable/enable" can result in subsequent issues with zoning distribution.	
<b>Symptom:</b> Zone DB distribution fails to reach all domains in the fabric.	
<b>Feature:</b> Field Escalation	<b>Function:</b> Management Embedded
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS6.4.1	<b>Service Request ID:</b> 665233

<b>Defect ID:</b> DEFECT000368621	<b>Technical Severity:</b> Medium
<b>Summary:</b> 8G switches running FOS 7.0.0 or above with locked G-port configuration and set to auto negotiate may negotiate to 4G instead of 8G	
<b>Symptom:</b> 8G ports negotiating to 4G even though link is capable of 8G or higher.	
<b>Workaround:</b> Locked to fixed speed	
<b>Feature:</b> 8G ASIC Driver	<b>Function:</b> C2 ASIC driver
<b>Probability:</b> Medium	
<b>Found in Release:</b> FOS7.0.1	

<b>Defect ID:</b> DEFECT000370040	<b>Technical Severity:</b> Medium
<b>Summary:</b> Getting "No access" response while querying any table via an snmpv3 "user-defined" user that is assigned to a particular Logical Fabric.	
<b>Symptom:</b> Customer is not be able to contact the switch the first time and also will not be able to get complete query results.	
<b>Feature:</b> Mgmt Embedded - SNMP	<b>Function:</b> Other
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000371440	<b>Technical Severity:</b> Medium
<b>Summary:</b> 7800, FICON, emulation sets wrong sequence count and sequence ID on re-driven RRS Chain after getting immediate command retry status	
<b>Symptom:</b> Host receives ABTS from the XRC utility device. Normal abort recovery successful.	
<b>Feature:</b> Field Escalation	<b>Function:</b> FCIP
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS6.4.2	<b>Service Request ID:</b> 676649

## Closed with Code Change Defects in Fabric OS v7.0.1

<b>Defect ID:</b> DEFECT000371485	<b>Technical Severity:</b> Medium
<b>Summary:</b> Switch Ethernet port sends frame with invalid MAC address on Brocade 300E, 5100, 6510 and 7800	
<b>Symptom:</b> Switch Ethernet port sometimes sends frames with invalid Ethernet MAC address. There is no functional impact due to TCP/IP retransmit frame successfully; However, if there is security software monitor each frame, it will trigger alarms upon detect invalid MAC address.	
<b>Workaround:</b> Use 100 Half duplex instead of Full Duplex mode	
<b>Feature:</b> Field Escalation	<b>Function:</b> Web Management
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS6.2.0	<b>Service Request ID:</b> sr676355

<b>Defect ID:</b> DEFECT000371823	<b>Technical Severity:</b> Medium
<b>Summary:</b> EZ Manager does not allow Custom Zoning when dual configured (Initiator/Target) device exists.	
<b>Symptom:</b> EZ manager should allow Custom zoning when dual configured device exists in the switch.	
<b>Workaround:</b> Use Advanced Management (WT)	
<b>Feature:</b> WebMgmt	<b>Function:</b> Web Tools EZ
<b>Probability:</b> High	
<b>Found in Release:</b> FOS6.3.2	

<b>Defect ID:</b> DEFECT000342830	<b>Technical Severity:</b> Low
<b>Summary:</b> ceeporloopbacktest "-port" option does not run correctly on 8000	
<b>Symptom:</b> BR8000 did not test the CEE port which user selected with "-port" option.	
<b>Feature:</b> Diagnostics	<b>Function:</b> Other
<b>Probability:</b> High	
<b>Found in Release:</b> FOS6.4.1	<b>Service Request ID:</b> 577081

## Closed with Code Change in Fabric OS v7.0.0c

This section lists the defects with Critical, High and Medium Technical Severity closed with a code change as of November 18, 2011 in Fabric OS v7.0.0c

<b>Defect ID:</b> DEFECT000354348	<b>Technical Severity:</b> High
<b>Summary:</b> Not receiving the RAS log Cx-5021 message for front port partial credit loss on an EX-Port	
<b>Symptom:</b> Customer will be unaware if EX_Ports are leaking credit.	
<b>Feature:</b> 8G FCR	<b>Function:</b> FCR Daemon
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000364137	<b>Technical Severity:</b> High
<b>Summary:</b> FabricWatch Port Class is not monitoring ICL ports. E-Port Class monitors are monitoring ICL ports.	
<b>Symptom:</b> ICL Ports will not report any threshold warnings and will not be fenced for Port Class attributes.	
<b>Feature:</b> FABRIC WATCH	<b>Function:</b> PORT FENCING
<b>Probability:</b> High	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000364799	<b>Technical Severity:</b> High
<b>Summary:</b> After downgrading from v7.0.0 to v6.4.x, a route rebalance or recalculation will cause some ICL paths to be blocked.	
<b>Symptom:</b> Connectivity between devices lost after route change.	
<b>Workaround:</b> Disable all ICL ports and then enable all ICL ports.	
<b>Feature:</b> UNDETERMINED	<b>Function:</b> UNDER REVIEW
<b>Probability:</b> High	
<b>Found in Release:</b> FOS6.4.2	

<b>Defect ID:</b> DEFECT000364945	<b>Technical Severity:</b> High
<b>Summary:</b> Unable create 4th tunnel with crossport circuits in chassis with multiple FX8-24 blades.	
<b>Symptom:</b> Unable create more than three tunnels with crossport circuit configuration in a chassis with multiple FX8-24 blades.	
<b>Feature:</b> FCIP	<b>Function:</b> Other
<b>Probability:</b> High	
<b>Found in Release:</b> FOS7.0.0	

## Closed with Code Change in Fabric OS v7.0.0c

<b>Defect ID:</b> DEFECT000365069	<b>Technical Severity:</b> High
<b>Summary:</b> ICL Ports on 8510 directors show "Mod_Val" on 1 out of 4 ports on a QSFP.	
<b>Symptom:</b> Event log indicates bad QSFP requiring reseal or replacement.	
<b>Workaround:</b> Reseating QSFP may correct the issue.	
<b>Feature:</b> 16G Hardware	<b>Function:</b> 16G QSFP
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000365071	<b>Technical Severity:</b> High
<b>Summary:</b> QSFP port status is not refreshed in WebTools port admin window.	
<b>Symptom:</b> Insertion/Removal of QSFP is not reflected in Port Admin window.	
<b>Workaround:</b> Refresh, or close and re-open Port Admin window.	
<b>Feature:</b> WebMgmt	<b>Function:</b> Ports Admin
<b>Probability:</b> Medium	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000365075	<b>Technical Severity:</b> High
<b>Summary:</b> QSFP ICL ports are being fenced due to excessive state changes even though current high threshold value is not exceeded	
<b>Symptom:</b> QSFP ICL links are getting fenced unexpectedly.	
<b>Feature:</b> FABRIC WATCH	<b>Function:</b> PORT FENCING
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000365794	<b>Technical Severity:</b> High
<b>Summary:</b> In an IPSec configuration between FX8-24 and 7800, some circuits never come online	
<b>Symptom:</b> IPSec circuits stuck in a In-progress state.	
<b>Feature:</b> FCIP	<b>Function:</b> FCP TCP/IP Stack
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS7.0.1	

<b>Defect ID:</b> DEFECT000368931	<b>Technical Severity:</b> High
<b>Summary:</b> Deprecate FruReplace CLI command in FOS	
<b>Symptom:</b> Use of FruReplace command in the process of performing replacement of a defective WWN card will result with a potential failed transfer leaving the replacement WWN card unusable.	
<b>Feature:</b> FOS-Infrastructure	<b>Function:</b> Other
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS7.0.0	<b>Service Request ID:</b> 673189

## Closed with Code Change in Fabric OS v7.0.0c

<b>Defect ID:</b> DEFECT000369430	<b>Technical Severity:</b> High
<b>Summary:</b> Host Discovery issue from edge to edge with VE in BB fabric if EX_Ports are on port 0-3 of an FX8-24 blade in slot 7 of a DCX-4S.	
<b>Symptom:</b> Hosts will not be able to discover targets across the backbone fabric.	
<b>Feature:</b> Striker/Spike Platform Services	<b>Function:</b> Routing
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS7.0.1	

<b>Defect ID:</b> DEFECT000369610	<b>Technical Severity:</b> High
<b>Summary:</b> Emulated FICON Tape Read Channel Program can grow too large, resulting in FICON Protocol timeouts and aborts	
<b>Symptom:</b> FICON Abort during tape read emulation	
<b>Feature:</b> FCIP	<b>Function:</b> FCIP I/O
<b>Probability:</b> High	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000365735	<b>Technical Severity:</b> Medium
<b>Summary:</b> In Extended Fabric sub tab shows the port speed as 0 for ports configured as N16.	
<b>Symptom:</b> Configured N16 port speed is not displayed as N16 in the port speed column in Extended Fabric sub tab for 16G platforms.	
<b>Feature:</b> Mgmt Embedded - HTTP	<b>Function:</b> Other
<b>Probability:</b> Medium	
<b>Found in Release:</b> FOS7.0.1	

<b>Defect ID:</b> DEFECT000367446	<b>Technical Severity:</b> Medium
<b>Summary:</b> diagshow displays incorrect speed value for ports on FCOE10-24 blades	
<b>Symptom:</b> diagshow displays the backend 4G ports. customer is expecting to see the front end 10G ports instead	
<b>Feature:</b> Diagnostics	<b>Function:</b> Other
<b>Probability:</b> High	
<b>Found in Release:</b> FOS6.4.1	<b>Service Request ID:</b> 668999

<b>Defect ID:</b> DEFECT000374366	<b>Technical Severity:</b> Medium
<b>Summary:</b> Stuck VC detection is being intermittently delayed	
<b>Symptom:</b> Stuck VC will be detected, however the detection maybe intermittently delayed	
<b>Feature:</b> Bottleneck detection	<b>Function:</b> Other
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS7.0.0	

## Closed with Code Change in Fabric OS v7.0.0b - August 24, 2011

This section lists the defects with Critical, High and Medium Technical Severity closed with a code change as of August 24, 2011 in Fabric OS v7.0.0b.

<b>Defect ID:</b> DEFECT000300506	<b>Technical Severity:</b> High
<b>Summary:</b> Observed routing problem after switch running in fmsmode (FICON) changed FID assignment	
<b>Symptom:</b> Connectivity problems in the fabric after changing FID assignment, switch in fabric reported [RTWR-1002] and [RTWR-1003] RAS log messages.	
<b>Workaround:</b> Reboot or power cycle the affected switch or switches	
<b>Feature:</b> 8G ASIC Driver	<b>Function:</b> C2 ASIC driver
<b>Probability:</b> Medium	
<b>Found in Release:</b> FOS6.4.0	
<b>Where Else Fixed:</b> FOS6.4.2 a	

<b>Defect ID:</b> DEFECT000341971	<b>Technical Severity:</b> High
<b>Summary:</b> Loop attached device loses secondary disk path after port disable/enable	
<b>Symptom:</b> Secondary paths will not appear in the output from disk query commands.	
<b>Feature:</b> 8G Platform Services	<b>Function:</b> Other
<b>Probability:</b> Medium	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000344506	<b>Technical Severity:</b> High
<b>Summary:</b> Port fenced during supportsave	
<b>Symptom:</b> Port without errors are fenced during supportsave	
<b>Feature:</b> FABRIC WATCH	<b>Function:</b> PORT FENCING
<b>Probability:</b> High	
<b>Found in Release:</b> FOS6.4.0	
<b>Where Else Fixed:</b> FOS6.4.2 a	

<b>Defect ID:</b> DEFECT000347632	<b>Technical Severity:</b> High
<b>Summary:</b> Delays in Name Server observed during FICON CEC IMLs	
<b>Symptom:</b> Invalid Attachment and Name Server Query failures may be observed due to delays in Name Server processing when programming CAM entries for the ASIC.	
<b>Feature:</b> 8G ASIC Driver	<b>Function:</b> Other
<b>Probability:</b> Medium	
<b>Found in Release:</b> FOS7.0.0	

## Closed with Code Change in Fabric OS v7.0.0b

<b>Defect ID:</b> DEFECT000352764	<b>Technical Severity:</b> High
<b>Summary:</b> Remote data replication application fails with multiple paths (multiple port pairs between arrays) when FastWrite is enabled on the FCIP tunnel.	
<b>Symptom:</b> With FastWrite enabled on an FCIP tunnel, and two data replication port pairs, the application commands to move data between the arrays will fail. With only a single port pair or with FastWrite disabled, everything works fine.	
<b>Feature:</b> FCIP	<b>Function:</b> Emulation
<b>Probability:</b> High	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000353981	<b>Technical Severity:</b> High
<b>Summary:</b> D-Port failures seen in stress and corner case scenarios.	
<b>Symptom:</b> D-port test stays "in progress" for a long period of time and eventually times out.	
<b>Workaround:</b> portdporttest --stop and disable/enable the port	
<b>Feature:</b> FC Services	<b>Function:</b> D-port
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000354980	<b>Technical Severity:</b> High
<b>Summary:</b> FIPS: Firmwaredownload signature verification fails for directors	
<b>Symptom:</b> During a firmwaredownload, invalid packages might not be detected by directors. This could lead to invalid packages being loaded as valid firmware.	
<b>Feature:</b> FOS-Infrastructure	<b>Function:</b> Firmware Download
<b>Probability:</b> Medium	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000355613	<b>Technical Severity:</b> High
<b>Summary:</b> Fabricd crash encountered during D-port testing	
<b>Symptom:</b> Fabricd crash could be encountered when utilizing D_Port functionality	
<b>Feature:</b> FC Services	<b>Function:</b> D-port
<b>Probability:</b> Medium	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000355830	<b>Technical Severity:</b> High
<b>Summary:</b> Fabric Watch and Port Fencing Threshold settings should not apply to D-Ports.	
<b>Symptom:</b> D-Ports become fenced during d-port testing.	
<b>Feature:</b> FABRIC WATCH	<b>Function:</b> PORT FENCING
<b>Probability:</b> Medium	
<b>Found in Release:</b> FOS7.0.0	

## Closed with Code Change in Fabric OS v7.0.0b

<b>Defect ID:</b> DEFECT000356351	<b>Technical Severity:</b> High
<b>Summary:</b> Frame drops are observed after changing the FCR backbone domain ID.	
<b>Symptom:</b> Hosts lost access to storage after changing FCR backbone domain ID on a DCX/DCX-4S Backbone with FC8-64 and FC8-48 blades. Frame drops happen on the FC8-64/FC8-48 backend ports.	
<b>Feature:</b> Field Escalation	<b>Function:</b> FC Layer 2 Routing
<b>Probability:</b> Medium	
<b>Found in Release:</b> FOS6.4.1	<b>Service Request ID:</b> 628477
<b>Where Else Fixed:</b> FOS6.4.2 a	

<b>Defect ID:</b> DEFECT000357193	<b>Technical Severity:</b> High
<b>Summary:</b> C2-1012 Between DCX-4S Core and FX8-24 Blade	
<b>Symptom:</b> Stuck VC on DCX-4S backend ports between Core Blade in slot 3 and FX8-24 Blade in slot 7.	
<b>Feature:</b> 8G ASIC Driver	<b>Function:</b> Other
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000357780	<b>Technical Severity:</b> High
<b>Summary:</b> Excessive encoding out errors on Brocade 300 ISL ports running at 8G	
<b>Symptom:</b> Customer may notice excessive port errors (enc out) on Brocade 300 ISL ports in a configuration consisting of a mix of 4G user ports interconnected via 8G ISLs.	
<b>Feature:</b> 4G Platform Services	<b>Function:</b> ASIC Driver
<b>Probability:</b> Medium	
<b>Found in Release:</b> FOS6.4.0	

<b>Defect ID:</b> DEFECT000357938	<b>Technical Severity:</b> High
<b>Summary:</b> Backend CRC errors seen on a FC8-64 blade in a DCX 8510	
<b>Symptom:</b> CRC errors and possibly I/O timeouts	
<b>Feature:</b> 8G ASIC Driver	<b>Function:</b> ASIC Driver
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000357942	<b>Technical Severity:</b> High
<b>Summary:</b> LOSN not recognized by portautodisable	
<b>Symptom:</b> Ports that leave AC state and lose sync are not auto disabled	
<b>Feature:</b> 8G ASIC Driver	<b>Function:</b> ASIC Driver
<b>Probability:</b> High	
<b>Found in Release:</b> FOS7.0.0	



## Closed with Code Change in Fabric OS v7.0.0b

<b>Defect ID:</b> DEFECT000357943	<b>Technical Severity:</b> High
<b>Summary:</b> Trackchanges is not generating TRK-1003 for SSH logout.	
<b>Symptom:</b> With a Trackchanges setting of 1,1, the track changes feature is not generating the TRCK-1003 message when a SSH session is logged out.	
<b>Feature:</b> FOS Security	<b>Function:</b> Authentication
<b>Probability:</b> High	
<b>Found in Release:</b> FOS6.4.1	<b>Service Request ID:</b> 631887

<b>Defect ID:</b> DEFECT000359245	<b>Technical Severity:</b> High
<b>Summary:</b> The NS contains stale entries after a bad disk is remove from a loop attached device.	
<b>Symptom:</b> When a disk is removed from a loop attached device, the pid still shows up in the name server.	
<b>Workaround:</b> port bounce where the device connected.	
<b>Feature:</b> FC Services	<b>Function:</b> Name Server
<b>Probability:</b> Medium	
<b>Found in Release:</b> FOS6.3.2	<b>Service Request ID:</b> 641021

<b>Defect ID:</b> DEFECT000359493	<b>Technical Severity:</b> High
<b>Summary:</b> If FX8-24 blades are swapped, the Inband Mgmt configuration is not properly loaded onto the new blade.	
<b>Symptom:</b> Inband Mgmt is not functioning after FX8-24 blade is replaced (swapped).	
<b>Workaround:</b> Reboot CP	
<b>Feature:</b> FCIP	<b>Function:</b> Other
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000360527	<b>Technical Severity:</b> High
<b>Summary:</b> An FCIP Tunnel in an FCR Backbone may lose buffer credits and go down if FastWrite is enabled.	
<b>Symptom:</b> FCIP Tunnel in an FCR backbone fabric goes down due to credit loss.	
<b>Workaround:</b> Disable FCIP FW.	
<b>Feature:</b> FCIP	<b>Function:</b> Other
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000349412	<b>Technical Severity:</b> Medium
<b>Summary:</b> portcfgshow output displays "Fill Word (Current)" incorrectly	
<b>Symptom:</b> portcfgshow displays incorrect values for "Fill Word (Current)" field	
<b>Feature:</b> 8G ASIC Driver	<b>Function:</b> Other
<b>Probability:</b> Medium	
<b>Found in Release:</b> FOS7.0.0	

## Closed with Code Change in Fabric OS v7.0.0b

<b>Defect ID:</b> DEFECT000349465	<b>Technical Severity:</b> Medium
<b>Summary:</b> TopTalker Monitor fails if user changes the monitor from Egress to Ingress	
<b>Symptom:</b> User will be unable to create Top Talkers in Ingress mode	
<b>Feature:</b> Mgmt Embedded - HTTP	<b>Function:</b> Other
<b>Probability:</b> High	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000351796	<b>Technical Severity:</b> Medium
<b>Summary:</b> Duplicate E_Port SCN from Port... error messages seen after an HAFailover.	
<b>Symptom:</b> Duplicate E_Port SCN error messages being seen after an HAFailover	
<b>Feature:</b> FC Services	<b>Function:</b> Other
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS6.4.2	

<b>Defect ID:</b> DEFECT000352406	<b>Technical Severity:</b> Medium
<b>Summary:</b> Storage Port logging in as unknown will be displayed as an initiator in BNA.	
<b>Symptom:</b> Certain storage devices may log in with an unknown FC4 type. This will result in BNA incorrectly displaying the device as an initiator.	
<b>Feature:</b> FC Services	<b>Function:</b> FCP
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000352773	<b>Technical Severity:</b> Medium
<b>Summary:</b> CRC errors on large data transfers using 3rd party Tape Drives on encryption products	
<b>Symptom:</b> Customers have experienced intermittent CRC errors when performing large data reads from 3rd party tape drives which may result in data read failures.	
<b>Feature:</b> FC Services	<b>Function:</b> Other
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS6.4.0	
<b>Where Else Fixed:</b> FOS6.4.2 a	

<b>Defect ID:</b> DEFECT000354137	<b>Technical Severity:</b> Medium
<b>Summary:</b> User cannot config TE interface after ceeportloopbacktest	
<b>Symptom:</b> Cannot config TE interface after running ceeportloopbacktest Following message is displayed: "% Error: Invalid input detected at '^' marker."	
<b>Feature:</b> Man Pages	<b>Function:</b> Edit/Correct
<b>Probability:</b> High	
<b>Found in Release:</b> FOS6.4.2	<b>Service Request ID:</b> 629643

## Closed with Code Change in Fabric OS v7.0.0b

<b>Defect ID:</b> DEFECT000354560	<b>Technical Severity:</b> Medium
<b>Summary:</b> Failed tape jobs encountered with tape pipelining enabled when utilizing a FICON to ESCON converter	
<b>Symptom:</b> Tape jobs intermittently fail with tape pipelining enabled when utilizing a FICON to ESCON converter.	
<b>Workaround:</b> Disable tape pipelining	
<b>Feature:</b> Field Escalation	<b>Function:</b> FCIP
<b>Probability:</b> Medium	
<b>Found in Release:</b> FOS6.4.2	
<b>Where Else Fixed:</b> FOS6.4.2 a	

<b>Defect ID:</b> DEFECT000354750	<b>Technical Severity:</b> Medium
<b>Summary:</b> Unable to access the boot prom on a 5480 when it is installed in a C-7000 chassis	
<b>Symptom:</b> Unable to access the boot prom on a 5480.	
<b>Feature:</b> UNDETERMINED	<b>Function:</b> UNDER REVIEW
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS6.3.1	<b>Service Request ID:</b> 589577

<b>Defect ID:</b> DEFECT000354967	<b>Technical Severity:</b> Medium
<b>Summary:</b> WebTools: When attempting to upgrade a switch in IM2/IM3 to FOS v7.0, fail message should direct user to Interoperability tab to change switch to Brocade Native Fabric Mode	
<b>Symptom:</b> When upgrading a switch in IM2/IM3 to v7.0 via WebTools, the failure message references the interopmode command, but does not provide WebTools instructions.	
<b>Feature:</b> FC Services	<b>Function:</b> Other
<b>Probability:</b> Medium	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000355888	<b>Technical Severity:</b> Medium
<b>Summary:</b> D_Port (CLI): Caution message should not mention Brocade Branded SFPs.	
<b>Symptom:</b> Caution message seen when executing D_Port CLI mentions "only Brocade Branded SFPs".	
<b>Feature:</b> FC Services	<b>Function:</b> D-port
<b>Probability:</b> High	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000355909	<b>Technical Severity:</b> Medium
<b>Summary:</b> perfaddusermonitor/fmconfig not correctly counting SOFf frames	
<b>Symptom:</b> SOFf frame counter is not detecting SOFf frame ingress/egress when filter monitor is enabled.	
<b>Feature:</b> Field Escalation	<b>Function:</b> ASIC Driver
<b>Probability:</b> High	
<b>Found in Release:</b> FOS6.4.2	<b>Service Request ID:</b> 632819

## Closed with Code Change in Fabric OS v7.0.0b

<b>Defect ID:</b> DEFECT000356559	<b>Technical Severity:</b> Medium
<b>Summary:</b> Need more detailed error message for blocking firmware upgrade from FOS 6.4.0c to FOS 7.0 due to a deprecated feature.	
<b>Symptom:</b> Firmware upgrade from v6.4 to v7.0 is blocked, and user does not get sufficient information from the error message.	
<b>Feature:</b> FABRIC WATCH	<b>Function:</b> Other
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000356933	<b>Technical Severity:</b> Medium
<b>Summary:</b> configdownload fails on 6510	
<b>Symptom:</b> config download fails with the following error message: configDownload: Invalid Time Zone tz = (Asia/Tokyo) Process function of configdownload failed for filter ts, lrc = -1	
<b>Feature:</b> Field Escalation	<b>Function:</b> OS: Configuration
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS7.0.0	<b>Service Request ID:</b> 635015

<b>Defect ID:</b> DEFECT000357707	<b>Technical Severity:</b> Medium
<b>Summary:</b> FICON XRC processing is not correctly reporting RRS Sequence Validation failures (via 0x0F52 command reject) in all cases.	
<b>Symptom:</b> If this issue is encountered, it can lead to LOGREC entries with Command Rejects with reason code 0x0F61 against a 0xFF command. This will result in XRC suspensions.	
<b>Feature:</b> FCIP	<b>Function:</b> Emulation
<b>Probability:</b> Medium	
<b>Found in Release:</b> FOS6.4.0	

<b>Defect ID:</b> DEFECT000358793	<b>Technical Severity:</b> Medium
<b>Summary:</b> DCX8510-4 panics during systemverification	
<b>Symptom:</b> DCX8510-4 panics during systemverification when systemverification is run repeatedly.	
<b>Feature:</b> Diagnostics	<b>Function:</b> Other
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS7.0.0	<b>Service Request ID:</b> 636925

<b>Defect ID:</b> DEFECT000359151	<b>Technical Severity:</b> Medium
<b>Summary:</b> All clear text and encrypted LUN states are unavailable	
<b>Symptom:</b> All clear text and encrypted LUNs are reporting: LUN state unavailable.	
<b>Feature:</b> Data Security	<b>Function:</b> Encryption Group
<b>Probability:</b> Medium	
<b>Found in Release:</b> FOS7.0.0	

## Closed with Code Change in Fabric OS v7.0.0b

<b>Defect ID:</b> DEFECT000359160	<b>Technical Severity:</b> Medium
<b>Summary:</b> Not able to enable NPIV on FCoE ports.	
<b>Symptom:</b> If NPIV had been disabled on FCoE ports prior to upgrading to v7.0, NPIV cannot be enabled on those FCoE ports.	
<b>Feature:</b> Field Escalation	<b>Function:</b> FCoE
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS7.0.0	<b>Service Request ID:</b> 639985

<b>Defect ID:</b> DEFECT000360186	<b>Technical Severity:</b> Medium
<b>Summary:</b> Brocade Encryption Engine doesn't handle Logout Extended Link with Initiator correctly.	
<b>Symptom:</b> When the initiator issues logout to Encryption engine it received a response it was successful, but then the initiator is able to successfully issue a read command to the encryption engine.	
<b>Feature:</b> Data Security	<b>Function:</b> Other
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000360329	<b>Technical Severity:</b> Medium
<b>Summary:</b> FSPF error message, "FSPF returned count_size 4 rc -5!!!!!" due to MSd call in FICON mode	
<b>Symptom:</b> FSPF error message appears out as soon as the CEC POR is started. It does not appear in the errdumpall output.	
<b>Feature:</b> FC Services	<b>Function:</b> FSPF
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS6.4.2	

<b>Defect ID:</b> DEFECT000360537	<b>Technical Severity:</b> Medium
<b>Summary:</b> Certain traffic patterns causing back end CRC errors on FC8-64 Blades in Slots 3 and 9 of DCX	
<b>Symptom:</b> Experiencing CRC errors with good EOF when FC8-64 blades are installed in slots 3 or 9 of a DCX system.	
<b>Feature:</b> 16G Platform Services	<b>Function:</b> Other
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000361820	<b>Technical Severity:</b> Medium
<b>Summary:</b> CS_CTL potential marking issue due to Condor-2 to Blaster port toggle on FWDL	
<b>Symptom:</b> With the CS_CTL bit being set properly, data is not traversing the correct FCIP H/M/L QoS connection.	
<b>Feature:</b> 8G ASIC Driver	<b>Function:</b> ASIC Driver
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS7.0.0	

## Closed with Code Change in Fabric OS v7.0.0b

<b>Defect ID:</b> DEFECT000361822	<b>Technical Severity:</b> Medium
<b>Summary:</b> FastWrite is clearing the F_CTL priority bit resulting in CS_CTL values not being maintained/used	
<b>Symptom:</b> Configured CS_CTL values are no longer valid on write data frames (F_CTL priority bit disabled) once frames are carried over FCIP links with FastWrite enabled.	
<b>Feature:</b> FCIP	<b>Function:</b> Emulation
<b>Probability:</b> Medium	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000363258	<b>Technical Severity:</b> Medium
<b>Summary:</b> Documentation Defect: CEE command reference guide missing operands in "show running-config"	
<b>Symptom:</b> CEE command reference guide missing operands in "show running-config"	
<b>Feature:</b> Tech Pubs	<b>Function:</b> Guides
<b>Probability:</b> Medium	
<b>Found in Release:</b> FOS7.0.0	<b>Service Request ID:</b> 656483

## Closed with Code Change in Fabric OS v7.0.0a – GA June 2, 2011

This section lists the defects with Critical, High and Medium Technical Severity closed with a code change as of June 2, 2011 in Fabric OS v7.0.0a.

<b>Defect ID:</b> DEFECT000321855	<b>Technical Severity:</b> High
<b>Summary:</b> CRC and/or CDR-5021 errors seen on DCX, DCX-4S, or 5100 switch platforms	
<b>Symptom:</b> CRC or other errors as described below: 1. Port 7/0 detected CRC error with good EOF when FC8-16 is placed in DCX-4s Slot7. For the solution to be effective, one must execute: serdestunemode --set; 2. Port 7/0, 7/10 detected CRC error when FX8-24 is placed in DCX-4s slot7. May also see CRC error on corresponding core blade backend port 3/10 6/30. Solution is effective upon upgrade, hafaifover or re-init of blade. 3. 5100 experience CRC error with 3rd party tape device. 4. FC10-6 in DCX detects backend port with stuck VC after link level error (CDR-5021)	
<b>Feature:</b> FC10-6 Platform Services	<b>Function:</b> ASIC Driver
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS6.3.1	<b>Service Request ID:</b> 451697
<b>Where Else Fixed:</b> FOS7.0.0 GA	

<b>Defect ID:</b> DEFECT000345259	<b>Technical Severity:</b> High
<b>Summary:</b> FC8-64 blade set to FAULTY 51 after removal/insertion of that blade in DCX 8510 chassis with diagpost on	
<b>Symptom:</b> May see a faulted blade upon insertion due to diagnostics failure.	
<b>Feature:</b> 16G Platform Services	<b>Function:</b> FOS Kernel Drivers
<b>Probability:</b> Medium	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000345858	<b>Technical Severity:</b> High
<b>Summary:</b> FIPS firmware integrity check has gaps in coverage	
<b>Symptom:</b> None	
<b>Feature:</b> FOS-Infrastructure	<b>Function:</b> Firmware Download
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000346532	<b>Technical Severity:</b> High
<b>Summary:</b> Disable or shutdown BES causes the SVC nodes to go offline and service mode.	
<b>Symptom:</b> Disable or poweroff BES switch causes the SVC nodes to go offline. The SVC nodes reboot several times before it toggled between offline and services mode.	
<b>Workaround:</b> Issue affects SVC storage with BES going offline. Restart storage with VI/VT members (BES) online.	
<b>Feature:</b> FC Services	<b>Function:</b> Name Server
<b>Probability:</b> High	
<b>Found in Release:</b> FOS7.0.0	

## Closed with Code Change in Fabric OS v7.0.0a

<b>Defect ID:</b> DEFECT000349012	<b>Technical Severity:</b> High
<b>Summary:</b> FICON: Active config is out of synch with FOS indicating a port is blocked after HA failover	
<b>Symptom:</b> Active configuration indicates port is not blocked. FOS indicates port is blocked.	
<b>Feature:</b> FICON	<b>Function:</b> Ficud
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000349150	<b>Technical Severity:</b> High
<b>Summary:</b> BES set to faulty, due to I/O sizes greater than 512KB starting at LBA 0 for a encrypted LUN	
<b>Symptom:</b> BES goes faulty without clear indication of the reason	
<b>Feature:</b> Data Security	<b>Function:</b> Disk Encryption
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000349589	<b>Technical Severity:</b> High
<b>Summary:</b> FICON: CE DE received by host 5 seconds after B1 CCW causing channel timeout	
<b>Symptom:</b> IFCC - CREJ Code of 00 until the implementation is completed in the patch branch, and the CCW is enabled. Until then, it is responded to as an "Invalid CCW Command"	
<b>Feature:</b> FICON	<b>Function:</b> Ficud
<b>Probability:</b> Medium	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000350136	<b>Technical Severity:</b> High
<b>Summary:</b> Encrypted/Compressed E-Port trunk goes down following CP failover	
<b>Symptom:</b> Encrypted link goes down after hfailover and gets stuck at G-Port.	
<b>Workaround:</b> Slotpoweroff /slotpoweron the blade.	
<b>Feature:</b> 16G ASIC Driver	<b>Function:</b> In-flight encryption/compression
<b>Probability:</b> Medium	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000350457	<b>Technical Severity:</b> High
<b>Summary:</b> Access Gateway N-port stuck in G-port after code upgrade	
<b>Symptom:</b> After upgrade fabric switch attached to AG switch with QoS enabled from 6.2.x to 6.3.x, N-port stuck in G-Port. Disable QoS on fabric switch port, port came up fine.	
<b>Feature:</b> Field Escalation	<b>Function:</b> Access Gateway
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS6.3.1	<b>Service Request ID:</b> 610119



## Closed with Code Change in Fabric OS v7.0.0a

<b>Defect ID:</b> DEFECT000350463	<b>Technical Severity:</b> High
<b>Summary:</b> Unable to configure ports as extended distance using CLI on 6510 10G ports without extended fabric license	
<b>Symptom:</b> The intention is that you should be able to configure any non-default Extended Fabric mode on a licensed 10G FC port without requiring the Extended Fabric license – non-10G ports still require the Extended Fabric license for this operation. On the 6510 pizza box, for 10G ports, from CLI you cannot configure anything but the default Extended Fabric modes without an Extended Fabric license present. On DCX8510 family CLI, the Extended Fabric configuration behaves as expected for licensed 10G ports (no Extended Fabric license is required for any extended distance modes).	
<b>Feature:</b> WebMgmt	<b>Function:</b> Switch Admin
<b>Probability:</b> High	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000350599	<b>Technical Severity:</b> High
<b>Summary:</b> FICON: Persistent state is not set in Portcfg when port is blocked in the IPL file	
<b>Symptom:</b> Ports are not blocked following switch POR, despite being blocked in the IPL file	
<b>Feature:</b> FICON	<b>Function:</b> Ficud
<b>Probability:</b> High	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000350660	<b>Technical Severity:</b> High
<b>Summary:</b> D-port failing when more than 4-ports are initiated simultaneously	
<b>Symptom:</b> D-port tests fail on some ports when run on more than 4 links simultaneously.	
<b>Workaround:</b> Toggle the port	
<b>Feature:</b> FC Services	<b>Function:</b> D-port
<b>Probability:</b> Medium	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000351469	<b>Technical Severity:</b> High
<b>Summary:</b> FICON: LPATH Reset flag not cleared on local paths if CUB is returned for first init IU after reset - path can't be assigned as CRP	
<b>Symptom:</b> Operational CUP logical path indicates "Reset" state and cannot be assigned as CRP. _____:FID21:root> ficoncupset crp 74fa00 08 Processing - set CRP Attempting to set Current Reporting Path to (74FA00:08) Error return from set CRP(-48) Specified Logical Path (74FA00:08) is not operational	
<b>Feature:</b> FICON	<b>Function:</b> Ficud
<b>Probability:</b> High	
<b>Found in Release:</b> FOS7.0.0	

## Closed with Code Change in Fabric OS v7.0.0a

<b>Defect ID:</b> DEFECT000342412	<b>Technical Severity:</b> Medium
<b>Summary:</b> TPERF session may not be able to be restarted until all user disabled GE ports on the test tunnel are re-enabled.	
<b>Symptom:</b> If a user disables GE ports on a TPERF test tunnel while a TPERF session is in progress and the TPERF session is terminated, TPERF may not be able to be restarted until the disabled GE ports are re-enabled. When in this state, when the user attempts to re-start TPERF, they will get a message indicating that a TPERF session is already in progress.	
<b>Feature:</b> FCIP	<b>Function:</b> FCIP CLI
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000342738	<b>Technical Severity:</b> Medium
<b>Summary:</b> Enhancement to BE credit loss detection and recovery	
<b>Symptom:</b> When BE credit is lost, customer needs to reseat blade to recover. This release added options to generate link reset, port re-init, and blade fault depends on user configuration upon defect BE credit lose. Refer to bottleneck on man page: bottleneckmon --cfgcredittools -intport -recover [off   onLrOnly   onLrThresh]	
<b>Feature:</b> 8G ASIC Driver	<b>Function:</b> ASIC Driver
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000343519	<b>Technical Severity:</b> Medium
<b>Summary:</b> FICON: Local LPATHS not cleared from CUP LPATH db upon implicit logo for port disable	
<b>Symptom:</b> Potential inability for FICON channels to successfully establish logical paths to the CUP, in configurations where there are a large number of sub-channels defined to the CUP.	
<b>Feature:</b> FICON	<b>Function:</b> Ficud
<b>Probability:</b> High	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000344506	<b>Technical Severity:</b> Medium
<b>Summary:</b> Port fenced during supportsave	
<b>Symptom:</b> Port without errors are fenced during supportsave	
<b>Feature:</b> FABRIC WATCH	<b>Function:</b> PORT FENCING
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS6.4.0	

<b>Defect ID:</b> DEFECT000349008	<b>Technical Severity:</b> Medium
<b>Summary:</b> DP panicked after modifying metric on FCIP Circuit using a crossport with IPsec enabled	
<b>Symptom:</b> Tunnels for DP complex go down do to FFDC for Soft Fault on DP after modifying the metric on a standby FCIP Circuit on a crossport with IPsec enabled.	
<b>Workaround:</b> Disable IPsec on FCIP tunnel.	
<b>Feature:</b> FCIP	<b>Function:</b> Other
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS7.0.0	

## Closed with Code Change in Fabric OS v7.0.0a

<b>Defect ID:</b> DEFECT000349010	<b>Technical Severity:</b> Medium
<b>Summary:</b> Component (ms) dropping HA data update during logical switch delete and moving of ports	
<b>Symptom:</b> FICON Database out of Sync between CP's HA failure	
<b>Feature:</b> FICON	<b>Function:</b> MS-FICON
<b>Probability:</b> Medium	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000349839	<b>Technical Severity:</b> Medium
<b>Summary:</b> DCX 8510-4 inundated with [PS-5011] internal messages	
<b>Symptom:</b> List of TopTalker flows will not be accurate since some flows are not being monitored.	
<b>Feature:</b> Performance Monitor	<b>Function:</b> Top Talker
<b>Probability:</b> Medium	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000350157	<b>Technical Severity:</b> Medium
<b>Summary:</b> pdmd memory increase seen on the standby CP of a DCX 8510-8 with max LS creation and fully populated EX-Ports after a long period of time with I/O running	
<b>Symptom:</b> pdmd memory usage may increase on the standby CP of 8510-8 with max LS creation and fully populated EX-Ports after a long period of I/O running..	
<b>Feature:</b> License	<b>Function:</b> License
<b>Probability:</b> Low	
<b>Found in Release:</b> FOS7.0.0	

<b>Defect ID:</b> DEFECT000350270	<b>Technical Severity:</b> Medium
<b>Summary:</b> FICON: Channel aborts I/O after presenting pending Attention status	
<b>Symptom:</b> Channel aborts I/O, Mainframe IOS000 messages indicating that there was a channel detected error.	
<b>Workaround:</b> Disable FICON Tape pipelining	
<b>Feature:</b> FCIP	<b>Function:</b> Emulation
<b>Probability:</b> Medium	
<b>Found in Release:</b> FOS6.4.2	

<b>Defect ID:</b> DEFECT000351031	<b>Technical Severity:</b> Medium
<b>Summary:</b> FIPS zeroization requires multiple prompting for DHCHAP clearing	
<b>Symptom:</b> Multiple prompts for zeroization function	
<b>Feature:</b> FOS Security	<b>Function:</b> Other
<b>Probability:</b> Medium	
<b>Found in Release:</b> FOS7.0.0	