

AT-S85 Version 3.0.2 Patch 2 and AT-S97 Version 3.0.2 Management Software for the AT-MCF2000 Media Converter Series Software Release Notes

Please read this document before you begin to use the management software.

Supported Platforms

Version 3.0.2 Patch 2 fixes the problem described in "Resolved Issues in AT-S85 Version 3.0.2 Patch 2" on page 1.

AT-S85 and AT-S97 Version 3.0.2 Management Software supports the AT-MCF2000 Series modules listed here:

Software	Module	
	AT-MCF2012LC Fast Ethernet Media Converter Module	
AT-S85 Version 3.0.2	AT-MCF2012LC/1 Fast Ethernet Media Converter Modul	
Management Software	AT-MCF2032SP Fast and Gigabit Ethernet Media Converter Module	
AT-S97 Version 3.0.2 Management Software	AT-MCF2000M Management Module	

Product Documentation

For the hardware installation and management instructions, refer to the following guides on the Allied Telesis web site at www.alliedtelesis.com:

- □ AT-MCF2000 Media Converter Series Installation Guide
- □ AT-S85 and AT-S97 Version 3.0.0 Management Software Command Line User's Guide

Resolved Issues in AT-S85 Version 3.0.2 Patch 2

- □ IEEE 802.1Q tag headers are no longer stripped from packets before forwarding through the AT-MCF2032SP Fast and Gigabit Ethernet Media Converter Module.
- The twisted pair ports on the AT-MCF2032SP Fast and Gigabit Ethernet Media Converter Module can now establish a link if Auto-Negotiation is disabled and the speed and duplex mode are set manually to 10 or 100 Mbps, full-duplex mode. (7222)

To install this patch on the AT-MCF2032SP Fast and Gigabit Ethernet Media Converter Module, use the version 3.0.2 installation procedure, described in "Upgrading the Media Converter Modules and the AT-MCF2000M Management Module" on page 3.

What's New in Version 3.0.2

- The SYSTEM RESET CLUSTER command, which is used to restore the default settings on the modules, has been enhanced. Where before you could only use the command to restore the default settings on all the modules, you can now use it to restore just the management module or just the media converter modules. Here are the commands:
 - SYSTEM RESET CLUSTER ALL command This command is identical to the original command. You use it to restore the default settings to all of the modules, both management and media converter, in a chassis or stack.
 - SYSTEM RESET CLUSTER MGMT command You use this command to restore just the management module to its default settings.
 - SYSTEM RESET CLUSTER BLADES command You use this command to restore the default settings to all of the media converter modules in the chassis or stack.

Note:

When a module is returned to its default settings, it will be unresponsive to management commands for about one minute while it initializes its management software. In the case of media converter modules, some network traffic may be lost.

The management module now displays the amount of time in seconds that it takes to complete commands. The time is included in brackets at the end of the COMPL messages. In this example, the management module completed the SYSTEM SET INTERFACE command in 4.5 seconds.

```
# system set interface id=0/1 opmode=ml
<>14:30:22::system set interface id=0/1 opmode=ml::COMPL::[04.496]
```

This release does not support Operations, Administration, and Maintenance (OAM). It also does not support Xmodem uploads, but it does allow for Xmodem downloads using the FILE FASTDOWNLOAD command.

Known Issues

There are no known issues in this release.

Resolved Issues

The following issues were resolved in this release:

- SFP Modules. If an SFP module in the AT-MCF2032SP Module was disabled with the SYSTEM SET PORT command, the transmitter in a module remained on, giving the remote link partner the erroneous impression that the link was still active. This issue has been resolved. (6910, 6911)
- SNMP. The management software returned the wrong value if you performed a Set on an object in the subgroup mConvInterfaceTable in the Allied Telesis MIB and then a Get on the same object. This issue has been resolved. (6913)

Operational Note

If you want to use an SNMP program to configure the twisted pair ports on a media converter module, the ports must have links to network nodes. Twisted pair ports that do not have links cannot be configured with an SNMP program. (6836, 6837)

Upgrading the Media Converter Modules and the AT-MCF2000M Management Module

Here are the general steps to upgrading the modules. They should be performed in this order:

- 1. Upgrade the AT-S85 Management Software on the AT-MCF2012LC, AT-MCF2012LC/1 and AT-MCF2032SP Media Converter Modules.
- 2. Upgrade the bootloader on the media converter modules.
- 3. Upgrade the AT-S97 Management Software on the AT-MCF2000M Management Module.
- 4. Upgrade the bootloader on the management module.

Guidelines

Note:

The upgrade process will be disruptive to the operations of your network because the media converter modules do not forward network traffic during the process. To minimize the impact to you network, you should perform the procedure during periods of low network activity.

- □ Upgrading a single media converter module takes about three minutes.
- □ Upgrading the AT-MCF2000M Management Module takes about two and a half minutes.
- When upgrading a module, install the new management software and then the new bootloader.
- There are four versions of the bootloader for the management module. They are versions 1.3.0, 1.4.0, 3.0.0, and 3.0.2. A module with version 1.3.0 must be upgraded first to version 1.4.0. A module that has Version 1.4.0 can be upgraded directly to 3.0.2.
- □ There are three versions of the bootloader for the media converter modules. They are versions 1.3.0, 1.4.0, and 3.0.2. A module with version 1.3.0 must be upgraded first to version 1.4.0 before it can be upgraded to 3.0.2.
- There are five versions of the AT-S85 and AT-S97 Management Software programs. They are Versions 1.3.0, 1.4.0, 2.0.0, 3.0.0, and 3.0.2. The versions must be installed in sequence. Skipping a version may damage a module. For example, to update a media converter module or a management module that has Version 1.4.0 of the management software, you must first install Versions 2.0.0 and 3.0.0 before installing Version 3.0.2. All of the versions are available on the Allied Telesis web site.
- The upgrade process requires that the media converter modules and the management module have the same versions of their respective management software programs and that they be upgraded in tandem. Otherwise, the upgrade procedure may not work. In some situations, you may need to downgrade the software on the management module before you can upgrade the media converter modules. For instance, to upgrade a media converter module that has Version 2.0.0 of the AT-S85 Management Software with a management module that has Version 3.0.0 of the AT-S97 Management Software, you first have to downgrade the management module to Version 2.0.0.
- If you need to downgrade the AT-S97 Management Software on the AT-MCF2000M Management Module, be sure to install the software images in sequence. For example, to downgrade the module from Version 3.0.0 to Version 1.4.0, you must first install Version 2.0.0

and then Version 1.4.0. If the module contains the Version 3.0.0 or 3.0.2 bootloader, you do not have to downgrade the bootloader because it is compatible with the older versions of the AT-S97 Management Software.

□ The AT-MCF2000S Stacking Module does not use management software.

Caution:

Never download an earlier version of the bootloader once a module has Version 3.0.2. Backward revisions of the bootloader may damage a module. To view the bootloader's version number, use the DIAGNOSTICS SHOW BOOTLOADER command.

Requirements

Here are the requirements for the upgrade:

- □ The 10/100/1000Base-T port on the AT-MCF2000M Management Module must be connected to your network.
- □ The management card must have an IP address.
- □ There must be a TFTP server on your network.
- □ The new management software files must be stored on your TFTP server.

Upgrading the AT-S85 Management Software on the Media Converter Modules

Use the SYSTEM SHOW CLUSTER command to display all the modules in the chassis or stack and the version numbers of their management software programs. From the list, determine which modules need to be upgraded. Here is an example of the display from a stack of two switches.

Chass ID	is		Chassis Name	Chas -	ssis Type		MAC Address	Master Chassis	
0		AQ	Traffic	AT-MCF2	000	11:22:33:	44:55:55	Yes	
	Slot :	ID	Modul	e Name	AT-M Modu	CF2000 le Type	Cfg Overw	rite Softwar	e Version
	 М 1		Reg 1	traf	AT-MC AT-MC	CF2000M CF2012LC	Enable	v3.(v3.().0).0
1	2 Reg 2 traf 1 UJ Traffic			ΑΤ-ΜΟ	11:22:33:	Enable 44:66:77	V3.0 No	5.0	
	slot :	ID	Modul	e Name	AT-M Modu	ICF2300 le Type	Cfg Overwr	rite Softwar	e Version
	1 2 3 4		Distr Distr Distr Distr Distr	ict 1 ict 2 ict 3 ict 4	AT-MC AT-MC AT-MC AT-MC	F2012LC F2012LC F2012LC F2012LC F2012LC/1	Enable Enable Enable Enable Enable	v3.(v3.(v3.(v3.(v3.().0).0).0).0

Note the following:

- If the AT-MCF2000M Management Module and all the media converters have Version 3.0.0 of their respective management software programs, upgrade the media converter modules first by continuing with the instructions in this section. Afterwards, upgrade the management module, as described in "Upgrading or Downgrading the AT-S97 Management Software on the AT-MCF2000M Management Module" on page 8.
- If one or more of the media converter modules have an earlier version of the management software than the management module, you must downgrade the management module to the same version and then upgrade the media converter modules. For example, if the media converter modules have Version 2.0.0 while the management module has Version 3.0.0, you would do the following:
 - 1. Downgrade the AT-S97 Management Software on the AT-MCF2000M Management Module to Version 2.0.0.
 - 2. Upgrade the AT-S85 Management Software on the media converter modules from Version 2.0.0 to Version 3.0.0.
 - 3. Upgrade the AT-S97 Management Software on the AT-MCF2000M Management Module from Version 2.0.0 to 3.0.0.
 - 4. Upgrade the AT-S85 Management Software on the media converter modules from Version 3.0.0 to Version 3.0.2.
 - 5. Upgrade the bootloaders on the media converter modules from Version 1.4.0 to Version 3.0.2.
 - 6. Upgrade the AT-S97 Management Software on the AT-MCF2000M Management Module from Version 3.0.0 to 3.0.2.
 - 7. Upgrade the bootloader on the AT-MCF2000M Management Module from Version 3.0.0 to 3.0.2.
- □ If the management module has an earlier version of the software than the media converter modules, you'll first need to upgrade its management software to the same version as the media converter modules. For example, if the management module has Version 2.0.0 and the media converter modules have Version 3.0.0, you would do the following:
 - 1. Upgrade the AT-S97 Management Software on the AT-MCF2000M Management Module from Version 2.0.0 to 3.0.0.
 - 2. Upgrade the bootloader on the AT-MCF2000M Management Module from Version 1.4.0 to 3.0.2.
 - 3. Upgrade the AT-S85 Management Software on the media converter modules from Version 3.0.0 to Version 3.0.2.
 - 4. Upgrade the bootloaders on the media converter modules from Version 1.4.0 to Version 3.0.2.
 - 5. Upgrade the AT-S97 Management Software on the AT-MCF2000M Management Module from Version 3.0.0 to 3.0.2.
- Versions 1.4.0 of the AT-S85 and AT-S97 Management Software programs have new bootloader files. When upgrading a media converter module or the AT-MCF2000M Management Module from Version 1.3.0 to 1.4.0, install the Version 1.4.0 bootloader first and then the Version 1.4.0 management software.

The AT-S97 Management Software on the AT-MCF2000M Management Module has two commands for updating the media converter modules from Version 3.0.0 to 3.0.2. The first command is the FILE FASTDOWNLOAD command. It lets you update all the media converter modules in the chassis or stack simultaneously. You could use this command if all of the media converter modules already have Version 3.0.0. Here is the TFTP format of the command. (There

is also a Xmodem version, described in the *AT-S85 and AT-S97 Management Software Command Line User's Guide.*)

file fastdownload appblock srcfile=tftp://ipaddress/filename.img

The *ipaddress* parameter specifies the IP address of the TFTP server on your network and the *filename*.img parameter is the filename of the new AT-S85 Management Software on the server. Here is an example of the command. The IP address of the TFTP server is 149.11.124.2 and the name of the file is ATS85_V300.img:

file fastdownload appblock srcfile=tftp://149.11.124.2/ats85_v300.img

When you enter this command, the management module queries your network for the TFTP server and requests the file. After receiving the file, the module sends it over the backplane in the chassis and out its Stack port to all of the media converter modules in the enclosure or stack.

If you need to update some but not all of the media converter modules, then the command you'll want to use is the FILE DOWNLOAD command, which lets you update the media converter modules individually and which has this format:

```
file download srcfile=tftp://ipaddress/filename.img
dstfile=system://chassis/slot/appblock
```

The *ipaddress* parameter and the *filename*.img parameter perform the same function here as they do in the FILE FASDOWNLOAD command. They specify the IP address of the TFTP server on your network and the filename of the AT-S85 Management Software to download from the server to the modules.

The *chassis* parameter is the ID number of the chassis that has the module you want to update. The chassis ID number for an enclosure that has the AT-MCF2000M will be either 0 or 31. An enclosure that has the AT-MCF2000S Stacking Module can have an ID number of 1 to 30. (For more information about chassis ID numbers, refer to the *AT-MCF2000 Media Converter Series Installation Guide* or the *AT-S85 and AT-S97 Management Software Command Line User's Guide*.)

This example of the command downloads a new version of the AT-S85 Management Software to the media converter module in slot 1 in a chassis with the ID 0. The IP address of the TFTP server is 150.24.44.65 and the name of the file is "ats85_app_v302.img:"

file download srcfile=tftp://150.24.44.65/ats85_app_v302.img
dstfile=system://0/1/appblock

For more information on the commands described here, refer to the *AT-S85 and AT-S97 Management Software Command Line User's Guide.*

After you have updated the AT-S85 Management Software on the media converter modules to version 3.0.2, go to the next section to update their bootloader files.

Upgrading the Bootloaders on the Media Converter Modules

Caution:

Never download an earlier version of the bootloader once a module has Version 3.0.2. Backward revisions of the bootloader may damage a module. To view the bootloader's version number, use the DIAGNOSTICS SHOW BOOTLOADER command. To determine which of the modules need upgrading, issue the DIAGNOSTICS SHOW BOOTLOADER command, which displays the version numbers of the current bootloader files. Here is an example of the display from a stack of two switches.

Chass ID	is	Chassis Name	Cha	ssis Type		MAC Address	Master Chassis	
0			AT-MCF2	2000	11:22:33:	 44:55:55	Yes	
	Slot I	D Modu	e Name	Modu	ле Туре	Bootloa	der Version	
	 М 1 2	Reg 1 Reg 2	L traf 2 traf	AT-M AT-M AT-M	CF2000M CF2012LC CF2012LC/1		v1.4.0 v1.4.0 v1.4.0	
===== 1	ACT Traffic		======	11:22:33:	44:22:22	========= No	===	
	Slot I	D Modu	e Name	AT-N Modu	NCF2300 Ile Type	Bootload	der Version	
_	1 2 3 4	Reg 7 Reg 8 Reg 9 Reg 1	' traf 3 traf 9 traf 10 traf	AT-M0 AT-M0 AT-M0 AT-M0	CF2012LC CF2012LC CF2012LC CF2012LC CF2012LC		v1.4.0 v1.4.0 v1.4.0 v1.4.0 v1.4.0	

Now that you know which media converter modules in the chassis or stack need the new bootloader, use the FILE DOWNLOAD command to download the file. Here is the format of the command:

file download srcfile=tftp://ipaddress/filename.bin
dstfile=system://chassis/slot/bootblock

The *ipaddress* parameter specifies the IP address of the TFTP server on your network and the *filename*.bin parameter is the filename of the new bootloader on the server. The *chassis* parameter is the ID number of the chassis that has the modules you want to upgrade and the *slot* parameter is the chassis slot number. To update all of the media converter modules, use asterisks for the chassis and slot parameters.

Here is an example that updates the bootloaders on all of the media converter modules. The IP address of the TFTP server is 149.11.124.2 and the name of the file is ATS85_BOOT_V302.BIN:

file download srcfile=tftp://149.11.124.2/ats85_boot_v302.bin
dstfile=system://*/*/bootblock

This example updates just the media converter module in slot 2 in the chassis with the ID number 0. It assumes the same IP address for the TFTP server and the same filename for the bootloader:

file download srcfile=tftp://149.11.124.2/ats85_boot_v302.bin
dstfile=system://0/2/bootblock

Note:

If a media converter module has bootloader version 1.3.0, you must first load Version 1.4.0 before installing Version 3.2.0.

After updating the bootloaders on all of the media converter modules, go to the next section to update the management software on the management module.

Upgrading or Downgrading the AT-S97 Management Software on the AT-MCF2000M Management Module

The command for upgrading or downgrading the AT-S97 Management Software on the management module is also the FILE DOWNLOAD command. Here is the format.

file download srcfile=tftp://ipaddress/filename.img
dstfile=system://chassis/m/appblock

The slot that contains the management module is designated with "m" in the command.

This example of the command downloads a new version of the AT-S97 Management Software to the management module in the chassis with the ID 0. The IP address of the TFTP server is 150.24.44.65 and the name of the file is "ats97_v3.img:"

file download srcfile=tftp://150.24.44.65/ats97_v3.img
dstfile=system://0/m/appblock

Upgrading the Bootloader on the AT-MCF2000M Management Module

Caution:

Never download an earlier version of the bootloader onto the module. Backward revisions may damage the module. For example, if the module already has version 3.0.2, downloading version 3.0.0 may cause the card to malfunction. To view the bootloader's version number, use the DIAGNOSTICS SHOW BOOTLOADER command.

The DIAGNOSTICS SHOW BOOTLOADER used in the previous section to display the version numbers of the bootloaders on the media converter modules also displays the version number of the bootloader on the AT-MCF2000M Management Card. If you determine that the management module needs to be updated, use this command:

file download srcfile=tftp://ipaddress/filename.bin
dstfile=system://chassis/m/bootblock

Here is an example of the command. It downloads the new bootloader to the management module in the chassis with the ID 0. The IP address of the TFTP server is 150.24.44.65 and the name of the file is "ats97_boot_v302.bin:"

file download srcfile=tftp://150.24.44.65/ats97_boot_v302.bin
dstfile=system://0/m/bootblock

Examples

Here are two examples of the upgrade procedure. In this first example all of the media converter modules in the chassis or stack and the AT-MCF2000M Management Module have Version 3.0.0 of the management software programs. This means that you can upgrade all of the modules directly to Version 3.0.2 without having to downgrade the management module.

 The first step is to update the bootloaders on the media converter modules. If you use the FILE FASTDOWNLOAD command, you can do it with just one command. This example of the command assumes that the IP address of the TFTP server is 149.22.112.8 and the name of the file is 'ats85_boot_v302.img';

file fastdownload bootblock srcfile=tftp://149.22.112.8/ats85_boot_v302.img

After the management card receives the file from the TFTP server, it transmits it over the backplane in the chassis and, if it is part of a stack, out its Stack port to all of the media converter modules, which write the file to their flash memory and then reset. The entire process can take several minutes.

2. After updating the bootloaders on the media converter modules, you can use the FILE FASTDOWNLOAD command to update their AT-S85 Management Software. In this example, the name of the file is 'ats85_app_v300.img':

file fastdownload appblock srcfile=tftp://149.22.112.18/ats85_app_v302.img

Again, after receiving the file, the management card sends it over the backplane in the chassis and, if it is part of a stack, out its Stack port to all of the media converter modules, which write the file to their flash memory and then reset.

3. After you have updated all the media converter modules to Version 3.0.2, you can update the management module using the FILE DOWNLOAD command. The first step is to update the AT-S97 Management Software. This example of the command assumes that the name of the file is 'ats97_app_v302.img':

```
file download srcfile=tftp://149.22.112.18/ats97_app_v302.img
dstfile=system://0/m/appblock
```

After receiving the file, the management module writes it to flash memory and resets. You have to reestablish your management session after the module initializes its management software.

4. To complete the upgrade, use the FILE DOWNLOAD command to download the new bootloader to the management module. The name of the file on the TFTP server is 'ats97_boot_v302.img':

file download srcfile=tftp://149.22.112.18/ats97_boot_v302.img
dstfile=system://0/m/bootblock

In this example, the management module and most of the media converter modules have Version 3.0.0 of their management software, except for one media converter module that has Version 2.0.0. To upgrade that media converter module, it will be necessary to downgrade the management module. Here are the upgrade steps:

 The first step is to downgrade the management module from Version 3.0.0 to 2.0.0 so that you can upgrade the one media converter module that has Version 2.0.0 of the AT-S85 Management Software. This example assumes that the TFTP server has the IP address 124.112.74.12 and the name of the file on the server is 'ats97_app_v200.img'. Here is the command to downgrade the management module:

file download srcfile=tftp://124.112.74.12/ats97_app_v200.img
dstfile=system://0/m/appblock

2. After downgrading the management module, you upgrade the media converter module. This command assumes that the module you want to upgrade is located in slot 2 of a chassis with the ID 0. The name of the file is 'ats85_app_v300.img'':

file download srcfile=tftp://124.112.74.12/ats85_app_v300.img
dstfile=system://0/2/appblock

3. After upgrading the media converter module to Version 3.0.0, you have to upgrade the management module back to Version 3.0.0, as well. This command assumes that the name of the file is 'ats97_app_v300.img'':

file download srcfile=tftp://124.112.74.12/ats97_app_v300.img
dstfile=system://0/m/appblock

4. This FILE FASTDOWNLOAD command updates the management software on the media converter modules to Version 3.0.2. The name of the file is 'ats85_app_v302.img';

file fastdownload appblock srcfile=tftp://124.112.74.12/ats85_app_v302.img

5. This FILE FASTDOWNLOAD command updates the bootloaders on all of the media converter modules to Version 3.0.2. The name of the file is 'ats85_boot_v302.img";

file fastdownload bootblock srcfile=tftp://124.112.74.12/
ats85_boot_v302.img

6. This command updates the AT-S97 Management Software on the management module to Version 3.0.2. The name of the file is 'ats97_app_v302.img:'

file download srcfile=tftp://124.112.74.12/ats97_app_v302.img
dstfile=system://0/m/appblock

7. This command updates the bootloader on the management module to Version 3.0.2. The name of the file is 'ats97_boot_v302.img:'

file download srcfile=tftp://124.112.74.12/ats97_app_v302.img
dstfile=system://0/m/appblock

Corrections to the AT-S85 and AT-S97 Management Software Command Line User's Guide

- If you use the Mode Select button on a media converter module to change the operating mode of a media converter channel, a module automatically updates its auxiliary configuration file to retain the change. However, the management module does not update the master configuration file. To update the master configuration file, you must use the CONFIG SAVE command. This is not mentioned in the description of the configuration files starting on page 146 in the user's guide.
- The description of the CONFIG OVERWRITE command on page 158 incorrectly states that the default setting for a module's overwrite setting is enabled. The actual default setting is disabled. At the default setting, a media converter module configures its parameter settings from its auxiliary configuration file when it is reset or powered on. To instruct a media converter module to use the master configuration file on the management module instead of its auxiliary configuration file to set its parameters, use the CONFIG OVERWRITE command to change the module's overwrite setting to enabled.

History of Resolved Issues

This section lists the history of resolved issues in the AT-S85 and AT-S97 Management Software.

Version 3.0.0

Redundant Temperature Exceed Limit message. Instead of generating a single clear message when the operating temperature returned below a module's temperature threshold, the management software generated two messages. The management module now generates a single clear message when the operating temperature of a module returns below the designated threshold. (5819)

Missing Temperature Exceed Limit message. If, after the temperature threshold of a module was exceeded, the management module was reset, the module did not log a new Temperature Exceed Limit message in the event log after the reset. When reset, the management module now logs a Temperature Exceed Limit message if it detects that a module's temperature is above the designated threshold. (5820)

Version 2.0.0

The following issues were resolved in AT-S85 and AT-S97 Version 1.4.0:

- <u>Management Accessibility.</u> After several days of continuous operations, the management software would stop responding to commands and would display the message "ipc_sock.c 882. Connect Failed: Resource temporarily unavailable." (5809)
- Stacking Chassis Display. The SYSTEM SHOW CLUSTER command failed to display all of the enclosures in a stack after the management software was updated. (5823)
- □ <u>Console Timer</u>. The console timer wasn't working. (5760)
- <u>SYSTEM SHOW INTERFACE Command</u>. This command did not return an error message if you entered an invalid ID value. (5829)

Version 1.4.0

The following issues were resolved in AT-S85 and AT-S97 Version 1.4.0:

- Temperature Threshold. The SYSTEM SET MODULE command did not return an error message if you omitted the ID parameter. (5812)
- <u>Clear Trap.</u> If a module's temperature threshold was exceeded, the management module would generate a Clear Trap message before the temperature returned below the threshold. (5819)

Version 1.3.0

The following issues were resolved in AT-S85 and AT-S97 Version 1.3.0.

□ None

Features History

This section lists the history of the AT-S85 and AT-S97 Management Software's features.

Version 3.0.0

- AT-MCF2300 Chassis Supports four media converter modules, the AT-MCF2000M Management Module or the AT-MCF2000S Stacking Module, and primary and redundant power supplies.
- AT-MCF2032SP Media Converter Module Features twelve Fast and Gigabit Ethernet channels consisting of 10/100/1000Base-T ports and SFP slots for 100Base or 1000Base SFP modules.

Version 2.0.0

Support for Simple Network Management Protocol (SNMP), versions SNMPv1 and SNMPv2c

Version 1.4.0

- □ Stacks of up to sixteen media converter modules
- □ Support for Xmodem downloads

Version 1.3.0

- □ Control over the operating parameters of the twisted pair and fiber optic ports of the media converter channels, including:
 - Auto-Negotiation
 - Speed
 - Duplex mode
 - MDI/MDI-X configuration
- □ Selection of a channel's operating mode:
 - MissingLink™
 - Smart MissingLink
 - Link Test
- **□** Rate limits for the ingress and egress packets on the ports of the media converter channels.
- Network Time Protocol (NTP) client for setting the system's date and time from a NTP server on your network or the Internet.
- **Telnet** server for management without encryption from a remote management station.
- □ Secure Shell (SSH) server for remote management with encryption.
- **□** Event log for monitoring the operations of the modules.
- □ Syslog client for transmitting event messages to a Syslog server.

Contacting Allied Telesis

This section provides Allied Telesis contact information for technical support as well as sales and corporate information.

Online Support

You can request technical support online by accessing the Allied Telesis

Knowledge Base: www.alliedtelesis.com/support. You can use the Knowledge Base to submit questions to our technical support staff and review answers to previously asked questions.

Email and Telephone Support

For Technical Support via email or telephone, refer to the Support & Services section of the Allied Telesis web site: www.alliedtelesis.com/Support. Select your country from the list displayed on the website. then select the appropriate menu tab.

Warranty

For hardware warranty information, refer to the Allied Telesis web site: www.alliedtelesis.com/support.

Returning Products

Products for return or repair must first be assigned a return materials authorization (RMA) number. A product sent to Allied Telesis without an RMA number will be returned to the sender at the sender's expense. To obtain an RMA number, contact the Allied Telesis Technical Support group at our web site: www.alliedtelesis.com/support. Select your country from the list displayed on the website. Then select the appropriate menu tab.

Sales or Corporate Information

You can contact Allied Telesis for sales or corporate information through our web site: www.alliedtelesis.com. To find the contact information for your country, select Contact Us.

Management Software Updates

New releases of management software for our managed products are available on our Allied Telesis web site at http://www.alliedtelesis.com/support.

Copyright © 2010 Allied Telesis, Inc.

All rights reserved. No part of this publication may be reproduced without prior written permission from Allied Telesis, Inc.

Allied Telesis and the Allied Telesis logo are trademarks of Allied Telesis, Incorporated. All other product names, company names, logos or other designations mentioned herein are trademarks or registered trademarks of their respective owners.