GIGAswitch/ATM Firmware Version 2.8
Release Notes

May 21, 1999

Introduction

This document contains release notes for GIGAswitch/ATM firmware Version 2.8. This version of the firmware provides the following enhancements:

- Web-based Management Enhancements

- IISP User and Network support

- Minor enhancements for customer reported problems

- Y2K-compliant with CMM Version 1.94

- ILMI Compatibility - Minor modifications to ensure UNI 3.0 / 3.1 compatibility with other vendor's switches

- Default Gateway - Fixed SNMP default gateway display

- CLIP Functionality - Resolved conflict between CLIP and RLECs. CLIP enable/disable now requires a switch reboot to become effective.

- Command Line Interface - General cleanup of displays. Displays are also used by Web Browser.

- Switch Resource Limit Processing - When the switch exhausts internal resources, memory or static memory buffers, the switch now automatically reboots instead of hanging with a 'task suspend'. This only happens in an extreme load condition when multiple end stations disconnect simultaneously.

- Stored Configuration Deletion - Fixed a condition where the saved switch configuration data was erased on power-up or reboot. Only occurs when NVRAM is completely full.

- Slave Card Security - Removed default passwords for slave cards. Now slave cards use same password as master card.

Contents

Hardware Requirements

The master line card must be a QLC 2.0 (DAGGL-BA) or a QLC 2.1 (DAGGL-BB) with at least a 16M SIMM (DAGME-AB) — that is, with at least 24 Mbytes of DRAM (8 Mbytes on the line card, and the 16-Mbyte SIMM).

Line Cards OC-12 (DAGGL-CA/DAGGL-CB) and QLC 1.5 (DAGGL-AA) may *only* be used as slaves.

Where to Get GIGAswitch/ATM Documentation

GIGAswitch/ATM documentation is available at the following Web site:

> http://www.cabletron.com/dnpg/dr/gigaatm/manuals/

How to Get a Copy of GIGAswitch/ATM Firmware Version 2.8

Go to the following Web site to get a copy of the new image to your system:

> http://www.cabletron.com/dnpg/dr/gigaatm/firmware/

If you have a UNIX system, unpack the new image using the following command:

```
# tar -xvf an3v28.tar
```

This command creates a subdirectory named `an3v28` within your current working directory.

The following files are unpacked into the `an3v28` subdirectory:

```
an3-28.ctl     Sample GIGAswitch/ATM bootp Control File for UNIX 4.0
cmm1-94.x      Clock Module Firmware, Revision 1.9.4
lc15v28.app    DAGGL-AA, AB, CA and CB Application Image, Revision 2.8
lc15V28.rom    DAGGL-AA, AB, CA and CB Kernel Image, Revision 2.8
lc20v28.app    DAGGL-BA, BB, Application Image, Revision 2.8
lc20v28.rom    DAGGL-BA, BB, Kernel Image, Revision 2.8
lc20v28.slv    DAGGL-BA, BB, Slave Application Image, Revision 2.8
```

Upgrading Firmware

If you do not currently have, at least, CMM Version 1.59, upgrade to Version 1**.**59 first. Note that the new clock firmware (1.94) is backward compatible with the older revisions of clock firmware. Procedures to update the clock card firmware are in the *Loading the Firmware for the CMM* section in *Chapter 7* of the *GIGAswitch/ATM Installation and Service* manual.

The firmware package for Version 2.8 contains a new clock card firmware image Version 1.94. Version 1.94 of the clock firmware has a minor, but important fix that provides year 2000 support.

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NOTE

We recommend that you update the clock firmware image to 1.94
before you upgrade the line card firmware to Version 2.8.

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Upgrading From Version 2.7 to Version 2.8

To upgrade the firmware from Version 2.7 to Version 2.8:

1. Change the "Line card Start up mode" flag on the Clock Management Module (clock card) to "L", or *force_image_reload* from the master.
2. Reboot the switch to load the new line cards with the new firmware.
3. Modify the boot control file in the bootp server to point to the new images.

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NOTE

If you encounter problems loading new firmware, make sure the boot file
is correct and all the firmware images are in place as specified in the boot file.

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When you upgrade from Version 2.7 to Version 2.8, the switch automatically reboots to run new images after the bootrom load to all slaves is complete. If any slave line card has a problem downloading the application image, the switch reboots itself or must be rebooted manually. If any slave line card in the switch is a QLCv2.0 or greater with extended memory, the switch automatically reboots itself after timing out waiting at a barrier to run new images. If none of the QLCv2.0 or greater slave line cards in the switch have extended memory, the switch must be rebooted manually to run new images.

For detailed instructions on how to download firmware images to your GIGAswitch/ATM system, see the *Loading the Firmware for the Line Card* section in *Chapter 7* of the *GIGAswitch/ATM Installation and Service* manual.

Upgrading from Version 2.5 (and earlier) to Version 2.8

The procedures to upgrade the line card firmware are the same as in previous versions. However, there are some caveats when you upgrade from firmware revisions 2.1.*x* (or older) to Version 2.8. The ROM image of Version 2.8 uses larger flash widths that are available with the QLC 2.0/2.1/2.2 hardware. This is necessary to fit in the larger image sizes of the application. The first attempt to load the new firmware will produce error messages about the application being too big. After the first load procedure, reload the switch with the new firmware again. The second time, the switch uses the new ROM image, which will be able to accommodate the larger application images.

Note that Version 2.8 firmware does not require manual intervention to reboot the switch after the initial load when upgrading the switch firmware. In the past, this was necessary when the old ROM image and the new application image were incompatible. During future upgrades of the switch firmware, after loading the flash with the new ROM and application images, the switch automatically reboots itself to run the new images.

Recommendations

- IISP modes, IISP_USER, IISP_NETWORK should be selected only when necessary. IISP support requires manual configuration of static routes and may require manual selection of UNI30 or UNI31 mode and allowable VCI ranges. Automatic configuration via ILMI is disabled in IISP mode. Reference command line help:

  ATMswitch> sig –h
  {help for sig command, e.g. to manually set the GIGAswitch/ATM to the network side of ILMI

  ATMswitch> sig –uni –ver IISP_NETWORK –port 6:1
  {set port 1 on line card 6 to the network side of IISP signaling

  ATMswitch> sig –uni –status
  {verify IISP setup status

- The use of Point-to-Multipoint ABR PVCs is not recommended.

Restrictions

- LANE services are not supported on switch ports that are configured as IISP_USER.

- When changing from DECNNI to IISP, you must reboot your GIGAswitch/ATM to ensure correct operation in LANE configuration. Before rebooting, you must save static routes and UNI configuration to flash, since they are not saved automatically.

- IP switching is not supported in this release.

Browser Requirements

'Command Line' Warning

GIGAswitch/ATM Web-based Management supports potentially destructive operations when the web-based 'Command Line' feature is enabled. This feature is disabled by default, which means that it will not show up under the "Management Functions → Switch Level Configuration" book. And can be enabled only via a local console or Telnet session. The command to enable this feature is 'password_enable' via a telnet window. Note, you will need to reload the browser in order to see the "Command Line Interface". After it has been enabled, the feature remains enabled during reboots or power cycling until a 'password_disable' command is entered.

Accessing Web-Based Management

To monitor and configure your GIGAswitch/ATM system with web-based management:
1. Invoke a Java-enabled web browser.
2. Enter your switch's URL and the nonstandard HTTP port number (8080), separated by a colon (:). For example:
   http://atmswx.abc.company.com:8080
   http://123.45.67.89:8080
3. At the **User Name** prompt, enter the user name for either the manager account or the user account for your switch.
4. At the **Password** prompt, enter the corresponding manager account or user account password.
5. Click any tree item on the navigation tree in the left frame.
6. At the **Community Name for *agent*:** prompt, enter either the read-only or read-write SNMP community name. If you plan to modify SNMP values in your switch, you must use the read-write community name.
7. You are now ready to monitor and configure your GIGAswitch/ATM system. The right frame provides information about how to use the web-based management applet.

Web Browsers

GIGAswitch/ATM Web-based Management runs in:

- Netscape Communicator Versions 4.5 and 4.51

- Microsoft Internet Explorer Versions 4.01 and 5.0

Netscape Browser Settings

For best results running GIGAswitch/ATM Web-based Management in Netscape Navigator 4.06+ or Netscape Communicator 4.5/4.51 on Windows-NT, set your monitor to use 256 colors as described below.

1. Right-click on your desktop. A pop-up menu will appear.
2. In the pop-up menu, select **Properties**. The **Display Properties** dialog will appear.
3. In the **Display Properties** dialog, click the **Settings** tab.
4. In the **Color Palette** drop-down, select **256 Colors**.
5. Click the **Test** button. A **Testing Mode** message box will appear.
6. Click **OK** in the **Testing Mode** message box to view the test.
7. After several seconds, the test will exit, and another **Testing Mode** dialog box will appear.
8. If the test screen appeared satisfactory, click **Yes** in the **Testing Mode** dialog.
9. In the **Display Properties** dialog, click **OK**.

Internet Explorer Browser Settings

To run GIGAswitch/ATM Web-based Management in Internet Explorer IE4.0*x*/IE5.0, you must modify the security settings as described below.

1. From IE4, select **View**, click **Internet Options…**
   or
   From IE5, select **Tools**, click **Internet Options…**
2. Click the **Security** tab.
3. Select **Trusted sites zone** in the **Zone** drop-down list.
4. Click the **Custom** radio button.
5. Click the **Settings…** button.
6. Scroll down the **Security Settings** tree to **Java**
7. Under **Java permissions**, click **Custom**. With this setting, a button appears in the lower left hand corner labeled **Java Custom Settings…**
8. Click **Java Custom Settings…**
9. Click **Edit Permissions** tab
10. Under **Unsigned Content** → **Run Unsigned Content**, click **Enable**.
11. Click **OK**.
12. In **Security Settings** dialog, click **OK**.
13. In **Internet Options** dialog, with **Trusted sites zone** selected in **Zone** dropdown, click **Add Sites…**
14. For each GIGAswitch/ATM that you plan to access via Web-based Management, type the switch's URL and click **Add**. You can use the symbolic name (such as http://atmxsw.abc.company.com) or the numeric name (such as http://123.45.67.89). If you plan to use both symbolic and numeric names to access the same switch, then supply both. Note that you can add more GIGAswitch/ATM URLs to the trusted sites zone later.
15. Disable the checkbox labeled **Require server verification (https:) for all sites in this zone**.
16. Click **OK**.
17. In the **Internet Options** dialog box, click **OK**.

Known Issues

Netscape/Unix Browser Problems

For best results running GIGAswitch/ATM Web-based Management on Digital Unix 4.0D, use Netscape 3.04, distributed on the Digital Unix 4.0D CDROM. Netscape 4.5/4.51 on Digital Unix 4.0D presents the problems listed below:

- Netscape 4.5/4.51 on Digital Unix 4.0D displays the internal regions of Web-based Management dialog boxes incorrectly. When this occurs, you can correct the display by dragging the edge of the dialog box to resize it slightly. This causes the dialog box to be repainted on your screen.

- In the **Command Line Interface** window, Netscape 4.5/4.51 on Digital Unix 4.0D handles input to the **Previous Commands** drop-down incorrectly. If you attempt to use this drop-down, your system might hang.

- Netscape 4.5/4.51 on Digital Unix 4.0D occasionally crashes due to a segmentation fault.

Netscape/Windows Browser Problems

In Netscape 4.5/4.51 on Windows-95 and Windows-98, Web-based Management can not display very large tables such as the MIB-II Interface Table (ifTable) because of insufficient resources.

Caveats

CLIP Client PVC

On a reboot of the GIGAswitch/ATM, connectivity from the end-station to the CLIP client will be lost. To correct this quickly, you must:

- Delete the PVC and recreate it
  or
- Wait for the end-station ATMARP entry to age out (approximately 15 minutes).