Brocade Fabric OS v3.1.0

Release Notes

May 2, 2003

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Overview

Fabric OS v3.1.0

Brocade is pleased to deliver the generally available ("GA") version of Fabric OS v3.1.0. As no urgent issues were detected during the regression testing on Fabric OS v3.1.0_RC2, this GA release is identical to v3.1.0_RC2, but with the GA label. Brocade thanks its OEM partners for their assistance during the Fabric OS v3.1.0 Beta and Qualification cycles, and for their assistance in maximizing the quality of the product.

Release Contents Summary

Brocade Fabric OS v3.1.0 provides the following enhancements and new features in addition to Fabric OS v3.0.2x.

- Secure Fabric OS: The Secure SAN 1 feature set
    - Centralized, Policy-based SAN management
    - Management Access Controls
    - Switch and Device Connection Controls
    - Switch authentication based on Digital Certificates
- Enhanced Manageability
    - Port naming
    - New WebTools switch explorer GUI
    - Fabric Watch security and health monitoring
    - API support
    - FDMI (Fabric Device Management Interface)
- External Time Server Synchronization

For more details of these features, please refer to the user manuals.

Information About Secure Fabric OS

Brocade's Secure Fabric OS® is a comprehensive security product that requires some planning and specific steps to set up and configure. For this purpose, the following document should be reviewed as a minimum of preparation prior to getting started:

- *Secure Fabric OS Quick Start Guide*

More detailed product information may be obtained from the *Secure Fabric OS Users Guide*.

Important Notes

OS Requirements

The following table summarizes the versions of Brocade firmware and software that are supported in conjunction with this release:

	SW 2xxx	SW 3200 & 3800	SW 3900 & 12000	Fabric Manager
General compatibility	2.6.0c or later	3.0.2c or later	4.0.0c or later	3.0.2c or later
With Secure Fabric OS enabled	2.6.1 or later	3.1.0 or later	4.1.0 or later	3.0.2c or later
Recommended adjacent to SW 3900s running 4.1.0 or later	2.6.1 or later	3.1.0 or later	4.1.0 or later	3.0.2c or later

SilkWorm 2xxx Scalability Limits

Exhaustive testing has demonstrated that SilkWorm 2000 family switches should not be deployed in fabrics whose size exceeds 500 user ports (device ports). Such switches will not be supported in fabrics that exceed this size, regardless of Fabric OS version.

Maximizing Fabric Availability during SW 3900 Hot Code Activation

During code activation on a SilkWorm 3900 running Fabric OS 4.1.0 or later, data keeps flowing between hosts and storage devices. However, fabric services are unavailable for a period of approximately 50-55 seconds. Possible disruption of the fabric can be minimized by ensuring that switches logically adjacent to the SW 3900 (directly connected via an ISL) are running Fabric OS 2.6.1 or later, 3.1.0 or later, or 4.1.0 or later. More information is available in the Firmware Download section of the Fabric OS Procedures manual.

Microsoft Internet Explorer Issue

An issue has been identified with Microsoft Internet Explorer 5.0 and 5.5 running on Windows NT 4.0. The problem is as follows. Normally, when you launch a copy of the Switch Explorer applet, the left hand panel displays a tree of switches in your fabric. Clicking on a tree node will cause the right hand panels to refresh to the currently selected switch. However, under NT/4.0 and IE 5.0/5.5, the right hand panel will NOT update for the 2nd and subsequent instance of the Switch Explorer. Only the first instance works.

This issue has been identified and confirmed by Microsoft. For details, see the URL
http://support.microsoft.com/default.aspx?scid=KB;en-us;242167&.

Workaround: There are 2 workarounds for this:
1. Always use a single instance of the SwitchExplorer on NT/4.0 and IE 5.0/5.5
2. Install IE 6.0 SP1

Alternatively, it is possible that you can obtain a workaround directly from Microsoft for this problem. Please contact Microsoft support and supply them the information in the defect as described in the URL
http://support.microsoft.com/default.aspx?scid=KB;en-us;242167&.

Other Important Notes:

This table lists important information you should be aware of regarding Fabric OS v3.1.0

Area	Description
LTO 2 Tape Drive Support	When using the LTO 2 Tape Drive, the user must perform the following command on both Fabric OS 3.x and 4.x: switch> portcfggport *port# where drive is plugged into* This will allow the tape drive to function in point to point mode rather than in loop.

Area	Description
Security, PKICERT utility	**NOTE:** Before using the PKICERT utility to prepare a Certificate Signing Request (CSR), please ensure that there are no spaces in the switch names of any switches in the fabric. The Web site that processes the CSRs and generates the digital certificates does not accept switch names containing spaces, and any CSRs that do not conform to this requirement will be rejected.
Security: Secure mode, passwd telnet	**NOTE**: Using the passwd telnet command in Secure Mode to change the password results in all sessions using that password to be logged out including the session that changed the session. This is expected behavior. The session will terminate if you change the password in secure mode.
Web tools, Java bug	**Issue:** If a dialog box is displayed from the switch admin window of the Web Tools and the user selects another dialog box from Web Tools, this causes a windows display error. **NOTE:** This is a known defect in Java 1.3 documented at www.java.sun.com, bug ID 4763605. To avoid the display error, open only one dialog box at a time or launch another switch admin session in a separate window.
Zoning	**NOTE:** To use Zoning in a non-RCS (Reliable Commit Service) mode fabric, that is, in a fabric containing switches with firmware version other than v2.6.x, v3.1.0 and v4.1.0, it is recommended that all appropriate Zoning licenses are installed on all the switches in the fabric before attempting to bring a switch in to the fabric. Furthermore, if the Zoning license is to be removed, the user must make sure it is re-installed back properly on the affected switch before attempting **cfgenable** zoning operation. Failure to follow these steps can cause inconsistency of Zoning configuration on the affected switches should a zoning operation be attempted from a remote switch in the fabric. On the affected switches an error message will appear on the console or telnet session (can also be seen by doing **errShow**, **errDump**) indicating that zoning license was missing.

Documentation Addendum

SilkWorm 3800 Hardware Reference Manual

(publication number 53-0001576-06)

The following statement should be added to the Port Status LED information for when the port status is "offline" in Table 3-1 "Port Side LED Patterns During Normal Operation", on page 3-2.

"When a Port Status LED indicator light is off, another possible hardware status is offline."

Brocade ISL Trunking User's Guide, v3.1.0/4.1.0

(publication number 53-0000520-02)

Page 1-3 of the Brocade ISL Trunking User's Guide, v3.1.0/4.1.0 contains the following statement:

"... ISL Trunking does not support the "LE", "L1", or "L2" **portcfglongdistance** modes. For information about these modes and Extended Fabrics in general, refer to the *Distributed Fabrics User's Guide*."

This statement should be modified to say the following:

"...Trunking is supported for normal E_Ports (referred to as L0 in the **portcfglongdistance** command) with LWL media up to 5km at the full speed permitted by the link. With LWL media, the throughput begins to fall off beyond 5km, due to normal latency effects. ISL Trunking does not support the "LE", "L1", or "L2" **portcfglongdistance** modes. For information about these modes and Extended Fabrics in general, refer to the *Distributed Fabrics User's Guide*."

Outstanding Defects

This table lists open defects in Fabric OS v3.1.0.

Outstanding Defects		
Defect ID	**Severity**	**Description**
DEFECT000024607	Critical	Summary: panic restart reboot INCONSISTENT - port 7 init stuck lismCleanup Symptom: This is a field issue from a customer running Fabric OS 3.0.2c. A particular HBA went through several link-up / link-down cycles. An FC tape on another port became stuck in a LISM state. The switch had frames to transmit, but the loop was stuck in LISM. Eventually the switch panicked and rebooted. Customer Impact: This defect was seen only once at the customer site in November, 2002. It has not recurred since, nor can it be re-created. Probability: Low
DEFECT000023557	High	Summary: (Scalability) "error: no memory" message seen on two Silkworm 3800 switches while running a zoning script. Symptom: Switch runs out of memory. Customer Impact: Note: this problem can be reproduced readily and has not been fixed. Thus the justification below is not valid. (previous justification note) This problem has not been re-created. However, a similar problem has been fixed and is expected to resolve this issue as well. This issue is being tracked for re-creation (TRACKING state.) Probability: Low

Outstanding Defects		
Defect ID	**Severity**	**Description**
DEFECT000024216	High	Summary: Switch not sending enough LIPs to transition from AL-PA sequence to Old_Port Symptom: Switch is not sending enough LIPs to transition from AL-PA sequence to Old_Port Workaround: Setting the port as a G-Port by using portCfgGPort causes the issue to be avoided. Customer Impact: This issue affects a particular FC LTO tape drive. The workaround has been agreed upon between Brocade and the manufacturer of the LTO 2 tape drives. Probability: Low
DEFECT000024454	High	Summary: configdefault failed to over-write the parameters except Domain ID Symptom: The configdownload may not update the local copy of the config parameters. Customer Impact: This behavior is consistent with our Fabric OS v2.6.x and v3.x releases. Customer must perform a fastboot or switch reboot in order to see changes made in the local copy (RAM). Probability: Low
DEFECT000024493	High	Summary: Switch panics with the message: Panic: FREE - free failed, ptr: 10e59190 reset sema 0x1006ff00 for tRtwr when remove a member zoned by port from an fazone Symptom: When removing and adding a member zoned by port several times via Web Tools, the switch panics. Customer Impact: This issue is being tracked for re-creation (TRACKING state.) Probability: Medium
DEFECT000024585	High	Summary: Watchdog reset the SilkWorm 3800 switch due to Bus error Symptom: During hard HA reset on the SilkWorm 12000, SilkWorm 3800 switch got reset. The reason of the switch reboot was: "Watchdog reset the SW3800 switch due to Bus error" Customer Impact: The problem has only been seen once and cannot be recreated. This issue is being tracked for re-creation (TRACKING state.) Probability: Low

Outstanding Defects		
Defect ID	**Severity**	**Description**
DEFECT000024592	High	Summary: Get the message "CRITICAL MQ-QWRITE, 1, mqWrite, queue = ms_q, queue ID = 10f90a60" Symptom: ms_q (management Server Queue) write operation fails due to a bad loop device that keeps on sending LIPs forever. In normal environment with good loop devices, this is not a problem even if the switch was brought up with large number of loop devices. Customer Impact: The problem is seen where there are too many LIPs, causing fabric reconfigurations to take place. This issue is due to misbehaving target device. The resolution is being evaluated for inclusion in future release. Probability: Medium
DEFECT000024675	High	Summary: get CRITICAL SYS-NOMEM. Panic: MALLOC -malloc failed Symptom: Switch may panic due to a bad loop device that keeps on sending LIPs. In normal environment with good loop devices, this is not a problem even if the switch was brought up with large number of loop devices. Customer Impact: The problem has been seen once and looks very similar to the one we may already have fixed. This issue is being tracked for re-creation (TRACKING state.) Probability: Low

Outstanding Defects		
Defect ID	**Severity**	**Description**
DEFECT000025032	High	Summary: Committing a zoning database greater than 98232 bytes causes the Fabric OS v2.x, v3.x to clearout the defined database. Symptom: Merging with a SilkWorm 12000 switch and having a large zoning database (greater than 98232 bytes) causes the 2.x/3.x Fabric OS to clear out the defined database. Workaround: If the fabric includes switches that are running FOS v2.x and v3.x, one should first check the size of the zoning database by using the cfgSize command and make sure that the zoning database is not greater than 98232 bytes. This will avoid the problem described before. The following is the details of the cfgSize command: Name: cfgSize Input: Byte value - determines type of data returned. Return: If input > 0, size in KB of flash memory allocated for zone DB is returned. If input is 0, a 4-byte code is returned. The interpretation of the code is as follows - Byte Number Interpretation 2-0 MSB to LSB of the size in KB of defined configuration. 3 Size of defined configuration as percentage of maximum size or error code. Three bytes are sufficient to report up to 16MB. Customer Impact: The problem only happens when the zone size used is higher than the maximum allowed size. Probability: Low
DEFECT000025044	High	Summary: CRITICAL MQ-QWRITE, 1, mqWrite, queue = fspf_q, caused the switch to become 100% idle Symptom: FSPF queue may get full in a large secure fabric. Customer Impact: The problem has only been seen once. This issue is being tracked for re-creation (TRACKING state.) Probability: Low

Outstanding Defects		
Defect ID	**Severity**	**Description**
DEFECT000025499	High	Summary: Fabric segment with error: CRITICAL MQ-QWRITE, 1, mqWrite, queue = fspf_q in 4x24 switch fabric when executing script to monitor port performance on switch for 6 hrs Symptom: After executing IO on 4x24 switch fabric with a test script containing portperfshow command running, some of the SilkWorm 3800 and 2xxx switches within the fabric indicate E-port unknown. Using fabricShow command, only 17 switches are shown out of 24 swtiches in the fabric. The error log file indicates that the fspf_q is causing an Critical MQ-WRITE errror. After checking the mqshow it indicates that the fspf_q hits the max no 1024 bytes. Customer Impact: This happens once during a stress test of a particular configuration and has not been seen again. Brocade is still continuing to reproduce the issue. Probability: Low
DEFECT000025614	High	Summary: Problem with DCC policies on 3800 and HP UX Symptom: Secure Fabric OS: With primary switch being the target side switch (storage units) running HP-UX, with policy that restricts the host to a specific port. By removing the cable from the port, a security violation is seen as expected. When plug back the cable to the original port, a security violation is seen as opposed to having data flow as normal like the Fabric OS v4.1. Customer Impact: Workaround: Deleted the policy and reactivated to get the port back on line. More investigation is in progress. Probability: Low
DEFECT000015671	Medium	Summary: illegal HBA registration Symptom: Fabric Device Manager Interface (FDMI) HBA is allowed to register even though the originating port is not in the HBA's registered port list. Customer Impact: This is an intended behavior included in order to test error cases. Probability: Low

Outstanding Defects		
Defect ID	**Severity**	**Description**
DEFECT000018017	Medium	Summary: Fabric OS v3.1.0 and v4.1.0 interactive help prompts need to be consistent Symptom: Fabric OS v3.1.0 and v4.1.0 interactive help prompts are not consistent. Customer Impact: This behavior is consistent with Fabric OS v2.x and v3.x releases. Probability: Low
DEFECT000018467	Medium	Summary: JNI6410 host doesn't see any target that connected on the partner switch Symptom: JNI6410 on Solaris host in a QuickLoop environment may not see target devices. Customer Impact: The problem has been found to be in the JNI driver. Waiting for fix from vendor. Probability: Low
DEFECT000020078	Medium	Summary: IBM 6277 HBA may issue PLOGI to the switch continuously. Symptom: IBM 6277 HBA may issue PLOGI to the switch continuously. Customer Impact: The problem has not been recreated since it showed up once. Probability: Low
DEFECT000020284	Medium	Summary: Functionality problems w/ Topology Commands(GATIN) Symptom: Functionality problems w/Topology Commands (GATIN) Customer Impact: Need to align our implementation with the latest standards. This will be evaluated in future releases. Probability: Medium
DEFECT000020449	Medium	Summary: SilkWorm 3200/3800 switches generate predictable TCP sequence numbers Symptom: SilkWorm 3200/3800 switches generate predictable TCP sequence numbers. Customer Impact: IP hardening will be improved for future releases. Probability: Low

Outstanding Defects		
Defect ID	**Severity**	**Description**
DEFECT000020671	Medium	Summary: passwd command on primary Fabric Configuration Server (FCS) switch results in a switch logout of primary fcs switch Symptom: Changing the passwords in a secure fabric using the passwd telnet command results in all sessions using that password to be logged out after the password is changed. This includes session that changed the password on the primary switch. Solution: Added information to the General Security Chapter, under Managing Passwords. When changing a password, add a bulleted line that says a root password change from an FCS switch will cause all affected switches to log out, including the FCS switch. Probability: Low Comment: The fix for this defect is currently under test.
DEFECT000022380	Medium	Summary: aliaspurge displays some error messages but purges successfully. Symptom: While executing alias server commands (aliasshow) the user may intermittently see some incorrect error messages. Customer Impact: The switch is still functioning properly. Probability: Low
DEFECT000023097	Medium	Summary: locked 2 of 3 candidate Ports in as G-port, attribute shows "1" as the PortCfgLockGport, but one port is reporting as E-Port and PORT_TYPE_UNKNOWN as PortType. Symptom: Port Type may come up as unknown. Solution: The check for G_port was incorrect in SNMP. The code was checking for U_PORT. Probability: Low Comment: The fix for this defect is currently under test.
DEFECT000023789	Medium	Summary: agtcfgset saves the community strings locally before propagating to the secure fabric. Symptom: agtcfgset saves the community strings locally before propagating to the secure fabric. Customer Impact: If the propagation fails, the new community strings are saved locally in the Primary, but not the rest of the fabric. Probability: Low

Outstanding Defects		
Defect ID	**Severity**	**Description**
DEFECT000023891	Medium	Summary: LD port should not initialize with port set at L1 mode. Symptom: This may be confusing when one port set at LD is connected to a port set at L1 mode. The two ports are not set correctly to match the same settings. Customer Impact: Improvement will be made in a future release. Probability: Low
DEFECT000024020	Medium	Summary: E-Port down messages are sent when the E-Port goes up or down. Symptom: E-port down message shows up even when E-port comes up. Customer Impact: E-port down message shows up even when E-port comes up. E-port up message will follow. Probability: Medium
DEFECT000024570	Medium	Summary: Command passwd is saving the passwds locally before distributing them to the fabric in secure mode. Symptom: The Command password may only be saved in a local primary switch and not on all the switches in the fabric. If users are changing passwords while the fabric is not stable (fabric reconfiguring), new password may be stored locally on the Primary, but not elsewhere is the fabric. This makes an inconsistent view. Solution: Workaround: User will either see a error message on the telnet window, or an error message in error log. If the primary goes away, the next switch in the FCS list will become the primary, and password change command can still be issued from the new primary. To recover from this behavior, issue the same command again on the current primary to change password again. Customer Impact: This may happen if the fabric reconfiguration or the password distribution fails. However, the old password will still be available. Probability: Low

Outstanding Defects		
Defect ID	**Severity**	**Description**
DEFECT000024639	Medium	Summary: java.lang.NullPointerException when select different switch admin tabs after WT license is removed Symptom: java.lang.NullPointerException may happen while selecting a different switch admin tab after WebTools license is removed. Customer Impact: The problem only happens if the Web Tools license had been removed. Probability: Low
DEFECT000024664	Medium	Summary: CERT Advisory CA-2003-10 Integer overflow in Sun RPC XDR - RPC lib is used by API Symptom: CERT Advisory CA-2003-10 Integer overflow in Sun RPC XDR Customer Impact: For more information, please refer to the CERT advisory. Probability: Low
DEFECT000024741	Medium	Summary: Extended fabric tab can not be refreshed after long distance configuration changes causing port speed become "auto" Symptom: Extended fabric tab cannot be refreshed to the current settings values after long distance configuration changes causing port speed to become "auto." Workaround: Disable the faulty port from Port Setting Panel. If port speed is "Auto" while the port state is not "Port_Flt", enable the port which speed is "Auto" and apply, then continue with other operations. Customer Impact: Workaround to this problem: Disable the faulty port from Port Setting Panel. If port speed is "Auto" while the port state is not "Port_Flt", enable the port which speed is "Auto" and apply, then continue with other operations. Probability: Low
DEFECT000024814	Medium	Summary: Vulnerability Note VU#192995 - Integer overflow in xdr_array() function when deserializing the XDR stream Symptom: CERT Advisory CAN-2002-0391 - Integer overflow in xdr_array() function when deserializing the XDR Customer Impact: For more information, please refer to the CERT advisory. Probability: Low

Outstanding Defects		
Defect ID	**Severity**	**Description**
DEFECT000024888	Medium	Summary: JNI 6460 2g HBA autonegotiates at 1g when we change the port speed from 1g to AN Symptom: If a port speed is changed to 1g and then back to AN, JNI 6460 negotiates at 1g instead of 2g Workaround: Disconnect the cable and connect it back. It negotiates at 2g Customer Impact: This issue has only been seen with the JNI 6460 2g HBA and is an HBA issue. Probability: Medium
DEFECT000024901	Medium	Summary: get "fail to commit on all switches" when doing secpolicysave because one SW12000 get fail to verify signed data when committing DB Symptom: "fail to commit on all switches" message comes up when doing secpolicysave. Solution: When trying to save a security or zoning configuration shortly after a fabric reconfigures, there's still a change that the non-Primary switches do not have the Primary's certificate. This means it's still possible to see a signature verification failure on non-Primary switches if the switch has a zero version stamp. If the non-Primary switch is running 3.1 firmware, then that switch will request a new download from the Primary after the save operation completes. "secFabricShow" on the Primary switch will show ERROR state for 3.1 switches requesting a download until the download is complete. Customer Impact: The problem has been fixed and is under test. Probability: Low
DEFECT000024911	Medium	Summary: CRITICAL FCPH-EXCHBAD, 1, bad xid 0x2aa, x: when traffic is running without effective zoning configuration in the fabric. Symptom: Running traffic without effective zoning configuration in the fabric resulted in seeing CRITICAL FCPH-EXCHBAD error Customer Impact: The problem has only been seen once . This issue is being tracked for re-creation (TRACKING state.) Probability: Low

Outstanding Defects		
Defect ID	**Severity**	**Description**
DEFECT000024976	Medium	Summary: When configdownload succeeded on zoneDB but failed on security policy, primary switchfails to propagate zoneDB to fabric. Symptom: Configdownload command fails with security enabled if there are errors in the security database. Workaround: Resolve security database errors and reissue configdownload. Customer Impact: This situation will only happen when both zoning and security DB are modified, and an error is injected into the security DB config. The problem will be fixed in the future release. Probability: Low
DEFECT000025020	Medium	Summary: Improper error code is returned (-87 ERR_SWITCH_ALLOCATION_FAILURE) when calling GetObjects() w/ OID for a HBA that has dropped out of the fabric Comment: The fix for this defect is currently under test.
DEFECT000025045	Medium	Summary: if login as root account to launch switch admin, admin/user account information changes cannot apply to switch Symptom: If login as root account from Web Tools to launch switch admin, admin/user account information changes cannot apply to switch . Workaround is to login as admin level account. Customer Impact: This behavior has been consistent on all our Fabric OS v2.x/v3.x platforms. Logging as admin/user would resolve the issue. Probability: Low
DEFECT000025048	Medium	Summary: Memory leak in changing switch name Symptom: Memory leak in changing switch name. The amount of leak is very small (32 Bytes) and will not have significant impact to the switch functions. Customer Impact: Under normal operation, the amount of memory leak should not affect the switch functions. Probability: Low

Outstanding Defects		
Defect ID	**Severity**	**Description**
DEFECT000025059	Medium	Summary: Mail Server address and Domain Name are not persistently removed using the Remove option in dnsconfig command Symptom: Using option 3 of dnsconfig command to remove mail server address and domain name does not persistently remove those values. After a switch fastboot and reboot, the mail server address and domain name is still there. Probability: Low Comment: The fix for this defect is currently under test.
DEFECT000025117	Medium	Summary: syslog is disabled if quiet mode is enabled Symptom: If quiet mode is enabled, syslogd will no longer forward messages to any syslog configured management stations that are configured Customer Impact: The error messages are still available in the error log (e.g. errShow, errDump). Probability: Medium
DEFECT000025148	Medium	Summary: Unable to get Telnet Parity or SwitchSupportLog when the target switch Ethernet cable is disconnected. The GET call returns -1(ERR_INVALID_FABRICLIST) or -56(ERR_ACCESS_ERROR). Symptom: Unable to get Telnet Parity or SwitchSupportLog when the target switch Ethernet cable is disconnected. Probability: Low Comment: The fix for this defect is currently under test.
DEFECT000025230	Medium	Summary: 1G Storage port is slow to FLOGI with AN speed setting Symptom: Storage is delayed in logging in Probability: Medium Comment: The fix for this defect is currently under test.
DEFECT000025232	Medium	Summary: Able to download zoneset using CfgDownload Symptom: API is able to download zoneset using CfgDownload Customer Impact: Being able to download the zoneset through API does not cause any problem. Improvement will be evaluated in future release. Probability: Low

Outstanding Defects		
Defect ID	**Severity**	**Description**
DEFECT000025304	Medium	Summary: Relocating switch port cable would lose dynamic EE monitors residing on the port Symptom: Relocating switch port cable would lose dynamic end-to-end monitors residing on the port Workaround: Dynamic EE monitors will not move with the device. When relocation of device happens, the monitor needs to be deleted and added back manually. Customer Impact: Whenever the port cable is relocated, the performance monitors will have to be deleted and the new ones created. Probability: Medium
DEFECT000025311	Medium	Summary: When generating a lot of Fabric Watch events on non-proxy switches, certain set of operations on the switch side with unconfiguring Fabric Watch values through API, causing traceBack Messages on v3.1 switch. Symptom: When generating a lot of Fabric Watch events on non-proxy switches, certain set of operations on the switch side with unconfiguring Fabric Watch values through API, causing traceBack Messages on v3.1 switch. Customer Impact: The problem has only been seen in stress tests with API testing that includes topology discovery, Fabric watch event generation. Probability: Low
DEFECT000025314	Medium	Summary: After downloading v3.1 firmware in secure mode, the two switches segment out of the fabric Symptom: After firmware downloading in secure mode, fabricshow shows 14 switches in the fabric, while secfabricshow shows 15 switches in the fabric. After a while, the fabric segments. Customer Impact: The problem has been seen only once and SQA has since then been attempting to recreate the problem but have not been able to do so. This defect is being tracked for recreation (TRACKING state). Probability: Low

Outstanding Defects		
Defect ID	**Severity**	**Description**
DEFECT000025321	Medium	Summary: GetSingleObject on SwitchEnclosure of 3800 running 3.1 returns Power Supply state as FAULTY when state reported by telnet is OK. Symptom: API running on 3.1 returns Power Supply state as FAULTY when state reported by telnet is OK. Customer Impact: The problem is in the API path only. Telnet commands are working correctly. Work is in progress to find the root cause of the issue in API. Probability: Low
DEFECT000025361	Medium	Summary: API: LRET_TC_625 to LRET_TC_628: When 3.1 Proxy Switch is disabled, GetObjects or GetSingleObject on SwitchSupportLog OID, returns -56 (ERR_ACCESS_ERROR). Symptom: When 3.1 Proxy Switch is disabled, GetObjects or GetSingleObject on SwitchSupportLog OID, returns -56 (ERR_ACCESS_ERROR) instead of 0 (SUCCESS). Customer Impact: This is a problem found during API testing and investigation is in progress. Probability: Low
DEFECT000025369	Medium	Summary: HBAFirmwareDownload fails unexpectedly over short and/or long time periods with error -1000. Solution: Need to make HBA Download CT-Hash thread safe. Comment: The fix for this defect is currently under test.
DEFECT000025381	Medium	Summary: Warning messages displayed with Trunked Ports being disabled/enabled continuously if E-port are configured as follow: one L2, one normal L0 and one 2-interswitch links (ISL) trunk in a quad. Symptom: Warning messages are continuously displayed in a stress test where trunked ports are continuously enabled/disabled. Customer Impact: The problem only happens in a stress test where trunked ports are continuously enabled/disabled. Probability: Low

Outstanding Defects		
Defect ID	**Severity**	**Description**
DEFECT000025489	Medium	Summary: Port Attribute PortCfgEportDisable shows different value from update value. Symptom: Port Attribute PortCfgEportDisable shows different value from the intended update value Customer Impact: This problem will be worked around in the API host library. We will investigate the FOS solution in teh future release. Probability: High
DEFECT000025505	Medium	Summary: After Enabling an approx 98K cfg that contains real and invalid wwn targets, the switch became BUSY for over 1 hour, during which no other zoning changes could be saved in the entire fabric. Symptom: Enabling an approx 98K cfg with API that contains real and invalid wwn targets, the switch may become BUSY for over 1 hour, during which no other zoning changes could be saved in the entire fabric. Customer Impact: The problem happens when a large single zoning configuration is created. Investigation is in progress to find out why the switch remains busy for so long. Probability: Medium
DEFECT000025513	Medium	Summary: Switch panic when using FCIP Symptom: Switch panic and reboot when using FC IP to obtain management information of a fabric (in-band management). Customer Impact: The problem is related to in-band management services through FC-IP. Have requested for more details in order to get to the cause of the problems. Probability: Low
DEFECT000025536	Medium	Summary: Private loop port (EMC Symmetrix target) slow to login Symptom: EMC Symmetrix Private Loop port takes a longer time to login than expected (~ 6 secs) Customer Impact: The problem has only been seen with Symmetrix private port. Investigation is in progress to find the root cause of the problem. Probability: Low

Outstanding Defects		
Defect ID	**Severity**	**Description**
DEFECT000025551	Medium	Summary: REG: TC_LRET_30: Doing GetObjects on SwitchSupportLog on Proxy 3.1 Switch, several times, would cause traceback messages on switch side. Symptom: Doing API GetObjects on SwitchSupportLog on Proxy 3.1 Switch, several times, would cause traceback messages on switch side. Customer Impact: The problem has only been seen once and cannot be reacreated. Effort continues to recreate the problem. Probability: Low
DEFECT000025553	Medium	Summary: From a 2.61 proxy, while there is an active cfg, trying to Commit after clearing FZDB would return -1000. Customer Impact: The problem has only been seen with API testing and is being investigated for the root cause. Probability: Low
DEFECT000025555	Medium	Summary: FM:185: GEN:Event # for v3.1 switch should start with "1" not "0" Symptom: In the FM Event table, the event number for switches with Fabric OS v3.1.0 code starts with "0" instead of the expected "1". From telnet, event log starts from count number 1. This behavior is not consitent with Fabric OS v4.1.0. or, v2.6.1 which start with "1". Customer Impact: The problem is only related to the events numbering scheme and is being investigated for a solution. Probability: Low
DEFECT000025568	Medium	Summary: 3.1: Unable to set EmailAddress of FWClass object, when EmailStatus is set to ENABLED. Symptom: Unable to set EmailAddress of FWClass object through API, when EmailStatus is set to ENABLED. This attribute should be set whether EmailStatus is Disabled or Enabled. Solution: Currently mail alert is automatically disabled in mailCfgSetMenu() The solution is to disable email alert only if there is a change in email addresses Customer Impact: The problem only seems to occur when you set the email address to default (just pressing enter) and not when it is explicitly set. Probability: Low

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Defect ID	**Severity**	**Description**
DEFECT000025587	Medium	Summary: SCALABILITY: fabricshow missing info on "Enet IP, FC IP and switchname" Symptom: In a 2+4+28 mixed configuration, which has 6 SilkWorm 12000, 6 SilkWorm 3800s, 22 SilkWorm 3900s, approximately 700 device ports, 95Kbytes zone size, and traffic, manually executing switchdisable/switchenable on 3800, fabricshow misses a couple of switches's Enet IP, FC IP, and switch name for quite a time on the 3800. In addition, topologyshow saw some of domains are unreachable. Execute "supportshow", while running supportshow, software watchdog resets the switch. Customer Impact: The problem has been seen once in our large fabric (34 switches) configuration and investigation is in progress in order to get to the root cause of the problem. Probability: Low
DEFECT000025589	Medium	Summary: SCALABILITY: message "CRITICAL MQ-QWRITE, 1, mqWrite, queue = as_q, ..." is shown up Symptom: Message "CRITICAL MQ-QWRITE, 1, mqWrite, queue = as_q, ..." is seen in alarge fabric configuration (2+4+28 mixed configuration, which has 6 SilkWorm 12000, 6 SilkWorm 3800s, 22 SilkWorm 3900s, approximately 700 device ports, 95Kbytes zone size, and traffic. Probability: Low Comment: The fix for this defect is currently under test.
DEFECT000025596	Medium	Summary: Sec : Able to reset version time stamp when login as "user" Symptom: API allows reset version time stamp when login as "user". Customer Impact: The problem is being investigated for the root cause. Probability: Low
DEFECT000025623	Medium	Summary: some of 3.1 switches do not receiving HBA related events

Defects Closed Since Last GA Release

This table lists the defects that have been closed since the last GA release, Fabric OS v3.0.2.

Defects Closed Since v3.0.2		
Defect ID	**Severity**	**Description**
13519	Critical	Problem Description: During core PID upgrade in a redundant fabric, if the host mistakenly sends a PLOGI with bad D_ID, and if hardware zoning is configured, filtering logic will use the wrong port derived from the bad D_ID Description of Fix: Check the port attached before using it
15061	Critical	Problem Description: Switch lockup due to shell task running indefinitely in the case of telnet/shell out of sync. Description of Fix: Add taskdelays so that shelltask doesn't run indefinitely.
18058	Critical	Problem Description: If a host is rebooted with an Emulex LP952 HBA and the topology setting is (2) auto-sensing then the HBA will be logged in as G-port. Description of Fix: Changed loop initialization process back to previous specification.
18731	Critical	Problem Desciption: Port faults causing large number of unknown interrupts because INT_NO_LOOPINIT mask is enabled but never cleared due to an incorrect state at time of processing. Port shows in-sync. Description of fix: Clear the INT_NO_LOOPINIT interrupt mask in loomStartLoop().
10109	High	Problem description: SID/DID CAMs are not setup properly when a HBA issues a PDISC instead of PLOGI LOGO frames do not arrive at PDISC source port Description of Fix: Zoning task rebuids the SID/DID CAMs when a PDISC is detected.
10504	High	Problem description: In a configuration with two hosts attached in 2Gbit\sec QuickLoop mode, when hba sends an OPN, it does not get forwarded to the storage device, it instead is sent back to the hba, resulting in the hba being unable to access storage. Description of Fix: Save bitmap of looplets that failed to initialize during first pass and use it to reinitialize them at the end of pass2, if timing deems this necessary.
10743	High	Problem description: Port becomes In_Sync when switch is rebooted with JNI FCE2-6410. This issue will only occur with the dual port HBA FCE2-6410. Description of Fix: Under certain loop environment, firmware handles the OFFLINE scn twice by calling qlLoopletDown. It is now handle properly.
11638	High	Problem Description: NS was requiring another probing to be completed before sending RSCN. Description of Fix: If probing has failed with NOT_SUPPORTED as the reason code, probing will discontinue and the NS will send an RSCN once the device has been registered.

Defects Closed Since v3.0.2		
Defect ID	**Severity**	**Description**
12018	High	Problem Description: Switch hangs when receiving unexpected LISM storms from device. Description of Fix: Fixed tReceive task to handle unexpected LISM storms correctly.
12027	High	Problem Description: Port zoning all 4 ports on a VMS host does not see all ports from storage device. Description of Fix: Clear the appropriate CAMs at the same time the CAMs in the host is cleared.
12129	High	Problem description: In a 20 switch fabric VMS hosts loses path to storage targets after the storage has been rebooted. Description of Fix: Change to process Port login of Open VMS hosts can now maintain path to storage targets after storage has been rebooted.
12198	High	Problem Description: Frames discarded during remote copy. Description of Fix: The root cause of this is the loop deadlock. In order to fix this problem, the switch will periodically checks the port for a loop idle condition where frames are not tx'd and rx'd for at least 16ms. At which point, the loop tenancy is broken by generating the CLS
12215	High	Problem Description: Requesting bloomDataShow on an invalid port causes inconsistent behavior. Description of Fix: An error message 'Invalid Port' will be displayed if the port requested for bloomDataShow is out of range.
12330	High	Problem Description: HDS MSCS linkup problem Description of Fix: Set TFR_SEARCH to force another timeout search to clear the timeout flag
12350	High	Problem Description: Switch reboot after adding extended fabric license causes problem with spinsilk Description of Fix: Spinsilk does not have problem anymore with this version
12367	High	Problem Description: GA_NXT request times out from McData to Brocade. Description of Fix: Brocade switch returns next device in local name server.
12575	High	Problem Description: Host does not recognize storage after reboot. Description of Fix: F_port setup has changed.
12895	High	Problem Description: The problem occurs when getting the active zone configuration name and the active zone database contents. Each time the switch is polled for this information, the length of the active configuration name bytes on the switch is no longer visible. So if the active configuration is "myzone1", 8 bytes are lost (7 characters plus NULL terminator) each call. Description of Fix: Free the the bytes allocated for the Active Configuration name.

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Defect ID	**Severity**	**Description**
13043	High	Problem Description: Fabric Watch Warning is returning (NULL) when the timebase is modified from default Description of Fix: Correction was made to return the unit string to display the value "Error(s)"
13326	High	Problem Description: fwConfigReload not working properly Description of Fix: Added ALPA, end-to-end and filter class configreload
13820	High	Problem Description: While trying to replicate a virtual disk the storage device does not respond to the other similar storage devices which causes a time out and aborts the operation. Fix: Now allow RNID to be accepted.
14517	High	Problem Description: With FCP device probing turned off on the switch, Fabric controller does not send an RSCN after a target device registers with the name server with a RFT_ID Description of Fix: Using a new bitmap to indicate NS to send RSCNs.
14993	High	Problem Description: Switch not sending enough LIPs to transition from AL-PA sequence to Old_Port Description of Fix: After sending out LIP for LIP_RETRY by tFcph, the device responded by sending out LIP followed by IDLE in the same micro second, then LIP and LLI interrupt was raised at almost the same time. Software always processes LLI interrupt before LPSM interrupt, handling IDLE with a LIP interrupt pending. In this case the IDLE was just sent out to flush the LIP as required by FCPH, not really a protocol to try old port. \Ignore the IDLEs and go to loop init directly.
15422	High	Problem Description: Switch does not prompt for a Reboot after configuration change. Description of Fix: Remove the reboot requirement of the configuration parameter "Enable Close on Open". Setting takes effect as soon as switchEnable.
15719	High	Problem Description: Frame hold time was changed in 3.0.2d from 500ms to 200ms. As a result compatibility issues with certain storage devices have occurred. Description of Fix: Frame hold time was increased back to 500ms to ensure compatibility with storage devices.
16154	High	Problem Description: Device sent LINIT(CD,00), but the switch sends a LIP(F7,F7) when it should have sent a LIP(CD,00) Description of Fix: Pass the arg2 as the third parameter and value of 1 as 4th parameter when calling bloomStartLoop() in bloom_ioctl.c. 4th parameter allows F8 in byte3. Add a condition to check if the reason of calling bloopStartLoop is caused by LINIT. If it is, uses passed value of byte3 and byte4 to do the lip.

Defects Closed Since v3.0.2		
Defect ID	**Severity**	**Description**
16850	High	Problem Description: RJT was being used to setup CAMS which caused RJTs to be dropped. Description of Fix: Not using RJT for setting up CAMs
16865	High	Problem Description: Auto-negotiation failure with CPQ switch. Description of Fix: After auto-negotiate complete, FC_AL_RESET was done twice. Both FC_AL_RESET are not necessary. Will do FC_AL_RESET in the following three situations: 1. Gain SYnc 2. Change Speed 3. FIFO hits some problem During auto-nego, after entering NEGOTIATE_COMPLETE, we have already been in sync for more tan 271 ms in NEGOTIATE_FOLLOW state.
16903	High	Problem Description: Fabric Manager accesses the page FabricInfo2.html while the fabric is being re-configured. Description of Fix: Serialize accesses to the domain database to prevent intermittent values while information in the database is being computed.
17313	High	Problem Description: The ls_port_name field in the ADISC accept payload was not consistent with the values returned in the PLOGI and PDISC accept payloads when the ADISC was sent to a well-known address (e.g., Management Server). Brocade switch returns a different WWN in the ADISC Accept than the one it returns in the PLOGI Accept for the Management Server. The PLOGI and PDISC handlers take into account whether the ELS is addressed to a well-known address (e.g., Management Server) or to some other port address. The ADISC handler did not. Description of Fix: Changing the ADISC ELS handler: Get the d_id field from the inbound ADISC ELS: Make the port name field in the ADISC accept response consistent with the PLOGI and PDISC responses (i.e., pick the appropriate port name based on the d_id field in the ADISC ELS).
17759	High	Problem Description: Echo frames are not returned from the switch Description of Fix: Setup hard loop-back zone group when FLOGI arrives without the knowledge of zoning/filtering logic. This background zone group will be removed when the port goes offline. This is done only for F-ports.
19557	High	Problem Description: During LISM state, the loop port does not listen to LIP for 2s resulting in a long time for a storage port to come up and lost target. Description of Fix: Change the timeout for LISM to 100ms. If LISM times out after 100ms retry LIP.
19607	High	Problem Description: In a QL environment, the switch passed a LIP FF or F8 as F7. Description of Fix: Allow correct LIPs to pass through from switch to switch.
19915	High	Problem Description: Continuous RSCNs received from switch when multiple target ports are brought online configured into the same zone. Description of Fix: Do not overwrite the registered COS in the FLOGI database when handling UPD_AREA message.

Defects Closed Since v3.0.2		
Defect ID	**Severity**	**Description**
20001	High	Problem description: Excessive LLI state changes can trigger the portFault() algorithm. Description of Fix: A port level interrupt disable scheme is introduced to prevent a single faulted port from impacting the normal operations of other ports
20795	High	Problem description: Excessive LLI interrupts cause some abnormal behavior of our driver code, and hence affects how our port driver code behaves. Description of Fix: As per defect # 20001, a port level interrupt disable scheme has been introduced to prevent a single faulted port from impacting the normal operations of other ports.
20987	High	Problem description: Switch reboot "Panic: INCONSISTENT - pt 0, FIFO under/overflow buf_error=0140000" caused by RX buffer overflow. Description of Fix: Detect and Reset/restart loop on port.
21137	High	Problem description: IO operations against disk in loop is not consistent. Description of Fix: Add a new mode argument to control fairness ON or OFF. Added half duplex option to “portcfglport” command.
21187	High	Problem description: Switch port becomes No_Sync after a storage reset. Description of Fix: Recover from speed negotiation state machine lockup rather than try to close the timing window.
21187	High	Problem description: Switch port becomes No_Sync after a storage reset Description of Fix: Detect lockup of the speed negotiation state machine and recover, rather than try to close the timing window.
22628	High	Problem description: MQWRITE error on nscam_q caused by a corrupted linked list in the timer task. If a timer interrupt happened when the list was being updated, the list would get corrupted Description of Fix: Added protection to the accessed list.
23883	High	Priority: High Problem description: Semaphore blocking occurs when a Terminal server flow control is set to on. Flow control enabled on a terminal server connected to the serial port of a switch can cause the switch to hang and telnet and serial ports to become inaccessible. Description of Fix: Add shellFlowControlDisable and shellFlowControlEnable commands to allow the administrator to disable/enable flow control. shellControlDisable is the default state.
12879, 12739	High	Problem Description: When zoning is enabled, a cluster node cannot see it's storage device after reboot. Description of Fix: Cluster node can now see storage devices after reboot when zoning is enabled.
11295	Medium	Description of Fix: The command nsAliasShow has been added to this patch release. This command is a duplicate of the command nsShow with the added feature of displaying the defined configuration aliases that the device belongs to.

Defects Closed Since v3.0.2		
Defect ID	**Severity**	**Description**
11606	Medium	Problem Description: v3.0.2x warning message is not consistent with 2.6.0x when enabling zoning configurations. Description of Fix: The following warning message in FOS 2.6.0x now exists in 3.0.2g as a reminder that when enabling it is only for the defined configuration: "You are about to save Zoning Configuration changes. This action will only save the defined configurations. If you have changed the Currently Enabled Config, the changes will not be in until you re-enable it. Do you want to save zoning changes only?" If changes have been made to the effective configuration it will nee to be re-enabled for those changes to be effective.
12228	Medium	Problem Description: Changing switch speed from AU to 1GB causes an HBA to go into loopback state Description of Fix: Changed timing between portenable and portdisable to prevent an HBA from going into loopback state when switch speed is changed from AU to 1GB.
12324	Medium	Problem Description: BA_ACC frame to an ABTS is being dropped. Description of Fix: BA_ACC frame is now handled properly when an ABTS is received.
12588	Medium	Problem Description: tThad disable configure option is only available to root user Description of Fix: tThad disable configure option now is available at the Admin level.
13023	Medium	Problem Description: Buttons at the bottom of screen are not visible at 800x600 resolution, slider bar is unusable. Description of Fix: Buttons are now visible at 800x600 resolution and slider bar is fully accessible.
13044	Medium	Problem Description: More than one port in a quad may be designated as a long distance port. Description of Fix: Once a port is set as long distance port, trying to designate another port in the same quad to long distance will generate error message
13045	Medium	Problem Description: Zoning interface allows duplicate entries to be added to an alias Description of Fix: Duplicate entries will be detected and not added to the list
13303	Medium	Problem Description: LOGO frame was dropped at the switch Description of Fix: Trap the LOGO frame also in PLOGI trap and forward it

Defects Closed Since v3.0.2		
Defect ID	**Severity**	**Description**
13304	Medium	Problem Description: Switch is dropping SCSI command frames when a Mylex controller does a failover Description of Fix: Continue creation of additional phantoms regardless of the error. During the LISA phase, detect the error and resolve the error condition
13558	Medium	Problem Description: Switch is not discarding invalid frames at destination at hardware speed. Description of Fix: Created function so invalid frames can be dropped at hardware speed.
13571	Medium	Problem Description: Port status display inconsistent between different versions of FOS. Description of Fix: Changed port status display to be consistent versions of FOS.
14220	Medium	Problem Description: AL_PA's are being return in the LILP that belong to Ports that are in different zone. When two switches are QL partnered together and have two zones, the AL_PA's from the first zone are being reported in the LILP in the second zone. Fix: QuickLoop code was functioning as designed. Zoning code was not enforcing zoning configurations as defined. Zone configurations are now enforced.
15577	Medium	Problem Description: PRLI being dropped Description of Fix: Always reset the port before excluding zoning in it.
15757	Medium	Problem Description: If user specifies telnet session timeout value at say 5 minutes and then telnets to a switch BUT does not login, the session will NOT timeout. Additional users will see that the switch is "IN USE...." Description of Fix: Add the timeout mechanism in the portion of code prior to telnet login. Then telnet will also timeout before login.
15799	Medium	Problem Description: lbit was cleared in ALPAmap incorrectly Description of Fix: Setting the lbit in the ALPAmap in LIFA phase
18455	Medium	Problem description: OPN (B5, D9) primitive signal not forwarded to target and sent back to initiator Description of Fix: Added support for some older HBA's which only support loop initialization up to LISA phase, and not LIRP and LILP phase.
19117	Medium	Problem description: Due to RX buffer underflow, switch rejects a frame from HBA as "Invalid D_ID" Description of Fix: Detect and Reset/restart loop on port.

Defects Closed Since v3.0.2		
Defect ID	**Severity**	**Description**
19253	Medium	Problem Description: When a ping storm is in progress, the fabricShow command displays the message: "Fspf is calculating route, please do it later.." Description of Fix: Added receive frame rate throttling code to ethernet driver. The ethernet driver now does a 1 tick delay on every 10th received frame so th during high rates of received ethernet frames, tNettask will not completely monopolize the CPU.
19254	Medium	Problem Description: When a ping storm is initiated on a switch, the FSPF queue is exceeded and the switch displays CRITICAL MQ-QWRITE errors. Description of Fix: Added receive frame rate throttling code to ethernet driver. The ethernet driver now does a 1 tick delay on every 10th received frame so th during high rates of received ethernet frames, tNettask will not completely monopolize the CPU.
20987	Medium	Problem description: Switch reboot with "Panic: INCONSISTENT - pt 0, FIFO under/overflow buf_error=0140000" Description of Fix: When cmeme rx overrun occurs, the code finds which port has this error then: 1. Check the error port type, if it is an FL port, restart the loop on the port. 2. Check if it is another type of port, link reset on the port.
22058	Medium	Problem description: On two consecutive reads of the same register, the information returned was combined resulting in a value being read that exceeded the capacity of the register. Description of Fix: Guard access of registers with interrupt safe mode so that each access of these registers will be followed by a flush of the bus.
22723	Medium	Problem description: The example used in the portCfgLport help page is incorrect and confusing Description of Fix: Changed the text to show the correct usage.
15463,15677	Medium	Problem Description: Additional changes to watchdog instrumentation in 3.0.2x code base. Description of Fix: Instrumentation added to capture task activity on the switch at time of reboot and setTaskLogMode to capture second level instrumentation can now be run by admin to capture further watchdog data capture. When 2nd level instrumentation is enabled switch reboot is no longer required.
10577	Low	Problem description: E-port display in FA-MIB and trunking only shows Master Trunk Port. Description of Fix: swNbTable displayed the entries for master ports only. It now displays the entries for slave ports also.
11077	Low	Problem description: Hyphen in the switch node name in DNS disables access to Zone admin & Name server windows in WebTools. Description of Fix: Modified the HTTPd task to accept hyphen in the switch node name.

Defects Closed Since v3.0.2		
Defect ID	**Severity**	**Description**
12136	Low	Problem Description: CERT test suite case #1421 causes memory leak in switch. Patch by WindRiver. Description of Fix: Issue found by WindRiver when running CERT test #1421. WindRiver fixed the issue and provided a patch to Brocade.
16113	Low	Problem Description: Need to add Fabric Watch E-mail notification Description of Fix: Added E-mail notification.
18066	Low	Problem Description: X-axis out of scale in measuring port perf Description of Fix: Cosmetic change to add a note in the graph with explanation.
23056	Low	Problem description: Text changes to portcfglport output and help page additional information for the Half Duplex addition to the command "portcfglport" Description of Fix: Changed text of command output and added information to the help page for “portcfglport” command.
12477		Problem Description: LILP Frame did not contain all phantom ALPAs in the ports zone. This resulted in ports not seeing all devices in its zone. Description of Fix: Phantom map now includes all phantom ALPAs in ports zone.