

Cajun M770 ATM Switch Version 2.0.18 Release Notes

Introduction

This document contains information relating to the M15-155F, M15-155SF, M15-155MS, M3-622F and M3-622SF Cajun M770 ATM modules, with Main S/W Version 2.0.18 and Boot Loader Version 2.0.18.

Related Documents

- Cajun M770 Multifunction Switch ATM Switch User's Guide Version 2.0
- M770 ATM Switch Module Installation Guides

New Features

- Supports a fully populated single domain M770 ATM Switch (14 slots)



Warning: All modules on a single domain backplane must have S/W Version 2.0. You cannot mix S/W Versions 1.x with S/W Versions 2.x in the same single domain.

- Supports UNI 4.0
- New Command Line Interface (CLI) commands:

- `hardware/clock/show`

This command displays the clock synchronization source port to the ATM switch.

- `summary/info`

This command displays a summary of the general configuration of the system configuration.

- `summary/lane`

This command displays a summary of the LANE configuration of the system.

- `system/default`

This command allows you to return to the factory default settings. For a list of the factory defaults see the M770 ATM Switch User Guide.

- `tree`

This is a universal command which displays the command hierarchy from the current prompt level and lower levels.

Problems Fixed

CajunView M770 ATM Manager Ver. 2.0

The following problems with the CajunView M770 ATM Manager Ver. 1.0.6 are now fixed in ATM Manager Ver. 2.0:

- The module label of the M15-155SF Module is always green.
- Once the module M15-155SF has been selected, it is impossible to reselect. You must close and reopen the zoom to open module parameter windows.
- The M15-155MS module is not supported in this version.

Command Line Interface (CLI)

- There is no longer any limit on the number of PNNI links or nodes that are displayed using the command `/route pnni topology link` or `/route pnni topology ra`
- The `/route pnni local switch ra` command shows the full 19-byte address for all edge devices connected to the switch.
- The Payload Scrambling Mode parameter now displays the correct mode.

CAC Algorithm

The CAC algorithm (PCR or SGCAC) is now saved in the snapshot file.

Important Notes

LECS Behavior



Warning: Before creating a local LECS or inserting a module with a local LECS, ensure that the ELAN database contains all of the information needed to support the active LECS on the network.

Inserting a module with a local LECS or defining a module to have a local LECS starts the LECS election process, and the LECS on this module can become the new active LECS. As soon as a LECS is elected as active, all of the LECSs in the network will register their addresses with the new active LECS. If the new active LECS is not defined with the correct ELAN database with all ELANs in the network, these LECSs will not be activated and all users for these ELANs will be thrown off the network. Modules from the factory are configured with a remote LECS and will not cause problems. If you want to configure a local LECS on a module and protect the network, perform the following steps when defining a new LECS:

1. First create a LECS with priority '0' to ensure that the LECS will not be elected. The following command will create a local LECS with priority '0' and advertising the well known address:
`lane lecs priority 0`

-
2. Define all of the ELANs that the LECS will host. Create an ELAN for every LES in your network. The following command creates the ELAN `elan_marketing` in the ELAN database:
`lane elan create elan_marketing auto ethernet`
 3. Change the LECS to an appropriate priority. The default priority is 128. The higher the priority, the higher the chance that the LECS will be elected as active. The following command changes the priority to 128:
`lane lecs priority 128`

For further information on how to define LANE Servers, see Chapter 14 - Managing the LECS, Chapter 15 - Managing the LES/BUS and Chapter 16 - Managing an ELAN in the M770 ATM Switch User's Guide.

Module Behavior

- When limiting the vport vrange, change only the lower limit. *Do not change the upper limit.* The vrange default is 32..4095. To limit the number of SVCs to 3095, change the vport vrange to 1000..4095. For further information on managing vports see Chapter 6 Managing Virtual Ports in the M770 ATM Switch User's Guide.
- M770 ATM switches can operate in a multi-level PNNI hierarchy by supporting only inside links. The M770 switch cannot be a border node nor a Peer Group Leader.
- When configuring the ATM source port, ensure that the ATM module/port can be used as a clock synchronization source. Suitable ports/modules are:
 - Ports 1 and 2 of the M15-155 modules with C/S 2.0 or higher
 - All ports of the M3-622 modules with C/S 2.0 or higher.

Default ELAN Behavior

- The 'Default' ELAN is the system default ELAN. To define a different ELAN as default use the command: `/lane/lecs/default`.
- There must always be a Default ELAN defined otherwise a client who sends a configuration request without an ELAN name and does not have mapping will not be able to register to the LANE services.

Known Problems

AAL5 Traffic

If you create a PVC that will not transmit AAL5 traffic, do not define the PVC traffic descriptor as UBR. If for any reason the PVC needs to be UBR, then disable EPD.

PNNI Load Sharing with Point-to-Multipoint Calls

If there are 2 routes to a destination, PNNI may use only 1 route for all Point-to-Multipoint calls. This occurs if there have been no Point-to-Point calls on one of the routes. However it will use the 2nd link if the 1st link fails for any reason.

Corrupted File

If there is a corrupted file in flash memory (for example a 0 byte file) you *must* delete it. After deleting the file, reset the module and ensure that there are no more corrupted files in flash memory. If the corrupted file is still there, repeat the process until it is deleted. You can see the corrupted file, using the `flash dir` command:

```
OTHER    0      lost_and_found    -corrupt
```

Vport Connection Commands

The Vport Connection commands do not sort the connections according to Vports. For example, if you create Vport 3.1.1 you cannot see the connections belonging only to that Vport. Instead you see all of the connections which belong to Vports 3.1.x.

UNI 4.0 – Updating Bandwidth Allocation

When a connection is setup using UNI 4.0 signaling with minimum/alternative Traffic Descriptor Information Elements, and the primary Traffic Descriptor is not accepted somewhere along its path, then the switches before this point do not update the bandwidth allocated according to the connect messages received. Therefore some bandwidth is wasted. This will be fixed in a future S/W upgrade.

Using a New Config File with New PNNI Parameters

If you want to load a snapshot file from a module in one switch to a module in another switch with different switch-wide parameters (PNNI, prefix, IP), then the module with the new snapshot file must initially be the only module in the new switch. This ensures all modules subsequently inserted will take the new switch-wide parameters.

Software Download

- After an Xmodem download, wait until the module completes an automatic reset (this may take 2 minutes). If the module does not recover after the reset, reset the module manually. For more information on xmodem downloads, see Appendix B, Using BOOT Loader, in the M770 ATM Switch User's Guide.
- If the M770 ATM module is reset during a download of the Main S/W version, the file name will appear in the flash file system, but it is not a complete file. If you try to choose this file as the main image using the command `flash default <filename>`, you receive the following error message:

The file <filename> fails its checksum check – operation aborted. No images found with name <filename>.

If this happens, delete the file using the `flash delete <filename>` command and download the file again.

Where to Get the Software

In order to benefit from the latest features, the module must use the latest software version. Modules loaded with earlier versions should be upgraded by performing a software download.

To check what software version you have, type **version** in the Command Line Interface (CLI) of the module or open the CajunView management software module-configuration screen.

The latest software is shipped with the M770 ATM module.

FTP

You can also download the new version from the Lucent Technologies Networks' FTP server:

1. To connect to the FTP server, from a PC or workstation, enter the following commands:
% ftp 194.90.94.227
or
% ftp web.lannet.com
2. You will be prompted to enter your user name and password.
Use the following name and password:
User Name: elstech
Password: elstech
3. This will log you into the site and provide you with read-only access to the relevant directories.
Downloadable software for the Cajun M770 modules is placed under the directory "m770".
To download the latest agent and BOOT Loader codes for the M15-155 or M3-622 modules, first type the command:
% cd m770/m15155/ver_2.0.18
or
% cd m770/m3622/ver_2.0.18
4. Download the code to your station by using the "bin" command followed by the "mget" command.
% bin
% mget *

The Filename of the Main code is m770ATM.2.0.18

The Filename of the Boot Loader code is m770ATMbl2.0.18
(bl=lowercase BL not B1)

World-Wide Web

You can also download the latest agent software from the Lucent Networks Web Site.

1. Go to the Lucent Networks Software Download Site using your WWW browser:
<http://www.lucentnetworks.com/site/software/index.htm>



2. Click on the Cajun M770 icon (M155F or M3-622F).
3. Click on "M15-155F or M3-622F version 2.0.18" in the list of Cajun M770 Latest Software Versions to download the file. Details of the file size and accompanying documentation are given for each software version.

How To Download Software to M770 ATM Modules



Warning: In order to upgrade from Main S/W Ver. 1.0.24 to 1.2.14 or higher, you must (the current version is 2.0.18):

1. Download Boot Loader Ver. 2.0.18 (named *m770ATMbl.2.0.18*).
2. **Delete** all old 1.0.X Boot Loader versions.
3. Download the Main S/W Ver. 2.0.18 (named *m770ATM.2.0.18*).

If you wish to revert back to Main S/W Ver. 1.0.X, you **MUST** use Boot Loader 1.1.5 or higher.

If you are already using Main S/W Ver. 1.1.7 and Boot Loader Ver. 1.1.5, you may download S/W Ver. 2.0.18 and the Boot Loader Ver. *2.0.18* by the directions in the download section of these release notes or in the Cajun M770 Multifunction Switch ATM Switch User's Guide

Download via CajunView Management



Note: In order to manage the M770 ATM modules or download the software you need one of the following CajunView suites:

- CajunView 2.2 for Win[®] 95
- CajunView 2.0 for Win[®] NT[®]
- CajunView 2.0 for Unix (Solaris/HPUX)

Software download is most easily performed via SNMP using a CajunView network management station. Instructions can be found in the in the Download Manager User's Guide.

Software download can also be performed via TFTP using a terminal connected to the module. Full download instructions can be found in the module's User's Guide.

Download via TFTP from the Command Line Interface (CLI)

To download files to the ATM Module via TFTP use the procedure outlined below:

1. Before you can download software updates via TFTP from the CLI determine how many S/W Main images and Boot Loader versions are in flash memory.

To display a listing of the flash memory, use the `flash directory` command:

```
Command:    M770s8:/>flash directory
Output:     Flash Filing System contains 6 files
            BOOT+      419525      m770ATMbl.1.1.5
            MAIN*   (C)  1005795      m770ATM.1.1.7
            MAIN   (C)  987410      m770ATM.1.0.24
            TEXT      8611      config.data - do not delete
            CONFIG    1024      snapshot_1.1
```

The Main S/W image is of the type “MAIN,” and the * means that this image will be used on the next reboot (to see the current Main S/W version, type the command /version). The Boot loader image is of the type “BOOT,” and the + next to it means that this Boot loader will be used on the next reboot.

2. The M770 ATM module flash memory can hold a maximum of two Main S/W versions and two Boot loader versions. This means that before you can TFTP a new Main or Boot loader software version, there can only be one of that type in flash memory. To delete a file from flash memory, use the `flash delete` command and confirm the deletion.

Command: `M770s8:/>flash delete <filename>`

Example `M770s8:/>flash delete m770ATM.1.0.24`

Parameter: `<filename>` The name of the file you wish to delete from the flash directory.

3. In order to download via TFTP, the remote file server must be accessible from the ELAN to which the management LEC belongs or from the M-SPV/ M-SPX/ M-SPS Ethernet Sideband port. To verify this connectivity you should ping from the file server to the IP of the LEC or to the IP of the M-SPV/ M-SPX/ M-SPS. To download a software image over TFTP, use the `system download tftp` command.

Command: `M770s8:/>system download tftp <ip_address> <filename> [<gateway>]`

Example: `M770s8:/>system download tftp 194.31.222.23
m770ATM.2.0.18`

Parameters: `<ip_address>` The IP address of the remote TFTP server.
`<filename>` The full name of the file on the TFTP server. If the file is contained in a sub-directory, the complete path and filename must be supplied.
`<gateway>` The gateway through which you should perform the download:
lec - through the LANE Client
mspv - through the M-SPV/ M-SPX/ M-SPS
(optional, default value: lec)

4. After downloading the new software version to all ATM modules in the M770 ATM switch, reboot the switch using the `system reboot switch` command to run the new version.



Note: It is recommended that ALL modules in the M770 ATM switch use the same software version. To check what software is currently running on the ATM module, use the command `version`.



Attention: Technical Support

M3-622F/SF Diagnostic Worksheet

1. C/S: _____
S/N: _____
Manu. Date: _____
Slot Position: _____

OPR BIT NMA ETM
☐ ☐ ☐ ☐

SRV
☐

PORTS

1 2 3 CPU
☐ ☐ ☐ ☐

: :

LNK Tx Rx LOS
☐ ☐ ☐ ☐

RDI
☐

2. Please Indicate the Status of Each LED.
Mark the LEDs on the picture in the
following manner:

● If the LED is on

① If the LED is blinking

⊗ If the LED is off

3. Please include any additional information,
such as your network configuration,
network protocols and other Cajun M770
modules in the hub.

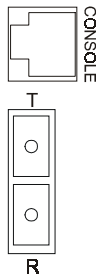
4. Prepared By: _____

Customer: _____

Phone: _____

Fax: _____

Date: _____



Please Fax Back to Your Local Lucent Technologies Representative

Lucent Technologies Inc.,
Data Networking Systems,
211 Mt. Airy Rd., Basking Ridge,
NJ 07920.

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