

Brocade Fabric OS v7.2.0a Release Notes v1.0

September 9, 2013

Document History

Document Title	Summary of Changes	Publication Date
Brocade Fabric OS v7.2.0a Release Notes v1.0	Initial Release	September 9, 2013

© 2013 Brocade Communications Systems, Inc. All Rights Reserved.

ADX, AnyIO, Brocade, Brocade Assurance, the B-wing symbol, DCX, Fabric OS, ICX, MLX, MyBrocade, OpenScript, VCS, VDX, and Vyatta are registered trademarks, and HyperEdge, The Effortless Network, and The On-Demand Data Center are trademarks of Brocade Communications Systems, Inc., in the United States and/or in other countries. Other brands, products, or service names mentioned may be trademarks 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.

Contents

Overview	5
New Hardware Support	5
Summary of New Software Features	5
New Feature Descriptions	6
MAPS (Monitoring and Alerting Policy Suite)	6
Flow Vision	8
FCR Enhancements	9
FCIP Enhancements	9
ClearLink Diagnostics: D_Port Enhancements	10
Access Gateway Enhancements	10
Encryption Platform (BES/FS8-18) Enhancements	10
FICON Enhancements	10
Miscellaneous Enhancements	10
Optionally Licensed Software	12
Temporary License Support	15
Supported Switches	16
Standards Compliance	16
Technical Support	16
FOS Migration Considerations	18
FOS Upgrade and Downgrade Special Considerations	18
Recommended Migration Paths to FOS v7.2.0a	18
Important Notes	19
Brocade Network Advisor Compatibility	19
WebTools Compatibility	19
SMI Compatibility	20
Fabric OS Compatibility	20
SNMP Support	22
Blade Support	23
Scalability	28
Other Important Notes and Recommendations	28
Adaptive Networking/Flow-Based QoS Prioritization	28
Access Gateway	29
Brocade HBA/Adapter Compatibility	29
D_Port	29
Edge Hold Time	29
Encryption Behavior for the Brocade Encryption Switch (BES) and FS8-18	30
FCIP (Brocade 7800 and FX8-24)	31
FCoE/DCB/CEE (FCOE10-24)	32

FCR and Integrated Routing.....	33
Forward Error Correction (FEC)	33
FICON.....	33
FL_Port (Loop) Support.....	34
ICLs on DCX/DCX-4S	34
Native Connectivity (M-EOS interoperability).....	34
Port Initialization	34
Port Mirroring	34
Port Statistics.....	34
Virtual Fabrics	35
WebTools.....	35
Zoning.....	35
Miscellaneous.....	35
Defects	37
Open Defects in Fabric OS v7.2.0a	37
Open Defects in Fabric OS v7.2.0.....	39
Closed with Code Change in Fabric OS v7.2.0a.....	54
Closed with Code Change in Fabric OS v7.2.0.....	58
Closed without Code Change in Fabric OS v7.2.0	88

Overview

Fabric OS (FOS) v7.2.0a is a patch release based on FOS v7.2.0. All hardware platforms and features supported in FOS v7.2.0 are also supported in FOS v7.2.0a.

New Hardware Support

FOS v7.2 does not introduce support for any new hardware platform, while it adds support for the existing embedded switches 5431, 6547 and M6505 on a major FOS release.

Summary of New Software Features

FOS v7.2 includes support for several new software features and enhancements:

- MAPS (Monitoring and Alerting Policy Suite)
- Flow Vision
- FCR enhancements
- FCIP enhancements
- D_Port enhancements
- Access Gateway enhancements
- Encryption platform (BES/FS8-18) enhancements
- FICON enhancements
- Miscellaneous enhancements

New Feature Descriptions

MAPS (Monitoring and Alerting Policy Suite)

FOS v7.2 implements a new easy to use policy based monitoring and alerting suite that proactively monitors the health and performance of the SAN infrastructure to ensure application uptime and availability. Brocade MAPS helps users to uncover potential problems in the SAN fabric quickly, before they cause application performance impacts or costly failures.

MAPS is a key component of Brocade's Fabric Vision technology that is aimed at dramatically reducing the operational complexity in managing the SAN infrastructure and ensuring application uptime and availability.

Note: Usage of MAPS features requires the Fabric Vision license or both the Fabric Watch and Advanced Performance Monitoring (APM) licenses.

MAPS offers the following capabilities:

- Policy Based Monitoring

The policy based monitoring feature of MAPS offers the following capabilities:

- Pre-defined monitoring groups and pre-defined monitoring policies with customization capability

MAPS enables easier monitoring of the switch by providing pre-defined monitoring groups and pre-validated monitoring policies that users can readily enable, while still providing the flexibility to the end users to create their own custom monitoring groups and custom monitoring policies.

A MAPS monitoring policy is a collection of monitoring rules and actions associated with each rule. Users can define multiple monitoring policies but can activate only one monitoring policy at a time on the switch. This, for example, allows users to use a certain monitoring policy in production and a different monitoring policy during maintenance.

MAPS provides pre-defined monitoring groups for monitoring switch ports attached to servers, switch ports attached to storage, E_ports, short wavelength SFPs, long wave length SFPs, etc. MAPS also provides pre-defined monitoring policies such as aggressive, moderate and conservative policies, based on different monitoring thresholds and actions. Users can choose one of these pre-defined policies, modify select rules within any of the pre-defined policies, or create their own custom groups and custom policies for monitoring the switch.

MAPS customization capability allows users to create custom monitoring groups, such as a group of switch ports that are attached to high priority applications, medium priority applications, low priority applications, etc. and monitor these groups using their own unique rules. For example, users may choose to "port-fence" a problematic port connected to a low priority application, while choosing only to notify via RASlog if that port is connected to a high priority application.

With Brocade Network Advisor 12.1 or later, users can apply a given monitoring policy across multiple switches and multiple fabrics instantly, ensuring consistent monitoring across an entire environment.

- Flexible monitoring rules

MAPS provides flexible monitoring rules to monitor a given counter for different threshold values and take different actions when each threshold value is crossed. For example, users can monitor a CRC error counter at a switch port and can generate a RASlog when the error rate is more than two per

minute, send an e-mail notification when the error rate is at five per minute, and fence a port when the error rate exceeds ten per minute.

- Ability to monitor both sudden failures and gradual degradations

MAPS provides the ability to not only detect abnormal conditions but also gradually deteriorating conditions in the switch. For example, if a CRC error counter at a switch port increments suddenly at the rate of five per minute, MAPS can detect and alert the end users about that condition. Similarly, if the CRC error counter is gradually incrementing at the rate of five per day, even that condition can be detected and reported by MAPS as well, with a different action taken for each condition.

- Support for multiple monitoring categories

MAPS supports various monitoring categories such as: Switch status, Port health, FRU (Field Replaceable Unit) health, Security violations, Fabric state changes, Switch resource, Traffic performance and FCIP health.

This essentially enables monitoring of the overall switch status, switch ports, SFPs, port blades, core blades, switch power supplies, fans, temperature sensors, security policy violations such as login failures, fabric reconfigurations, CPU and memory utilization of the switch, traffic performance at port, FCIP circuits health, etc.

- Support for multiple alerting mechanisms and actions

MAPS provides various mechanisms to deliver alerts to the end users via RASlogs, SNMP traps and e-mail notifications when the monitoring thresholds are exceeded. MAPS also allows users to perform port fencing action when errors on a given port exceed a certain threshold. MAPS alerting mechanisms/actions are associated with each monitoring rule. However, users are also given the flexibility to enable or disable these alerting mechanisms/actions for the entire switch. This for example, helps users to suppress all alerts during a maintenance window, or when testing and “tuning” new rules within a policy.

- CLI Dashboard

MAPS provides a CLI based dashboard of health and error statistics to provide an at a glance view of the switch status and various conditions that are contributing to the switch status. This enables users to get instant visibility into any hot spots at a switch level and take corrective actions.

The summary section of the dashboard provides the overall status of the switch health and the status of each monitoring category. If there is any category deemed to be out of “normal” status due to violations of rules, the dashboard shows the rules that were triggered for that category.

The dashboard also provides historical information of the switch status for up to seven days. It provides raw counter information of various error counters such as CRC, Class 3 Transmit Timeout Discard, Link Resets, etc. without requiring users to set any monitoring policy. This historical counter information can also be used to assist the user in fine-tuning their MAPS rules by showing where a particular threshold may be just missing catching a particular behavior on the switch.

Note: Brocade Network Advisor 12.1 or later provides a feature rich dashboard that provides **fabric-wide** visibility of hot spots, deeper historical information and much more. Please refer to Brocade Network Advisor 12.1 documentation for additional details.

- Bottleneck Detection integration with MAPS dashboard

Bottleneck Detection information is integrated with MAPS dashboard. The “Summary” section of the dashboard shows bottleneck events detected by the Bottleneck Monitor. The “History” section of the dashboard shows entries for bottlenecked ports, including transient bottlenecks that are not detected by the Bottleneck Monitor. This enables users to get at an instant view of the bottlenecked ports in the switch and enables rapid problem resolution.

- Proactive Flow Monitoring using MAPS

MAPS can monitor flows created under Flow Vision’s “monitor” sub-feature and generate alerts based on user defined rules. To monitor a flow using MAPS, users must first create and activate the flows using Flow Monitor, and then import those flows into MAPS for monitoring. This enables users to monitor and be alerted on various conditions such as, when bandwidth utilization at a port for a given flow exceeds a certain threshold or falls under a certain threshold, when number of SCSI reservation frames at a LUN exceeds a certain threshold, etc.

- Automated Migration of existing Fabric Watch configuration to MAPS

Users who are currently monitoring a switch using Fabric Watch can automatically import all of their Fabric Watch thresholds into a MAPS policy, allowing them to seamlessly migrate from Fabric Watch to MAPS. This allows users to retain monitoring behaviors that have been developed for their unique environment over time, and also take advantage of the powerful new capabilities in MAPS and usability improvements. (Note that the Fabric Watch and MAPS features are mutually exclusive on an individual switch. Only one or the other can be active at one time.)

Flow Vision

Flow Vision is a key component of Brocade’s Fabric Vision technology being introduced in FOS v7.2 that provides comprehensive visibility into application flows in the fabric and the ability to non-disruptively create copies of the application flows that can be captured for deeper analysis. Flow Vision also provides test flow generation capability that can be utilized to pre-test a SAN infrastructure for robustness before deploying applications. The test flow generation capability is also useful for testing the internal connections on a switch to ensure ideal performance before deploying the switch into a production environment.

Flow Vision includes the following key features:

- Flow Monitor:
 - Provides comprehensive visibility into application flows in the fabric, including the ability to learn (discover) flows automatically.
 - Enables monitoring of application flows (Example: From a Host to a Target/LUN) within a fabric at a given port.
 - Provides statistics associated with the specified flows to gain insights into application performance. Some of these statistics include:
 - Transmit frame count, receive frame count, transmit throughput, receive throughput, SCSI Read frame count, SCSI Write frame count, number of SCSI Reads and Writes per second (IOPS), etc.
 - When NPIV is used on the host, users can monitor VM (Virtual Machine) to LUN level performance as well.
 - Enables monitoring of various frame types at a switch port to provide deeper insights into storage I/O access pattern at a LUN, reservation conflicts, and I/O errors.
 - Example: SCSI Read, SCSI Write, SCSI Reserve, ABTS, BA_ACC, etc.
 - Integrated with MAPS to enable threshold based monitoring and alerting of flows.

- Flow Generator:
 - Flow generator is a test traffic generator for pre-testing the SAN infrastructure (including internal connections) for robustness before deploying the applications.
 - Allows users to configure a 16G FC capable port as a simulated device that can transmit frames at full 16G line rate.
 - Users can emulate a 16G SAN without actually having any 16G hosts or targets or SAN-testers, and pre-test the entire SAN fabric including optics and cables on ISLs, internal connections within a switch, at full line rate.
 - The traffic generator port must be a 16G FC capable port while the traffic destination port can be an 8G or a 16G capable FC port on any switch in the fabric (the test traffic is terminated at the destination port and does not leave the switch).
- Flow Mirror:
 - Provides the ability to non-disruptively create copies of application flows that can be captured for deeper analysis. Only mirroring to the CPU of the switch is supported in FOS v7.2.
 - Used for in-depth analysis of flows of interest – SCSI Reservation frames, ABTS frames, flows going to a bottlenecked device, frames during link bring up, etc.
 - Users can select the type of frames to be mirrored.
 - Supported only on 16G FC capable platforms.

Note:

Flow Vision features require the Fabric Vision license or both Fabric Watch and APM licenses.

FCR Enhancements

FOS v7.2 supports the following FCR enhancements:

- EX_Port support on optical ICLs of DCX 8510
 - Provides the ability to configure EX_Ports on the ICL links of DCX 8510 platforms connected to other DCX 8510 platforms.
 - Allows users to build very high performance IFLs (Inter Fabric Links) using ICLs – simplifies cabling as well.
 - Supported only when Virtual Fabrics (VF) is enabled on DCX 8510.
- Increased FCR scalability: FOS v7.2 supports up to 6000 devices per edge fabric (an increase from 2000). Refer to the Brocade SAN Scalability Guidelines document for more information.
- Routing enhancements to select the lowest cost links in the FCR fabric when there are multiple routes available between FCR edge fabrics through an FCR backbone fabric.

FCIP Enhancements

FOS v7.2 adds support for a new FCIP Tunnel failover configuration option that provides the following capabilities:

- Allows a user to define a Failover Group that includes a subset of the circuits in the FCIP Tunnel.
- Provides a more deterministic failover configuration that would allow a mixture of metric 0 and metric 1 circuits to be used in the event of a metric 0 circuit failure.

ClearLink Diagnostics: D_Port Enhancements

FOS v7.2 adds the following D_Port enhancements:

- Enhancement to D_Port test results
Starting with FOS v7.2 complete results of the D_Port tests will be available on the responder switch as well. Prior to FOS v7.2, D_Port test results on the D_Port responder switch did not include optical and remote loopback test results. Complete results were only available on the D_Port initiator switch.
- D_Port support between Brocade 16G HBA and Brocade 16G Access Gateway.
- Dynamic D_Port support between Brocade 16G HBA and Brocade 16G switch
 - With this enhancement users do not need to explicitly configure D_Port on the switch.
 - A switch port enters D_Port mode upon request from the HBA, D_Port tests then get performed and the switch port reverts back to the normal mode after the D_Port tests are completed.
 - This enhancement significantly reduces the operational overhead by eliminating several manual configuration steps.

Access Gateway Enhancements

FOS v7.2 supports the following Access Gateway enhancements:

- D_Port diagnostics support on the links between Brocade 16G HBA and Brocade 16G Access Gateway to assess SFP and cable health.
- Detect and prevent duplicate PWWN at the time of login.

Encryption Platform (BES/FS8-18) Enhancements

FOS v7.2 introduces the following enhancements for the encryption platforms:

- KMIP Support for TEKA (Thales e-Security Key Authority)
- Thin Provisioning support for IBM XIV and EMC VMAX

FICON Enhancements

FOS v7.2 implements the following FICON enhancements:

- Added the ability for the CUP Diagnostics to determine the firmware version of all the switches in the fabric which allows interoperability with FOS v7.1
- Implemented a new Command Reject Error Code provided by IBM to help define “Fabric Errors”.

Miscellaneous Enhancements

FOS v7.2 supports several useful enhancements across various feature categories:

- FOS v7.2 allows 10G speed configuration on all ports of a 16G FC blade and 16G switch (6510, 6520 only)
 - Provides more flexibility to the end users to enable 10G capability on any port
 - Also provides more flexibility to enable encryption/compression on 10G ports.
Pre-FOS v7.2 limited 10G FC support to only the first 8 ports of a 16G switch or a 16G blade. This also limited the ability to enable encryption/compression to only two of those first 8 ports due to restrictions on the number of ports supported per ASIC. By removing this restriction, FOS v7.2 allows users to enable more 10G FC ports for encryption and compression by spreading them across multiple ASICs.

- FOS v7.2 allows buffer credit assignment even for “normal distance” (regular) E_ports
 - The portCfgEportCredits CLI introduced in FOS v7.2 allows users to perform fine grained performance tuning on normal E_ports by allowing users to specify buffer credits.
- In FOS v7.2, the portaddress CLI has been enhanced to display an address as user bound when a user has explicitly bound an address to a port.
- FOS v7.2 introduces a new CLI “creditrecovmode” to configure backend link credit loss recovery options
 - Existing credit loss recovery options of the bottleneckmon CLI continue to be supported in FOS v7.2 but will be removed from FOS v7.3.
 - Simplifies the bottleneckmon CLI.
- FOS v7.2 allows users to provide a reason string when disabling a port via portdisable or portcfgpersistentdisable CLIs – helps to track the user intention for disabling a particular port.
- FOS v7.2 introduces new RASlogs (FSPF-1013, FSPF-1014) and new CLI outputs in fabricshow and topologyshow to indicate when the maximum paths (16) to a remote domain are exceeded.

Optionally Licensed Software

Fabric OS v7.2 includes all basic switch and fabric support software, as well as optionally licensed software that is enabled via license keys.

Optionally licensed features include:

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

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

Note:

If a port on 16G FC blades or a 16G switch is configured to operate at 10G speed, Extended fabrics license is not needed to enable long distance connectivity on that port.

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. Fabric Watch includes Port Fencing capabilities.

Brocade Fabric Vision – Enables MAPS (Monitoring and Alerting Policy Suite), Flow Vision, and D_Port to non-Brocade devices. MAPS enables rules based monitoring and alerting capabilities, provides comprehensive dashboards to quickly troubleshoot problems in Brocade SAN environments. Flow Vision enables host to LUN flow monitoring, application flow mirroring for offline capture and deeper analysis, and test traffic flow generation function for SAN infrastructure validation. D_Port to non-Brocade devices allows extensive diagnostic testing of links to devices other than Brocade switches and adapters. (Functionality requires support by attached device, availability TBD).

Fabric Vision license also enables Fabric Watch and Advanced Performance Monitoring functionalities without requiring Brocade Fabric Watch or Brocade Advanced Performance Monitoring license (with FOS v7.2 and later only).

Note:

If installed on a switch operating with FOS v7.1.x, the Fabric Vision license will be displayed as “Fabric Insight”. If installed on a switch operating with FOS v7.0.x or earlier, the Fabric Vision license will be displayed as “Unknown”. Fabric Vision features are not supported under FOS v7.1.x or earlier.

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.

Note: This license is enabled by default on all 16G FC platforms, and on DCX and DCX-4S platforms that are running Fabric OS v7.0.0 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 the first components of this license option, and are fully available on all 8Gb and 16Gb platforms.

Note :

With FOS v7.2, the Adaptive Networking license has become part of the base FOS firmware, and features under this license no longer require the license to be installed. Customers that wish to have these capabilities without purchasing the license are required to upgrade to FOS v7.2 or later.

Brocade 6520 does not require the Adaptive Networking with QoS license to enable the capabilities associated with this license. These capabilities are included by default on the Brocade 6520.

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.

Note :

With FOS v7.2, Server Application Optimization license has become part of the base FOS firmware, and features under this license no longer require the license to be installed. Customers that wish to have these capabilities without purchasing the license are required to upgrade to FOS v7.2 or later.

Brocade 6520 does not require the SAO license to enable the capabilities associated with this license. These capabilities are included by default on the Brocade 6520.

Integrated Routing— This license allows any port in a DCX 8510-8, DCX 8510-4, Brocade 6510, Brocade 6520, 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 an FR4-18i blade or use the 7500 for FCR purposes, and also provides double or quadruple the bandwidth for each FCR connection (when connected to another 8Gb or 16Gb-capable port).

Encryption Performance Upgrade – This license provides additional encryption processing power. For the Brocade Encryption Switch or a DCX/DCX-4S/DCX 8510-8/DCX 8510-4, 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/DCX 8510-8/DCX 8510-4 chassis.

DataFort Compatibility – This license is required on the Brocade Encryption Switch or DCX/DCX-4S/DCX 8510-8/DCX 8510-4 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/DCX 8510-8/DCX 8510-4 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.

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/DCX 8510-8/DCX 8510-4 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 and/or the 10G FC capability on FC16-xx blade ports supported on DCX 8510 platforms. On the Brocade 6510, Brocade 6520 this license enables 10G FC ports.

On FX8-24:

With this license installed and 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

On FC16-xx:

- Enables 10G FC capability on an FC16-xx blade in a slot that has this license

On Brocade 6510, Brocade 6520:

- Enables 10G FC capability on Brocade 6510, Brocade 6520.

This license is available on the DCX/DCX-4S/DCX 8510-8/DCX 8510-4 on an individual slot basis.

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/DCX 8510-8/DCX 8510-4 for the FX8-24 on an individual slot basis.

7800 Port 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 DCX 8510 platforms. An ICL 1st POD license only enables half of the ICL ports on CR16-8 core blades of DCX 8510-8 or all of the ICL ports on CR16-4 core blades on DCX 8510-4. An ICL 2nd POD license enables all ICL ports on CR16-8 core blades on a DCX 8510-8 platform. (The ICL 2nd POD license does not apply to the DCX 8510-4.)

Enterprise ICL (EICL) License – The EICL license is required on a Brocade DCX 8510 chassis when that chassis is connected to four or more Brocade DCX 8510 chassis via ICLs.

Note that this license requirement does not depend upon the total number of DCX 8510 chassis that exist in a fabric, but only on the number of other chassis connected to a DCX 8510 via ICLs. This license is recognized/displayed when operating with FOS v7.0.1 but enforced with FOS v7.1.0 or later.

Note: The EICL license supports a maximum of nine DCX 8510 chassis connected in a full mesh topology or up to ten DCX 8510 chassis connected in a core-edge topology. Refer to the Brocade SAN Scalability Guidelines document for additional information.

Temporary License Support

The following licenses are available in FOS v7.2 as Universal Temporary or regular temporary licenses:

- Fabric (E_Port) license
- Extended Fabric license
- Trunking license
- High Performance Extension license
- Advanced Performance Monitoring license
- Fabric Watch license
- Integrated Routing license
- Advanced Extension license
- Advanced FICON Acceleration license
- 10GbE FCIP/10GFibre Channel license
- FICON Management Server (CUP)
- Enterprise ICL license
- Fabric Vision 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

FOS v7.2 supports the following existing platforms:

- 300, 5100, 5300, 7800, VA-40FC, Brocade Encryption Switch, DCX, DCX-4S
- 6505, 6510, 6520, DCX 8510-8, DCX 8510-4
- FC16-32, FC16-48, FC8-32E, FC8-48E, FX8-24, FS8-18 on DCX 8510-8/DCX 8510-4
- FC8-16, FC8-32, FC8-48, FC8-64, FX8-24, FS8-18, FCOE10-24 on DCX/DCX-4S
- 5410, 5424, 5430, 5450, 5480, 5470, 5460, NC-5480
- Support merged to FOS v7.2: 5431, 6547, M6505

Access Gateway mode is also supported by Fabric OS v7.2, and is supported on the following switches: the Brocade 300, 5100, VA-40FC, 5450, 5430, 5431, 5460, 5470, 5480, NC-5480, M5424, 6547, M6505, 6510, 6505.

The Brocade 8000 is not supported with FOS v7.2.0 and later.

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 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 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, 6520 – 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 DCX, DCX 8510-8 – Bottom right of the port side
- Brocade DCX-4S, DCX 8510-4 – 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 DCX 8510-8/DCX 8510-4. For the Brocade DCX/DCX-4S and DCX 8510-8/DCX 8510-4 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.

1. 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 **licenseIdShow** command to display the License Identifier.

FOS Migration Considerations

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

FOS Upgrade and Downgrade Special Considerations

DCX/DCX-4S units running any FOS v7.1 can be non-disruptively upgraded to FOS v7.2.0a. This upgrade is non-disruptive to both FC and FCoE traffic (when using FCOE10-24 blades).

Any firmware activation on Brocade 7800, or DCX, DCX-4S, DCX 8510-8, DCX 8510-4 with FX8-24 will disrupt I/O traffic on the [FCIP links](#).

Note:

To achieve non-disruptive firmware upgrade on 5431, 6547 and M6505 embedded switches to FOS V7.2.0a please follow the instructions given below:

5431:

Upgrade 5431 from FOS v7.0.1_hut to FOS v7.0.1_hut1 before non-disruptively upgrading it to FOS v7.2.0a.

6547:

Upgrade 6547 from FOS v7.0.0_pha3 to FOS v7.0.0_pha4 before non-disruptively upgrading it to FOS v7.2.0a.

M6505:

Upgrade M6505 from FOS v7.0.1_sh to FOS v7.0.1_sh1 before non-disruptively upgrading it to FOS v7.2.0a.

Disruptive upgrades to Fabric OS v7.2.0a are allowed and supported from FOS v7.0.x (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.

Recommended Migration Paths to FOS v7.2.0a

Migrating from FOS v7.1

Any 8G or 16G platform running any FOS v7.1. firmware can be non-disruptively upgraded to FOS v7.2.0a.

Migrating from FOS v7.0

Any 8G or 16G platform operating at FOS v7.0.x must be upgraded to FOS v7.1.x before non-disruptively upgrading to FOS v7.2.0a.

Disruptive upgrade to FOS v7.2.0a from FOS v7.0 is supported.

Important Notes

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

Brocade Network Advisor Compatibility

Brocade Network Advisor greatly simplifies the steps involved in daily operations while improving the performance and reliability of the overall SAN and IP networking environment. Brocade Network Advisor unifies, under a single platform, network management for SAN, LAN and converged networks. Brocade Network Advisor provides a consistent user experience, across the entire Brocade portfolio of switches, routers and adapters.

Brocade Network Advisor provide health and performance dashboards, with an easy-to-use graphical user interface and comprehensive features that automate repetitive tasks. With Brocade Network Advisor, storage and network administrators can proactively manage their SAN environments to support non-stop networking, address issues before they impact operations, and minimize manual tasks.

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 12.1.1 is available in

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

For SAN Management, Network Advisor 12.1.1 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 thirty-six physical or virtual fabrics (FOS) and up to 2,560 switch ports. It supports Brocade backbone and director products (DCX 8510-4/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 thirty-six 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 (DCX 8510-8/DCX) and Fiber Connectivity (FICON) capabilities.

More details about Network Advisor's new enhancements can be found in the Network Advisor 12.1.1 Release Notes, Network Advisor 12.1.1 User Guide, and Network Advisor 12.1.1 Installation, Migration, & Transition Guides.

Note:

Brocade Network Advisor 12.1.1 or later is required to manage switches running FOS 7.2 or later.

WebTools Compatibility

FOS v7.2 is qualified and supported only with Oracle JRE 1.7.0 update 25.

SMI Compatibility

- It is important to note that host SMI-S agents cannot be used to manage switches running FOS v7.2.

If users want to manage a switch running FOS v7.2 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

Supported Products and FOS Interoperability	
4900, 7500, 7500e, 5000, 200E, 48K Brocade 4012, 4016, 4018, 4020, 4024, 4424	v6.2.2 or later ⁶
Brocade 5410, 5480, 5424, 5450, 5460, 5470, NC-5480	v6.2.0 or later ⁶
Brocade DCX, 300, 5100, 5300	v6.1.0e and later ^{2 6 8}
VA-40FC	v6.2.1_vfc ⁶ , v6.2.2 or later ⁶
Brocade DCX-4S	v6.2.0 or later ^{6 8}
Brocade DCX with FS8-18 blade(s), Brocade Encryption Switch	v6.1.1_enc or later ⁶
Brocade 7800, DCX and DCX-4S with FCOE10-24 or FX8-24 blades	V6.3.0 or later
Brocade 8000 ⁹	V6.1.2_CEE1 or later
Brocade DCX/DCX-4S with FA4-18 blade(s)	DCX requires v6.0.x or later ⁶ , DCX-4S requires 6.2.x or later ^{5 6}
Brocade DCX 8510-8/DCX 8510-4	FOS v7.0 or later
Brocade 6510	FOS v7.0 or later
Brocade 6505	FOS v7.0.1 or later
Brocade 6520	FOS v7.1 or later
5430	FOS v7.1 or later ¹⁰
5431, 6547, M6505	FOS v7.2 or later ¹⁰
48000 with FA4-18 blade(s), Brocade 7600	V6.2.2 or later ⁶
Mi10k, M6140 (McDATA Fabric Mode and Open Fabric Mode) ¹	Not Supported

Multi-Protocol Router Interoperability	
Brocade 7500 and FR4-18i blade	V6.2.2 and higher ^{4 6 8}
McDATA SANRouters 1620 and 2640	Not Supported

NOS (VDX Platform) Interoperability	
Brocade VDX6710, VDX6720, VDX6730	NOS v2.1.1 or later ⁷
Brocade VDX8770	NOS 3.0 or later

Table Notes:

- ¹ 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.
- ² When directly attached to a Host or Target that is part of an encryption flow.
- ³ These platforms may not be directly attached to hosts or targets for encryption flows.
- ⁴ McDATA 1620 and 2640 SANRouters should not be used with FOS-based routing (FCR) for connections to the same edge fabric.
- ⁵ FA4-18 is not supported in a DCX/DCX-4S that is running FOS v7.0 or later
- ⁶ 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.
- ⁷ 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, DCX 8510-8, DCX 8510-4, 6510, 6520 (requires FOS v7.1 or later). For higher FCR backbone scalability (refer to separate "Brocade SAN Scalability Guidelines" documentation for details), please use 5300, 6520, DCX, DCX-4S, DCX 8510-8, DCX 8510-4.
- ⁸ FR4-18i and FC10-6 are not supported on DCX/DCX-4S on FOS v7.1 or later.
- ⁹ Brocade 8000 is not supported with FOS v7.2 or later.
- ¹⁰ Represents the earliest major FOS version. These embedded platforms running respective dedicated FOS versions can also interoperate with FOS v7.2.

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 `cfgsave/cfgenable` can still be performed successfully if initiated from a switch running FOS v7.0 or later.

SNMP Support

Starting with FOS v7.2, the *Fabric OS MIB Reference* document is not updated. You can obtain the latest MIBs from the downloads area of MyBrocade site after logging in.

For information about SNMP support in Fabric Operating System (FOS) and how to use MIBs, see the *Fabric OS Administrator's Guide*.

Obtaining the MIBs

You can download the MIB files required for this release from the downloads area of the MyBrocade site. To download the MIBs from the Brocade Technical Support website, you must have a user name and password.

1. On your web browser, go to <http://my.brocade.com>.
2. Login with your user name and password.
3. Click the downloads tab.
4. On the downloads tab, under Product Downloads, select All Operating Systems from the Download by list.
5. Select Fabric Operating System (FOS), and then navigate to the release.
6. Navigate to the link for the MIBs package and either open the file or save it to disk.

Changes in MIBs and objects

This release introduces the following changes in MIBs and objects:

New MIBs

There are no new MIBs introduced in this release.

Updated MIBs

- **SW.mib**
The following changes have been made to the SW.mib:
 - Added a new counter, `swConnUnitUnroutableFrameCounter`.
 - Added `swFwPowerOnHours` in `SwFwClassesAreas` (supported from v7.0.0).
 - Added `swCpuOrMemoryUsage` table support for MAPS enabled switches.
 - Added `swFCPortDisableReason` (`SwFCPortEntry`) to send a port disable reason as part of the `swFCPortScn` varbind.
 - Added segmented (incompatible) link remote port/`wwn` support for `connUnitLinkTable/swNBTable`.
- **HA.mib**
Added `bpTable` (blade processor table) to the MIB (supported from v6.2.0 for blade processor).
- **BRCD-FCIP-EXT.mib**
Added support for the following MIB objects at tunnel level in the FCIP Extension tunnel. Until and including 7.1.0 release, the following MIB objects were supported only at connection level.

• <code>fcipExtendedLinkTcpDroppedPackets</code>	1.3.6.1.4.1.1588.4.1.1.3
• <code>fcipExtendedLinkTcpSmoothedRTT</code>	1.3.6.1.4.1.1588.4.1.1.5
• <code>fcipExtendedLinkRtxRtxTO</code>	1.3.6.1.4.1.1588.4.1.1.9
• <code>fcipExtendedLinkRtxDupAck</code>	1.3.6.1.4.1.1588.4.1.1.10
• <code>fcipExtendedLinkDupAck</code>	1.3.6.1.4.1.1588.4.1.1.11

Deprecated/Obsoleted MIBs

- swFCPortSpeed in SW.mib is obsoleted.
- Customized OID is not supported from 7.1.0 release.

Blade Support

Fabric OS v7.2 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)	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.
FC10-6	Not supported on FOS v7.1 or later
Intelligent blade	Up to a total of 8/4 intelligent blades. See below for maximum supported limits of each blade.
Virtualization/Application Blade (FA4-18)	Not supported on FOS v7.0 or later
FCIP/FC Router blade (FR4-18i)	Not supported on FOS v7.1 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.
FCoE/L2 CEE blade FCOE10-24	Up to a max of 4 blades of this type. Not supported in the same chassis with other intelligent blades or the FC8-64 port blade.
FC16-32, FC16-48, FC8-32E, FC8-48E	Not supported

Table 1 Blade Support Matrix for DCX and DCX-4S with FOS v7.2

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

Fabric OS v7.2 software is fully qualified and supports the blades for the DCX 8510-8 and DCX 8510-4 noted in the table below.

DCX 8510-8/DCX 8510-4 Blade Support Matrix	
FC16-32, FC16-48 16G FC blades	FOS v7.0 or later.
FC8-64 64 port 8Gbit port blade	With any mix and up to 8/4 of each. No restrictions around intermix. Note: FC8-16, FC8-32, FC8-48 blades are not supported on DCX 8510 platforms.
FC8-32E, FC8-48E	FOS v7.0.1 or later.
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 max of 4 blades of this type.
FCoE/L2 CEE blade FCOE10-24	Not supported on DCX 8510 in FOS v7.x

Table 2 Blade Support Matrix for DCX 8510-8 and DCX 8510-4 with FOS v7.2

Note: The iSCSI FC4-16IP blade is not qualified for the DCX 8510-8/DCX 8510-4.

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 ¹ , FC8-16, FC8-32, FC 8-48, FC8-64	Port Blade	2 Power Supplies	2 Power Supplies	<ul style="list-style-type: none"> Distribute the Power Supplies evenly to 2 different AC connections for redundancy.
FR4-18i ¹	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"> For DCX with three or more FS8-18 Blades, (2+2) 220VAC Power Supplies are required for redundancy. For DCX with one or two FS8-18 Blades, (2) 220VAC Power Supplies are required for redundancy. For DCX-4S, (2) 220VAC Power Supplies provide redundant configuration with any supported number of FS8-18 Blades. For both DCX and DCX-4S with FX8-24 blades, (1+1) 220VAC Power Supplies are required for redundancy.

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

1. Note that FC10-6 and FR4-18i are not supported with FOS v7.1 or later

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)

Configured 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, FC8-32E	Port Blade	4 Power Supplies	2 Power Supplies	200-240VAC: 1+1 Power Supplies 110VAC: 2+2 ¹ 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 ¹ Power Supplies Max 8 FC16-32 port blades
256 8Gb ports + QSFP ICLs	FC8-32E, FC8-48E (Maximum of fully populated FC8-32E blades)	Port Blade	4 Power Supplies	2 Power Supplies	200-240VAC: 1+1 Power Supplies 110VAC: 2+2 ¹ Power Supplies Max 8 FC8-32E port blades
192 16Gb Ports & max 2 intelligent blades (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 ¹ Power Supplies Max four FC16-48 port blades and max 2 Intelligent blades
192 8Gb Ports & max 2 intelligent blades (FX8-24 /FS8-18/combination) with QSFP ICLs	FC8-32E, FC8-48E, FX8-24, FS8-18	Port / Intelligent Blade	4 Power Supplies	2 Power Supplies	200-240VAC: 1+1 Power Supplies 110VAC: 2+2 ¹ Power Supplies Max four FC8-48E 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 ¹ Power Supplies Max 7 FC16-48 port blades
336 8Gb ports + QSFP ICLs	FC8-48E (Maximum of seven FC8-48E blades, with one empty port blade slot)	Port Blade	4 Power Supplies	2 Power Supplies	200-240VAC: 1+1 Power Supplies 110VAC: 2+2 ¹ Power Supplies Max 7 FC8-48E port blades

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)					
Configured Number of Ports	Blades	Type of Blade	DCX 8510-8 @110 VAC (Redundant configurations)	DCX 8510-8 @200-240 VAC (Redundant configurations)	Comments
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) ¹ 220V AC Power Supplies are required
384 8Gb ports + QSFP ICLs	FC8-32E, FC8-48E	Port Blade	Not Supported	4 Power Supplies	200-240VAC: For DCX 8510-8, four (2+2) ¹ 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, FC8-32E, FC8-48E, FS8-18, FX8-24	Intelligent Blade /Combination	Not Supported	4 Power Supplies	For DCX 8510-8, four (2+2) ¹ 220V AC Power Supplies are required when any special purpose blade are installed

Table 4 Power Supply Requirements for DCX 8510-8

Notes:

1. 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, which will prevent Fabric Watch from generating notifications when the switch enters the marginal state due to missing power supplies

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)					
Configured 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, FC8-32E	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, FC8-32E, FC8-48E, 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 4G 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.
- When FOS is upgraded from v7.1.x to v7.2.0 or later:
 - If the Adaptive Networking license was NOT installed in v7.1.x, all ports will have QOS disabled following the firmware upgrade and links will come up in normal mode.
 - If the Adaptive Networking license was installed in v7.1.x, there will be no change in port QOS mode following the upgrade.
 - If the remote port supports QOS and QOS is not explicitly disabled on the local or remote port, the link will come up in QOS mode.
 - Otherwise, the link will come up in normal mode.

- If FOS v7.2 or later is factory installed (or net installed), Adaptive Networking features are always available. This matches the behavior of the Brocade 6520 and all products shipping with prior versions of FOS and with the Adaptive Networking license factory installed.
 - Ports will come up in AE mode by default
 - If the remote port supports QOS and is not explicitly disabled, the link will come up in QOS mode. Otherwise, the link will come up in normal mode.

Access Gateway

- 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.
- 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.

Edge Hold Time

- Edge Hold Time (EHT) default settings for FOS v7.x have changed from those in some FOS v6.4.x releases. The following table shows the Default EHT value based on different FOS release levels originally installed at the factory:

Factory Installed Version of FOS	Default EHT Value
FOS v7.X	220 ms
FOS v6.4.3x	500 ms
FOS v6.4.2x	500 ms
FOS v6.4.1x	220 ms
FOS v6.4.0x	500 ms
Any version prior to FOS v6.4.0	500 ms

Gen 5 platforms and blades are capable of setting an EHT value on an individual port basis. On 8G platforms EHT is set on an ASIC-wide basis, meaning all ports on a common ASIC will have the same EHT setting. Extra care should be given when configuring EHT on 8G platforms or Gen 5 platforms with 8G blades to ensure E_Ports are configured with an appropriate Hold Time setting.

When using Virtual Fabrics and creating a new Logical Switch when running FOS v7.1.0 or later, the default EHT setting for the new Logical Switch will be the FOS default value of 220ms. However, with FOS v7.1.0 and later, each Logical Switch can be configured with a unique EHT setting that is independent of other Logical Switches and the Default Switch. Any Gen 5 ports (Condor3 based) assigned to that Logical Switch will be configured with that Logical Switch's EHT setting. Any 8G ports (Condor2 based) will continue to share the EHT value configured for the Default Switch.

For more information on EHT behaviors and recommendations, refer to the Brocade SAN Fabric Resiliency Best Practices v2.0 document available on www.brocade.com.

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 SSKM operating in PVM mode. Please see SSKM documentation for operating in PVM mode for details. Operation in HVM mode is not supported
 - RASlog SPC-3005 with error 34 may be seen if the link key used by a BES/FS8-18 is re-established. Please refer to the LKM/SSKM Encryption Admin Guide for the workaround. Also, please ensure that two (2) SSKM's are present in the deployment for workaround to be performed.
- 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.
- 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 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.
- FOS 7.1.0 or later will use SHA256 signatures for the TLS certificates used to connect to the ESKM 3.0 Server using ESKM 2.0 client. Upgrade from FOS v7.0.x to FOS 7.2 and downgrade from FOS 7.2 to FOS v7.0.x would require regeneration and re-registration of CA and signed KAC certificates to restore connectivity to the key vault. Please refer to the Encryption Admin Guide for more details on ESKM/FOS compatibility matrix.
- The RSA DPM Appliance SW v3.2 is supported. The procedure for setting up the DPM Appliance with BES or a DCX/DCX-4S/DCX 8510 with FS8-18 blades is located in the Encryption Admin Guide.
- Before upgrading from FOS v7.0.x to FOS 7.2, it is required that the RKM server running SW v2.7.1.1 should be upgraded to DPM server running SW v3.2. Please refer to DPM/FOS compatibility matrix in the Encryption Admin Guide for more details.
- Support for registering a 2nd DPM Appliance on BES/FS8-18 is blocked. If the DPM Appliances are clustered, then the virtual IP address hosted by a 3rd party IP load balancer for the DPM 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 v7.1.x to FOS v7.2 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.
- FOS 7.1.0 introduces support for “disk device decommissioning” to the following key vault types: ESKM, TEKA, TKLM and KMIP. To use disk device decommissioning feature for these key vaults, all the nodes in the encryption group must be running FOS v7.1.0 or later. Firmware downgrade will be prevented from FOS v7.2 to a FOS v7.0.x if this feature is in use. Disk Device decommissioning for DPM and LKM key vaults will continue to work as with previous firmware versions.
- FOS7.2 supports KMIP key vault type for Thales e-Security Key Authority SW v4.0.0 KMIP servers. Please refer to the KMIP Encryption Admin Guide for more details.
 - Replication feature from Thales e-Security Key Authority KMIP server is not supported with BES/FS8-18.
- In FOS 7.1.0 or later the encryption FPGA has been upgraded to include parity protection of lookup memory (ROM) within the AES engine. This change enhances parity error detection capability of the FPGA.
- BES/FS8-18 will reject the SCSI commands WRITE SAME, ATS(Compare and Write/Vendor Specific opcode 0xF1) and EXTENDED COPY, which are related to VAAI (vStorage APIs for Array Integration) hardware acceleration in vSphere 4.1/5.x. This will result in non-VAAI methods of data transfer for the underlying arrays, and may affect the performance of VM related operations.
- VMware VMFS5 uses ATS commands with arrays that support ATS. BES/FS8-18 does not support this command set. Use of a workaround procedure is required in order to configure encryption in a VMFS 5 environment. Please refer to Brocade Tech Note “Deployment Options for VMware VMFS-5 with Brocade Encryption” for details.
- XIV storage arrays that have been upgraded to firmware 11.2x or later required to support encryption on thin provisioned LUNs will report all XIV data LUNs as TP=Yes.

FCIP (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 “sfps show” output might display “Cannot read serial data!”. Removing and re-inserting the SFP should resolve this issue. It is recommended that users perform sfps show immediately after inserting the SFP and ensure SFP is seated properly before connecting the cables.
- When running FOS v7.2.0 or later, if the new FCIP Circuit Group feature is configured on any FCIP Circuits, a downgrade operation to pre-FOS v7.2.0 will be blocked until the feature is removed from the FCIP configuration(s).

FCoE/DCB/CEE (FCOE10-24)

- When upgrading a 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.
- Ethernet L2 traffic with xSTP Hello timer set to less than or equal to 3 seconds may experience momentary traffic disruption during HA failover.
- 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 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 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.
- 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.
- 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 FCOE10-24 can handle 169 small FCoE frames in bursts. If you are using the 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.
- VEX edge to VEX edge device sharing will not be supported.

Forward Error Correction (FEC)

- Though FEC capability is generally supported on Condor3 (16G capable FC) ports when operating at either 10G or 16G speed, it is not supported with all DWDM links. Hence FEC may need to be disabled on Condor3 ports when using DWDM links with some vendors by using portCfgFec command. Failure to disable FEC on these DWDM links may result in link failure during port bring up. Refer to the Brocade Fabric OS 7.x Compatibility Matrix for supported DWDM equipment and restrictions on FEC use.

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, Brocade 6505 and Brocade 6520.
- 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.
- Platform running FOS v7.1 or later does not support EX port configuration in Interopmode 2 or Interopmode 3.
- Device sharing between a switch running FOS v7.1 or later and McDATA fabrics is allowed via Integrated Routing platforms using FOS v7.0.x (or earlier) firmware.

Port Initialization

Users may observe that a port is in “Port Throttled” state when an F_Port is being initialized. This is mostly an informational message that is shown in switchshow output indicating systematic initialization of F_Ports.

However, a port may remain in “Port Throttled” state for an extended period of time and may never come online if it fails to negotiate speed successfully with the neighboring port. Users are advised to check the speed setting of the neighboring switch port to determine the cause of the speed negotiation failure.

Example Output:

```
74    9    10    36ed40    id    N8          In_Sync    FC    Disabled (Port Throttled)
```

Port Mirroring

- Port Mirroring is not supported on the Brocade 7800.

Port Statistics

- On 16G capable 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.

WebTools

- Please note a documentation correction to the “Table 3 Certified and Tested Platforms” of the Web Tools Administrator’s Guide supporting Fabric OS v7.2.0. Unlike what is stated in the table, Web Tools is not supported with the Chrome browser with FOS v7.2.

Zoning

- Support for up to 2MB zone database in a fabric with only DCX/DCX-4S/DCX8510 systems. The presence of any other platform in the fabric will limit the maximum zone database to 1MB. Please note that there is no enforcement by FOS 7.1 or later to restrict users to operate within a zone database limit - it is the responsibility of the user to not exceed this limit.
- 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/DCX 8510 during the following conditions:
 - HA failover on DCX/DCX-4S/DCX 8510 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
 - Firmware upgrade from v7.1.0 to a later release on Brocade 6520
- 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.

Defects

Open Defects in Fabric OS v7.2.0a

This section lists defects with High or Medium Technical Severity open in Fabric OS v7.2.0a as of 12:00 PM on September 9, 2013. While these defects are still formally open they are unlikely to impede Brocade customers in their deployment of Fabric OS v7.2.0a 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.

Defect ID: DEFECT000471755	Technical Severity: High
Summary: Flow monitor does not work on internal ports on AG embedded platforms.	
Symptom: Flow monitor is not supported on internal ports of AG embedded platforms.	
Feature: Network Patroller	Function: ASIC interfaces
Reported In Release: FOS7.2.0	Probability: High

Defect ID: DEFECT000472858	Technical Severity: High
Summary: FLOW - A multi-feature learning flow defined with both generator and monitor as feature options and srcdev "*" specified, monitors only 6 out of 57 real flows on the egress port.	
Symptom: A learning flow definition with both generator and monitor features specified on an egress port with srcdev or dstdev as '*' will monitor less number of flows than real flows through the port, only when the number of real flows exceed 32.	
Feature: Network Patroller	Function: Flow monitor
Reported In Release: FOS7.2.0	Probability: High

Defect ID: DEFECT000472882	Technical Severity: High
Summary: Flow Generator does not function when SIM_Port created on a swapped port. Flow is activated for gen but no frame transmission.	
Symptom: Flow Generator features does not function when SIM_Port created on a swapped port. Flow is activated for generator feature, but no frame transmission occurs.	
Workaround: Unswap the SIM_Port PID and create a new flow gen based on the SIM_Port's unswapped PID.	
Feature: Network Patroller	Function: Flow Generator
Reported In Release: FOS7.2.0	Probability: Medium

Defect ID: DEFECT000473053	Technical Severity: High
Summary: Configupload after Configdefault retains old simport configuration in uploaded config	
Symptom: Configupload after Configdefault retains old simport configuration in uploaded config. The flow definitions existing in the system before configdefault, will reappear if the uploaded file is downloaded onto a switch.	
Workaround: No workaround known at this point of time. Refrain from configupload of default configuration	
Feature: Network Patroller	Function: Other
Reported In Release: FOS7.2.0	Probability: High

Open Defects in Fabric OS v7.2.0a

Defect ID: DEFECT000473063	Technical Severity: High
Summary: Changing a FID/LS to base fabric should check for the presence of SIM ports, otherwise they get stuck as G-ports, etc.	
Symptom: Ports that are configured as SIM ports in a FID get stuck in an invalid state, if the switch is reconfigured to become the Base FID (an invalid state for SIM ports).	
Workaround: Easily reproducible. No possible workaround known at this time. The preventive step is to remove the SIM port configuration before converting a logical switch as base switch. “Check the SIM Port configuration before converting a Logical Switch into Base Switch. If there are SIM Ports configured ask the user to remove the SIM Port configuration. “	
Feature: Network Patroller	Function: ASIC interfaces
Reported In Release: FOS7.2.0	Probability: High

Defect ID: DEFECT000473548	Technical Severity: High
Summary: When flows are monitored in MAPS, switch disable/enable or port enable/disable could trigger unexpected MAPS RASLOGs	
Symptom: Unexpected MAPS RASLOGs with large values are triggered for the flows affected by port enable/disable or switch enable/disable operations.	
Feature: Advanced Monitoring Services	Function: Flows
Reported In Release: FOS7.2.0	Probability: High

Open Defects in Fabric OS v7.2.0

This section lists defects with High or Medium Technical Severity open in Fabric OS v7.2.0 as of 12:00 PM on July 26, 2013.

Defect ID: DEFECT000393844	Technical Severity: High
Summary: Customer security audit shows CVE-2011-3389 TLS-SSL Server Blockwise Chosen-Boundary Browser Weakness	
Symptom: Security audit of switch's admin Ethernet ports discovered CVE-2011-3389 TLS-SSL Server Blockwise Chosen-Boundary Browser Weakness	
Feature: FOS Software	Function: Management Services
Service Request ID: 718989	
Reported In Release: FOS7.0.1	Probability: Low

Defect ID: DEFECT000401075	Technical Severity: High
Summary: Weblinker terminates during management application such as BNA accessing switch.	
Symptom: Brocade Network Advisor access fails due to Weblinker continuously resetting during radius authentication.	
Workaround: restart BNA	
Feature: FOS Software	Function: Panic / OOM
Service Request ID: 734093	
Reported In Release: FOS7.0.1	Probability: Medium

Defect ID: DEFECT000413620	Technical Severity: High
Summary: Zone daemon panic during zoning change.	
Symptom: During testing, running zone transaction script on multiple switches at the same time, zone could panic and cause CP failover to occur.	
Feature: FOS Software	Function: Panic / OOM
Service Request ID: 751709	
Reported In Release: FOS6.4.2	Probability: Low

Defect ID: DEFECT000414205	Technical Severity: High
Summary: Name server daemon panics when adding host to encryption container.	
Symptom: In an encryption environment, race condition triggered switch panic when one of the device in a Frame Redirection zone comes online.	
Feature: FOS Software	Function: Panic / OOM
Service Request ID: 761005,1173245	
Reported In Release: FOS6.4.2	Probability: Low

Defect ID: DEFECT000415126	Technical Severity: High
Summary: Maximum number of IP Filter policies present causes Web Tools to report "Maximum number of rules created" during rule edits	
Symptom: When the maximum number of ipfilter policies are present, the user may see "Maximum number of rules created" when editing inactive policies (adding or removing rules from policies)	
Feature: WebMgmt	Function: Security Policies
Reported In Release: FOS7.1.0	Probability: High

Defect ID: DEFECT000415775	Technical Severity: High
Summary: audit events for CLI are not recorded if a user sends a remote command	
Symptom: Commands executed as in-line with ssh will not be logged in clihistory and auditCfg for CLI.	
Feature: Security Vulnerability	Function: OpenSSH
Reported In Release: FOS7.1.0	Probability: Medium

Open Defects in Fabric OS v7.2.0

Defect ID: DEFECT000423640	Technical Severity: High
Summary: Upgrade a flash card driver version.	
Symptom: On rare occasions excessive writing to an old flash card could cause it no longer be accessible during switch bootup.	
Feature: Embedded Platform Services	Function: Other
Service Request ID: ,1162762	
Reported In Release: FOS6.4.3_dcb	Probability: Low

Defect ID: DEFECT000425974	Technical Severity: High
Summary: Fabric Watch reports all zeros for 16G SFPs.	
Symptom: Observe invalid Fabric Watch messages for 16G SFPs.	
Feature: FOS Software	Function: Management Services
Service Request ID: 1095374	
Reported In Release: FOS7.0.0	Probability: Low

Defect ID: DEFECT000426301	Technical Severity: High
Summary: Inherited FID is retained even if the VF enabled switch moved out of the fabric.	
Symptom: Merging a new VF enabled switch(with different FID) to an existing VF disabled fabric fails with E port segment reason of "FID conflict"	
Feature: FOS Software	Function: Virtual Fabric
Service Request ID: 1101582 -- 1101547	
Reported In Release: FOS6.4.1	Probability: Low

Defect ID: DEFECT000429970	Technical Severity: High
Summary: Host LUN discovery between two edges fails in FCR routed fabric	
Symptom: A host in an edge fabric that is zoned with a target in another edge can not discover the LUNs across the routed fabric when the host is removed and then subsequently added back to the LSAN zone.	
Feature: 8G FCR	Function: Other
Reported In Release: FOS7.1.0	Probability: Medium

Defect ID: DEFECT000430219	Technical Severity: High
Summary: Ports in a Condor3-Condor2 ISL may be fenced unexpectedly after portenable when FabricWatch is enabled with LR high threshold level set to custom values significantly below the default	
Symptom: Ports are fenced unexpectedly	
Workaround: Increase the FabricWatch LR threshold	
Feature: FABRIC WATCH	Function: PORT FENCING
Reported In Release: FOS7.1.0	Probability: Medium

Defect ID: DEFECT000431369	Technical Severity: High
Summary: Brocade switch mib browser displays incorrect/misinterperated fportflag	
Symptom: Mib browser displays ascii-hex of populated fportflag value. For example it displays "30" for 0, "31" for 1, where expected display is "0", "1".	
Feature: FOS Software	Function: SNMP
Service Request ID: 1106614	
Reported In Release: FOS7.0.2	Probability: Medium

Open Defects in Fabric OS v7.2.0

Defect ID: DEFECT000432406	Technical Severity: High
Summary: Hung supportsave processes left on switch and eventually triggered switch panic.	
Symptom: Customer observes multiple supportsave processes on switch without actively initiating a recent supportsave. These processes can cause memory to be held when an additional supportsave is initiated and lead to switch panic.	
Workaround: " "ps -elf grep -i supportsave" will show process ID (PID) and parent process ID (PPID) associated with the hung supportsave processes, such as 7141 1079 0 Mar07 ? 00:00:00 [supportsave] <defunct> 8048 1 0 Mar07 ? 00:00:03 /fabos/cliexec/supportsave -n -u admin -p password - In above example, kill PID (kill -9 7141, kill -9 8048) and PPID (kill -9 1079) associated with supportsave. Note: DO NOT "kill -9 1" as 1 is the special init process	
Feature: FOS Software	Function: Panic / OOM
Service Request ID: 1115544,1127770,1137	
Reported In Release: FOS6.4.2	Probability: Medium

Defect ID: DEFECT000436246	Technical Severity: High
Summary: Signature validation failed - When /root/.ssh/known_host.txt caches old ssh-key in it.	
Symptom: Unable to perform following operations from BNA/CLI 1.Firmware Download, 2.Technical Support collection 3.NOS - Configuration Upload/Downlaod	
Workaround: Delete cached entry from "Known_host.txt".	
Feature: FOS Security	Function: SSH
Reported In Release: FOS7.1.0	Probability: Medium

Defect ID: DEFECT000439660	Technical Severity: High
Summary: BNA will show the chassis as discoverable but logical switch not found	
Symptom: Changing the default switch fid may result in a situation where the chassis is discoverable but the logical switch is not found.	
Workaround: Disable/enable VF.	
Feature: System Security	Function: User Defined Roles
Reported In Release: FOS7.1.0	Probability: Medium

Defect ID: DEFECT000442978	Technical Severity: High
Summary: Port0 on embedded platforms stuck at No_Sync after the server blade is reseated	
Symptom: Port0 of mezzcard card stuck at "No_Sync" after a server blade reseat.	
Workaround: The port is becomes available over time.	
Feature: 16G ASIC Driver	Function: 16Bbps/10Gbps Port
Reported In Release: FOS7.1.0_blv	Probability: Medium

Defect ID: DEFECT000447256	Technical Severity: High
Summary: Kernel panics after repeated FIP v1 FLOGI failures on 8000 switch.	
Symptom: On an 8000 switch, a kernel panic following FIP v1 FLOGI failures may be seen.	
Feature: CEE-FCOE	Function: Other
Service Request ID: 1149227	
Reported In Release: FOS7.1.0	Probability: Medium

Open Defects in Fabric OS v7.2.0

Defect ID: DEFECT000450265	Technical Severity: High
Summary: Multiple NSD ASSERTS after duplicate wwn detection, cold recovery resulted.	
Symptom: CP failover occurs after nsd process terminates due to duplicate wwn in fabric.	
Feature: FOS Software	Function: Panic / OOM
Service Request ID: 1152307	
Reported In Release: FOS6.4.3	Probability: Medium

Defect ID: DEFECT000451887	Technical Severity: High
Summary: Many frame drops and unroutable frames after a slotpoweroff slotpoweron the CR16 core blade	
Symptom: user may see the many frame drops due to unroutable after slotpower on the CR16 core blade.	
Feature: 16G Platform Services	Function: Routing
Reported In Release: FOS7.2.0	Probability: Medium

Defect ID: DEFECT000453829	Technical Severity: High
Summary: BufOpMode not enforcing non-local routing on FC8-48	
Symptom: Traffic could be extra slow with BufOpMode enabled	
Workaround: slotpoweroff/slowpoweron the blade	
Feature: 8G Platform Services	Function: Routing
Reported In Release: FOS7.2.0	Probability: High

Defect ID: DEFECT000453837	Technical Severity: High
Summary: Host lost access to fabric via access gateway	
Symptom: Device not logged into fabric when connected to access gateway that missing an index number for trunked connection.	
Workaround: Disable and Enable porttrunkarea	
Feature: 16G Platform Services	Function: F Port Trunking
Reported In Release: FOS7.1.0	Probability: Medium

Defect ID: DEFECT000455678	Technical Severity: High
Summary: High enc out errors on embedded BR5480 switch attached to 3rd party chassis	
Symptom: switch porterrshow logs excessive 'enc out' errors when ports are disabled/enabled. These errors are not seen increasing after port enable and should not alarm users as long as count is not increasing.	
Feature: Embedded Platform Services	Function: ASIC Driver
Reported In Release: FOS7.1.0	Probability: Medium

Defect ID: DEFECT000457208	Technical Severity: High
Summary: Inconsistent fabric login results for tape device	
Symptom: Tape device may login into fabric as a initiator, operation not effected	
Feature: 16G Platform Services	Function: FOS Kernel Drivers
Reported In Release: FOS7.1.0	Probability: Medium

Defect ID: DEFECT000459833	Technical Severity: High
Summary: IO abandons a trunk when a slave port is disabled and there are multiple trunk groups that exist	
Symptom: Less available paths when slave port is disabled in a trunk group and there are multiple trunk groups that exist	
Feature: 16G Platform Services	Function: Routing
Reported In Release: FOS7.2.0	Probability: Low

Open Defects in Fabric OS v7.2.0

Defect ID: DEFECT000459843	Technical Severity: High
Summary: All supportsaves have module timeouts and take more than 55 minutes to complete in Port Throttling case.	
Symptom: All supportsaves have module timeouts and take more than 55 minutes to complete in Port Throttling case.	
Workaround: Workaround is to use the CLI supportsave -t 2 option.	
Feature: 16G Platform Services	Function: FOS Kernel Drivers
Reported In Release: FOS7.2.0	Probability: Medium

Defect ID: DEFECT000462116	Technical Severity: High
Summary: Observed switch panic when standby CP tried to take over after hardware failure.	
Symptom: During a very rare port blade hardware failure, it triggered heart beat loss on active CP followed by ASSERT in RTE module when standby tried to take over.	
Feature: FOS Software	Function: Panic / OOM
Service Request ID: 1188077	
Reported In Release: FOS7.0.0	Probability: Low

Defect ID: DEFECT000465666	Technical Severity: High
Summary: Master log port unit connectivity status change event description does not provide enough information to proceed	
Symptom: The error message "The overall portstatus of the connectivity unit has changed" is shown for TOP every 10 minutes	
Feature: Mgmt Embedded - SNMP	Function: Other
Reported In Release: FOS7.2.0	Probability: Medium

Defect ID: DEFECT000465879	Technical Severity: High
Summary: 16Gb SFP rules for TXP and SFP Current are violated when a neighbor EPort transitions online.	
Symptom: Invalid reporting of MAPS 16G SFP rules for optice when its neighbor EPort transitions online.	
Feature: Advanced Monitoring Services	Function: Rules and Policies
Reported In Release: FOS7.2.0	Probability: High

Defect ID: DEFECT000466587	Technical Severity: High
Summary: Reboot of core switch may result in EX-Ports stuck in "Switch not ready for EX_Ports" state	
Symptom: EX_Ports may get stuck in "Switch not ready for EX_Ports" status for a period of time when a core switch in a backbone is rebooted	
Workaround: Disable and enable the E-ports on the core switch.	
Feature: 8G FCR	Function: FCR Port
Reported In Release: FOS7.2.0	Probability: Low

Defect ID: DEFECT000467418	Technical Severity: High
Summary: SNMP is returning Same values for 60 second when only one port is polled for real time statistics.	
Symptom: User will see the unexpected plotting in the performance graphs. Since polling is returning a new value for the port every 60 seconds.	
Workaround: Monitor multiple ports at once.	
Feature: Mgmt Embedded - SNMP	Function: Other
Reported In Release: FOS7.2.0	Probability: Low

Open Defects in Fabric OS v7.2.0

Defect ID: DEFECT000467681	Technical Severity: High
Summary: Blade server shows incorrect firmware version in IOM module after a switch hotplug	
Symptom: Blade server displays incorrect Firmware Version in IOM module after switch hotplug	
Feature: Embedded Platform Services	Function: Other
Service Request ID: 1001	
Reported In Release: FOS7.2.0	Probability: High

Defect ID: DEFECT000468006	Technical Severity: High
Summary: fmmonitor set to 4294967296 (0x100000000) after switchdisable/enable	
Symptom: fmmonitor may be set to 4294967296 (0x100000000) after switchdisable/enable instead of 0.	
Workaround: Retry the disable/enable.	
Feature: Performance Monitor	Function: Frame Monitor
Reported In Release: FOS7.2.0	Probability: Low

Defect ID: DEFECT000468007	Technical Severity: High
Summary: Host discovery issues in Ex on ICL ports multi chassis configuration	
Symptom: Host may not see all target LUNs in a topology using multi-chassis EX on ICL configuration	
Workaround: Portdisable enable switch ports for affected devices.	
Feature: FC Services	Function: Name Server
Reported In Release: FOS7.2.0	Probability: Medium

Defect ID: DEFECT000468188	Technical Severity: High
Summary: observed MDD kept crashing when a DS was set persistently disabled	
Symptom: user may see MDD hit rolling crashing when the switch is configure VF mode and the DS switch is set disable persistently with MAPS enabled.	
Feature: Advanced Monitoring Services	Function: Other
Reported In Release: FOS7.2.0	Probability: Low

Defect ID: DEFECT000468413	Technical Severity: High
Summary: firmwaredownload -s on standby CP produces protocol failure in circuit setup messages on the console	
Symptom: Firmware download on the standby CP takes a long time to reach Y/N prompt and several "poll: protocol failure in circuit setup" console messages resulted.	
Workaround: Use firmwaredownload without the -s option.	
Feature: Striker/Spike Platform Services	Function: VEX
Reported In Release: FOS7.2.0	Probability: Low

Defect ID: DEFECT000468455	Technical Severity: High
Summary: QoS allowed ASIC buffer pool to become over allocated	
Symptom: Portbuffershow indicated a negative value in the remaining buffers after QoS was enabled on an extended distance link	
Workaround: Reduce the required buffers before enabling QoS	
Feature: 8G ASIC Driver	Function: ASIC Driver
Reported In Release: FOS7.2.0	Probability: Medium

Defect ID: DEFECT000468458	Technical Severity: High
Summary: FCR edge fabric sees NBFS messages	
Symptom: A core switch in a FCR edge fabric may see continuous NBFS event messages due to the EX-Ports from the FCR backbone exceeding ELP retires	
Feature: 8G ASIC Driver	Function: ASIC Driver
Reported In Release: FOS7.2.0	Probability: Low

Open Defects in Fabric OS v7.2.0

Defect ID: DEFECT000468556	Technical Severity: High
Summary: iswitchd failures on 6510 acting as FCR Backbone	
Symptom: Switch console may display iswitchd failures during hafailover on core director. No impact to IO.	
Feature: 8G FCR	Function: FCR Daemon
Reported In Release: FOS7.2.0	Probability: Low

Defect ID: DEFECT000468595	Technical Severity: High
Summary: SNMP did not restore all SNMPv1 and accesscontrol settings with configdownload	
Symptom: Trap receipt and accesscontrol keys will not be restored on configdownload.	
Workaround: Use the snmpconfig command to configure the settings.	
Feature: Mgmt Embedded - SNMP	Function: Other
Reported In Release: FOS7.2.0	Probability: Low

Defect ID: DEFECT000468795	Technical Severity: High
Summary: FCIP FICON XRC Emulation Abort after Selective Reset Errors	
Symptom: If FICON XRC Emulation receives a Selective Reset for a device that is currently in Stacked Status State, the Selective Reset is incorrectly responded to by emulation processing leading to an abort sequence from the channel for the Selective Reset Exchange.	
Feature: FCIP	Function: Emulation
Service Request ID: 1205859	
Reported In Release: FOS7.0.0	Probability: Low

Defect ID: DEFECT000304478	Technical Severity: Medium
Summary: 8b/10b encoding is not taken into account in Web Tools performance data	
Symptom: Web Tools performance statistics do not match those of SAN Health.	
Feature: FOS Software	Function: Management Embedded
Service Request ID: 435501	
Reported In Release: FOS6.1.1	Probability: Medium

Defect ID: DEFECT000315825	Technical Severity: Medium
Summary: Web Tools Port Admin-SFP: "Extended Long_dist" should be shown in "Distance" Label for extended LW optics.	
Symptom: Extended Long distance is shown as Long_dist, does not mach CLI output.	
Feature: 8G Platform Services	Function: FOS Kernel Drivers
Reported In Release: FOS6.4.0	Probability: Low

Defect ID: DEFECT000338871	Technical Severity: Medium
Summary: Trunk slave E-port entries not in RNID database	
Symptom: Entries may be missing when executing "ficonshow rnid"	
Feature: FICON	Function: MS-FICON
Reported In Release: FOS7.0.0	Probability: High

Open Defects in Fabric OS v7.2.0

Defect ID: DEFECT000349576	Technical Severity: Medium
Summary: Unexpected error message is given by Web Tools 1) while removing the uncommitted static F port mapping, in the presence of WWN – N port mapping 2) While removing the uncommitted WWN-N port mapping, in the presence of static F port mapping.	
Symptom: Display of this wrong confirmation message by Web Tools may mislead the user.	
Workaround: Click on “cancel” present in the “WWN-N port mapping” and “Configure F-N port mapping” dialog/Reopen the dialog and do the configuration again. Use CLI	
Feature: WebMgmt	Function: AG Support
Reported In Release: FOS7.0.0	Probability: Medium

Defect ID: DEFECT000406288	Technical Severity: Medium
Summary: Customer is not able to login with webtools or BNA with Radius.	
Symptom: Radius server blocked cusotmer login with “Radius” only configuration, running commands with double quotes worked: aaaconfig --authspec "radius:local"	
Feature: FOS Software	Function: Security
Service Request ID: 742937	
Reported In Release: FOS6.4.2	Probability: Low

Defect ID: DEFECT000413006	Technical Severity: Medium
Summary: Fabric watch is showing Tx utilization 20% less than the actual value	
Symptom: Inaccurate reporting of Tx/Rx Utilization value by FabricWatch	
Feature: FOS Software	Function: Management Services
Service Request ID: 733499	
Reported In Release: FOS6.3.1	Probability: Medium

Defect ID: DEFECT000417089	Technical Severity: Medium
Summary: Invalid VF numbers can be specified in TACACS+	
Symptom: If 0 is configured for the role list in tacacs/radius/ldap server configuration, userconfig --show will show '0' also in the role list details.	
Workaround: Avoid configuring the value '0' for role list	
Feature: System Security	Function: TACACS+
Reported In Release: FOS7.1.0	Probability: Medium

Defect ID: DEFECT000418226	Technical Severity: Medium
Summary: configdownload does not restore the MAPS relay host IP	
Symptom: maps email config not restored after a configdownload	
Feature: Advanced Monitoring Services	Function: Other
Reported In Release: FOS7.1.0	Probability: High

Defect ID: DEFECT000418837	Technical Severity: Medium
Summary: Detected termination of essd:1806 during nondisruptive firmware download	
Symptom: nondisruptive firmare download failure caused by Detected Termination of essd:1806	
Feature: FC Services	Function: ESS
Service Request ID: ,1123356	
Reported In Release: FOS7.1.0	Probability: Low

Open Defects in Fabric OS v7.2.0

Defect ID: DEFECT000420903	Technical Severity: Medium
Summary: Graphic for external management port is lit with no connection for 6547 switch.	
Symptom: when RJ45 cable is removed from the switch faceplate, Webtools still shows external management port with solid green LED.	
Feature: Mgmt Embedded - CAL	Function: Other
Reported In Release: FOS7.0.0_pha	Probability: Medium

Defect ID: DEFECT000422267	Technical Severity: Medium
Summary: FOS Web Tools and Brocade Network Advisor should display VE ports as available in the FICON PDCM matrix as VE ports are FMS manageable	
Symptom: The PDCM matrix displays all VE ports as "unavailable".	
Feature: FICON	Function: Other
Reported In Release: FOS7.1.0	Probability: Medium

Defect ID: DEFECT000428793	Technical Severity: Medium
Summary: Status LED of the blade turns amber during portloopbacktest on core blade	
Symptom: Inccorret status of Core blade LED during portloopbacktest	
Feature: 16G Platform Services	Function: FOS Kernel Drivers
Service Request ID: 1104360	
Reported In Release: FOS7.0.2	Probability: High

Defect ID: DEFECT000429545	Technical Severity: Medium
Summary: fcping --help does not show -vc and -errstats	
Symptom: fcping --help missing options -vc and -errstats.	
Workaround: use help fcping instead	
Feature: Fabric Diagnostics	Function: Superping
Reported In Release: FOS7.1.0	Probability: High

Defect ID: DEFECT000431011	Technical Severity: Medium
Summary: Multiple LUN's lost access during login time	
Symptom: Access to multiple LUNs drop at virtually the same time. There is a discrepancy in the nameserver where the ports are not registered but the portstatus shows the device as being logged in.	
Workaround: Do not to connect the device on shared area port of the switch if that device did not register its information with Name server. If connecting the device to a shared area port on the switch, enable name server registration from device side.	
Feature: 8G Platform Services	Function: FOS Kernel Drivers
Service Request ID: 1109341,1167915	
Reported In Release: FOS7.0.1	Probability: Medium

Defect ID: DEFECT000433200	Technical Severity: Medium
Summary: Cannot manage the switch from WebTools or BNA though CLI works.	
Symptom: Switch reports as unreachable via BNA and Webtools with following message, "Chassis is not ready for management now. Please try after some time."	
Feature: FOS Software	Function: Management Embedded
Service Request ID: 1116227,1157961,1190	
Reported In Release: FOS7.0.2	Probability: Medium

Open Defects in Fabric OS v7.2.0

Defect ID: DEFECT000433534	Technical Severity: Medium
Summary: [H1520]FW-1403 event after Flash value crosses low threshold from below to inbetween.	
Symptom: FW-1403 generated when Flash value crosses its low threshold from below to inbetween during low threshold testing and high threshold is tested previously	
Feature: FABRIC WATCH	Function: Other
Service Request ID: 1118425,743111	
Reported In Release: FOS7.0.2	Probability: Medium

Defect ID: DEFECT000435100	Technical Severity: Medium
Summary: SNMPCONFIG is inconsistent on ISCSI settings	
Symptom: Disable ISCSI-mibcapability in FOSv6.3 and then upgraded to FOSv6.4, when the new firmware comes up, ISCSI- MIB is in disabled state and ISCSI-TRAPS are in enabled state.	
Feature: FOS Software	Function: SNMP
Service Request ID: 1124455	
Reported In Release: FOS6.3.0	Probability: Medium

Defect ID: DEFECT000437932	Technical Severity: Medium
Summary: QoS Failure events when deleting logical switch	
Symptom: Logical switch delete failed follow by QoS errors and numerous supportsave errors during data collect	
Feature: FC Services	Function: QOS
Reported In Release: FOS7.1.0	Probability: Low

Defect ID: DEFECT000443325	Technical Severity: Medium
Summary: Unable to set default values for the first time in Extended Fabrics tab.	
Symptom: User will not be able to set back to default values on the first try.	
Workaround: Issue the command again.	
Feature: WebMgmt	Function: Switch Admin
Reported In Release: FOS7.1.0	Probability: Medium

Defect ID: DEFECT000445731	Technical Severity: Medium
Summary: After FX8-24 Blade FCIP Tunnel failure and recovery, IO did not resume due to stuck VC	
Symptom: IO traffic could not be restarted after FCIP Tunnel recovered from keealive Timeout	
Workaround: Powercycle the core blade(s)	
Feature: 8G ASIC Driver	Function: C2 ASIC driver
Service Request ID: 1147110	
Reported In Release: FOS7.0.2	Probability: Low

Defect ID: DEFECT000447147	Technical Severity: Medium
Summary: D-Port test results incorrectly shows manual mode from the Access Gateway then HBA configured for D-Port was rebooted	
Symptom: Access Gateway D-Port test results incorrectly shows manual mode when the HBA configured for D-Port was rebooted. Results should display automatic mode.	
Feature: Fabric Services	Function: D-port
Reported In Release: FOS7.2.0	Probability: Medium

Defect ID: DEFECT000448581	Technical Severity: Medium
Summary: Port Rename, F-Port BB Credit & NPIV Max Login dialogs still persist even after the connection is timed out and allows user to configure the values.	
Symptom: User is erroneously allowed to configure the values even after the connection times out.	
Feature: WebMgmt	Function: Ports Admin
Reported In Release: FOS7.2.0	Probability: Medium

Open Defects in Fabric OS v7.2.0

Defect ID: DEFECT000450457	Technical Severity: Medium
Summary: ipfilter does not block access to port 80	
Symptom: When using ipfilter to block port 80, port 80 is still accessible. When connecting to the switch, "Interface disabled" and "This Interface (x.x.x.x) has been disabled by the administrator." is presented to the user.	
Workaround: As root, you could manually perform the following, but it will not be retained across reboots or failovers, <pre>iptables -L tcp0 <---used to verify rule position iptables -D tcp0 2 iptables -L tcp0 <---used to verify rule position iptables -D tcp0 2</pre>	
Feature: FOS Software	Function: OS: Ethernet/Mgt Interface
Service Request ID: 1152370	
Reported In Release: FOS7.0.0	Probability: High

Defect ID: DEFECT000451364	Technical Severity: Medium
Summary: After switchdisable/enable of core switch, the edge fabric is flooded with [PS-5011] messages	
Symptom: After switchdisable/enable on the core switch, [PS-5011] messages are seen on the console continuously.	
Feature: Performance Monitor	Function: Top Talker
Reported In Release: FOS7.2.0	Probability: Low

Defect ID: DEFECT000451699	Technical Severity: Medium
Summary: After disabling Static D-Port from the switch side, the device port comes up as a G-Port.	
Symptom: Device port comes up as a G-Port after disabling Static D-Port from the switch side	
Workaround: Removed static d-port configuration on HBA side or restart the D-Port test.	
Feature: Fabric Services	Function: D-port
Reported In Release: FOS7.2.0	Probability: Low

Defect ID: DEFECT000452546	Technical Severity: Medium
Summary: MAPS doesn't count faulty blade as "FRU Health" Category in mapsdb	
Symptom: If MAPS starts monitoring after the blade is faulted, the faulty Blade is not being counted under "FRU Health" Category in mapsdb	
Feature: Advanced Monitoring Services	Function: Dashboard
Reported In Release: FOS7.2.0	Probability: Medium

Defect ID: DEFECT000453088	Technical Severity: Medium
Summary: perfcleareemonitor will sometimes not clear upper 32 bits of ee monitor counter	
Symptom: perfcleareemonitor may occasionally not clear upper 32 bits of ee monitor counter.	
Workaround: run "perfcleareemonitor " again	
Feature: Performance Monitor	Function: EE monitor
Reported In Release: FOS7.2.0	Probability: Medium

Defect ID: DEFECT000454926	Technical Severity: Medium
Summary: Mixed 4G and 8G on the same asic cause 8G ISL reporting errors	
Symptom: On Brocade 300, observed CRC errors on 8G ISL ports when there are 4G ports in the same chip in a specific customer configuration.	
Feature: 8G ASIC Driver	Function: ASIC Driver
Service Request ID: 1136914	
Reported In Release: FOS7.0.0	Probability: Low

Open Defects in Fabric OS v7.2.0

Defect ID: DEFECT000455170	Technical Severity: Medium
Summary: When user issued 'date' command, switch will output the 'No license installed' message on CLI.	
Symptom: On a switch without license installed, run "date" command will display: No licenses installed. External Time Synchronization in place in Switch. Cannot execute this command.	
Feature: FOS Software	Function: OS: Linux
Service Request ID: 1167588	
Reported In Release: FOS7.1.0	Probability: Low

Defect ID: DEFECT000455322	Technical Severity: Medium
Summary: Fabric Watch Above high threshold messages logged repeatedly	
Symptom: An unexpectedly large number of Fabric Watch messages may be seen.	
Feature: FABRIC WATCH	Function: Other
Service Request ID: 1166096,1189783	
Reported In Release: FOS7.0.2	Probability: Medium

Defect ID: DEFECT000455926	Technical Severity: Medium
Summary: Devices outside of fail-over disabled TI zone will have portcam entries if there is an alternative path, other than the TI zone, to reach the device in remote switch	
Symptom: Devices that are excluded from connectivity to each other in accordance with the TIZ configuration, are visible to each other in the Name Server. Devices will get the details of the zoned devices and PLOGIs sent to these devices will be dropped, sent to Non TI zoned devices	
Feature: FC Services	Function: Name Server
Reported In Release: FOS7.2.0	Probability: Low

Defect ID: DEFECT000458552	Technical Severity: Medium
Summary: Portlogdump "zone" entries in the PLD do not show a delimiter between the port, the cmd and the argument/payload values.	
Symptom: log entry in the PLD doesn't align properly with the rest of the columns. The "zone" entries in the PLD do not show a delimiter between the port, the cmd and the argument/payload values.	
Feature: 8G ASIC Driver	Function: Other
Service Request ID: 1135210	
Reported In Release: FOS7.0.1	Probability: Medium

Defect ID: DEFECT000460453	Technical Severity: Medium
Summary: "Can not find platform: 117" and "client: connect: Connection refused" messages occurred during boot up	
Symptom: Error messages are displayed on embedded platform console during boot up and do not affect any functionality.	
Feature: Embedded Platform Services	Function: FOS Kernel Driver
Reported In Release: FOS7.2.0	Probability: High

Defect ID: DEFECT000460977	Technical Severity: Medium
Summary: Unable to execute switchcfgtrunkcli in Access gateway mode.	
Symptom: Unable to execute switchcfgtrunk CLI in access gateway mode.	
Workaround: User can disable or enable trunk configuration on the ports using portcfgtrunkport CLI.	
Feature: Access Gateway Services	Function: F Port Trunking
Reported In Release: FOS7.2.0	Probability: Medium

Open Defects in Fabric OS v7.2.0

Defect ID: DEFECT000461016	Technical Severity: Medium
Summary: When moving Xge ports between Logical Switches the Xge ports will not enable after a portenable in the new Logical Switch.	
Symptom: After moving an enabled XGE port from LS to a different LS, the XGE port remains disabled after port enable in the new switch.	
Workaround: Either issue the portdisable command for the xge port before moving the port to a different LS or once you have moved the ports to the different LS issue a switch disable/switch enable sequence to enable the xge port.	
Feature: Striker/Spike Platform Services	Function: Spike Platform Module
Reported In Release: FOS7.2.0	Probability: Low

Defect ID: DEFECT000461162	Technical Severity: Medium
Summary: The thconfig command cannot set high threshold and low threshold in one command line	
Symptom: Executing "thconfig" command to set high threshold and low threshold in one command line outputs: "Internal API failed..."	
Feature: FOS Software	Function: Fabric Services
Service Request ID: 1172423	
Reported In Release: FOS7.0.2	Probability: High

Defect ID: DEFECT000462242	Technical Severity: Medium
Summary: Inconsistent enforcement of RBAC permissions for config commands run in interactive mode and in non-interactive mode	
Symptom: For Chassis and LF user role as "user", config commands(configshow/configdownload/configupload) trigger "RBAC permission denied." in interactive mode where as it works in non-interactive mode	
Feature: FOS Software	Function: Fabric Services
Service Request ID: 1171446	
Reported In Release: FOS6.3.2	Probability: High

Defect ID: DEFECT000463170	Technical Severity: Medium
Summary: ipsecconfig command may hang the command line	
Symptom: ipsecconfig --disable command may hang and not work properly. Subsequent disable/re-enables may fail.	
Feature: FOS Security	Function: Other
Reported In Release: FOS7.2.0	Probability: Medium

Defect ID: DEFECT000463913	Technical Severity: Medium
Summary: Kernel panic occurs when running multiple supportShow commands in several logical switches	
Symptom: The switch experienced a kernel panic after running the supportShow command on multiple logical switches simultaneously on the switch.	
Workaround: Avoid running multiple supportshow from the different sessions.	
Feature: FOS Software	Function: Panic / OOM
Service Request ID: 1187706	
Reported In Release: FOS7.1.0	Probability: Low

Defect ID: DEFECT000464450	Technical Severity: Medium
Summary: "sleep:invalid Chassis Role" message is displayed while running supportsave under user role	
Symptom: The supportsave comman completes successfully even though "sleep:invalid Chassis Role" message is displayed in the output.	
Feature: RAS	Function: FFDC/Supportsave
Reported In Release: FOS7.2.0	Probability: Medium

Open Defects in Fabric OS v7.2.0

Defect ID: DEFECT000465422	Technical Severity: Medium
Summary: D-Port Testing Fails and the reasons for failure is not received as part of CAL in automatic mode	
Symptom: D-Port Testing fails when setting the Link Traffic Test Params for F to HBA links without any reason in automatic mode.	
Feature: Mgmt Embedded - CAL	Function: Other
Reported In Release: FOS7.2.0	Probability: Low

Defect ID: DEFECT000465611	Technical Severity: Medium
Summary: All the four ICL ports in a QSFP should automatically get disabled and enabled during EX port configuration.	
Symptom: Inconsistent behavior as Webtools supports automatic disabling enabling during Ex port configuration.	
Workaround: Perform Manual or Auto refresh to get the status updated	
Feature: WebMgmt	Function: Ports Admin
Reported In Release: FOS7.2.0	Probability: Low

Defect ID: DEFECT000465776	Technical Severity: Medium
Summary: FX8-24 blade goes in faulty(51) state on rebooting both CPs of DCX+ simultaneously	
Symptom: FX8-24 may fault with reason code 51.	
Workaround: Disable POST and reboot both CPs.	
Feature: Striker/Spike Platform Services	Function: Other
Reported In Release: FOS7.2.0	Probability: Medium

Defect ID: DEFECT000465802	Technical Severity: Medium
Summary: Webtools does not allow the configuration of the "Signal Loss" area for the Port, E-port, F/L Optical Port classes.	
Symptom: Webtools does not allow the configuration of the "Signal Loss" area for the Port, E-port, F/L Optical Port classes.	
Feature: FOS Software	Function: Web Management
Service Request ID: 1190629	
Reported In Release: FOS7.1.1	Probability: Medium

Defect ID: DEFECT000466078	Technical Severity: Medium
Summary: Webtool shows a fabric watch license not installed error message while MAPs is enabled	
Symptom: When MAPs is enabled from CLI, selecting Webtools -->Configure-->Fabric Watch opens the Fabric Watch page with an error message "Fabric Watch is not licensed".	
Feature: WebMgmt	Function: Fabric Watch
Reported In Release: FOS7.2.0	Probability: Medium

Defect ID: DEFECT000466678	Technical Severity: Medium
Summary: MAPS commands inconsistent behavior during the intermediate state where active has v7.2.0 and standby has v7.1.0 running when doing a single CP firmware downgrade	
Symptom: During single CP firmware downgrade from v7.2.0 to v7.1.0, when the firmware on standby CP is downgraded, rebooted to 7.1 and before it is brought up as active CP, MAPS CLI commands behave inconsistently in this time window. some commands work as expected and others fail with error saying MAPS is disabled.	
Feature: Advanced Monitoring Services	Function: Other
Reported In Release: FOS7.2.0	Probability: Low

Open Defects in Fabric OS v7.2.0

Defect ID: DEFECT000466750	Technical Severity: Medium
Summary: In Switch Events and Switch information tab, the last updated time shows the Host time instead of showing the Switch time.	
Symptom: Misleading last updated time in Switch Events and Switch Information tab.	
Feature: WebMgmt	Function: Switch Explorer/Switch View
Reported In Release: FOS7.2.0	Probability: Low

Defect ID: DEFECT000467204	Technical Severity: Medium
Summary: CMM Restore default does not clear snmpv3 user entries	
Symptom: Restoring defaults does not clear snmpv3 users while triggering from CMM.	
Workaround: Manually update from the CLI	
Feature: Mgmt Embedded - SNMP	Function: Other
Reported In Release: FOS7.0.0_pha	Probability: Low

Defect ID: DEFECT000467760	Technical Severity: Medium
Summary: Disabled port is not getting enabled after binding a port address.	
Symptom: Port is disabled after binding a port address.	
Workaround: Manually enable the port using port enable option from port admin.	
Feature: WebMgmt	Function: Ports Admin
Reported In Release: FOS7.2.0	Probability: Low

Defect ID: DEFECT000467965	Technical Severity: Medium
Summary: A seed switch running lower FOS version does not reliably show correct fabric view status for MAPS-enabled switches	
Symptom: If running a WebTools seed switch with a lower version than v7.2.0, some switches running MAPS in the fabric will display as "blue" and Unknown status whereas some will display normal, expected status.	
Feature: Mgmt Embedded - HTTP	Function: Other
Reported In Release: FOS7.2.0	Probability: Medium

Defect ID: DEFECT000468562	Technical Severity: Medium
Summary: Portperfshow -x displays 0 for throughput data on chassis that has traffic	
Symptom: Portperfshow -x displays 0 for traffic throughput on chassis while Portperfshow shows traffic running	
Feature: 8G Platform Services	Function: FOS Kernel Drivers
Reported In Release: FOS7.2.0	Probability: Medium

Defect ID: DEFECT000468777	Technical Severity: Medium
Summary: portcfgpersistentdisable -r does not persist the reason on reboot of a 7800	
Symptom: port reason does not persist across a reboot on a 7800 switch when portcfgpersistentdisable -r is configured	
Feature: 8G Platform Services	Function: Other
Reported In Release: FOS7.2.0	Probability: Medium

Closed with Code Change in Fabric OS v7.2.0a

This section lists the defects with Critical, High and Medium Technical Severity closed with a code change as of September 9, 2013 in Fabric OS v7.2.0a

Defect ID: DEFECT000433200	Technical Severity: Medium
Summary: Switch cannot be managed from WebTools or BNA though management via CLI works.	
Symptom: Under rare condition management process (HTTPD) gets stuck and switch reports as unreachable via BNA and Webtools. This issue has been reported a few times since FOS v7.0.0 and some releases need disruptive way to recover. This release provides a non-disruptive recovery method.	
Probability: Low	
Feature: FOS Software	Function: Management Embedded
Reported In Release: FOS7.0.2	Service Request ID: 1116227,1157961,1190

Defect ID: DEFECT000435100	Technical Severity: Medium
Summary: SNMPCONFIG is inconsistent on ISCSI settings	
Symptom: Disable ISCSI-mibcapability in FOSv6.3 and then upgraded to FOSv6.4, when the new firmware comes up, ISCSI- MIB is in disabled state and ISCSI-TRAPS are in enabled state.	
Probability: Medium	
Feature: FOS Software	Function: SNMP
Reported In Release: FOS6.3.0	Service Request ID: 1124455

Defect ID: DEFECT000448581	Technical Severity: Medium
Summary: Port Rename, F-Port BB Credit & NPIV Max Login dialogs still persist even after the connection is timed out and allows user to configure the values.	
Symptom: User is erroneously allowed to configure the values even after the connection times out.	
Probability: Medium	
Feature: WebMgmt	Function: Ports Admin
Reported In Release: FOS7.2.0	

Defect ID: DEFECT000452801	Technical Severity: Medium
Summary: Switch unable to process commands	
Symptom: The Switch becomes unmanageable and will not accept FOS commands, including 'Reboot'. The only way to recover is to power cycle the switch.	
Workaround: Avoid querying invalid class from WT.	
Probability: Low	
Feature: FOS Software	Function: Management Embedded
Reported In Release: FOS7.1.0	

Defect ID: DEFECT000460453	Technical Severity: Medium
Summary: "Can not find platform: 117" and "client: connect: Connection refused" messages occurred during boot up	
Symptom: Error messages are displayed on embedded platform console during boot up and do not affect any functionality.	
Probability: High	
Feature: Embedded Platform Services	Function: FOS Kernel Driver
Reported In Release: FOS7.2.0	

Closed defects with code change in Fabric OS v7.2.0a

Defect ID: DEFECT000465730	Technical Severity: Medium
Summary: Enhancement to asic parity error monitoring threshold	
Symptom: Current default configuration for blade faults is not sensitive enough for some ficon environment setup. Customer may experience IFCCs when there are low level asic parity errors. New CLI options will allow blade to be faulted sooner when there are parity errors. Default threshold is maintained the same as Pre-FOS7.1 releases	
Probability: Low	
Feature: FOS Software	Function: ASIC Driver
Reported In Release: FOS7.1.0	

Defect ID: DEFECT000465802	Technical Severity: Medium
Summary: Webtools does not allow the configuration of the "Signal Loss" area for ports	
Symptom: Customer is unable to see "signal loss" area stats via Webtools while the same can be seen from CLI	
Probability: Medium	
Feature: FOS Software	Function: Web Management
Reported In Release: FOS7.1.1	Service Request ID: 1190629

Defect ID: DEFECT000465879	Technical Severity: High
Summary: 16Gb SFP rules for TXP and SFP Current are violated when a neighbor EPort transitions online.	
Symptom: Invalid reporting of MAPS 16G SFP rules for optice when its neighbor EPort transitions online.	
Probability: High	
Feature: Advanced Monitoring Services	Function: Other
Reported In Release: FOS7.2.0	

Defect ID: DEFECT000466750	Technical Severity: Medium
Summary: In Switch Events and Switch information tab, the last updated time shows the Host time instead of showing the Switch time.	
Symptom: Misleading last updated time in Switch Events and Switch Information tab.	
Probability: Low	
Feature: WebMgmt	Function: Switch Explorer/Switch View
Reported In Release: FOS7.2.0	

Defect ID: DEFECT000467681	Technical Severity: High
Summary: Blade server shows incorrect firmware version in IOM module after a switch hotplug	
Symptom: Blade server displays incorrect Firmware Version in IOM module after switch hotplug	
Probability: High	
Feature: Embedded Platform Services	Function: Other
Reported In Release: FOS7.2.0	Service Request ID: 1001

Defect ID: DEFECT000467760	Technical Severity: Medium
Summary: Disabled port is not getting enabled after binding a port address.	
Symptom: Port is disabled after binding a port address.	
Workaround: Enable the port manually	
Probability: Low	
Feature: WebMgmt	Function: Ports Admin
Reported In Release: FOS7.2.0	

Closed defects with code change in Fabric OS v7.2.0a

Defect ID: DEFECT000468007	Technical Severity: High
Summary: Host discovery issues via Ex ports on ICL in multi chassis configuration	
Symptom: Host may not see all target LUNs in a topology using multi-chassis EX ports on ICL configuration	
Workaround: Portdisable enable switch ports for affected devices.	
Probability: Medium	
Feature: FC Services	Function: Name Server
Reported In Release: FOS7.2.0	

Defect ID: DEFECT000468188	Technical Severity: High
Summary: observed MDD kept crashing when a DS was set persistently disabled	
Symptom: user may see MDD hit rolling crashing when the switch is configure VF mode and the DS switch is set disable persistently with MAPS enabled.	
Probability: Low	
Feature: Advanced Monitoring Services	Function: Other
Reported In Release: FOS7.2.0	

Defect ID: DEFECT000468413	Technical Severity: High
Summary: firmwaredownload -s on standby CP produces protocol failure in circuit setup messages on the console	
Symptom: Firmware download on the standby CP takes a long time to reach Y/N prompt and several "poll: protocol failure in circuit setup" console messages resulted.	
Workaround: Use firmwaredownload without the -s option.	
Probability: Low	
Feature: Striker/Spike Platform Services	Function: VEX
Reported In Release: FOS7.2.0	

Defect ID: DEFECT000468455	Technical Severity: High
Summary: QoS allowed ASIC buffer pool to become over allocated	
Symptom: Portbuffershow indicated a negative value in the remaining buffers after QoS was enabled on an extended distance link	
Probability: Medium	
Feature: 8G ASIC Driver	Function: ASIC Driver
Reported In Release: FOS7.2.0	

Defect ID: DEFECT000468777	Technical Severity: Medium
Summary: portcfgpersistentdisable -r does not persist the reason on reboot of a 7800	
Symptom: port reason does not persist across a reboot on a 7800 switch when portcfgpersistentdisable -r is configured	
Probability: Medium	
Feature: 8G Platform Services	Function: Other
Reported In Release: FOS7.2.0	

Defect ID: DEFECT000468795	Technical Severity: High
Summary: FCIP FICON XRC Emulation Abort after Selective Reset Errors	
Symptom: If FICON XRC Emulation receives a Selective Reset for a device that is currently in Stacked Status State, the Selective Reset is incorrectly responded to by emulation processing leading to an abort sequence from the channel for the Selective Reset Exchange.	
Probability: Low	
Feature: FCIP	Function: Emulation
Reported In Release: FOS7.0.0	Service Request ID: 1205859

Closed defects with code change in Fabric OS v7.2.0a

Defect ID: DEFECT000470123	Technical Severity: High
Summary: Switch running agshow panics or BNA seed switch panics when polling for AG info in a fabric with AG switches.	
Symptom: After the port connecting AG to switch bounces, before fabric management server and name server data base are stabilized, polling from BNA caused seed switch to panic, similarly run agshow on switch can cause switch to panic. The timing window for triggering the panic is very small.	
Workaround: avoid agshow CLI and managing switch via BNA.	
Probability: Medium	
Feature: FOS Software	Function: Fabric Services
Reported In Release: FOS7.0.0	Service Request ID: 1206464

Defect ID: DEFECT000470185	Technical Severity: High
Summary: portcfgfillword's passive option does not work	
Symptom: The passive option in portCfgFillWord does not work. When issuing: "portcfgfillword <slot/port> 3 passive". The fillword immediately takes effect on the port, regardless of port speed.	
Probability: Medium	
Feature: 8G ASIC Driver	Function: C2 ASIC driver
Reported In Release: FOS7.2.0	Service Request ID: ,1190443

Defect ID: DEFECT000470487	Technical Severity: Medium
Summary: Fabric watch not calculating VEX port packet loss correctly.	
Symptom: Erroneous FW-1190 error messages seen on different VEX tunnels: Event: , VEXport#3/16,Packet Loss, is above high boundary(High=100, Low=0). Current value is 1176 Percentage(%). Severity: Warning	
Feature: FABRIC WATCH	Function: Other
Reported In Release: FOS7.2.0	Service Request ID: 1197444

Defect ID: DEFECT000471333	Technical Severity: Critical
Summary: Incoming corrupted Flogi frame triggered switch to panic in a Loop.	
Symptom: Switch starts rolling reboot. After it stops, type in any command, it will show: "fabos not yet initialized". Further investigation shows device FLogi has certain Vendor Version Level (VVL) bits set unexpectedly	
Workaround: Keep the port connected to the misbehaving device in disabled state	
Probability: Low	
Feature: FOS Software	Function: Fabric Services
Reported In Release: FOS7.0.0	Service Request ID: 1213514

Closed with Code Change in Fabric OS v7.2.0

This section lists the defects with Critical, High and Medium Technical Severity closed with a code change as of July 26, 2013 in Fabric OS v7.2.0

Defect ID: DEFECT000344141	Technical Severity: Medium
Summary: Upon closing the Web Tools EE SID/DID performance monitoring graph, no warning message is displayed and the EE monitor gets deleted when the EE monitor is added from Web Tools	
Symptom: No warning message is displayed upon closing the graph	
Risk of Fix: Low	Probability: Medium
Feature: WebMgmt	Function: Other
Reported In Release: FOS6.4.1	Service Request ID: 583603

Defect ID: DEFECT000363172	Technical Severity: High
Summary: Call home notifications continue to use previous (old) switch name after a switch name change has been made	
Symptom: Call home and e-mail notifications continue to use the previous (old) switch name.	
Risk of Fix: Low	Probability: High
Feature: FOS Software	Function: SNMP
Reported In Release: FOS6.4.0	Service Request ID: 655745

Defect ID: DEFECT000367396	Technical Severity: High
Summary: SNMP query for statistics of TX and RX of 6505 platform always returning 0	
Symptom: User will not be able to see the statistics for 6505 platform	
Risk of Fix: Low	Probability: High
Feature: 16G Platform Services	Function: FOS Kernel Drivers
Reported In Release: FOS7.0.1	Service Request ID: ,746073

Defect ID: DEFECT000375672	Technical Severity: Medium
Summary: 16Gbps ISL capable ports occasionally come up at 8Gbps when cables are pulled out then plugged in repeatedly.	
Symptom: Connecting two 16Gbps capable ports together to form an ISL may come up at 8Gbps speed.	
Workaround: Port disable/enable the affected ports	
Risk of Fix: Low	Probability: Medium
Feature: 16G ASIC Driver	Function: 16Bbps/10Gbps Port
Reported In Release: FOS7.0.0	

Defect ID: DEFECT000375916	Technical Severity: Medium
Summary: CUP Quiesce: CUP does not return Unit-check / Busy status during interval between CP failover and firmwarecommit	
Symptom: When CUP Quiesce is operational, CUP on a dual-CP system resumes normal processing of commands immediately after CP failover, timeouts may occur during firmwarecommit.	
Risk of Fix: Low	Probability: High
Feature: FICON	Function: Ficud
Reported In Release: FOS7.0.1	

Closed defects with code change in Fabric OS v7.2.0

Defect ID: DEFECT000404322	Technical Severity: Medium
Summary: Diagnostics do not attain saturation of 3.2G throughput over long distance E-port due to reduced size frames	
Symptom: Expected throughput of 3.2G for Long Distance E-Port is not obtained during spinfab test using 16G LWL 10km SFP	
Risk of Fix: Low	
Feature: Diagnostics	Function: Other
Reported In Release: FOS7.0.2	

Defect ID: DEFECT000405095	Technical Severity: Medium
Summary: thconfig not supporting timebase option none for class SFP with SFPTYPE as 16G,10G,QSFP	
Symptom: When setting timebase option for class SFP, area PWRONHRS, to none, customer gets an error : "Timebase not supported by this class"	
Risk of Fix: Low	Probability: High
Feature: FOS Software	Function: Fabric Services
Reported In Release: FOS7.0.1	Service Request ID: 741483,741497

Defect ID: DEFECT000408673	Technical Severity: Medium
Summary: Weblnker crashed during configupload	
Symptom: weblnker process crashed while processing a configupload operation.	
Risk of Fix: Low	Probability: Medium
Feature: FOS-Infrastructure	Function: Config Upload
Reported In Release: FOS7.0.1	Service Request ID: 747269

Defect ID: DEFECT000408703	Technical Severity: Medium
Summary: Updated default serdes value for FC8-48 and new value is effective after hafailover.	
Symptom: CRC with Good EOF Errors detected on Slot 1 port 2 of DCX-4S with FC8-48 installed in Slot 1	
Risk of Fix: Low	
Feature: 8G ASIC Driver	Function: C2 ASIC driver
Reported In Release: FOS6.4.2	Service Request ID: 736755

Defect ID: DEFECT000410381	Technical Severity: Medium
Summary: RPC entries need to be removed from IP filter	
Symptom: ipfilter --show continues to display RPC ports	
Risk of Fix: Low	Probability: High
Feature: FOS Software	Function: Management Embedded
Reported In Release: FOS7.0.0	Service Request ID: 753121,649971,696577

Defect ID: DEFECT000417149	Technical Severity: High
Summary: EPort Recommission of XISL EPorts causes "c3_disc" counters to increment. Traffic however does not fail.	
Symptom: EPort Recommission of XISL EPorts causes "c3_disc" counters to increment with DLS and Lossless enabled. Traffic however does not fail.	
Workaround: No workaround is needed currently, given that FICON traffic continues to run without errors.	
Risk of Fix: Medium	Probability: Medium
Feature: 8G ASIC Driver	Function: ASIC Driver
Reported In Release: FOS7.1.0	

Closed defects with code change in Fabric OS v7.2.0

Defect ID: DEFECT000418249	Technical Severity: High
Summary: spinfab is failing ports when the option -nframes 0 is run on multiple switches at the same time in a fabric.	
Symptom: Failed messages and ports seen after running spinfab -nframes 0.	
Workaround: spinfab -nframes 0 can be run in serial on multiple switches instead of in parallel.	
Risk of Fix: Low	Probability: Medium
Feature: Diagnostics	Function: Other
Reported In Release: FOS7.1.0	

Defect ID: DEFECT000420473	Technical Severity: Medium
Summary: HTTP TRACE requests are processed over HTTPS/SSL connections	
Symptom: http trace/track methods are allowed on secure connections.	
Risk of Fix: Low	Probability: Low
Feature: FOS Software	Function: Management Embedded
Reported In Release: FOS7.0.0_pha	Service Request ID: ,1133738

Defect ID: DEFECT000421461	Technical Severity: Medium
Summary: On DCX-4S, backend CRC errors detected on core blade port 3/56 connecting FC8-32 port blade.	
Symptom: RASLog message C2-5825 "Detect CRC error with good EOF" displayed.	
Risk of Fix: Low	Probability: Medium
Feature: FOS Software	Function: OS: Configuration
Reported In Release: FOS6.4.2	Service Request ID: 1035401

Defect ID: DEFECT000421839	Technical Severity: High
Summary: Core blades faulted due to a Port blade had HW failure	
Symptom: Rare hardware failure on port blade, caused peer core blade to fault	
Risk of Fix: Low	Probability: Low
Feature: FOS Software	Function: ASIC Driver
Reported In Release: FOS6.4.1	Service Request ID: 1092200

Defect ID: DEFECT000421879	Technical Severity: Medium
Summary: When an access control list is configured for SNMP and the list contains a subnet area, that particular subnet will not be able to query the switch	
Symptom: Not able to query SNMP from host on defined access host subnet area.	
Risk of Fix: Low	Probability: Medium
Feature: FOS Software	Function: SNMP
Reported In Release: FOS7.0.1	Service Request ID: 1087061

Defect ID: DEFECT000422477	Technical Severity: High
Summary: Unstable ICL/other ports can cause switch reboot	
Symptom: This defect has implication on DCX, FX8-24 etc., with unstable ICL/BI ports, it can cause switch to panic.	
Risk of Fix: Low	Probability: Medium
Feature: FOS Software	Function: ASIC Driver
Reported In Release: FOS7.0.2	Service Request ID: 1032557

Closed defects with code change in Fabric OS v7.2.0

Defect ID: DEFECT000422596	Technical Severity: Medium
Summary: sw.mib syntax error.	
Symptom: sw.mib fails to load in management application	
Workaround: Manually edit the SW.mib file	
Risk of Fix: Low	Probability: Low
Feature: FOS Software	Function: SNMP
Reported In Release: FOS7.0.0	Service Request ID: 1093174

Defect ID: DEFECT000423875	Technical Severity: Medium
Summary: Race condition during SNMP query of interface statistics caused BR8000 switch to panic.	
Symptom: B8000 switch experienced "nsmd" daemon panic and subsequent switch reboot	
Risk of Fix: Low	Probability: Low
Feature: CEE-Protocol	Function: NSM
Reported In Release: FOS6.4.2	Service Request ID: 1094688,1143458

Defect ID: DEFECT000425002	Technical Severity: High
Summary: LDAP authentication stops working after the "cleanup" command is run under root.	
Symptom: ldap authentication stops working after running "cleanup" command under root account.	
Workaround: Manually create the softlink	
Risk of Fix: Low	Probability: High
Feature: FOS Software	Function: OS: Configuration
Reported In Release: FOS6.4.2	Service Request ID: 1088751

Defect ID: DEFECT000425570	Technical Severity: Medium
Summary: FabricWatch trap 5 is not sent to 3rd party tool in FOS v7.0.1	
Symptom: Customer is unable to capture fabric watch trap(Specific-trap: 5) using 3rd party tool with FOS v7.0.1, but FOS v6.4.2x was able to capture. Raslog and email communication are able to receive these traps.	
Risk of Fix: Low	Probability: High
Feature: FOS Software	Function: Fabric Services
Reported In Release: FOS7.0.1	Service Request ID: 1098326,1122983,1200

Defect ID: DEFECT000426616	Technical Severity: Medium
Summary: fwfrucfg in BR6505 does not show list to configure FRUs other than SFP	
Symptom: Customer cannot use fwfrucfg cmd to configure FRUs other than SFP on BR6505.	
Risk of Fix: Low	Probability: High
Feature: FOS Software	Function: Fabric Services
Reported In Release: FOS7.0.2	Service Request ID: 1100552

Defect ID: DEFECT000426900	Technical Severity: Medium
Summary: switchbeacon and chassisbeacon should not be allowed to be turned on at the same time via Web Tools.	
Symptom: Nonsensical led behavior will be exhibited on the switch.	
Risk of Fix: Medium	Probability: Low
Feature: Mgmt Embedded - HTTP	Function: Other
Reported In Release: FOS7.1.0	

Closed defects with code change in Fabric OS v7.2.0

Defect ID: DEFECT000427535	Technical Severity: Medium
Summary: After setting a low threshold for SFP temperature on BR6505, The temperature is shown as above instead of Below.	
Symptom: After a custom setting for SFP temperature of HIGH =85 and Low - 75, even if the temperature is below 75, it is shown as above and not below.	
Risk of Fix: Low	
Feature: FOS Software	Function: EM / Hil / Sysctrl
Reported In Release: FOS7.0.2	Service Request ID: 1103272

Defect ID: DEFECT000427870	Technical Severity: Medium
Summary: FirmwareDownload is successful through Brocade Network Advisor but firmware is not downloaded to the switch when configured with domain\username	
Symptom: With domain\username is used as the username, firmwaredownload appears to be successful through Brocade Network Advisor when in reality it is not.	
Risk of Fix: Low	Probability: Low
Feature: Mgmt Embedded - CAL	Function: Other
Reported In Release: FOS7.1.0	

Defect ID: DEFECT000428466	Technical Severity: Medium
Summary: "Link Fail" and "Loss of Sync" error counters incremented unexpectedly during Mainframe power on reset.	
Symptom: "Link Fail" and "Loss of Sync" error counters increment unexpectedly during controlled FICON Host channel offline and online, during mainframe power on reset.	
Risk of Fix: Low	Probability: High
Feature: 16G ASIC Driver	Function: 16Bbps/10Gbps Port
Reported In Release: FOS7.1.0	

Defect ID: DEFECT000428605	Technical Severity: Medium
Summary: Enhancement to allow FPGA upgrade on FS8-18 and BES.	
Symptom: Cannot upgrade FPGA image separately from FOS on FS8-18 and BES	
Risk of Fix: Medium	Probability: Low
Feature: Data Security	Function: Platform
Reported In Release: FOS7.0.2	

Defect ID: DEFECT000428780	Technical Severity: High
Summary: When running full bandwidth bi-directional traffic in recommended 16G ICL topology configuration, some traffic flows may experience a performance throughput degradation.	
Symptom: Observed performance throughput degradation for some ICL traffic flows in a 8 flow ICL topology.	
Risk of Fix: Low	Probability: Medium
Feature: 16G ASIC Driver	Function: Routing
Reported In Release: FOS7.1.0	

Closed defects with code change in Fabric OS v7.2.0

Defect ID: DEFECT000428794	Technical Severity: Medium
Summary: If portloopbacktest with -nframes are performed on portblade of DCX8510, the port LED behavior behaves differently if -nframes option is not specified	
Symptom: If portloopbacktest with -nframes are performed on portblade of DCX8510, the port LED behavior is repeating the following sequence with having top and bottom 16 ports behaving differently. This is not seen if -nframes option is not added. Behavior pattern: <ol style="list-style-type: none"> 1. Both top and bottom ports(all port) LED turns amber(about 30secs) 2. Both top and bottom ports(all port) LED flash green(about 5secs) 3. Amber on bottom 16ports and flashing green on top 16ports(about 15 secs) 	
Risk of Fix: Low	Probability: Medium
Feature: Diagnostics	Function: Other
Reported In Release: FOS7.0.2	Service Request ID: 1104360

Defect ID: DEFECT000429115	Technical Severity: High
Summary: After diag test, switch route table (RTE) is not being updated properly.	
Symptom: LUN disappeared after "portloopbacktest" and "turboramtest" diagnostic tests were performed on single chip low port count non-chassis switches such as BR5100, 4100, 5000, 300 and embedded switches.	
Workaround: cold reboot	
Risk of Fix: Low	Probability: High
Feature: 16G Platform Services	Function: FOS Kernel Drivers
Reported In Release: FOS7.1.0_blv	

Defect ID: DEFECT000429416	Technical Severity: Medium
Summary: ESS daemon crash due to unknown interswitch command.	
Symptom: Switch panicked while processing invalid frame instead of rejecting it.	
Risk of Fix: Low	Probability: Low
Feature: FOS Software	Function: Fabric Services
Reported In Release: FOS6.3.1	Service Request ID: 1106164/1105843

Defect ID: DEFECT000429437	Technical Severity: Medium
Summary: Support for SNMP swFabricWatchTrap for 16Gbps SFP Power On Hours not in sw.mib	
Symptom: Support for SNMP swFabricWatchTrap for 16Gbps SFP Power On Hours not in sw.mib	
Risk of Fix: Low	Probability: Low
Feature: FOS Software	Function: SNMP
Reported In Release: FOS7.0.1	Service Request ID: 1094555

Defect ID: DEFECT000429695	Technical Severity: High
Summary: Name Server loses FC4 type in routed environment.	
Symptom: Some hosts that make FC-4 type based Name Server queries won't be able to establish paths to storage.	
Risk of Fix: Low	Probability: High
Feature: 8G FCR	Function: FCR Daemon
Reported In Release: FOS7.0.1	Service Request ID: 1102900,1123307

Closed defects with code change in Fabric OS v7.2.0

Defect ID: DEFECT000429712	Technical Severity: Medium
Summary: BR5100 does not transmit SNMP trap as chassis instance after user configured sysmonitor.	
Symptom: SNMP trap and errdump indicates error with FID:128 even though sysmonitor is a chassis-wide command.	
Risk of Fix: Low	Probability: Medium
Feature: Mgmt Embedded - SNMP	Function: Other
Reported In Release: FOS7.0.2	Service Request ID: 1106710

Defect ID: DEFECT000429813	Technical Severity: High
Summary: Lost HA sync with RCS crash after changing FDD to strict for all ACL	
Symptom: RCS crash and CP failures after a series of action that include firmware upgrade, max out ACL db and changing FDD to Strict for all ACL.	
Risk of Fix: Low	Probability: Low
Feature: FC Services	Function: RCS
Reported In Release: FOS7.1.0	Service Request ID: ,1206149

Defect ID: DEFECT000429815	Technical Severity: High
Summary: BR5480 exhibits snmpd crash and switch reboot when being managed by BNA.	
Symptom: BR5480 switches running in AG mode and managed by BNA exhibit snmpd crash and switch reboot.	
Workaround: Avoid managing an AG switch with BNA or have all ports connected to either N_Port or F_port or have AG in auto policy disabled state.	
Risk of Fix: Low	Probability: High
Feature: FOS Software	Function: Management Services
Reported In Release: FOS6.4.2	Service Request ID: 1102791

Defect ID: DEFECT000429967	Technical Severity: Medium
Summary: porthconfig command does not have options for configuring alerting on loss of signal	
Symptom: porthconfig command does not have options for configuring alerting on loss of signal	
Risk of Fix: Low	Probability: Medium
Feature: FOS Software	Function: Management Embedded
Reported In Release: FOS7.0.2	Service Request ID: 1107670,p1187847/c11

Defect ID: DEFECT000430083	Technical Severity: Medium
Summary: Unable to delete user account in VF environment created using AD settings	
Symptom: After modifying a user account with "userconfig --addad lsadmin -a 1-128" command, deleting the user account fails with the following error message: "Cannot manage the target account due to conflicting LF permissions"	
Risk of Fix: Low	Probability: Medium
Feature: FOS Software	Function: Fabric Services
Reported In Release: FOS7.0.2	Service Request ID: 1092980

Defect ID: DEFECT000430153	Technical Severity: Medium
Summary: Unable to configure "low above" parameter for FCU port class in WebTools	
Symptom: For FCU port class, the "low above" value cannot be configured in WT, where CLI does allow this	
Workaround: Use CLI	
Risk of Fix: Low	Probability: Medium
Feature: FOS Software	Function: Web Management
Reported In Release: FOS7.0.2	Service Request ID: 1104929

Closed defects with code change in Fabric OS v7.2.0

Defect ID: DEFECT000431095	Technical Severity: High
Summary: diagshow command in interactive mode hangs and leads to high CPU utilization when telnet session is killed	
Symptom: High CPU utilization when telnet session with diagshow command in interactive mode is killed	
Risk of Fix: Low	Probability: Low
Feature: FOS Software	Function: Diagnostics
Reported In Release: FOS6.4.2	Service Request ID: 1104381

Defect ID: DEFECT000431096	Technical Severity: Medium
Summary: FCR host LUN discovery problem using fcrlsan speed tag	
Symptom: Host in the edge fabric is not discovering LUNs when target is brought online before host when using fcrlsan speed tag.	
Risk of Fix: Low	Probability: Low
Feature: 8G FCR	Function: FCR Daemon
Reported In Release: FOS7.1.0	

Defect ID: DEFECT000431101	Technical Severity: Medium
Summary: Fibre Channel loop event is not completed when disk is removed from Loop storage connected to Brocade 300	
Symptom: When pulling out a disk from a 3rd party vendor storage, access to the whole storage is lost.	
Workaround: Bounce port by portdisable and portenable.	
Risk of Fix: Low	Probability: Low
Feature: 8G ASIC Driver	Function: C2 ASIC driver
Reported In Release: FOS7.0.0	Service Request ID: 1106546

Defect ID: DEFECT000431504	Technical Severity: High
Summary: Detected termination of process ficud with multiple CUPs running	
Symptom: CUP fails, ficud terminates leading to a switch panic and hafailover.	
Risk of Fix: Low	Probability: Medium
Feature: FOS Software	Function: FICON
Reported In Release: FOS7.0.0	Service Request ID: 1111723

Defect ID: DEFECT000431529	Technical Severity: High
Summary: Restore job failing after partial restore.	
Symptom: Tape restore job fails when it is paused for over 2 minutes. When it resumes reading the same drive, host gets incorrect block from the tape and the job terminates.	
Workaround: Disable FCIP Open Systems Tape Pipelining	
Risk of Fix: Low	Probability: Low
Feature: FCIP	Function: Emulation
Reported In Release: FOS7.0.0	Service Request ID: 1110201

Defect ID: DEFECT000431530	Technical Severity: High
Summary: With fabric binding and Insistent Domain ID on, kernel panics after moving all ports of blades 1-4 into newly created VF	
Symptom: Switch panics	
Risk of Fix: High	Probability: Medium
Feature: 16G ASIC Driver	Function: 16Bbps/10Gbps Port
Reported In Release: FOS7.1.0	Service Request ID: 1095960,1095960

Closed defects with code change in Fabric OS v7.2.0

Defect ID: DEFECT000431920	Technical Severity: High
Summary: Support the documented BRCD-FCIP-Ext MIB in MIB reference.	
Symptom: User will always see 0 for the below measures fcipExtendedLinkTcpDroppedPackets fcipExtendedLinkTcpSmoothedRTT fcipExtendedLinkRtxRtxTO fcipExtendedLinkRtxDupAck fcipExtendedLinkDupAck	
Risk of Fix: Low	Probability: High
Feature: Port Statistics	Function: Other
Reported In Release: FOS7.0.1	

Defect ID: DEFECT000432470	Technical Severity: High
Summary: Standby CP panics every time two port blades are moved into a new logical switch	
Symptom: On a switch with devices that neither cut light nor come on line, using lscfg to move ports around logical switches, can lead to panic on Standby CP.	
Risk of Fix: Low	Probability: Low
Feature: 16G Platform Services	Function: FOS Kernel Drivers
Reported In Release: FOS7.1.0	

Defect ID: DEFECT000432514	Technical Severity: Medium
Summary: After power cycle, FC8-64 port blade that is installed incorrectly in BR8510 faults during POST	
Symptom: FC8-64 port blade faults (51) during POST. A slotpoweroff/on or reboot clears the condition.	
Risk of Fix: Low	
Feature: Diagnostics	Function: Post Diags
Reported In Release: FOS7.0.1	

Defect ID: DEFECT000432563	Technical Severity: Medium
Summary: PortID pop up are in decimal instead of hex on WEBTools in FOSv7.x	
Symptom: PortID pop up are in decimal instead of hex on WEBTools in FOSv7.x	
Risk of Fix: Low	
Feature: FOS Software	Function: Web Management
Reported In Release: FOS7.0.2	Service Request ID: 1115490

Defect ID: DEFECT000432654	Technical Severity: High
Summary: Setting strict mode with DCC policy from disabled switch can cause dual CP panic	
Symptom: Setting strict mode on the fabric after creating a DCC policy with any disabled switch in fabric, may cause a verify error that results in a dual CP panic.	
Workaround: Found the misconfigured DCC policy, remove that particular DCC Policy and use the fabric.	
Risk of Fix: Low	Probability: Medium
Feature: FOS Security	Function: ACL
Reported In Release: FOS7.1.0	

Defect ID: DEFECT000432793	Technical Severity: Medium
Summary: Switchshow and Portshow outputs are not consistent for F-port trunks	
Symptom: After an F-port trunk is formed, the switchshow output shows the same port index as the master port for the slave ports. whereas the portshow output shows the proper index.	
Risk of Fix: Medium	Probability: Medium
Feature: FOS Software	Function: ASIC Driver
Reported In Release: FOS6.4.2	Service Request ID: 1116273

Closed defects with code change in Fabric OS v7.2.0

Defect ID: DEFECT000432816	Technical Severity: Medium
Summary: Logical port pid is manipulation when domain ID changes.	
Symptom: Port identifier of LISL port was not assigned correctly after setting LISL.	
Risk of Fix: Medium	Probability: High
Feature: FOS Software	Function: Virtual Fabric
Reported In Release: FOS6.3.2	Service Request ID: 1031600

Defect ID: DEFECT000433313	Technical Severity: Medium
Summary: CP Faulty reason is not persistent over a reboot	
Symptom: CP which is indicating "Faulty(53) - Possible RRD" does not persist the failing reason over a reboot	
Risk of Fix: Low	Probability: Low
Feature: System Controls/EM	Function: Infrastructure
Reported In Release: FOS7.1.0	

Defect ID: DEFECT000433466	Technical Severity: High
Summary: ICL vs ISL selection when both are available needs to be consistent	
Symptom: When a customer has both 16G ICL and ISL paths leaving the current switch that can all be used for routing to a remote domain (even if the domain is multiple hops away), when in port based mode, the devices and ingress routes on that switch are all routed to the ISL instead of using any of the ICLs.	
Workaround: Make sure that there are only ICL or ISL based egress paths to use when routing traffic to any given destination domain. Even if the destination is multiple hops away.	
Risk of Fix: Low	Probability: Medium
Feature: 16G Platform Services	Function: Routing
Reported In Release: FOS7.1.0	Service Request ID: ,1171733

Defect ID: DEFECT000433562	Technical Severity: Medium
Summary: For all 16G platforms and FC8-32E/FC8-48E blades, error message is shown when Web Tools port admin wizard is used to configure long distance with VC_Link INIT set to Arbitrary(1)	
Symptom: An error message is displayed when trying to configure long distance in the Web Tools port configuration wizard "Valid configurations are :vc_translation_link_init=0, fillword = IDLE_IDLE or vc_translation_link_init=1, fillword = ARB_ARB,IDLE_ARB,AA_THEN_IA"	
Risk of Fix: Low	Probability: Medium
Feature: WebMgmt	Function: Ports Admin
Reported In Release: FOS7.1.0	

Defect ID: DEFECT000433644	Technical Severity: High
Summary: DCX8510-8 in reboot loop with POST failing for all 16G blades where the default FID of the default switch was changed to something other than 128	
Symptom: After a physical power failure, DCX8510-8 went into a reboot loop with all 16G port blades failing POST.	
Risk of Fix: Low	Probability: Medium
Feature: Diagnostics	Function: Post Diags
Reported In Release: FOS7.1.0	

Defect ID: DEFECT000433727	Technical Severity: High
Summary: Logical Fabric Addressing Modes unexpectedly modified	
Symptom: Cannot go back to Logical Fabric Addressing Mode 0, after configuring for mode 1 or 2.	
Risk of Fix: Low	Probability: Medium
Feature: 16G Platform Services	Function: Partition Management
Reported In Release: FOS7.1.0	

Closed defects with code change in Fabric OS v7.2.0

Defect ID: DEFECT000433865	Technical Severity: High
Summary: 7800 panics when host writes data to tape drive via FCIP tunnel with fastwrite and tape pipelining enabled	
Symptom: Write I/Os failed after a few write I/Os were completed, 7800 panics.	
Workaround: Disable FCIP Fastwrite and tape pipelining	
Risk of Fix: Low	Probability: Medium
Feature: FOS Software	Function: FCIP
Reported In Release: FOS7.0.1	Service Request ID: 1118991

Defect ID: DEFECT000434032	Technical Severity: Medium
Summary: Remote mirroring is not working when fastwrite is enabled	
Symptom: Replication may fail when fastwrite is enabled.	
Workaround: Disable FCIP Fastwrite on the tunnel.	
Risk of Fix: Low	Probability: Medium
Feature: FCIP	Function: Emulation
Reported In Release: FOS7.0.0	Service Request ID: 1117702

Defect ID: DEFECT000434293	Technical Severity: High
Summary: HTTP status queried from BNA, for Successfully completed firmwaredownload, returned as failed.	
Symptom: FirmwareDownload finished successfully in device but HTTP status returned as FAILED to BNA	
Risk of Fix: Low	
Feature: Mgmt Embedded - CAL	Function: Other
Reported In Release: FOS7.1.0	

Defect ID: DEFECT000434819	Technical Severity: Medium
Summary: Polling container stats every 30 seconds caused free memory decrease on blade processor.	
Symptom: Continuous decrease in free memory is observed on blade processor when polling container stat every 30 seconds.	
Workaround: Reboot FS8-18 blade or BES switch	
Risk of Fix: Low	Probability: Medium
Feature: Data Security	Function: Disk Encryption
Reported In Release: FOS7.0.2	Service Request ID: 1102253

Defect ID: DEFECT000435074	Technical Severity: High
Summary: FX8-24 blade DP panics with FCIP tape pipelining enabled	
Symptom: FCIP tunnels go down and become not available.	
Workaround: Disable FCIP Open Systems Tape Pipelining	
Risk of Fix: Low	Probability: Medium
Feature: FOS Software	Function: FCIP
Reported In Release: FOS7.0.1	Service Request ID: 1123356

Defect ID: DEFECT000435397	Technical Severity: Medium
Summary: IPv6 links are not presented in Fabric Tree when connecting to switch via IPv6	
Symptom: When connecting to a switch configured with both IPv4 and IPv6 addresses from a host configured with only IPv6, the links within the "Fabric Tree" for remote switches are presented only as IPv4. Also, in the "Switch Information" it will not display any IPv6 information.	
Risk of Fix: Low	Probability: High
Feature: FOS Software	Function: Management Embedded
Reported In Release: FOS7.0.2	Service Request ID: 1122346

Closed defects with code change in Fabric OS v7.2.0

Defect ID: DEFECT000435414	Technical Severity: Medium
Summary: Error log content is getting cleared of prior messages when migrating to FOS 7.1.0	
Symptom: After successful firmwaredownload upgrade to FOS 7.1.0, errdump results will not include any messages that were in the error log prior to the firmwaredownload. Only the latest messages appear.	
Workaround: No workaround however supportsave can be used to save and retain error log contents if the supportsave is successfully executed prior to the firmwaredownload upgrade to FOS 7.1.0.	
Risk of Fix: Low	Probability: Medium
Feature: FIRMWARE DOWNLOAD	Function: Firmware Download
Reported In Release: FOS7.1.0	Service Request ID: 1124793/P1124623

Defect ID: DEFECT000435619	Technical Severity: Medium
Summary: Webtool Search function errors.	
Symptom: Webtool search function of 'Switch Throughput Utilization' could not search trunk port, also after a user did search of a port once, the same port could not be searched again.	
Risk of Fix: Low	Probability: High
Feature: FOS Software	Function: Web Management
Reported In Release: FOS7.0.2	Service Request ID: 1118431

Defect ID: DEFECT000435983	Technical Severity: High
Summary: A negative value is displayed for the number of host side paths in command display	
Symptom: Portshow xtun <slot/>vePort -ficon -stats output displays a negative for the number of FICON Host side Paths.	
Workaround: Disable FCIP FICON Tape Pipelining or XRC emulation	
Risk of Fix: Low	Probability: Medium
Feature: FCIP	Function: Emulation
Reported In Release: FOS7.0.0	Service Request ID: 11112161

Defect ID: DEFECT000436215	Technical Severity: Medium
Summary: The thconfig command will not properly monitor a port that has SFP swapped from 8G to 16G	
Symptom: The thconfig command incorrectly reports the state of a port that has SFP swapped from 8G to 16G is Above range.	
Risk of Fix: Medium	Probability: High
Feature: FOS Software	Function: Fabric Services
Reported In Release: FOS7.0.2	Service Request ID: 1116355

Defect ID: DEFECT000436879	Technical Severity: Medium
Summary: thconfig -sfptype configuration gets applied without running --apply option	
Symptom: With 16GSWL SFP, the custom configuration gets applied as soon as the custom value is manually changed by --set option before --apply option. 8G SFP does not show that problem.	
Risk of Fix: Low	Probability: Medium
Feature: FABRIC WATCH	Function: Performance Monitor
Reported In Release: FOS7.0.2	Service Request ID: 1125131

Defect ID: DEFECT000436921	Technical Severity: High
Summary: Console print hung and caused other process to unable to complete	
Symptom: In general customer observes switch panic, unable to access switch.	
Workaround: Check console port and make sure the settings are correct	
Risk of Fix: Low	Probability: Low
Feature: FOS	Function: KERNEL
Reported In Release: FOS6.3.1_dcb	Service Request ID: 1112726

Closed defects with code change in Fabric OS v7.2.0

Defect ID: DEFECT000437078	Technical Severity: High
Summary: Incompatible FDMI attribute between different FOS releases caused kernel panic	
Symptom: In a mixed FOS fabric with FOS v6.4.x and FOS v7.1, switch running v7.1.0 could panic when there are FDMI queries.	
Workaround: Do not use pre-v7.0 switches as BNA seed switch.	
Risk of Fix: Low	Probability: Low
Feature: FC Services	Function: FDMI
Reported In Release: FOS7.1.0	

Defect ID: DEFECT000437186	Technical Severity: Medium
Summary: EX-port disable on trunk Master port leads to parameters being erroneously copied to the neighbor pwwn. copied from the old master port to the neighbor pwwn	
Symptom: "fredgeshow" extract the neighbor port number from the neighbor pwwn will display wrong neighbor PWWN and port number.	
Workaround: Need to disable and enable the invalid port	
Risk of Fix: Low	Probability: High
Feature: 8G FCR	Function: FCR Daemon
Reported In Release: FOS7.1.0	

Defect ID: DEFECT000437463	Technical Severity: High
Summary: 3rd party device failing writes to tape drives when appending	
Symptom: IO Errors when tape jobs are started against a newly installed tape Drive: An I/O error occurred while accessing drive xxx (/dev/hmt_XXX) for RDBLKID operation, errno = 78, rc = 1.	
Workaround: Disable open systems tape pipelining or limit tunnel vtn to 1	
Risk of Fix: Low	Probability: Medium
Feature: FCIP	Function: Emulation
Reported In Release: FOS7.0.0	Service Request ID: 1108847

Defect ID: DEFECT000437464	Technical Severity: Medium
Summary: supportsave -R performed with VF enabled by admin account, it shows RBAC permission denied	
Symptom: supportsave -R performed with VF enabled by admin account, it shows RBAC permission denied; however, FFDC files are properly removed.	
Risk of Fix: Low	Probability: High
Feature: FOS Software	Function: Fabric Services
Reported In Release: FOS7.1.0	Service Request ID: 1129834

Defect ID: DEFECT000437467	Technical Severity: High
Summary: During LSAN activation, some event sequences can cause GE_PT query to fail	
Symptom: Hosts do not discover targets after LSAN zone activation.	
Workaround: Bounce any of the host ports and all targets are discovered by host.	
Risk of Fix: Low	Probability: Low
Feature: FC Services	Function: Zoning
Reported In Release: FOS7.1.0	

Defect ID: DEFECT000437875	Technical Severity: High
Summary: Kernel Panic while attempting to correct ASIC memory Parity error.	
Symptom: Kernel Panic resulted in network outage on Brocade 8000	
Risk of Fix: Low	Probability: Low
Feature: FOS Software	Function: ASIC Driver
Reported In Release: FOS6.3.2	Service Request ID: 1128822

Closed defects with code change in Fabric OS v7.2.0

Defect ID: DEFECT000437958	Technical Severity: Medium
Summary: Remove excessive internal I2C reset raslog message	
Symptom: i2c reset message on recoverable errors causing unnecessary concerns	
Risk of Fix: Low	Probability: Low
Feature: 8G Platform Services	Function: Other
Reported In Release: FOS7.0.1	

Defect ID: DEFECT000438017	Technical Severity: Medium
Summary: SNMP configuration replication overwrites AAA LDAP Settings.	
Symptom: When trying to replicate SNMP settings alone from one switch to another switch using BNA, CLI, AAA settings also getting replaced.	
Risk of Fix: Low	Probability: High
Feature: FOS Software	Function: OS: Configuration
Reported In Release: FOS7.1.0	

Defect ID: DEFECT000438165	Technical Severity: High
Summary: Unable to vary devices online when FICON XRC Emulation is disabled but FICON Tape Emulation is enabled.	
Symptom: Device cannot come online with error messages: "UNABLE TO ESTABLISH DYNAMIC PATHING FOR THIS DEVICE"	
Workaround: Disable FCIP Tape Pipelining	
Risk of Fix: Low	Probability: Low
Feature: FOS Software	Function: FCIP
Reported In Release: FOS6.4.1	Service Request ID: 1129930

Defect ID: DEFECT000438388	Technical Severity: High
Summary: XTUN-1007 errors logged during systemverification tests on a DCX/8510 when FX8-24 blade is installed	
Symptom: Message [XTUN-1007], 2114714, SLOT 6 CHASSIS, ERROR, Brocade_DCX, FCIP FC frame drop due to truncated receive on slot=1 DP=2 BLS=0 DR=0 Frames Dropped=1068703 appears numerous times	
Risk of Fix: Low	Probability: Low
Feature: FCIP	Function: FCIP Port
Reported In Release: FOS7.1.0	Service Request ID: 1131027

Defect ID: DEFECT000438768	Technical Severity: High
Summary: FCR device data imported in Routed Fabric but Name Server is missing all imported PIDs	
Symptom: Devices may be imported and exist in FCR but they do not exist in the name server. The portcamshow command will not show a given storage port connected to the switch in this scenario.	
Risk of Fix: Low	Probability: Low
Feature: FOS Software	Function: Fabric Services
Reported In Release: FOS6.4.2	Service Request ID: 1125000,1205419

Defect ID: DEFECT000438901	Technical Severity: High
Summary: kernel panic while running portcfgspeed command on internal port of an embedded switch.	
Symptom: BR5470 embedded switch panic'd while running portcfgspeed command, causing momentary outage.	
Risk of Fix: Low	Probability: Low
Feature: FOS Software	Function: ASIC Driver
Reported In Release: FOS6.4.2	Service Request ID: 1132056

Closed defects with code change in Fabric OS v7.2.0

Defect ID: DEFECT000439725	Technical Severity: High
Summary: The command IpAddrSet --delete is unsuccessful at removing an IPv6 switch address	
Symptom: Switch operations were not affected as the IPv6 address was not being used however, the IPv6 address could not be removed.	
Risk of Fix: Low	Probability: Low
Feature: OS Services	Function: IP Admin
Reported In Release: FOS7.1.0	

Defect ID: DEFECT000440048	Technical Severity: High
Summary: Display result of "snmpTraps --send" for "swFwName" and "swFwLabel" improper.	
Symptom: In VF environment, "snmptraps -send" display wrong swFwName and fwFwLabel.	
Risk of Fix: Low	Probability: High
Feature: FOS Software	Function: Fabric Services
Reported In Release: FOS7.1.0	Service Request ID: 1132194

Defect ID: DEFECT000440137	Technical Severity: High
Summary: Update Serdes values for FC8-16 port blades in slot 1,2 of DCX-4s	
Symptom: Enhanced serdes tuning value to address CRC with good EOF	
Risk of Fix: Low	Probability: Low
Feature: FOS Software	Function: ASIC Driver
Reported In Release: FOS7.0.0	Service Request ID: 1131911

Defect ID: DEFECT000440420	Technical Severity: Medium
Summary: Power supply reports faulty(EM-1034) message on alternate power supplies in 6520 switches	
Symptom: Power supply faulty EM-1034 messages displayed on 6520 switches	
Risk of Fix: Low	Probability: Medium
Feature: System Controls/EM	Function: Other
Reported In Release: FOS7.1.0	Service Request ID: 1130981

Defect ID: DEFECT000440716	Technical Severity: High
Summary: 3rd party application experiencing errors when OXID re-use is encountered and operation is dropped on PI side when FCIP OSTP is enabled.	
Symptom: Application fails with errors: ANR8311E An I/O error occurred while accessing drive "driveName and mount point" for LOCATE or WRITE operation, errno = 5 or 16.	
Workaround: Disable FCIP Open Systems Tape Pipelining	
Risk of Fix: Low	Probability: Low
Feature: FCIP	Function: Emulation
Reported In Release: FOS7.0.0	Service Request ID: 1134539

Defect ID: DEFECT000440760	Technical Severity: High
Summary: FCIP 7800/FX8-24 DP panic when Ethernet jumbo frames are forwarded to the CP	
Symptom: Frequent core panics on DP.	
Workaround: Disable jumbo frame support in IP connected infrastructure where 7800/FX8-24 is connected	
Risk of Fix: Low	Probability: Medium
Feature: FCIP	Function: FCP TCP/IP Stack
Reported In Release: FOS7.0.2	Service Request ID: 1125980

Closed defects with code change in Fabric OS v7.2.0

Defect ID: DEFECT000440839	Technical Severity: High
Summary: Incorrect route removed when switching Tlzone from failover-enabled to failover-disabled	
Symptom: Changing a Tlzone from failover enabled to disabled will cause traffic to stop and loss of access to the targets.	
Risk of Fix: Low	Probability: Medium
Feature: FC Services	Function: Name Server
Reported In Release: FOS7.1.0	

Defect ID: DEFECT000440968	Technical Severity: High
Summary: Switch panic due to media pointer access failure.	
Symptom: Switch could panic when removing or powering down FC and DCE blades during HAfailover.	
Risk of Fix: Low	Probability: Low
Feature: FOS Software	Function: Panic / OOM
Reported In Release: FOS6.4.2	Service Request ID: 1136223

Defect ID: DEFECT000440989	Technical Severity: High
Summary: BNA experiences out of memory error when obtaining or polling for encrypted LUN level info from two encryption groups that each have 4,000 defined LUNs	
Symptom: BNA restarts after hitting an out of memory error.	
Workaround: Reboot FS8-18 blade or BES switch	
Risk of Fix: Low	Probability: Low
Feature: CEE-MANAGEABILITY	Function: CAL INTERFACE
Reported In Release: FOS7.1.0	Service Request ID: 1102253

Defect ID: DEFECT000440993	Technical Severity: Medium
Summary: Deskew value of last online port of a trunk group may be different	
Symptom: If FEC is enabled, the deskew value of the last online port of the trunk group shows a difference of up to 36 and it's unclear that is a normal behavior. The fix added an explicit note during trunkshow as: " NOTE: If FEC is enabled, the deskew value of the last online port of the trunk group may show a difference of up to 36, as normal behavior, even though the cables are all of the same length"	
Risk of Fix: Low	Probability: Medium
Feature: 8G ASIC Driver	Function: ASIC Driver
Reported In Release: FOS7.1.0	

Defect ID: DEFECT000441306	Technical Severity: Medium
Summary: Firmwaredownload failed due to a missing or invalid firmware signature.	
Symptom: Firmwaredownload may fail with the message "missing or invalid firmware signature"	
Risk of Fix: Low	Probability: Medium
Feature: FOS-Infrastructure	Function: Firmware Download
Reported In Release: FOS7.0.1	

Defect ID: DEFECT000441424	Technical Severity: Medium
Summary: fwMailCfg does not validate IP address input from user.	
Symptom: After entering an invalid character such as '[' at the IP prompt for fwMailCfg -> Set Relay Host IP, get following error: /fabos/cliexec/fwMailSvrCfg: [: =: unary operator expected	
Risk of Fix: Low	Probability: Low
Feature: FOS Software	Function: OS: Configuration
Reported In Release: FOS7.0.1	Service Request ID: 1136241

Closed defects with code change in Fabric OS v7.2.0

Defect ID: DEFECT000441818	Technical Severity: Medium
Summary: For 16GB fixed port count switches and port blades, the number of ports displayed by portledtest are not matching the number of physical front end facing FC ports	
Symptom: The overall functionality of portledtest is not affected however, portledtest displays results for internal as well as front facing ports.	
Risk of Fix: Low	Probability: Medium
Feature: Diagnostics	Function: Other
Reported In Release: FOS7.1.0	Service Request ID: 1136285

Defect ID: DEFECT000441913	Technical Severity: High
Summary: A 16Gbit switch may panic when an ICL port enters soft fault state. This is very unlikely but may also occur with Backend Internal or Backend External port.	
Symptom: During switch install, slot power cycle test, observed 16G switch panic.	
Risk of Fix: Low	Probability: Medium
Feature: 16G Platform Services	Function: FOS Kernel Drivers
Reported In Release: FOS7.0.2	Service Request ID: 1032557

Defect ID: DEFECT000442070	Technical Severity: Medium
Summary: When transferring a CSR using IPv6, the status message says failed when it actually succeeded.	
Symptom: After a successful transfer of a CSR, the switch reports "Failed to export CSR to remote host:".	
Risk of Fix: Low	Probability: High
Feature: FOS Software	Function: Security
Reported In Release: FOS7.0.2	Service Request ID: 1137829

Defect ID: DEFECT000442080	Technical Severity: Medium
Summary: Making auto-tuned value persistent across reboot	
Symptom: Values from serds auto/manual tuning session are lost after poweroff/on blade or cold reboot of switch.	
Risk of Fix: Low	Probability: Low
Feature: 8G ASIC Driver	Function: C2 ASIC driver
Reported In Release: FOS7.0.2	

Defect ID: DEFECT000442112	Technical Severity: High
Summary: With OSTP enabled, 3rd party device write errors are encountered during backup processing	
Symptom: 3rd party device write errors during backup processing similar to: mm/dd/yy hh:mm:ss An I/O error occurred while accessing drive xxx (/dev/rmtty) for WRITE operation, errno = 78, rc = 1.	
Workaround: Disable FCIP Open Systems Tape Pipelining	
Risk of Fix: Low	Probability: Medium
Feature: FCIP	Function: Emulation
Reported In Release: FOS7.0.0	Service Request ID: 1132526

Defect ID: DEFECT000442422	Technical Severity: High
Summary: System security card is not being read on BES/FS8-18 card readers.	
Symptom: Authentication for crypto operations on BES/FS8-18 fails. In this case, BES/FS8-18 functions as an ordinary FC switch or blade when it is powered up, but use of the encryption engine is denied as a result.	
Workaround: Disable the systemcard feature, issue cryptocfg -- set -systemcard disable from the encryption group leader.	
Risk of Fix: Low	Probability: Medium
Feature: FOS-Infrastructure	Function: Other
Reported In Release: FOS7.1.0	

Closed defects with code change in Fabric OS v7.2.0

Defect ID: DEFECT000442467	Technical Severity: High
Summary: Network Advisor initiated supportsave times out when collecting data	
Symptom: Observed the following from the Network Advisor masterlog. "One or more modules timed out during supportsave. retry supportsave with -t option to collect all logs."	
Risk of Fix: Low	Probability: Medium
Feature: Mgmt Embedded - CAL	Function: Other
Reported In Release: FOS7.1.0	

Defect ID: DEFECT000442919	Technical Severity: Medium
Summary: Switch panic while plugging in cables to ISL ports with one of the trunk port.	
Symptom: Switch panics in RTE route module and hafailover. It occurred once just at the same time as customer was plugging in cables to ISL port of a trunk and it was not reproducible.	
Risk of Fix: Low	Probability: Low
Feature: 4G Platform Services	Function: FOS Kernel Drivers
Reported In Release: FOS6.4.2	Service Request ID: 1140381

Defect ID: DEFECT000443267	Technical Severity: Medium
Summary: BES faults the blade during decompress operation when compress length is 0.	
Symptom: Non-compressible cleartext tape block causes FS8-18 fault/panic BES	
Risk of Fix: Low	Probability: Low
Feature: FOS Software	Function: Encryption
Reported In Release: FOS6.4.2	Service Request ID: 1135751/P1135632

Defect ID: DEFECT000443541	Technical Severity: Medium
Summary: Continuous FSS-1001 messages are seen after firmware upgrade from FOS v6.4.2a to v6.4.3c	
Symptom: Continuous FSS-1001 messages after firmware upgrade due to inconsistent Access Gateway State Synchronization	
Risk of Fix: Low	Probability: Low
Feature: FOS Software	Function: High Availability
Reported In Release: FOS6.4.3	Service Request ID: 1143366

Defect ID: DEFECT000444029	Technical Severity: Medium
Summary: FICON aborts during FCIP read emulation while running VTS	
Symptom: Aborts during read emulation while running VTS.	
Workaround: Disable all FCIP FICON Tape Emulation Features.	
Risk of Fix: Low	Probability: Medium
Feature: FCIP	Function: Emulation
Reported In Release: FOS6.4.2	Service Request ID: 1143795

Defect ID: DEFECT000444124	Technical Severity: High
Summary: Pointer in WebTools Port Administration window shows busy full time on BR6547	
Symptom: When click a port whereas port speed is not negotiable, a busy cursor is shown	
Workaround: Use "busy" pointer and this will work clicking on each port	
Risk of Fix: Low	Probability: Medium
Feature: FOS Software	Function: Web Management
Reported In Release: FOS7.0.0_pha	Service Request ID: 1143617

Closed defects with code change in Fabric OS v7.2.0

Defect ID: DEFECT000444171	Technical Severity: High
Summary: Data buffer is too small for holding frames header in error condition	
Symptom: Kernel panic on BR8000 switch with FCOE when sending several iterations of maximum number of FDISCs continually.	
Risk of Fix: Low	Probability: Low
Feature: CEE-FCOE	Function: FCOE DRIVER
Reported In Release: FOS6.4.3	Service Request ID: 1111262

Defect ID: DEFECT000444288	Technical Severity: Medium
Summary: Generate an alert if timeout frame discards and congestion are detected at the same time	
Symptom: No bottleneck alert is generated even if frames are already being discarded due to timeout.	
Risk of Fix: Medium	Probability: High
Feature: Bottleneck detection	Function: Other
Reported In Release: FOS7.1.0	

Defect ID: DEFECT000444752	Technical Severity: Medium
Summary: Switch has a large tracedump file of 30M and run out of CF space	
Symptom: Small non-chassis switches hang during bootup after pre-allocation of a large tracefile from Compact Flash.	
Risk of Fix: Low	Probability: Low
Feature: FOS Software	Function: Fabric Services
Reported In Release: FOS6.2.2	Service Request ID: 1116474

Defect ID: DEFECT000445485	Technical Severity: High
Summary: Assert reboot and failover on normal traffic	
Symptom: SNMP received a warmstart trap and CP status changed to failed. Switch failed over and rebooted failed CP.	
Risk of Fix: Low	Probability: Low
Feature: 4G Platform Services	Function: FOS Kernel Drivers
Reported In Release: FOS6.4.1	Service Request ID: 1144739

Defect ID: DEFECT000445644	Technical Severity: High
Summary: BES went into low memory state because of “Continuous polling from BNA”	
Symptom: BES CLI Commands are failing - Operation failed: BES/FS8-18 blade is not present or up	
Risk of Fix: Medium	Probability: Medium
Feature: FOS Software	Function: Encryption
Reported In Release: FOS7.0.2	Service Request ID: 1145987

Defect ID: DEFECT000445729	Technical Severity: High
Summary: QSFP LED state inconsistent with port state on the corresponding 4 channels (ports)	
Symptom: Two symptoms observed: 1. QSFP's LED light is OFF while all four of the ICL based E-Ports on that single QSFP are online. 2. QSFP's LED light is blinking Amber when no QSFP installed.	
Risk of Fix: Low	Probability: Medium
Feature: 16G Platform Services	Function: Other
Reported In Release: FOS7.1.0	

Closed defects with code change in Fabric OS v7.2.0

Defect ID: DEFECT000445814	Technical Severity: Medium
Summary: Configuration download failure when downloading fabric watch settings	
Symptom: After configuration download from CLI or using BNA to do partial fabric watch data replication, Bottleneck configurations were removed from the switch.	
Risk of Fix: Low	Probability: Medium
Feature: FOS Software	Function: Management Services
Reported In Release: FOS7.0.0	Service Request ID: 1137933

Defect ID: DEFECT000446004	Technical Severity: High
Summary: 7800 Tunnel in DwnPend state after making change to committed rate	
Symptom: 7800 Tunnel enters DwnPend state after configuration change is made. An IPC error is reported during subsequent attempts to delete the tunnel.	
Risk of Fix: Low	Probability: Medium
Feature: FOS Software	Function: FCIP
Reported In Release: FOS7.0.1	Service Request ID: 1147343

Defect ID: DEFECT000446429	Technical Severity: High
Summary: ASIC entries are not being cleared upon HA processing leading to server issues.	
Symptom: Observer non-responsive host paths on a server with server eventually crashing. Switch does not forward any SCSI task management commands	
Risk of Fix: Low	Probability: Low
Feature: FOS Software	Function: Fabric Services
Reported In Release: FOS7.1.0	Service Request ID: 1143385

Defect ID: DEFECT000446834	Technical Severity: Medium
Summary: When ICL Port Fencing is enabled, port enable/disable button in WT displays UI anomalies.	
Symptom: WT presents incorrect options for enable/disable of ports.	
Risk of Fix: Low	Probability: Medium
Feature: WebMgmt	Function: Other
Reported In Release: FOS7.1.0	

Defect ID: DEFECT000446858	Technical Severity: Medium
Summary: In a heavily congested fabric, if a HAfailover happens when a backend port is reporting frame timeout, switch falsely identifies stuck VC and performs link reset.	
Symptom: Switch continuously reports RASLOG "C2-1014, Link Reset" on backend port, and under rare occasion, observed switch panic.	
Risk of Fix: Medium	Probability: Medium
Feature: 4G Platform Services	Function: FOS Kernel Drivers
Reported In Release: FOS7.0.2	Service Request ID: 1148619,1132068

Defect ID: DEFECT000447216	Technical Severity: High
Summary: Access Gateway does not respond to FLOGI from host	
Symptom: Access gateway does not respond to the FLOGI issued by the host adapter with ExtLinkRply Accept	
Risk of Fix: Low	Probability: Medium
Feature: Access Gateway Services	Function: Other
Reported In Release: FOS7.1.0	

Closed defects with code change in Fabric OS v7.2.0

Defect ID: DEFECT000447611	Technical Severity: High
Summary: Disable auto tuning for 8G blades in 16G chassis. Only manual tuning will be supported for this combination.	
Symptom: After enabling auto tuning, FC8-64 blades faulted in a 16G chassis and the blade had to be power cycled to be recovered.	
Workaround: Disable auto tuning	
Risk of Fix: Medium	Probability: Medium
Feature: FOS Software	Function: ASIC Driver
Reported In Release: FOS7.0.2	Service Request ID: 1149900

Defect ID: DEFECT000447848	Technical Severity: High
Summary: Network Advisor failed to get VF details for the switch when FMS mode is enabled.	
Symptom: Unable to open VF dialog in Network Advisor for a switch with FMS mode enabled.	
Risk of Fix: Low	Probability: Low
Feature: FICON	Function: Ficud
Reported In Release: FOS7.1.0	

Defect ID: DEFECT000448174	Technical Severity: High
Summary: Director may panic with termination of process fabricd	
Symptom: Director experienced panic after ICL un-plugin/re-plugin or disabling ICL's master	
Workaround: Need to reboot the standby every time ICL master fails and slave turns to new master	
Risk of Fix: Low	Probability: Medium
Feature: FC Services	Function: Fabric
Reported In Release: FOS7.1.0	

Defect ID: DEFECT000448241	Technical Severity: High
Summary: Identification and notification of marginal/bad CP blade needs to be improved.	
Symptom: During operations like firmwaredownload, FOS failed to identify that a CP blade had hardware issues and should have been faulted with a critical entry written to the error log noting need for immediate replacement.	
Risk of Fix: Low	Probability: Low
Feature: FIRMWARE DOWNLOAD	Function: Firmware Download
Reported In Release: FOS7.1.0	

Defect ID: DEFECT000448364	Technical Severity: Medium
Summary: Port Admin table does not get updated within the expected refresh interval	
Symptom: Port admin table may show stale data since it is not getting updated as expected.	
Risk of Fix: Low	Probability: Medium
Feature: WebMgmt	Function: Other
Reported In Release: FOS7.1.0	

Defect ID: DEFECT000448534	Technical Severity: High
Summary: Name server stops responding to CT commands such as GID_FT, GPN_FT, and RPN_ID.	
Symptom: 3rd party storage ports stop responding, resulting in I/O stoppage. The device's ports must be manually reset to force a relogin with the nameserver again. This issue occurs intermittently at customer setup.	
Risk of Fix: Low	Probability: Low
Feature: FOS Software	Function: Fabric Services
Reported In Release: FOS7.0.1	Service Request ID: 1104327

Closed defects with code change in Fabric OS v7.2.0

Defect ID: DEFECT000448752	Technical Severity: Medium
Summary: Web Tools does not show Standby CP firmware level	
Symptom: Web Tools "Switch Admin Fware Download panel" shows "none" for Standby CP level	
Risk of Fix: Low	Probability: High
Feature: WebMgmt	Function: Firmware Download
Reported In Release: FOS7.1.0	

Defect ID: DEFECT000448802	Technical Severity: High
Summary: Discrepancy between Recommended Action on C2-1012 Error Message from Fabric OS Message Reference and BNA 12.0 Master Log	
Symptom: Discrepancy between Recommended Action on C2-1012 Error Message from Fabric OS Message Reference and BNA 12.0 Master Log	
Workaround: Power Cycle and Turn on Backend Credit Recovery	
Risk of Fix: Medium	Probability: Medium
Feature: Message Reference	Function: Edit/Correct
Reported In Release: FOS7.1.0	

Defect ID: DEFECT000448983	Technical Severity: High
Summary: FICON DASD CHPID activation fails through FCIP emulating tunnel.	
Symptom: CHPID activation fails	
Workaround: Disable FCIP and all FICON emulation on a tunnel	
Risk of Fix: Low	Probability: High
Feature: FCIP	Function: Emulation
Reported In Release: FOS7.1.0	

Defect ID: DEFECT000450420	Technical Severity: Medium
Summary: When multiple priorities are run with TPERF with low rate, TPERF timeout.	
Symptom: Tperf terminates when running with all three (-high -medium -low) QOS setting and low bandwidth under 70 Megabits	
Risk of Fix: Low	Probability: Low
Feature: FOS Software	Function: FCIP
Reported In Release: FOS7.0.2	Service Request ID: 1154244

Defect ID: DEFECT000450480	Technical Severity: High
Summary: Firmware downgrade from v7.1.0 to v7.0.0d is erroneously blocked (Error: FMS + Allow XISL configured) when "Allow XISL" is not enabled on logical switch.	
Symptom: Firmwaredownload is erroneously blocked.	
Risk of Fix: Low	Probability: Low
Feature: Mgmt Embedded - CAL	Function: VF
Reported In Release: FOS7.1.0	

Defect ID: DEFECT000451033	Technical Severity: High
Summary: Supportsave fails using Webtools with error message "Invalid Pathname"	
Symptom: Using Webtools to take a supportsave will result in an error message "Invalid Pathname." if the default pathname that Webtools puts into the dialog box is used. If a directory is created, and that name is put in the dialog box, Webtools will hang.	
Risk of Fix: Low	Probability: High
Feature: WebMgmt	Function: WT Platform Support
Reported In Release: FOS7.1.0	

Closed defects with code change in Fabric OS v7.2.0

Defect ID: DEFECT000451485	Technical Severity: Medium
Summary: TU area threshold of portthconfig accepts invalid values outside the range 0-100	
Symptom: TU area of e-port/fop-port accepts 999999999 for a value that is expressed as a percentage (0-100%)	
Risk of Fix: Low	
Feature: Performance Monitor	Function: Frame Monitor
Reported In Release: FOS7.0.2	Service Request ID: 1153673

Defect ID: DEFECT000451617	Technical Severity: Medium
Summary: Unstable link caused switch to internally reset port and generated link level errors.	
Symptom: On embedded switch, after upgrading FOS, observed high count of LOSSYNC, link failure errors during server boot. There is no impact to the time for port to come online, but the counters triggered fabric watch warnings.	
Risk of Fix: Low	
Feature: 4G ASIC Driver	Function: PORT
Reported In Release: FOS6.3.2	

Defect ID: DEFECT000451632	Technical Severity: Medium
Summary: weblinkercfgd crashes with BNA scheduled backup of the switch	
Symptom: weblinkercfgd (a restart-able daemon) crashed when BNA scheduld backup of the switch. No adverse effect is generally observed by the customer.	
Risk of Fix: Low	Probability: Low
Feature: WebMgmt	Function: Other
Reported In Release: FOS7.0.0	Service Request ID: 1157646

Defect ID: DEFECT000451647	Technical Severity: High
Summary: Encryption target status Offline after removing and adding hosts for an encryption container	
Symptom: Encryption target goes offline when removing and adding hosts for an encryption container	
Risk of Fix: Low	Probability: Medium
Feature: 16G Platform Services	Function: F Port Trunking
Reported In Release: FOS7.1.0	

Defect ID: DEFECT000451666	Technical Severity: High
Summary: Overall FCIP Tunnel performance degradation between FOS v7.0.2 and v7.1.0x	
Symptom: Tunnel performance difference in a 10 gig tunnel configuration with uncompressed traffic. FOS v7.1.0, v7.1.0a, v7.1.0b seems to max out at 860 MB/sec where as FOS v7.0.x runs at almost line speed (1 Giga-Byte/sec)	
Risk of Fix: Low	Probability: High
Feature: FCIP	Function: FCIP I/O
Reported In Release: FOS7.1.0	

Defect ID: DEFECT000451992	Technical Severity: Medium
Summary: Explanation on "MAX num. of FLOGIs allowed" is not documented	
Symptom: 'MAX num. of FLOGIs allowed' setting is added in v7.1.0. However, the manuals are not describing the use case for this setting.	
Risk of Fix: Low	Probability: Medium
Feature: Man Pages	Function: Edit/Correct
Reported In Release: FOS7.1.0	Service Request ID: 1157557

Closed defects with code change in Fabric OS v7.2.0

Defect ID: DEFECT000452033	Technical Severity: Medium
Summary: CRC with good EOF on backend ports	
Symptom: CRC with good EOF on backend ports of FC8-64 blade in a DCX-8510. The following ports were observed to see CRCs with good EOF: 1/114, 10/154, and 11/154	
Risk of Fix: Low	Probability: High
Feature: FOS Software	Function: ASIC Driver
Reported In Release: FOS7.0.1	Service Request ID: 1158004

Defect ID: DEFECT000452062	Technical Severity: High
Summary: Zoning flash write hung	
Symptom: The current recovery method in zoning is not sufficient to cover a zoning flash write hung.	
Risk of Fix: Low	Probability: Low
Feature: FC Services	Function: Zoning
Reported In Release: FOS7.1.0	

Defect ID: DEFECT000452556	Technical Severity: Medium
Summary: portaddress --bind <slot>/<port> <16-bit address> --auto not working, no error message on failure.	
Symptom: When attempting to bind a specific 8bit area to a port using "portaddress --bind <slot>/<port> <16-bit address> --auto" the command is not recognized and returns the command usage. (no error message for failure)	
Risk of Fix: Low	Probability: High
Feature: FOS Software	Function: Virtual Fabric
Reported In Release: FOS7.0.2	Service Request ID: 1159663

Defect ID: DEFECT000452558	Technical Severity: Medium
Summary: Remove deprecated MIB from FOS v7.1.1 onwards	
Symptom: Remove MIBs that have been deprecated in FOS v7.0 and obsolete in FOS v7.1	
Risk of Fix: Low	Probability: High
Feature: Tech Pubs	Function: Others
Reported In Release: FOS7.1.0	

Defect ID: DEFECT000453215	Technical Severity: Medium
Summary: Unable to set empty name for fabrics through BNA	
Symptom: Not able to set empty value for FID Fabric name.	
Risk of Fix: Low	Probability: Medium
Feature: Mgmt Embedded - CAL	Function: Other
Reported In Release: FOS7.1.0	

Defect ID: DEFECT000453350	Technical Severity: Medium
Summary: firmwaredownload message SULB-1001 does not include the From and To Versions	
Symptom: The version being upgraded from and version upgraded to are not included in the SULB-1001 messages.	
Risk of Fix: Low	Probability: Medium
Feature: FIRMWARE DOWNLOAD	Function: Firmware Download
Reported In Release: FOS7.1.1	

Closed defects with code change in Fabric OS v7.2.0

Defect ID: DEFECT000453432	Technical Severity: Medium
Summary: Encryption Admin guide for DPM: Need to advertise that Keys should not be (Deactivated/Compromised/Destroyed) in the RKM KV without following decommission procedure	
Symptom: Following information will be seen in the Raslog for updating the DEKson BES. <pre> ===== 2013/02/26-23:24:27:328406, [KAC-1013], 2339655/2301768, SLOT 6 FID 128, WARNING, ED_DCX_B, Putting the Actual DEK to the KV 10.77.77.40 failed. Actual Key: 946f8316...1c42477b. Error code=20035, string=R_KM_ERROR_INCORRECT_KEY_STATE_TRANSITION, rsa.c, line: 1602, comp:kacd, ltime:2013/02/26-23:24:27:328382 </pre>	
Risk of Fix: Low	
Feature: Data Security	Function: DOCUMENTATION
Reported In Release: FOS7.0.1	Service Request ID: 53219848

Defect ID: DEFECT000453737	Technical Severity: Medium
Summary: DCX chassis encountered a kernal panic (nsd0) after traffic started.	
Symptom: DCX chassis may encounter a kernal panic (nsd0) after traffic starts.	
Risk of Fix: Low	Probability: Medium
Feature: Mgmt Embedded - SNMP	Function: Other
Reported In Release: FOS7.1.0	

Defect ID: DEFECT000454148	Technical Severity: High
Summary: FCIP FICON: Attention status is not being sent to channel	
Symptom: Tape mounts are not always completed.	
Workaround: Disable the FOS v7.1.0c new FCIP FICON emulation Idle Status Accept feature. The feature can be disabled via the following command: <pre> portcfg fciptunnel <slot/>vePort modify --ficon-debug NewFlags </pre> Where NewFlags is a 32 bit hex valud that includes the 0x1000 bit. The 0x1000 bit disables the new FICON Emulation Idle Status Accept feature that was introduced in FOS v7.1.0.	
Risk of Fix: Low	Probability: Low
Feature: FCIP	Function: FCIP I/O
Reported In Release: FOS7.1.0	

Defect ID: DEFECT000454150	Technical Severity: High
Summary: FCIP FICON Sync Sort job fails sorting 1G random data file	
Symptom: Job receives SIM error and fails	
Workaround: Disable the FOS v7.1.0c new FCIP FICON emulation Idle Status Accept feature. The feature can be disabled via the following command: <pre> portcfg fciptunnel <slot/>vePort modify --ficon-debug NewFlags </pre> Where "NewFlags" is a hex 32 bit value that includes the 0x1000 bit. The 0x1000 bit disables the FICON Emulation Idle Status Accept feature that was introduced in FOS v7.1.0.	
Risk of Fix: Low	Probability: High
Feature: FCIP	Function: FCIP I/O
Reported In Release: FOS7.1.0	

Closed defects with code change in Fabric OS v7.2.0

Defect ID: DEFECT000454274	Technical Severity: Medium
Summary: DCX-4S fails to send ACK1 to initial FLOGI from device that issues FLOGI immediately after link comes up	
Symptom: Occasionally observe that DCX4S fails to send ACK1 to FLOGI. Initial FLOGI times out, FLOGI resent from host and successfully receives ACK1.	
Risk of Fix: Medium	
Feature: FOS Software	Function: Fabric Services
Reported In Release: FOS7.1.0	Service Request ID: 1166061

Defect ID: DEFECT000454312	Technical Severity: Critical
Summary: CP panic while taking over active CP role leads to cold recovery	
Symptom: With FX8-18, FR4-18i, when the blade is having sudden access problem, switch recovery may turn cold.	
Risk of Fix: Low	Probability: Low
Feature: FOS Software	Function: Striker
Reported In Release: FOS7.0.0	Service Request ID: 1166323

Defect ID: DEFECT000455165	Technical Severity: High
Summary: Switch Panic during USB drive accessing.	
Symptom: Switch panicked while performing "usbstorage -e" for downloading configuration file to USB-memory.	
Risk of Fix: Low	Probability: Low
Feature: FOS Software	Function: ASIC Driver
Reported In Release: FOS6.3.2	Service Request ID: 1167128

Defect ID: DEFECT000455573	Technical Severity: Medium
Summary: Update the default auth/priv protocol to SHA and DES. Trap entries are not cleared when snmpconfig default is issued.	
Symptom: Trap entries are retained after snmpconfig default is issued.	
Risk of Fix: Low	Probability: Medium
Feature: Mgmt Embedded - SNMP	Function: Other
Reported In Release: FOS7.0.0_pha	

Defect ID: DEFECT000455614	Technical Severity: High
Summary: During downgrade testing from 7.1.0b to v7.0.2c - FEC remained enabled on an F port (Even though it is not supported.)	
Symptom: During downgrade testing from 7.1.0b to v7.0.2c, firmwaredownload -s command incorrectly permitted downgrade to proceed when unsupported FEC remained enabled.	
Workaround: first disable the fec/cr features before downgrading from v7.1.x or v7.2.x (via -s option) to v7.0.x	
Risk of Fix: Low	
Feature: FOS Software	Function: System Performance
Reported In Release: FOS7.1.0	Service Request ID: 1167590

Defect ID: DEFECT000455635	Technical Severity: High
Summary: Running portloopbacktest on DCX8510, the actual test result was a pass but with confusing error message	
Symptom: Running portloopbacktest on DCX8510, debug message "EFIFO underflow" are generated causing confusion.	
Risk of Fix: Low	Probability: High
Feature: FOS Software	Function: Diagnostics
Reported In Release: FOS7.1.0	Service Request ID: 1167824

Closed defects with code change in Fabric OS v7.2.0

Defect ID: DEFECT000455717	Technical Severity: High
Summary: Request for message to be generated when the TKLM key vault comes back online successfully	
Symptom: Upon recovering the TKLM key vault and its successful re-connection, no message is generated indicating the event (cryptocfg --show -groupcfg verified that it was connected).	
Workaround: Use cryptocfg --show -groupcfg	
Risk of Fix: Low	Probability: Medium
Feature: Data Security	Function: Encryption Group
Reported In Release: FOS7.1.0	

Defect ID: DEFECT000456392	Technical Severity: Medium
Summary: Number of headings in fwportdetailshow is one greater than the number of fields below	
Symptom: fwportdetailshow output has more heading than data, LR data is not displayed under LR heading.	
Risk of Fix: Low	Probability: Low
Feature: FOS Software	Function: System Performance
Reported In Release: FOS7.0.2	Service Request ID: 1162772

Defect ID: DEFECT000456440	Technical Severity: Medium
Summary: Severity level discrepancy between raslog and snmp for FW-1404 and FW-1406 events	
Symptom: During memory usage testing, customer noticed Inconsistent severity level between the error log and SNMP for FW-1404 and FW-1406 events.	
Risk of Fix: Low	Probability: Low
Feature: FOS Software	Function: SNMP
Reported In Release: FOS7.0.2	Service Request ID: 1168970/P1167804

Defect ID: DEFECT000457972	Technical Severity: High
Summary: After an FCIP circuit bounce, invalid buffers index messages are reported on the console.	
Symptom: After an FCIP tunnel bounces due to a network issue, error messages are generated on console and the TCP connections making up the tunnel/circuit aborts instead of closing gracefully.	
Risk of Fix: Low	Probability: Low
Feature: FOS Software	Function: FCIP
Reported In Release: FOS7.0.0	Service Request ID: 1171473

Defect ID: DEFECT000458751	Technical Severity: Medium
Summary: FC ports shown as inactive by ITE	
Symptom: FC ports from Brocade switch as shown as inactive by embedded platform switchshow.	
Risk of Fix: Low	Probability: Low
Feature: Embedded Platform Services	Function: Other
Reported In Release: FOS7.0.0_pha	

Defect ID: DEFECT000459102	Technical Severity: High
Summary: Domain change caused proxy devices stuck in "initializing" state	
Symptom: Proxy devices stuck in "initializing" state after adding new switch to edge fabric	
Risk of Fix: Medium	Probability: Low
Feature: FOS Software	Function: FCR
Reported In Release: FOS7.0.2	Service Request ID: 1172345

Closed defects with code change in Fabric OS v7.2.0

Defect ID: DEFECT000460296	Technical Severity: Medium
Summary: Unit check during tape repositioning resulted in FICN-1056 FICON Emulation Error code 100	
Symptom: Unit check during tape repositioning resulted in FICN-1056 FICON Emulation Error code 100 and ficon abort	
Workaround: Disable FICON Tape Read Pipelining on the FCIP Tunnel	
Risk of Fix: Low	
Feature: FOS Software	Function: FCIP
Reported In Release: FOS7.0.0	Service Request ID: 1184136

Defect ID: DEFECT000460457	Technical Severity: Medium
Summary: Performance counter wraps in between the polling cycles.	
Symptom: Customer cannot correlate portstatsshow and BNA Historical Perf Graph with server performance data gathered.	
Risk of Fix: Low	Probability: Medium
Feature: FOS Software	Function: FICON
Reported In Release: FOS7.0.0	Service Request ID: 1183391

Defect ID: DEFECT000460492	Technical Severity: Medium
Summary: Portpershow -x option returns 'Invalid input parameters' for more than one port range although man page shows this as supported.	
Symptom: Portpershow -x option returns 'Invalid input parameters' for more than one port range	
Risk of Fix: Low	Probability: Medium
Feature: Man Pages	Function: Edit/Correct
Reported In Release: FOS7.1.0	Service Request ID: 1184477

Defect ID: DEFECT000461019	Technical Severity: Medium
Summary: Report the back end link CRC with good EOF errors separately from the current asic error monitoring scheme	
Symptom: Unable to decide when to tune serdes value for link optimal performance: Added new raslog C2-1020 and C2-1030, C3-1020 and C3-1030 to separately track backend CRC with good EOF	
Risk of Fix: Low	Probability: Low
Feature: FOS Software	Function: ASIC Driver
Reported In Release: FOS6.4.3	

Defect ID: DEFECT000461346	Technical Severity: Medium
Summary: SULB-1037 HCL failed and left behind no trace to fault isolate.	
Symptom: Raslog SULB-1037 did not trigger any FFDC data. When customer encounters that rare failure, switch is manual rebooted to recover without data gathering. .	
Risk of Fix: Low	Probability: Low
Feature: FOS Software	Function: Firmware Download
Reported In Release: FOS6.4.1	Service Request ID: 1167597,1144369

Defect ID: DEFECT000461485	Technical Severity: Medium
Summary: FCIP FICON Emulating Tunnel with VTS devices do not recover after the controller has exited service mode	
Symptom: When a VTS was placed into service mode and then restored to normal mode, not all paths were recovered.	
Risk of Fix: Low	Probability: High
Feature: FCIP	Function: Emulation
Reported In Release: FOS7.0.0	Service Request ID: 1186043

Closed defects with code change in Fabric OS v7.2.0

Defect ID: DEFECT000462840	Technical Severity: High
Summary: GPN_ID name server query for zoned and online device is rejected with reason: no portid	
Symptom: In Ficon setup, hosts may fail to establish paths due to name server query failures.	
Workaround: Set up ficon PDCM matrix to allow a port talk to itself.	
Risk of Fix: Low	Probability: Low
Feature: FOS Software	Function: Fabric Services
Reported In Release: FOS7.0.0	Service Request ID: 1188060

Defect ID: DEFECT000463131	Technical Severity: Medium
Summary: FC5022 does not support default sftp port to snmp client	
Symptom: Firmware update will fail on FC5022 unless the port is specified.	
Workaround: Specify the port in the command.	
Risk of Fix: Low	Probability: Medium
Feature: Mgmt Embedded - SNMP	Function: Other
Reported In Release: FOS7.0.0_pha	

Defect ID: DEFECT000463747	Technical Severity: High
Summary: I/O Stops if ISL port disabled in a topology that includes FCIP Tape Pipelining	
Symptom: I/O stops after ISL ports between edge switch and 7800 are disabled in a topology that includes FCIP Tape Pipelining. Happens when second to last path was disabled and would not failover properly	
Risk of Fix: Low	Probability: Low
Feature: FCIP	Function: Emulation
Reported In Release: FOS7.1.0	

Defect ID: DEFECT000463955	Technical Severity: High
Summary: Memory allocation failures due to high device quantity causing FCIP tunnel down	
Symptom: FCIP administratively disabled, not by user, caused by memory failures due to high device count. Had to reboot the switch to recover.	
Workaround: disable emulation	
Risk of Fix: Low	Probability: Low
Feature: FCIP	Function: Emulation
Reported In Release: FOS7.0.2	Service Request ID: 1190788

Defect ID: DEFECT000464090	Technical Severity: Medium
Summary: FC adapter does not log into 16GB switch in Access Gateway Mode.	
Symptom: FC adapter does not log into 16GB switch in Access Gateway Mode. WWPN seen during host reboot and eventually disappear.	
Risk of Fix: Low	Probability: Low
Feature: Access Gateway Services	Function: NPIV
Reported In Release: FOS7.0.0_pha	

Defect ID: DEFECT000464509	Technical Severity: Medium
Summary: Manpage update for defect DEFECT000450463: incorrect default value pointer for Edge hold time or EHT	
Symptom: Incorrect default value pointer for Edge hold time or EHT	
Risk of Fix: Medium	
Feature: Man Pages	Function: Edit/Correct
Reported In Release: FOS7.1.0	Service Request ID: 1148198

Closed defects with code change in Fabric OS v7.2.0

Defect ID: DEFECT000464853	Technical Severity: Medium
Summary: lfcfg --showall -xisl does not display header information for port 0 output	
Symptom: lfcfg --showall -xisl does not display "XISL Port No. : 0" in output. The "XISL Port No. :<num>" is displayed for all other ports.	
Risk of Fix: Low	
Feature: FOS Software	Function: Virtual Fabric
Reported In Release: FOS7.1.1	Service Request ID: 1191616

Defect ID: DEFECT000465169	Technical Severity: Medium
Summary: Link operating mode of a network interface can't be set up in "ifmodeset eth0" command	
Symptom: "ifmodeset eth0" displays usage without interactive action.	
Risk of Fix: Low	Probability: High
Feature: FOS Software	Function: Management Services
Reported In Release: FOS7.1.1	Service Request ID: 1194846

Defect ID: DEFECT000465798	Technical Severity: Medium
Summary: The status LED of the CP blade did not light up to amber color when user issued 'sysshutdown' on BR8510	
Symptom: The status LED of the CP blade on BR8510 did not light up to amber color after 'sysshutdown' was issued.	
Risk of Fix: Low	Probability: Medium
Feature: System Controls/EM	Function: DCX/DCX-4S
Reported In Release: FOS7.0.2	Service Request ID: 1190302

Closed without Code Change in Fabric OS v7.2.0

This section lists the defects with Critical, High and Medium Technical Severity closed without a code change as of July 26, 2013 in Fabric OS v7.2.0

Defect ID: DEFECT000412890	Technical Severity: Critical
Summary: Upgrade to FOS 7.0.1b may cause certain storage ports to quit passing data	
Symptom: Loss of access to storage array while performing a FOS upgrade to 7.0.1b.	
Workaround: Port persistent disable/enable on the problem port to recover.	
Reason Code: Already Fixed in Release	Probability: Medium
Feature: FOS Software	Function: Firmware Download
Reported In Release: FOS7.0.1	Service Request ID: 726935

Defect ID: DEFECT000409665	Technical Severity: High
Summary: DCX PCI slot access triggered CP hang/reboot	
Symptom: DCX failed over without any reason and no panic dumps or core files were created. The failover is followed by a EM-1051 (Inconsistency detected) for Slot 9.	
Reason Code: Can Not Fix	Probability: Medium
Feature: FOS Software	Function: Panic / OOM
Reported In Release: FOS7.0.0	Service Request ID: 750723

Defect ID: DEFECT000423746	Technical Severity: High
Summary: FX8-24 comes up FAULTY(76) after inserting a non supported FC4-32 blade in another slot and hafailover is issued.	
Symptom: FX8-24 comes up as FAULTY(76) after hafailover when an unsupported FC4-32 is also in the same chassis.	
Workaround: Remove unsupported blade from the chassis and slotpoweroff/on the faulted blade.	
Reason Code: Can Not Fix	Probability: Medium
Feature: Striker/Spike Platform Services	Function: Blade Driver
Reported In Release: FOS7.1.0	

Defect ID: DEFECT000432407	Technical Severity: High
Summary: F-Port trunk comes up as E-Port (unknown) following portdisable/enable when connected to FC HBA Brocade 1860-2 running v3.2	
Symptom: After an initial successful login, the Brocade 16G HBA running v3.2 is unable to login to a DCX FC8-48 blade a switch portdisable/enable on the two ports. In this case, if port 10/21 (HBA port 0) is enabled first, then it always works. If port 10/20 (HBA port 1) is enabled first, it always fails.	
Workaround: Disable both ports in the trunk. Then enable switch port connected to HBA port 0. Verify it comes online and logs in properly. Then enable the second port and verify the same.	
Reason Code: Not Applicable	Probability: Medium
Feature: 8G ASIC Driver	Function: ASIC Driver
Reported In Release: FOS7.1.0	

Defect ID: DEFECT000432662	Technical Severity: High
Summary: Firmware download downgrade on 8510-4 in non-VF mode is blocked with reason per user password policies are in effect	
Symptom: While trying to downgrade from 7.1.0 to 7.0.0c on 8510-4, the system reported that per user password policies were in place however, they did not appear to be set when showing them.	
Workaround: Reset the passwords to default and then downgrade.	
Reason Code: Not Reproducible	Probability: Medium
Feature: FOS Security	Function: Other
Reported In Release: FOS7.1.0	

Closed defects without code change in Fabric OS v7.2.0

Defect ID: DEFECT000437555	Technical Severity: High
Summary: Sfpshow CLI does not provide data	
Symptom: Sfpshow CLI will show "Not Available" on some fields, and "polling has not started" as listed below: Temperature : Not Available Current : Not Available Voltage : Not Available RX Power : Not Available TX Power : Not Available Last poll time : Polling has not started	
Workaround: sfpshow -f	
Reason Code: Already Fixed in Release	Probability: High
Feature: 16G Platform Services	Function: FOS Kernel Drivers
Reported In Release: FOS7.1.0	Service Request ID: ,1035679

Defect ID: DEFECT000441022	Technical Severity: High
Summary: 6510 getting First failure data capture (FFDC) maximum storage size (4 MB) was reached	
Symptom: "First failure data capture (FFDC) maximum storage size (4 MB) was reached" error will be repeatedly seen and the switch will fault and reboot.	
Reason Code: Already Fixed in Release	Probability: High
Feature: FOS-Infrastructure	Function: Other
Reported In Release: FOS7.1.0	

Defect ID: DEFECT000448479	Technical Severity: High
Summary: Cannot remove an ipv6 address programmed on the switch.	
Symptom: Unable to delete an ipv6 address programmed on a DCX using the ipaddrset command.	
Workaround: Use the ipaddrset --clear command.	
Reason Code: Not Applicable	Probability: Medium
Feature: OS Services	Function: IP Admin
Reported In Release: FOS7.1.0	

Defect ID: DEFECT000456236	Technical Severity: High
Summary: IO errors when Long distance ISL is changed from 4 Gb to 8 Gb	
Symptom: enc_out errors when Long distance ISL is changed from 4 Gb to 8 Gb	
Reason Code: Already Fixed in Release	Probability: Low
Feature: 8G ASIC Driver	Function: Other
Reported In Release: FOS6.4.2	Service Request ID: 1168959

Defect ID: DEFECT000460768	Technical Severity: High
Summary: Blade fault unnecessarily on rare parity errors.	
Symptom: Customer experienced frequent blade fault upon detecting transient self-correctable ASIC errors	
Reason Code: Already Fixed in Release	
Feature: FOS Software	Function: ASIC Driver
Reported In Release: FOS7.1.0	Service Request ID: 1184138

Closed defects without code change in Fabric OS v7.2.0

Defect ID: DEFECT000462978	Technical Severity: High
Summary: FS8-18 failure on an 8510 chassis	
Symptom: FS8-18 may fault with reason code 21 while coming up.	
Workaround: Reseat or powercycle the FS8-18 blade.	
Reason Code: Can Not Fix	Probability: Medium
Feature: Data Security	Function: Platform
Reported In Release: FOS7.1.0	

Defect ID: DEFECT000463914	Technical Severity: High
Summary: nodes fenced, unable to find data on encrypted LUNs	
Symptom: Corrupted LUNs causing nodes to be fenced.	
Reason Code: Not a Defect	Probability: High
Feature: Data Security	Function: Disk Encryption
Reported In Release: FOS7.1.0	

Defect ID: DEFECT000244193	Technical Severity: Medium
Summary: FRU status change trap with status off is not generated on inserting a fan, blade or WWN card but does get generated for a power supply insertion.	
Symptom: FRU status change is not correctly updated.	
Reason Code: Already Fixed in Release	Probability: Low
Feature: Mgmt Embedded - SNMP	Function: Other
Reported In Release: FOS6.2.0	

Defect ID: DEFECT000336430	Technical Severity: Medium
Summary: Web Tools display in Switch Admin shows trunking bandwidth of 32 Gbps when trunk is actually 16 Gbps as shown in CLI	
Symptom: Inaccurate Web Tools display for trunking bandwidth.	
Reason Code: Not a Defect	Probability: Medium
Feature: Mgmt Embedded - CAL	Function: Other
Reported In Release: FOS6.4.0	

Defect ID: DEFECT000370589	Technical Severity: Medium
Summary: Attempts to persistently enable persistently disabled ports through Brocade Network Advisor fail	
Symptom: Ports remain persistently disabled in the logical switches dialog	
Reason Code: Not Reproducible	Probability: Low
Feature: 16G Platform Services	Function: Other
Reported In Release: FOS7.0.0	

Defect ID: DEFECT000414198	Technical Severity: Medium
Summary: F port on core ag in cascaded configuration comes up as E-port (unknown) after configdownload	
Symptom: F port on core ag in cascaded configuration comes up as E-port (unknown)	
Workaround: Toggle the ports on which the issue is observed	
Reason Code: Not a Defect	Probability: Medium
Feature: Access Gateway Services	Function: Other
Reported In Release: FOS7.1.0	

Defect ID: DEFECT000420051	Technical Severity: Medium
Summary: On DCX with FC8-48 in slot 3, CRC with good EOF errors are seen.	
Symptom: CRC with good EOF observed on DCX with FC8-48 in slot 3 on ports 3/42 <-> 8/139	
Reason Code: Already Fixed in Release	Probability: Medium
Feature: FOS Software	Function: System Performance
Reported In Release: FOS6.4.3	Service Request ID: 1035482

Closed defects without code change in Fabric OS v7.2.0

Defect ID: DEFECT000424424	Technical Severity: Medium
Summary: Two devices over Routed VE/VEX fabric cannot establish logical paths	
Symptom: Observed that the translate domain over VE/VEX ports is not in fabricshow and some hosts cannot communicate to targets.	
Reason Code: Not Reproducible	Probability: Low
Feature: FOS Software	Function: Fabric Services
Reported In Release: FOS7.0.0	Service Request ID: 1096157

Defect ID: DEFECT000425749	Technical Severity: Medium
Summary: secd may panic at times of high CPU usage	
Symptom: secd may panic during times of high CPU usage such as firmwaredownload or securitiy scans.	
Reason Code: Not Reproducible	Probability: Low
Feature: FOS Security	Function: ACL
Reported In Release: FOS7.1.0	Service Request ID: ,1163022

Defect ID: DEFECT000428368	Technical Severity: Medium
Summary: turboramtest output is different depending on switch platform	
Symptom: Inconsistent output from turboramtest on BR8510 and BR6510	
Reason Code: Already Fixed in Release	Probability: Low
Feature: Diagnostics	Function: Other
Reported In Release: FOS7.0.2	Service Request ID: 1102971

Defect ID: DEFECT000429899	Technical Severity: Medium
Summary: In VF mode, Fabric Watch is not able to check the status of "State Change" area of LISL by fwconfigure/portthconfig	
Symptom: State change alarms from Fabric Watch when the LISL toggles exceed specified thresholds will not be received.	
Reason Code: Will Not Fix	Probability: Medium
Feature: FABRIC WATCH	Function: PORT FENCING
Reported In Release: FOS7.1.0	Service Request ID: 1035413

Defect ID: DEFECT000437482	Technical Severity: Medium
Summary: FC16-32 Port Blade may fault with reason code 51 when the DCX4S chassis is powered up.	
Symptom: FC16-32 by fault with reason code 51 when powering up in a DCX4S.	
Workaround: The following methods may help you get around the issue: <ul style="list-style-type: none"> a. Reseating the blade. b. Moving the blade to another slot. c. Disabling POST 	
Reason Code: Already Fixed in Release	Probability: Medium
Feature: Diagnostics	Function: Post Diags
Reported In Release: FOS7.1.0	

Defect ID: DEFECT000439055	Technical Severity: Medium
Summary: FX8-24 Transitions Faulty(51) on a reboot. Incompatible Blade processor FPGA version.	
Symptom: FX8-24 Transitions Faulty(51) on a reboot due to an incompatible Blade processor FPGA version. BL-1050 messages will be logged.	
Reason Code: Not Reproducible	Probability: Medium
Feature: Diagnostics	Function: Post Diags
Reported In Release: FOS7.1.0	

Closed defects without code change in Fabric OS v7.2.0

Defect ID: DEFECT000439119	Technical Severity: Medium
Summary: Misleading (DPort + DWDM) instructions to "enable the port" to remove DWDM upon proper firmwaredownload failure.	
Symptom: Firmwaredownload is properly blocked but the instructions of "Portcfgdport --disable" command does not rectify the situation.	
Reason Code: Already Fixed in Release	Probability: Medium
Feature: FIRMWARE DOWNLOAD	Function: FirmwareInstall
Reported In Release: FOS7.0.1	

Defect ID: DEFECT000439333	Technical Severity: Medium
Summary: A CEC POR causes IFCCs on other CECs	
Symptom: A CEC POR causes IFCCs on CHPIDs attached from another CEC.	
Reason Code: Not Reproducible	Probability: High
Feature: FICON	Function: MS-FICON
Reported In Release: FOS7.1.0	

Defect ID: DEFECT000445573	Technical Severity: Medium
Summary: DCX4S chassis has Fabric Watch daemon stopped, results in BNA displaying bubble icon forever.	
Symptom: BNA will persistently display the bubble icon.	
Reason Code: Not Reproducible	Probability: Medium
Feature: 8G Platform Services	Function: Other
Reported In Release: FOS7.1.0	

Defect ID: DEFECT000446956	Technical Severity: Medium
Summary: Port status is marginal with no reason	
Symptom: Port status is marginal without reason is seen when connected to DWDM configured for 300 Km of distance. Problem is not seen when distance is configured to 100 Km	
Reason Code: Will Not Fix	Probability: Medium
Feature: FABRIC WATCH	Function: CLI
Reported In Release: FOS7.1.0	

Defect ID: DEFECT000447192	Technical Severity: Medium
Summary: D-Port test between AG and the HBA is stuck and is in "IN PROGRESS" status.	
Symptom: D-Port test between AG and the HBA is stuck in the "IN PROGRESS" state. It passed the Electrical Loopback but it never started the Optical and the rest of test.	
Reason Code: Not Applicable	Probability: Low
Feature: Access Gateway Services	Function: Other
Reported In Release: FOS7.1.0	

Defect ID: DEFECT000448789	Technical Severity: Medium
Summary: CHPIDs went to invalid attach state after a power cycle of DCX	
Symptom: When 2Gb channels were inserted into 16Gb sfps and powercycled, non-2Gb channels which were plugged in may transition into an Invalid Attachment state.	
Reason Code: Not Reproducible	Probability: Medium
Feature: 16G ASIC Driver	Function: 16Bbps/10Gbps Port
Reported In Release: FOS7.1.0	

Closed defects without code change in Fabric OS v7.2.0

Defect ID: DEFECT000448985	Technical Severity: Medium
Summary: Removing AN license key does not remove QoS functionality until link is dropped, need message added to AN license remove and AN license add functionality	
Symptom: If customer removes (or adds) the Adaptive Networking License Key, QoS functionality will not be active until the link is dropped; there is no message indicating this functionality. This could leave the customer with a false sense that they still have or don't have QoS functionality. If the link is dropped unexpectedly this will be a cause for concern.	
Reason Code: Will Not Fix	Probability: Medium
Feature: License	Function: Other
Reported In Release: FOS7.1.0	