IBM 8260 NWAYS Multiprotocol Switching Hub

This Release Note applies

to

ATM Control Point Version v3.2.2

PNNI

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1 FIXES

- All problems in the following list have been fixed in v3.2.2 operational code level:
  - 8260 Support ESCON and Frame Relay adapter
  - snmp pb fix : 8260 doesn't reset any more If query on OptionalFeatureHardwareVersion on the Bustech escon adapter
  - fix for CBR PVP between 8260/8285 and 8265
  - P2M connection from MSS to 8277 are flagged with frame discard : YES
  - When the VPC bandwidth was set to 2.5 Mbps, the number of SVCs were limited. The MaxCR variable on VPC became null, thus further connections were rejected.
  - ILMI: the correlator was not imcremented during retry, thus causing link down under some particuliar conditions.
  - ILMI: do not reset correlator on trap received in state UP.(seen with MSS module special init).
  - ILMI: secure interface type value given to the CPT when the port is not in Auto mode
  - PNNI: Neighbor Duplicate node ID caused HUB reset
  - Standby A-CPSW reset each 1mn15 in case specific ALERT set (Set alert hello trap display)
  - Eth or TR LEC reports that its AdminStatus is UP, when it should be DOWN. This incorrect status causes NWAYS Campus Manager to report the 8260 node as yellow instead of green.
  - Config Services checks for ROMed module 3P155 Mbps FC5003 (P/N 10J2698 EC E95703) reset correct completion on 8260.

OC3 Problem description :

In case an OC3 port is badly initialized, the following problem can occur in a Network :

- Network slowdown
- Links can never be UP or PNNI links dropped
- 8260 CIP client or 8260 LEC can not pinged any other Equipment (but CIP is well registered on the ARP server or LEC correctly joined the ELAN)
- Error log fully filled by BC messages (incoming msg length error)
- Internal wrap test failed on OC3 port

2 ENHANCEMENTS (starting from V.3.2.0)

1. PNNI Hierarchy Interworking support with V4.

> **IMPORTANT**: Prerequisite to integrate 8260 A-CPSW in PNNI Full Hierarchy network supported by 8265 A-CPSW V4.

2. ATM Kit Program support on ATM Carrier Module 1.5.

3. Frequency of Redundant A-CPSW diagnostics is configurable:

   - Every hour when A-CPSW diagnostics are enabled.
   - Every 24 hours when A-CPSW diagnostics are disabled.

A-CPSW diagnostics are enabled/disabled with the following commands:

SET DEVICE DIAGNOSTICS ENABLE

SET DEVICE DIAGNOSTICS DISABLE

3 KNOWN PROBLEM CURRENTLY BEING ADDRESSED

None with this code release.

4 CURRENT MIB INFORMATION

None with this code release

5 RELEASE HISTORY

1. IN CPSW OPERATIONAL MICROCODE VERSION **V.1.1.5** :

- MIB Version 1.1.
- Support of 8260 10-slot chassis.
- Code upgrade control.
- Unlimited combination of UNI/SSI ports.
- Automatic discovery of IBM 8282 workgroup concentrators.
- Link Aggregate for SSI and NNI configurations.

2. IN CPSW OPERATIONAL MICROCODE VERSION **V.1.2.9** :

- A-CPSW boot performance improvements.
- Support of the ATM 155 Mbps Flexible Concentration Module (A2-MB155) module.
- PNNI phase 0.
- Error log compression.
- Enhanced status display.
- Full multicast capability.
- 16 Virtual Paths (VP) per NNI port (4-bit VPI).
- Early Packet Discard, Partial Packet Discard.
- Reserved bandwidth support firewall.
- MIB Version 1.2.

3. IN CPSW OPERATIONAL MICROCODE VERSION **V.2.0.4** OR **V.2.0.8** :

- Support of the UNI Version 3.1.
- Optional ILMI Address Registration.
- Optional Flow Control for UNI Port.
- Support of SDH and SONET for A2-MB155 Module.
- Fixed Scrambling Scheme for A2-MB155 Module.
- Bandwidth Allocation Setting for SSI Interface.
- LAN Emulation Configuration Servers Address Advertisement.
- PVC Management from the CPSW Console.
- Serial Line IP Support for CPSW Console Port.
- Upload and Download of the CPSW Configuration.
- New Commands in Maintenance Mode.
- Compressed Image of the A-CPSW Operational Microcode.
- Support of MIB Version 1.3.
- Support of Nways 8260 TR/Ethernet LAN Bridge Module.
- Support of Nways 8260 ATM Carrier Modules.
- Improvements to Existing A-CPSW Commands.

4. IN CPSW OPERATIONAL MICROCODE VERSION **V.2.1.0** :

- LAN Emulation Client (LEC) Ethernet 802.3/DIX Ethernet.
- Increased number of connections.
- MIB version 1.4.
- Full Chassis monitoring.
- Redundant Switch support.
- DMM subset.

5. IN CPSW OPERATIONAL MICROCODE VERSION **V.2.2.2** :

- LAN Emulation Client (LEC) Token-Ring 802.5.
- Static Routes inside a single subnetwork.
- MIB version 1.5.
- DMM subset (full chassis monitoring).
- LAN emulation Server/Broadcast Unknown Server (LES/BUS).
- Switch Redundancy versus LES/BUS.
- MSS module support.
- 12 port 25 Mbps module support.
- WAN module support.

6. IN CPSW OPERATIONAL MICROCODE VERSION **V.2.4.0**, **V.2.4.3**, OR **V.2.5.0** :

- MIB version 1.6 (v.2.4.0).
- MIB version 1.7 (v.2.5.0).
- Variable range of VPC/VCC values.
- ABR flow control.
- Larger buffer size.
- A3-MB155 module support.
- PVC multipoint.
- Combo card support (v.2.5.0).
- 1 port 155 Mbps for A12TP25.

7. IN CPSW OPERATIONAL MICROCODE VERSION **V.3.0.0** :

- MIB version 2.0.
- ATM Interim Inter Switch Signalling (IISP).
- ATM Public Network-to-Network Interface (PNNI).
- VP tunneling.
- Link redundancy.
- Troubleshooting support/selective traces.
- Security.
- A8-WAN (E1T1).

8. IN CPSW OPERATIONAL MICROCODE VERSION **V.3.1.0** :

- MIB version 2.1.
- Super ELAN (Short Cut Bridging).
- Controler module download.
- 622 Mbps.
- Automatic migration of the peer group.

9. IN CPSW OPERATIONAL MICROCODE VERSION **V.3.1.7** :

- Improvement in detection of duplicate node id a Peer group.
- Improvement in connection traces.
- New command for stopping LEC thru a *"clear device ..."*. command.

10. IN CPSW OPERATIONAL MICROCODE VERSION **V.3.1.8** :

- Interoperability problem with adapters (MADGE, 8274, CISCO) which do not respect the standards.
- Longest matching prefixes routing - Performance improvement in routing, search time significantly reduced.
- New command to restart a failing PVC (...ACTIVATE).
- In case the 827x VPD image is incorrect, the module no longer resets when it is plugged in the 8260.
- T1 links load balancing improvement in case of link redundancy.

11. IN CPSW OPERATIONAL MICROCODE VERSION **V.3.1.9** :

- Minor changes to be year 2000 compatible while displaying date.
- After reset, all LECS addresses are restored.
- In some configuration we could have a LEC turned down due to the fact that the LECS is not yet ready. Now if this still occurs we record a message, and we retry the LEC connection
- Boot download toward new generation of AMD EEPROMs installed on new A-CPSW modules (Fru PN 25L4651 and 25L4652).

12. IN CPSW OPERATIONAL MICROCODE VERSION **V.3.2.0** :

- In some configuration, 8260 internal LEC registration turns down with cause 4 (duplicate LAN Destination Registration).
- SAAL Problems when 8274's are connected to 8260 (UNI links).
- 8260 Reset when 8274 ports are configured in PNNI in the same cluster.
- When a WAN2 (or A2WAN) blade is configured with 2 x DS3 daughter cards, only one card is managed and viewed by Network Management.
- PNNI Link Down in case of multiple parallel links between two 8260's.
- ILMI does not answer anymore "No Such Name" to an SNMP Get ATM Address Table.
- MIB Error Correction (TrunkId, VCxIndex, ...).
- DMM subset does not work properly when switch on Backup RCTL (Power Controller Module).

13. IN CPSW OPERATIONAL MICROCODE VERSION **V.3.2.1** :

- When downloading with the CP/SW (code version V.3.2.0 only) to the active Controller module (FC8000), the download was failing and the Controller could not recover. The problem did not occur when downloading on the backup Controller module.

- When reseting the OC-3/STM1 daughter card and carrier module (V1.5), the available bandwidth was set back to 52Mbs maximum. The Daughter plus carrier had to be physically removed/reinserted to recover the full 155Mbs bandwidth.

- Some invalid messages were seen in the error log.

- The handling of "VCI and resources shortages" was not done properly when configured in "shortest path" path selection.

END OF DOCUMENT