Brocade Fabric OS v6.3.1_dcb5 for DELL M8428-k

Release Notes v1.0

May 9, 2012

Document History

Document Title	Summary of Changes	Publication Date
Brocade Fabric OS v6.3.1_dcb5 for DELL M8428-k Release Notes v1.0	Initial release	May 9, 2012

Contents

Overview

Fabric OS v6.3.1_dcb5 is a platform specific release to support the DELL M8428-k 28-port Converged 10Gb Switch module designed for DELL M1000E series chassis. Other than exceptions noted in this document, this software release is functionally equivalent to Fabric OS v6.3.1 as it pertains to the Brocade 8000.

Warning:

1. Do not load the Fabric OS v6.3.1 or any other non-supported Fabric OS on DELL M8428-k
2. Do not remove the default software licenses.
3. Fabric OS v6.3.1_dcb5 is only supported on DELL M8428-k module. Do not load this on any other switch platform.

New in v6.3.1_dcb5

The track interface feature allows you to track one or more external ports on a switch. Only external physical interfaces and port-channel interfaces can be tracked. The command "track enable/disable" can be used to enable (or disable) tracking. For example:

1. Select the internal interface as the tracking monitor :
   ```
   switch(config)#interface intengigabitethernet 0/8
   ```

2. Enable tracking :
   ```
   switch(conf-if-int-0/8)#track enable
   ```

3. Select one or more external interfaces to be tracked :
   ```
   switch(conf-if-int-0/8)#track interface extengigabitethernet 0/15
   switch(conf-if-int-0/8)#track interface extengigabitethernet 0/16
   ```

DELL M8428-k

The DELL M8428-k module is a high speed 28-Port Converged 10GbE embedded Switch designed for use with DELL M1000E Series chassis.

Feature Descriptions

Note that the DELL M8428-k module is custom designed for High-speed fabrics B and C on DELL M1000E Chassis. Following are specific features as related to this module:

- 28 Port Converged Switch with four 8Gb native external FC ports and 24 10GbE ports, eight of which are for external connectivity.
- M8428-k module is in NPIV mode and can be switched to full fabric mode with fabric license already installed.
- Maximum Switch bandwidth of 272Gb in Full Duplex mode.
- Maximum ISL Trunk Bandwidth: 32Gb (64Gb in Full duplex) on FC ports
- Extremely low Frame latency providing fast FC frame and IP packet switching
- Built on Brocade DCX and 8000 platform Technologies

- Dual Function FC Ports supports native connectivity to Brocade fabrics as well as NPIV connectivity to legacy McData fabrics and third party fabrics like Cisco MDS fabrics.
- Utilizes Web Tools and BNA mgmt tools to simplify fabric and IP network setup and ongoing maintenance to increase operational efficiency and maximize return on investment
- KR support on Internal ports.
- Protects existing investments by providing 8 Gbit/sec technology with auto-sensing capabilities to also recognize 4 and 2 Gbit/sec devices to existing FC fabrics and 10GbE for connection to existing IP networks while providing enhanced enthernet capabilities. Note the 16 internal 10GbE ports support both 10 or 1GbE with autosensing to the blade server.
- Fibre Channel Services
    - Simple Name Server (SNS),
    - Registered State Change Notification (RSCN),
    - NTP, RADIUS, LDAP, Reliable Commit Service (RCS), and
    - Dynamic Path Selection (DPS)

- CEE Services:
    - Spanning Tree Protocol (STP, MSTP, RSTP),
    - VLAN Tagging (802.1q),
    - MAC address learning and aging;
    - native FCoE Bridging and switching;
    - IEEE 802.3ad Link Aggregation (LACP);
    - access control lists based on VLAN, source, destination address, and port;
    - eight priority levels for QoS and greater than 1024 VLANs supported.
    - Priority-based Flow Control (PFC);
    - Data Center Bridging eXchange (DCBX)-Capabilities Exchange;
    - Enhanced Transmission Selection (ETS)

- Management Software:
    - Brocade Network Advisor (BNA) Professional, BNA 75 days Trial, and BNA Production:
    - BNA uses HTTP/HTTPS and SNMP protocols to communicate with the Brocade 8000 to manage and monitor CEE features
    - Enhanced Group Management (EGM), license is already included
    - BNA enhancements support the following FCoE/CEE functionality:
    - Discovery, connectivity map, and product list
    - Configuration management

  - Performance management
  - Fault management
  - Security management
  - HTTP/HTTPS, Telnet; SNMP (FE MIB, FC Management MIB, and IF-MIB for CEE); Web Tools; SMI-S; RADIUS

- Management Protocols
  - Industry-common Command Line Interface (CLI)
  - Security Shell (SSH) v2
  - Authentication, Authorization, and Accounting (AAA)
  - Simple Network Management Protocol (SNMP) v1, and v3
  - Unified username and passwords across CLI and SNMP
  - Syslog
  - Microsoft Challenge Handshake Authentication Protocol (CHAP)
  - Remote Monitoring (RMON)
  - Per-port ingress and egress counters
  - Role-Based Access Control (RBAC)
  - Power-On Self-Test (POST)
  - Comprehensive bootup diagnostics

Optionally Licensed Fabric Services

Optionally licensed features supported for FC ports include:

- Brocade ISL Trunking — Provides the ability to aggregate multiple physical links into one logical link for enhanced network performance and fault tolerance.
- Brocade Advanced Performance Monitoring — Enables performance monitoring of networked storage resources. This license includes the TopTalkers feature.
- Brocade Fabric Watch — Monitors mission-critical switch operations. Fabric Watch includes Port Fencing capabilities.
- Brocade Extended Fabrics — Provides fabric connectivity over long distances.

Universal Temporary License Support

The above licenses are also available as Universal Temporary licenses, meaning the same license key can be installed on multiple switches. 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.

Summary of New Software Features

All software features of FOS v6.3.1 release that are supported on the Brocade 8000 platform are also supported on DELL M8428-k module except where noted in this document. In addition, the FOS v6.3.1_dcb5 release supports the following features on the DELL M8428-k module:

- Clause 73 10G/1G Autonegotiation
- Clause 73 KR auto tuning
- Layer 3 Static Routes
- IGMP Snooping

New Feature Descriptions

- The sixteen server blade ports on DELL M8428-k (ports 1-16) have autosensing to allow either 1 or 10GbE operation. In addition these ports also support KR auto tuning.
- Static route feature provides ability to configure IP routes statically there by enabling IP routing functionality.
- IGMP Snooping provides a mechanism by which the DELL M8428-k can learn forwarding states on (STP unblocked) ports of a VLAN on which multicast data and control packets need to be forwarded.

Supported Mezzanine Cards

Brocade 2-Port 10GbE Converged Network Adapter Intel Dual-Port Niantic SIKKR Broadcom Quad Dual-Port 57712 LOM Dual-Port P3+ LOM QLogic Dual-Port CNA P3+	BR1741M-k

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 DELL M8428-k conforms 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 M8428-k:

- IEEE 802.1Qbb Priority-based Flow Control
- IEEE 802.1Qaz Enhanced Transmission Selection
- IEEE 802.1 DCB Capability Exchange Protocol (Proposed under the DCB Task Group of IEEE 802.1 Working Group)
- FC-BB-5 FCoE (Rev 2.0)

Technical Support

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

1. General Information
   - Technical Support contract number, if applicable
   - Switch model
   - Switch operating system version
   - Error numbers and messages received
   - **supportSave** command output
   - Detailed description of the problem, including the switch or fabric behavior immediately following the problem, and specific questions
   - Description of any troubleshooting steps already performed and the results
   - Serial console and Telnet session logs
   - Syslog message logs
2. Switch Serial Number

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

   

   The serial number label is located on the bottom of the module.
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.

   License Identifier (License ID)

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

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

Compatibility

DELL/Broade BNA Compatibility

Note that DELL M8428-k is compatible with Brocade's BNA 11.0 management software.

WebTools Compatibility

DELL M8428-k with FOS v6.3.1_dcb5 is supported with JRE 1.6.0 Update 16.

SMI Compatibility

- DELL M8428-k with FOS v6.3.1_dcb5 is supported with SMI-S agent 120.11.0.
- DELL M8428-k with FOS v6.3.1_dcb5 is supported with SMI-S Agent integrated with BNA 11.0

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. Please note that this interop matrix is relevant for the Native FC ports on DELL M8428-k products.

For a list of the effective end-of-life dates for all versions of Fabric OS, visit the following Brocade Web site:

http://www.brocade.com/support/end_of_life.jsp

Supported Products and FOS Interoperability	
Brocade 2000-series switches	Not supported, end of support (December 2007)
Brocade 3200, 3800	Not supported
Brocade 3000	Not supported
Silkworm 3250, 3850 and Brocade 3900, 4100, 4424, 4900, 24000, 7500, 7500E, 5000, 200E, 48000	v5.3.2c (2G and 4G platforms) v6.2.0g for 200E and v6.3.0 and later [2] (4G platforms only)
Silkworm 12000	v5.0.x [3] [4]
Brocade M5424	V6.3.1 and later
Brocade 8000	v6.3.1 or later
Brocade 7800, DCX and DCX-4S with FCOE10-24 or FX8-24 blades	v6.3 and later

Brocade DCX and DCX-4S with FC8-64 blade	v6.4
Brocade DCX, 300, 5100, 5300	v6.3.0 and later [2]
VA-40FC	v6.3.1, and v6.4.0 and later
Brocade DCX-4S	v6.3.0 and later
Brocade DCX with FS8-18 blade(s), Brocade Encryption Switch	Not Supported
Brocade DCX/DCX-4S/48000 with FA4-18 blade(s), Brocade 7600	v5.2.x or later (DCX requires v6.0.x or later, DCX-4S requires 6.2.x or later)
Mi10k, M6140, ED-6064, ES-3232, ES-4300, ES-4400, ES-4500, ES-4700 (McDATA Fabric Mode and Open Fabric Mode) [2] [4]	M-EOS v9.9.8 or later [1]
McDATA ED-5000 32-port FC director	Not Supported
Multi-Protocol Router Interop	
Brocade 7500 and FR4-18i blade	v5.1.0 and higher [5]
McDATA SANRouters 1620 and 2640	Not Supported

Table Notes:

[1] It is highly recommended that M-EOS products operate with the most recent version of M-EOS released and supported for interoperability. M-EOS 9.7.2 is the minimum version of firmware that is supported to interoperate with FOS 6.4. For support of frame redirection in McDATA Fabric Mode (interopmode 2), M-series products must use M-EOS v9.8 or later. For support of frame redirection in McDATA Open Fabric Mode (interopmode 3), M-series products must use M-EOS v9.9 or later. Only the ES-4400, ES-4700, M6140, and Mi10k may have devices directly attached that are having data encrypted or unencrypted.

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

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

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

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

Standard MIBS:

Please refer to the Dell Fabric OS MIB Reference Manual for FOS v6.3.1_dcb (53-1002117-01) for a list of supported MIBs.

Firmware Upgrades and Downgrades

Switches running v6.3.1_dcb or v6.3.1_del can be upgraded to this build.

Other Important Notes and Recommendations

Configuration Notes:

1) Sometimes fcoeport may not login on the switch shipped out of factory; please follow the following procedure from the cmsh to bring the fcoeport online. This needs to be done only for the first time switch is brought up.
    - no fcoeport
    - fcoeport
    - shut
    - no shut

2) DELL M8428-k supports 128 sflow samples per second for IP connections. To avoid dropped samples ensure that the aggregated sflow samples do not exceed this value.

Documentation Updates

For Fabric OS v6.3.1_dcb5 documentation refer to Fabric OS v6.3.1 documentation. When using the FOS v6.3.1 documentation, the DELL M8428-k Switch Module is equivalent to the BROCADE 8000 except where noted in this section. The most recent Fabric OS v6.3.1 documentation manuals are available on MyBrocade: *http://my.brocade.com/*

The following three documents are intended specifically for DELL M8428-k:

1) Dell Converged Enhanced Ethernet Command Reference for FOS v6.3.1_dcb (*53-1002115-01*)
2) Dell Converged Enhanced Ethernet Administrator's Guide for FOS v6.3.1_dcb (*53-1002116-01*)
3) Dell Fabric OS MIB Reference Manual for FOS v6.3.1_dcb (*53-1002117-01)*

The above documents supersede the FOS standard documentation.

In addition,please note the following updates to the standard FOS v6.3.1 documentation.

Brocade Fabric OS Administrator's Guide (Publication Number 53-1001336-02)

On Table 90 – Buffer Credits

Add the Brocade M8428-k model with the following table information

Switch/blade model	Total FC Ports (per switch blade)	User Port Group Size	Unreserved Buffers (per port group)
M8428-k	4	4	580

On Table 91 – Supported Distances

Add the Brocade 8428-k model with the following table information

Switch/blade model	2 Gbps	4 Gbps	8 Gbps
M8428-k	582	291	145

Brocade Access Gateway Administrator's Guide (Publication Number 53-1001345-01)

On Table 5 – Access Gateway default F-port to N-port mapping (page 53)

Brocade Model	Total Ports	GE-ports	N-ports	Default GE_ to N_Port Mapping
M8428-k	28	1-24	0,25,26,27	1, 2, 3, 4, 17, 18 mapped to 25 5, 6, 7, 8, 19, 20 mapped to 26 9, 10, 11, 12, 21, 22 mapped to 27 13, 14, 15, 16, 23, 24 mapped to 0

The Failover and Failback are enabled by default on all N_ports. The PG policy is enabled by default. The APC and ADS policies are disabled by default.

Defects

Defects Closed with Code Change in Fabric OS v6.3.1_dcb5

This section lists defects with Critical, High and Medium Technical Severity closed in Fabric OS v6.3.1_dcb5.

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

Defect ID: DEFECT000282759	**Technical Severity:** Medium
Summary: Switches in Access Gateway (AG) mode are not handling multi-sequence frames properly. This causes memory corruption and switch panic.	
Symptom: One or more switches in AG mode in the same fabric have an agdd panic occur. RASLOG error messages such as "[KSWD-1002], 1285, FFDC | CHASSIS, WARNING, Brocade300, Detected termination of process agd0:1793" are seen and then debug information is dumped.	
Probability: Low	
Feature: FOS Software	**Function:** Access Gateway
Reported In Release: FOS6.3.0	**Service Request ID:** 419851

Defect ID: DEFECT000343097	**Technical Severity:** Medium
Summary: Allow Multiple Fabric Name Monitoring (MFNM) to be disabled on CEE switches when operating in AG mode.	
Symptom: Currently, MFMN is hard-enabled on Brocade CEE AG, and cannot be disabled by the customer. This results in warning messages being generated every few minutes if the Brocade 8000 is connected to multiple fabrics.	
Probability: Medium	
Feature: Access Gateway Services	**Function:** Daemon
Reported In Release: FOS6.4.0	

Defect ID: DEFECT000356468	**Technical Severity:** High
Summary: Access Gateway does not clean up frame exchange properly if FLOGI/FDISC comes in from different ports together with the same exchange ID (OX-ID).	
Symptom: 3rd party applications report migration failures between servers.	
Probability: Low	
Feature: FOS Software	**Function:** Access Gateway
Reported In Release: FOS6.3.2	**Service Request ID:** 629273

Defect ID: DEFECT000387572	**Technical Severity:** Medium
Summary: Persistence of "switchport" on port-channel is not working	
Symptom: After a code upgrade with a large configuration file, where port-channel and interface configurations are back-to-back, information such as MTU, etc. is lost. Port-channel needs to be reconfigured.	
Feature: FOS	**Function:** KERNEL
Reported In Release: FOS6.3.1_dcb	

Defect ID: DEFECT000389661	**Technical Severity:** Medium
Summary: VeriSign Code Signing Certificate update for WebTools	
Symptom: WebTools will be considered as an UN-trusted application to the user. After the code fix, when WebTools is launched for the first time with the updated certificate, a warning dialog will be displayed. You can verify the certificate details (Issuer/Validity/Subject) by clicking “More information” in the dialog. After selecting the checkbox “Always trust content… ”, and clicking the Run button, the warning message will not display in further logins since it is now consider as a trusted application.	
Probability: High	
Feature: WebMgmt	**Function:** Login / Session Management
Reported In Release: FOS7.0.1	

Defect ID: DEFECT000390285	**Technical Severity:** Medium
Summary: The ceeportloopbacktest fails when running in 1G mode.	
Symptom: The BR4870 systemverification fails in 1G mode.	
Feature: Diagnostics	**Function:** Other
Reported In Release: FOS6.3.1_dcb	

Defect ID: DEFECT000393888	**Technical Severity:** High
Summary: The NSMD daemon panics due to the display of invalid data on the interface poll.	
Symptom: The NSMD panics, followed by a switch reboot if more than one application is polling data at the same time.	
Feature: FOS Software	**Function:** FCoE
Reported In Release: FOS6.3.1_dcb	

Defect ID: DEFECT000393891	**Technical Severity:** Medium
Summary: Embedded switches lose IP connectivity	
Symptom: Switch is auto-negotiated to half-duplex while remote is set at 100M Full Duplex. Ethernet interface reports timeout on console and overrun error in stats, User can no longer connect to IP management interface.	
Workaround: In order to recover transmit, use the ifconfig eth0 down/up CLI commands. Then use the ipaddrest command to change the gateway to another address (does not have to be an actual address) and change it back to the actual gateway with the command. This will force a reload of the default route.	
Probability: Medium	
Feature: FOS Software	**Function:** FCoE
Reported In Release: FOS6.3.1_del	**Service Request ID:** 705205

Defect ID: DEFECT000394214	**Technical Severity:** Medium
Summary: cmsh core after user cntl^C repeatedly when daemon busy.	
Symptom: customer will see core of cmsh process, this is non-disruptive.	
Feature: FOS Software	**Function:** FCoE
Reported In Release: FOS6.3.1_dcb	

Defect ID: DEFECT000396293	**Technical Severity:** Medium
Summary: The “sh proc cpu sum” command output (from cmsh) shows the incorrect CPU utility.	
Symptom: The “show process cpu summary” command output does not match the current CPU utilization or load.	
Feature: FOS Software	**Function:** FCoE
Reported In Release: FOS6.3.1_dcb	

Defect ID: DEFECT000397647	**Technical Severity:** Medium
Summary: The Fabric OS version is not correct from the cmsh prompt, however, the firmware version is correct.	
Symptom: The cmsh show version displays the Fabric OS release as 6.3.1_del	
Feature: FOS	**Function:** Platform
Reported In Release: FOS6.3.1_dcb	

Defect ID: DEFECT000399885	**Technical Severity:** Medium
Summary: There is a v7.0.1 8000 CEE weblinker file descriptor leak when monitored by BNA.	
Symptom: Customer will experience asserts and weblinker terminations and restarts. This is non-disruptive to customer traffic.	
Probability: High	
Feature: FOS Software	**Function:** FCoE
Reported In Release: FOS7.0.1	**Service Request ID:** 719205

Defects Closed with Code Change in Fabric OS v6.3.1_dcb4

This section lists defects with Critical, High and Medium Technical Severity closed in Fabric OS v6.3.1_dcb4.

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

Defect ID: DEFECT000378064	**Technical Severity:** Critical
Summary: Switch intermittently rebooting with cald being killed.	
Symptom: Switch intermittently reboot when management application query for fcoe map etc.	
Probability: High	
Feature: FOS Software	**Function:** FCoE
Reported In Release: FOS6.3.1_cee	**Service Request ID:** 688761

Defect ID: DEFECT000385606	**Technical Severity:** Critical
Summary: Switch may panic with error glibc detected *** double free or corruption followed by termination of cald0, nsmd	
Feature: FOS Software	**Function:** FCoE
Reported In Release: FOS6.3.1_dcb	

Defect ID: DEFECT000387082	**Technical Severity:** Medium
Summary: BR8470: Added FPGA version 17 to the build	
Feature: FOS	**Function:** Embedded
Reported In Release: FOS6.3.1_dcb	

Defect ID: DEFECT000387737	**Technical Severity:** High
Summary: B8470: Switch became faulty when execute POST2	
Feature: Diagnostics	**Function:** Post Diags
Reported In Release: FOS6.3.1_dcb	

Defects fixed and closed in v6.3.1_dcb3

This section lists defects fixed and closed Fabric OS v6.3.1_dcb3.

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

Defect ID: DEFECT000372130	**Technical Severity:** Medium
Summary: M8428k: IOM Transparency – Asset change rings doorbell prior to XML being updated.	
Symptom: Asset change may not be reflected.	
Probability: High	
Feature: UNDETERMINED	**Function:** UNDER REVIEW
Reported In Release: FOS6.3.1_dcb1	

Defects fixed and closed in v6.3.1_dcb2

This section lists defects fixed and closed Fabric OS v6.3.1_dcb2.

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

Defect ID: DEFECT000364055	**Technical Severity:** High
Summary: Switch panics when it's attached to a Juniper EX4500 switch.	
Symptom: switch panics when it's attached to a Juniper EX4500 switch with the following: *** glibc detectDetected termination of onmd:1604 (1) ed *** free(): iexit code:134, exit sig:17, parent sig:0 nvalid next size (normal): 0x10137980 *** .	
Probability: High	
Feature: Field Escalation	**Function:** FCoE
Reported In Release: FOS6.3.1_cee	

Defect ID: DEFECT000354157	**Technical Severity:** Medium
Summary: Brocade FCOE LACP PDU length is non-standard .	
Symptom: Nonstandard size LACP PDUs being discarded at the remote end and Brocade switch could not form a dynamic LAG with a 3rd party switch.	
Probability: Low	
Feature: CEE-LAYER2	**Function:** LACP
Reported In Release: FOS6.3.1_dcb	

Defects fixed and closed in v6.3.1_dcb1

This section lists defects fixed and closed Fabric OS v6.3.1_dcb1.

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

Defect ID: DEFECT000318480	**Technical Severity:** Medium
Summary: IPv6 enhancement: disable IPv6 interface when duplicate addresses are detected.	
Symptom: Disable IPv6 interface when duplicate address is detected.	
Probability: Low	
Feature: OS Services	**Function:** IPV6
Reported In Release: FOS6.3.1	

Defect ID: DEFECT000326502	**Technical Severity:** Medium
Summary: Not able to commit more than 28 rules to the Classifier simultaneously.	
Symptom: Customer will not able to commit more than 28 rules to the Classifier simultaneously.	
Workaround: when more than 28, rules may be applied in multiple iterations	
Probability: High	
Feature: CEE-MANAGEABILITY	**Function:** CAL INTERFACE
Reported In Release: FOS6.3.1_cee	

Defect ID: DEFECT000330570	**Technical Severity:** Medium
Summary: M8428-K: with multiple vlan classifier groups assigned to a single interface, removing one vlan classifier group from the interface will cause that interface to be removed from the assigned vlan which belong to a different vlan classifier group currently	
Symptom: M8428-K: with multiple vlan classifier groups assigned to a single interface, removing one vlan classifier group from the interface will cause that interface to be removed from the assigned vlan which belong to a different vlan classifier group currently still active on that interface.	
Probability: Medium	
Feature: CEE-LAYER2	**Function:** VLAN
Reported In Release: FOS6.3.1_dcb	

Defect ID: DEFECT000333441	**Technical Severity:** Medium
Summary: M8428k: 10G Broadcom LOM configured at 1G fixed speed failed to come online after server reboot	
Symptom: 10G Broadcom LOM configured at 1G fixed speed failed to come online after server reboot	
Probability: Low	
Feature: FOS	**Function:** Platform
Reported In Release: FOS6.3.1_dcb	

Defect ID: DEFECT000337192	**Technical Severity:** Medium
Summary: M8428k: switch reboot shows hsi_error in errdumpall	
Symptom: hsi_error may be seen in the errdumpall output.	
Probability: Medium	
Feature: CEE-Infrastructure	**Function:** eAnvil Driver
Reported In Release: FOS6.3.1_dcb	

Defect ID: DEFECT000337329	**Technical Severity:** Medium
Summary: M8428k: renegotiation to 1G instead of 10G when loading the Windows driver for Broadcom LOM or doing PXE boot	
Symptom: AN to 1G after server reboot.	
Probability: Low	
Feature: CEE-PLATFORM	**Function:** ENET SWITCH DRIVER
Reported In Release: FOS6.3.1_dcb	

Defect ID: DEFECT000337353	**Technical Severity:** Medium
Summary: M8428k: CMC serial interface occasionally fails to log in	
Symptom: No login via serial console	
Feature: CEE-PLATFORM	**Function:** SYSTEM CONTROL
Reported In Release: FOS6.3.1_dcb	

Defect ID: DEFECT000349307	**Technical Severity:** Medium
Summary: M8428k: CMC can't access the internal VLAN interface	
Symptom: CMC can't access the VLAN interface on the management port of the switch.	
Probability: Medium	
Feature: CEE-PLATFORM	**Function:** SYSTEM CONTROL
Reported In Release: FOS6.3.1_dcb	

Defect ID: DEFECT000352679	**Technical Severity:** Medium
Summary: Update Transparent IOM Behavior	
Symptom: Strip out any blanks from the XML response and respond even if request is received prior to fabric merge	
Probability: High	
Feature: FOS	**Function:** Embedded
Reported In Release: FOS6.3.1_dcb	

Defect ID: DEFECT000354181	**Technical Severity:** Medium
Summary: Interop with M8428-k has 1G link speed when NC-SI is enabled & driver toggled	
Symptom: Interop with M8428-k has 1G link speed when NC-SI is enabled & driver toggled on broadcom	
Probability: Low	
Feature: CEE-BLADE CENTER	**Function:** 10G Autonegotiation
Reported In Release: FOS6.3.1_del	

Defect ID: DEFECT000354585	**Technical Severity:** Medium
Summary: M8428k with revb eanvil sometimes negotiate to 1G instead of 10G with Qlogic mezz	
Symptom: May negotiate to 1G instead of 10G with Qlogic mezz.	
Probability: Low	
Feature: FOS	**Function:** ASICs
Reported In Release: FOS6.3.1_dcb	

Defect ID: DEFECT000359532	**Technical Severity:** Medium
Summary: Centaur: IOM transparency HDL should be supported	
Symptom: IOM transparency HDL should be supported	
Probability: High	
Feature: FOS	**Function:** Embedded
Reported In Release: FOS6.3.1_dcb	

Defect ID: DEFECT000360913	**Technical Severity:** Medium
Summary: supportsave did not capture regdump	
Symptom: missing supportsave information	
Probability: High	
Feature: FOS	**Function:** Platform
Reported In Release: FOS6.3.1_dcb	

Defect ID: DEFECT000360948	**Technical Severity:** Medium
Summary: CLI "enclosureshow modelid" has mispell word "serail" in the output	
Symptom: CLI "enclosureshow modelid" has mispell word "serail" in the output	
Probability: Medium	
Feature: FOS	**Function:** Platform
Reported In Release: FOS6.3.1_dcb	

Open Defects in Fabric OS v6.3.1_dcb

This section lists defects with Critical, High and Medium Technical Severity open in Fabric OS v6.3.1_dcb.

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

Defect ID: DEFECT000327358	**Technical Severity:** Medium
Summary: Qlogic 10G Mezz & LOM failed to come online after speed negotiation changed from AN to 1G fixed and back to AN	
Symptom: Port fails to come online	
Workaround: Reboot the Server.	
Feature: FOS	**Function:** Platform
Reported In Release: FOS6.3.1_dcb	**Probability:** Low

Defect ID: DEFECT000333441	**Technical Severity:** Medium
Summary: 10G Broadcom LOM configured at 1G fixed speed failed to come online after server reboot .	
Symptom: Port fails to come online when port is configured at 1G fixed	
Workaround: Reboot the server	
Feature: FOS	**Function:** Platform
Reported In Release: FOS6.3.1_dcb	**Probability:** Low

Defect ID: DEFECT000333563	**Technical Severity:** Medium
Summary: Broadcom 10G LOM: frame discards may be observed on Windows 2008 Enterprise 64-bit when both FCoE traffic and Ethernet traffic is pumped on an interface and FCoE target is not able to keep up.	
Symptom: Port statistics may show some discarded frames	
Feature: CEE-LAYER2	**Function:** L2 SUBSYSTEM
Reported In Release: FOS6.3.1_dcb	**Probability:** Medium

Open Defects from Fabric OS v6.3.1_del

This section lists defects with Critical, High and Medium Technical Severity open from Fabric OS v6.3.1_del that are still open in Fabric OS v6.3.1_dcb.

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

Defect ID: DEFECT000317081	**Technical Severity:** High
Summary: With specific L3 forwarding configuration, switch may end up sending chassis MAC instead of interface MAC causing traffic drop	
Symptom: traffic drop if IP forwarding is configured.	
Workaround: Program the static MAC address of the receiving port at the source MAC (forces the switch to use correct MAC address for forwarding)	
Feature: CEE-LAYER3	**Function:** L3 SUBSYSTEM
Reported In Release: FOS6.3.1_del	**Probability:** High

Defect ID: DEFECT000317574	**Technical Severity:** Medium
Summary: Webtool, Port Administration-->CEE Interface, Ports in a LAG may be shown as LAG negotiating failed although LAG was formed successfully.	
Symptom: Ports in a LAG may be shown as LAG negotiating failed on web gui although LAG was formed successfully	
Workaround: CLI may be used.	
Feature: CEE-Protocol	**Function:** NSM
Reported In Release: FOS6.3.1_del	**Probability:** Medium

Defect ID: DEFECT000318097	**Technical Severity:** Medium
Summary: The Internal CEE port speed is set as Auto N10, but the webtools display the CEE port speed is set as fixed 10G	
Symptom: Internal Port is displayed as 10G Fixed on the GUI	
Workaround: Use CLI "show interface in <port>"	
Feature: CEE-Protocol	**Function:** NSM
Reported In Release: FOS6.3.1_del	**Probability:** High

Defect ID: DEFECT000309787	**Technical Severity:** Medium
Summary: Under extremely rare conditions, launching Webtools may show "Exception in thread "AWT-EventQueue-0" java.lang.NullPointerException" on Java Console	
Symptom: Unresponsive webtools for some period of time (few seconds).	
Feature: WebMgmt	**Function:** Switch Explorer/Switch View
Reported In Release: FOS6.3.1_del	**Probability:** Medium

Defect ID: DEFECT000311050	**Technical Severity:** Medium
Summary: Pref port failback happens as expected but with may print under certain conditions incorrect RAS log messages on the console showing that the configured and preferred port for a F_Port are the same	
Symptom: Incorrect port number in the RASLOG message	
Feature: FCoE-AG	**Function:** FCoE AG
Reported In Release: FOS6.3.1_del	**Probability:** High

Defect ID: DEFECT000312411	**Technical Severity:** Medium
Summary: Command "show spanning -tree protocol" may showup as "(Peer_STP)P2P" instead of P2P for the peer that has deleted spanning tree protocol after following specific set of steps.	
Symptom: Command "show spanning -tree protocol" may showup as "(Peer_STP)P2P" instead of P2P	
Feature: CEE-LAYER2	**Function:** STP
Reported In Release: FOS6.3.1_del	**Probability:** High

Defect ID: DEFECT000313668	**Technical Severity:** Medium
Summary: RFE: Disabling port mirroring on FC ports should prompt for user comfirmation similar to when enabling.	
Symptom: Disabling port mirroring on FC ports does not prompt user for confirmation.	
Feature: FOS	**Function:** Platform
Reported In Release: FOS6.3.1_del	**Probability:** Medium

Defect ID: DEFECT000313901	**Technical Severity:** Medium
Summary: cmsh speed command should display error message when entered invalid speed 1, 10, 100 for internal ports	
Symptom: No error message	
Feature: CEE-Protocol	**Function:** NSM
Reported In Release: FOS6.3.1_del	**Probability:** Medium

Defect ID: DEFECT000313979	**Technical Severity:** Medium
Summary: select TE port in Port Administration window may under very rare conditions cause "IOException : Server is not available"	
Symptom: Webtools not responsive for some period of time	
Workaround: Select different port and then reselect the same port.	
Feature: CEE-MANAGEABILITY	**Function:** WEBMGMT
Reported In Release: FOS6.3.1_del	**Probability:** Low

Defect ID: DEFECT000314429	**Technical Severity:** Medium
Summary: From webtool, there is no option to change LAG type from static to dynamic while CLI offer that option	
Symptom: No option to change LAG type from static to dynamic from GUI	
Workaround: From CLI, LAG can be changed from static to dynamic or vice versa	
Feature: WebMgmt	**Function:** Ports Admin
Reported In Release: FOS6.3.1_del	**Probability:** High

Defect ID: DEFECT000314627	**Technical Severity:** Medium
Summary: Webtools: If more than one external port is configured in the port association dialog, "operational failed track interface configuration fails" error message is thrown.	
Symptom: Not able to batch configure multiple external ports in the port association dialog.	
Workaround: configure one port at a time from port association dialog box.	
Feature: CEE-MANAGEABILITY	**Function:** CAL INTERFACE
Reported In Release: FOS6.3.1_del	**Probability:** High

Defect ID: DEFECT000314642	**Technical Severity:** Medium
Summary: CLI accepts all invalid characters for login group name	
Symptom: customer may configure login group name with invalid characters.	
Feature: CEE-FCOE	**Function:** FCOE Daemon
Reported In Release: FOS6.3.1_del	**Probability:** High

Defect ID: DEFECT000316041	**Technical Severity:** Medium
Summary: incorrect console log indicating Port-channel is created during the deletion process of the port-channel performed by cli "no interface port-channel"	
Symptom: may see an incorrect console log indicating Port-channel is created during the deletion process of the port-channel performed by cli "no interface port-channel"	
Feature: CEE-LAYER2	**Function:** LAG/TRUNKING
Reported In Release: FOS6.3.1_del	**Probability:** Medium

Defect ID: DEFECT000319441	**Technical Severity:** Medium
Summary: M8428k-Centaur: QOS rcv-queue on interface display incorrect cos# for incoming frames with Cos#0 and Cos#1	
Symptom: M8428k-Centaur: QOS rcv-queue on interface display incorrect cos# for incoming frames with Cos#0 and Cos#1 when using "sh qos rcv-queue int".	
Workaround: Use "sh qos queue int" command instead.	
Feature: CEE-LAYER2	**Function:** L2 SUBSYSTEM
Reported In Release: FOS6.3.1_del	**Probability:** High

Defect ID: DEFECT000320066	**Technical Severity:** Medium
Summary: Configdownload would not restore Port Mirroring configuration in native mode.	
Symptom: Port Mirroring configuration would not be restored after configdownload	
Workaround: Reconfigure port mirroring configuration.	
Feature: FOS	**Function:** Embedded
Reported In Release: FOS6.3.1_del	**Probability:** High

Defect ID: DEFECT000322609	**Technical Severity:** Medium
Summary: authFailWhileAuthenticating counter in the dot1x diagnostics would not update when the switch failed to Authenticate.	
Symptom: authFailWhileAuthenticating counter in the dot1x diagnostics not updated appropriately.	
Feature: CEE-802.1X-SECURITY	**Function:** AUTHD
Reported In Release: FOS6.3.1_del	**Probability:** High