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Brocade Communications Systems, Inc.
November 8, 2002
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Fabric OS
V2.6.0j Patch Release Notes

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Release Notes OS 2.6.0
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Fabric OS v2.6 is a feature release supported for the IBM 2109 Model S16/S08 and 3534-1RU of switches (SilkWorm 2000 series).

New Features and Enhancements

Interoperability Mode:

Interoperability Mode allows Brocade switches to operate in a heterogeneous fabric a fabric containing switches from different manufacturers). The features and limitations of a heterogeneous fabric are described in the Brocade Fabric OS Reference.

Security Mode:

Brocade Secure Fabric OS is an optionally licensed product available with Brocade's Fabric OS v2.6, that provides advanced security in a fabric. For detailed information about the Security feature, refer to the Brocade Secure Fabric OS User's Guide and the Brocade Fabric OS Reference.

Standards Compliance

Brocade Fabric OS v2.6 is compliant with the FC-GS-3 standard except for the following items:

- Fabric Zone Server (Section 6.3 of the standard)
- Key Distribution Service (Section 9 of the standard)

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Defects FIXED IN FABRIC OS 2.6.0a
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Defect ID: 9750
Priority: 1
Problem Area: Software/Security
Found in Release: v2.6.0
Problem Decription:
Watchdog reboot of switch when additional ISL's added to the switch.

Defect ID: 9948
Priority: 1
Problem Area: Software/Security
Found in Release: v2.6.0
Problem Decription:
Modified Name Server behavior to reduce I/O stoppage during the secFailOver operation.

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DefectS FIXED IN FABRIC OS 2.6.0b
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Bug ID: 10960
Priority: 1
Problem Area: Quickloop
Found in Release: v2.6.0
Problem Area: quickloop is changing ALPA assignment

Description of Fix:

The command qlUnmaskLipa [0 | 1] has been added to this patch release.

There are two modes of loop initialization, differentiated by setting the parameter to 0 or 1.

When set to 0, initializing a looplet is off.

When set to 1, initializing a looplet is on.

When the parameter is set to initializing a looplet (1), QuickLoop masks the Arbitrated Loop Physical Address (AL_PA) bits in the Loop Initialization Procedure (LIPA) frame using the LIPA bitmaps of those looplets that stay online. Setting the parameter to 1 disables the LIPA bitmap masking and opens AL_PAs for assignment to devices in the initialized looplet during the LIPA phase, thus allowing the device to claim the same AL_PA.

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DefectS FIXED IN FABRIC OS 2.6.0c
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Defect ID: 10960
Priority: 1
Problem Area: Quickloop
Found in Release: v2.6.0
Problem Area: quickloop is changing ALPA assignment

Description of Fix:

The command qlUnmaskLipa [0 | 1] has been added to this patch release.

There are two modes of loop initialization, differentiated by setting the parameter to 0 or 1.

When set to 0, initializing a looplet is off.

When set to 1, initializing a looplet is on.

When the parameter is set to initializing a looplet (1), QuickLoop masks the Arbitrated Loop Physical Address (AL_PA) bits in the Loop Initialization Procedure (LIPA) frame using the LIPA bitmaps of those looplets that stay online. Setting the parameter to 1 disables the LIPA bitmap masking and opens AL_PAs for assignment to devices in the initialized looplet during the LIPA phase, thus allowing the device to claim the same AL_PA.

Defect ID: 11637
Priority: 1
Problem Area: Name Server
Found in Release: v2.6.0
Problem Area: 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.

Defect ID: 10613
Priority: 2
Problem Area:Operating System
Found in Release: v2.6.0
Problem Area: "Defect CRITICAL FCIU-IUBAD, 1, invalid iu 0x10de1760" error occurs when connected to a HP hba (A5158A) and if PortDisable/Enable is performed.

Description of Fix:

During PLOGI retry for reject, check to make sure the probing value does not exceed the max value for reject retry. If it does, fail the FCP probing and clean up the IU.

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DefectS FIXED IN FABRIC OS 2.6.0d
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Defect ID: 9605
Priority: 2
Found in Release: v2.6.0
Problem Area: nsshow does not display symbolic name for storage only empty brackets are displayed

Description of Fix:
The symbolic name for the storage device is now populated correctly between the brackets in the nsShow output.

Defect ID: 11360
Priority:2
Found in Release: v2.6.0a
Problem Area: Failure to re-establish ISL after long haul link reset because switch rejects the ELP.

Description of Fix: ISL can now be re-established after a long haul link reset.

Defect ID: 11763
Priority: 2
Found in Release: v2.6.0a
Problem area: Admin applet fails to load after apostrophe character included in certain SNMP variables.

Description of Fix:
Admin applet now loads apostrophe character correctly for SNMP variables containing apostrophes.

Defect ID: 12650
Priority: 2
Found in Release: 2.6.0a
Problem area: tThad disable configure option is only available to root user

Description of Fix: tThad disable configuration option is now available under Admin.

Defect ID: 12651
Priority 1
Found in Release: 2.6.0a
Problem Area: "FLOGI is discarded and should be rejected with "Command not supported" when Quickloop is enabled.

Description for Fix: FLOGI is rejected with message "command not supported" instead of being discarded.

Defect ID: 12652
Priority 3
Found in Release: 2.5.0d
Problem Area: Erroneous high value SNMP portPerf traps received from Fabric Watch.

Description of Fix: Port performance counter did not wrap correctly so the value displayed was incorrect. portPerf traps now display the correct value.

Defect ID: 12653
Priority 1
Found in Release: 2.5.0d
Problem Area: Interop with McData GA_NXT times out on ISL when sent from McData to Brocade switch.

Description of Fix: NS CAM in 2.6.x allows adjacent switches to respond to GA_NXT request.

Defect ID: 12654
Priority 2
Found in Release:
Prolbem Area: Hyphen in the switch name in DNS disables access to zone admin and Name server windows in Web tools'

Description of Fix: Hypen in switch name in DNS now can be displayed in zone admin and name server windows.

Defect ID: 12688
Priority 2
Found in Release:
Problem Area: 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.

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DefectS FIXED IN FABRIC OS 2.6.0e
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Defect ID: 12439
Priority High
Found in Release: 2.5.1a
Problem Area: GPSN_ID command, when sent to the remote switch suspends traffic on the ISL until it has completed.

Description of Fix: Redirect the remote request processing to a specific receive task.

Defect ID: 12594
Priority: 3
Found in Release: v2.5.1b
Problem Area: Cfgclear removes zoning configuration without warning.

Description of Fix: Added warning that cfgclear removes zoning config in the entire fabric and asks user to confirm before execution.

Defect ID: 14681
Priority: Critical
Found in Release: v2.5.1b
Problem Area: Broadcast storm on Ethernet network causes switch to stop responding.

Description of Fix: Detects broadcast storm and shuts down Ethernet port.

Defect ID: 12916
Priority: High
Found in Release:
Problem Area: Taking a Symm offline causes portfault errors

Description of Fix: Port is not hard faulted on link initialization failures.

Defect ID: 14016
Priority: 1
Found in Release: v2.5.1b
Problem Area: Zoning window in Webtools takes long time to load with very large configurations.

Description of Fix: Loading large configurations does not take long time with the fix.

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DefectS FIXED IN FABRIC OS 2.6.0f
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Defect ID: 14020
Priority:High
Found in Release: 2.6.0d
Problem Area: "Cfgtransshow" Command Fails To Show Outstanding Zoning Transactions. Shows The Effective Zone Configuration instead.

Description of Fix: cfgtransshow was removed from the help menu to prevent misuse.

Defect ID: 11931
Priority:Medium
Found in Release:2.6.0c
Problem Description: Telnet session from AIX host to 2800/2400 switch with FOS 2.6.0c v2.6.0x does not echo the commands that are being typed. Commands are only visible after hitting the enter key and output of command is displayed correctly

Description of Fix: Commands are now visible as they are being typed.

Defect ID: 15040
Priority:High
Found in Release: 2.6.0
Problem Description: No data capture to troubleshoot watchdog reboots of switch.

Description of Fix: Instrumentation added to capture task activity on the switch at time of reboot and setTaskLogMode can be run by admin to capture further watchdog data.

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Defects FIXED IN FABRIC OS 2.6.0g
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Defect: ID: 14827
Priority: Critical
Description of Defect:
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.

Defect: ID: 15889
Priority: Medium
Description of Defect:
1 port attached causes MIB queries to return incorrectly.

Description of fix: Required in Name Server for SNMP. SNMP returns the appropriate next object after connUnitLinkTable object instead of sending the same object info.

Defect: ID: 16381
Priority: High
Description of Defect:
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 Name Server to send RSCNs.

Defect: ID: 17409
Priority: Medium
Description of Defect:
Configuration File Download Failure Message Incorrect;"Invalid Zoning Key" rather than "Zone DB too large".
WebTools error message different than Command Line Interface.

Description of Fix: WebTools error message now matches that of the Command Line Interface, "Zone DB too large"

Defect: ID: 17425
Priority: Medium
Description of Defect:
cfgshow command behavior has changed from 2.4.x to 2.6.This change input a page break into the cfgshow output.
This is a great benefit to users viewing the data directly, however this breaks many of our customers automation scripts.

Description of Fix: moreEnabel/moreDisable commands made accessible to Admin user.

Defect: ID: 17698 (secondary of 17055)
Priority: High
Description of Defect:

When querying of swSystem group and connUnitPortTable some memory was not freed before allocation again. When these MIB tables are queried again and again, we allocate memory every time without freeing previous memory allocated.

Description of fix: Freeing the memory before allocating it again in the routines which provide access to SW System and connUnitPortTable group. These routines also have a termination routine to free the memory when the snmp daemon exits.

Defect: ID: 17817 (secondary of 17313)
Priority: High
Description of Defect:
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: Changed the ADISC ELS handler to ensure that the port name field in the ADISC accept response is consistent with the PLOGI and PDISC responses.

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Defects FIXED IN FABRIC OS 2.6.0h
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Defect: ID: 18044
Priority: Critical
Description of Defect: MSA 1000 cannot login into a 2800, port shows as insync

Description of fix: Remove unnecessary interrupt to handle MSA behavior.

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Defects FIXED IN FABRIC OS 2.6.0j
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Defect: 18694
Priority: Medium
Description of Defect: Switch restart reboot bus error. The calls to sprintf() are violating their buffers and causing memory corruption. The root cause for this is making accesses into the topology database while it is changing.

Description of fix: Serialize accesses to the domain database to make sure that we don't get intermittent values while information in the database is being computed.

Defect: 18965
Priority: Medium
Description of Defect: Switch in mixed fabric suddenly rebooted. strncpy() got out of bounds/had a bad input pointer.

Description of fix: Harness the memory already allocated so that a request will only require the same memory to decode that it already occupies.

Defect: 19817 (Secondary of 16664)
Priority: Medium
Description of Defect: 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.

Defect: 19818 (Secondary of 16668)
Priority: Medium
Description of Defect: 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.

Defect: 20229 (Secondary of 19915)

Priority: High
Description of Defect: Following bringing a second target port online which is configured in the same zone
as a target already online, continous RSCNs are recieved from the switch to all target ports online within the zone.

Description of fix: Change implemented so that the registered COS is not overwritten by the cos in the flogi database when handling UPD_AREA message.