8260 NWAYS(*) MULTIPROTOCOL SWITCHING HUB

INSTALLATION INSTRUCTIONS

FOR

MICROCODE UPGRADE FIELD B/M OF

DMM AND EC-DMM MODULES (BOOT V1.03, OPERATIONAL V5.10),

ADVANCED DMM/CONTROLLER MODULE (BOOT V1.03/V1.03, OP. V5.10/V1.14),

FAULT-TOLERANT CONTROLLER MODULE (BOOT V1.03, OPERATIONAL V1.14),

E-MAC MODULE (BOOT V1.01, OPERATIONAL V3.00),

HEMAC MODULE (BOOT V1.00, OPERATIONAL V2.10),

T-MAC MODULE (BOOT V2.00, OPERATIONAL V4.00, TRCHIPSET V4.00)

AND

HTMAC MODULE (BOOT V1.01, OPERATIONAL V2.10, TRCHIPSET V1.00)

Contents

Read This First

Read this carefully

Before starting the installation, please check that your DMM(s) or EC-DMM(s) has(have) the requested memory. For that, issue, for each DMM or EC-DMM, the following command:

show module x.all verbose
where x is the slot where your DMM resides.

This **show** command should return:

CPU RAM Size (Mb): 5
FLASH Memory (Mb): 3

If you have:

CPU RAM Size (Mb): 5
FLASH Memory (Mb): 2

that is valid for DMM v3.01, but that is not enough for DMM v4.11 or later. If you try to load DMM v4.11 or later on a DMM v3.01 that has sufficient RAM, but not enough FLASH, it will refuse to start the download, asking for memory upgrade.

If you have:

CPU RAM Size (Mb): 3
FLASH Memory (Mb): 2

then you may only run 2.x levels of DMM Operational code.

If you have one of the last two cases, the DMM Memory upgrade MES (FC 8932), that provides both extra RAM and FLASH memory, should be installed. If you have it, read *Distributed Management Module Memory Upgrade*, part number 29H4293, and/or contact your IBM representative for further needs.

Note related to High-End Token-Ring Medium Access Control Card

Before starting the installation, please carefully read the following:

To exercise the High-End Token Ring Medium Access Control Card (HTMAC) facilities, it is mandatory that the Management Module(s) (DMM, EC-DMM or Advanced DMM/Controller) of your 8260 Nways(*) Multiprotocol Switching Hub be at least at level v4.11 or later. It is recommanded to work with the latest released Operational Code levels, that are v5.10 for the Management Module and v1.14 for the Controller (parts of that same EC).

The 8260 HTMAC Operational Code supports, since v2.00, Enterprise Communication Analysis Module (ECAM). ECAM is an advanced embedded application which provides RMON extensions to IBM Nways(*) Campus Manager - Remote Monitor, version 2 or later.

HTMAC Operational Code v2.10 also contains some fixes for problems that were in Operational Code v1.xx or v2.0x. **It is recommended to upgrade all HTMACs to v2.10**, even if ECAM will not be used.

When upgrading HTMAC Operational Code to v2.10, any RMON configured parameters (e. g. alarms, filters) will be lost. These parameters will need to be reconfigured after HTMAC Operational Code v2.10 is downloaded.

The 8260 HTMAC Boot Code v1.01 contains a fix for using HTMAC with 16 MB of memory (FC 8996). HTMAC Boot Code v1.01 must be loaded on the card prior to using the 16 MB memory modules. If not possible, please contact your IBM representative.

For additional informations about the High-End Token Ring Medium Access Control Card (HTMAC) and its embedded Enterprise Communication Analysis Module (ECAM), please refer to the *Release Note*, part number P/N 02L2447.

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AIX	IBM
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ProComm	Data Storm Technologies Corporation
Windows	Microsoft Corporation
Softerm Custom	Softronics, Inc.

Before Installation

Purpose

The purpose of this document is to provide the instructions to update the software microcode (flash EEPROM) of the 8260 Nways(*) Multiprotocol Switching Hub:

Distributed Management Module (DMM, EC-DMM),

Ethernet Carrier Distributed Management Module (EC-DMM),

Advanced DMM / Controller Module (DMM Part and/or Controller Part),

Fault-Tolerant Controller Module (8000-RCTL),

Ethernet Medium Access Control Card (E-MAC),

High-End Ethernet Medium Access Control Card (HEMAC),

Token Ring Medium Access Control Card (T-MAC) with associated T-MAC Token Ring Chipset,

High-End Token Ring Medium Access Control Card (HTMAC) with associated HTMAC Token Ring Chipset,

using material provided with package P/N 02L2446.

Machines Affected

These Installation Instructions, part number P/N 02L2446, EC level EC E46587, apply to 8260 Nways(*) Multiprotocol Switching Hub:

Feature code 1200 (Stand Alone DMM),

Feature code 1300 (EC-DMM),

Feature code 1700 (Advanced DMM / Controller),

Feature code 8000 (Fault-Tolerant Controller),

Feature code 8918 (E-MAC),

Feature code 8924 (HEMAC),

Feature code 8913 (T-MAC),

Feature code 8925 (HTMAC).

Requirements

Important Notice

When upgrading **DMMs** and **MACs** cards from earlier versions, you must download modules in the following order:

Download E-MAC adapter code (boot v1.01, then operational v3.00) and/or T-MAC adapter code (boot v2.00, then operational v4.00), when applicable.

Download RCTL (Fault-Tolerant Controller Module (8000-RCTL) and/or Advanced DMM / Controller Module (Controller part)) adapter code (boot v1.03, then operational v1.14), when applicable.

Download DMM (Distributed Management Module (DMM, EC-DMM), Ethernet Carrier Distributed Management Module (EC-DMM) and/or Advanced DMM / Controller Module (DMM part)) adapter code (boot v1.03, then operational v5.10).

Download HEMAC adapter code (boot v1.00, then operational v2.10) and/or HTMAC adapter code (boot v1.00, then operational v2.10), when applicable.

Download Version 4.00 Token Ring Chipset (T-MAC adapter code) and/or Version 1.00 Token Ring Chipset (HTMAC adapter code), when applicable.

Refer to the Release Note (P/N 02L2447) for more on this.

For download Out-of-Band method.

Updating software microcode using the download Out-of-Band method requires a Workstation with emulated ASCII terminal and the support of XMODEM protocol for file transfer. The Workstation is connected to the console port of the Management Module either locally, using a null modem, or remotely.

ASCII terminal emulation and XMODEM protocol are offered by many products such as:

DOS platform

- FTTERM
- ProComm Plus for DOS
- ProComm(**) for DOS

  Note: This product is the one IBM provides in its Universal Code Download Kit (UCDK), part number 58G3150. Refer to *Installation Instructions for IBM Universal Code Download Kit*, part number 80G3152.

Windows(**) Platform

- ProComm Plus for Windows
- Windows Terminal function

OS/2(*) Platform

- Softerm Custom(**)

AIX(*) Platform

- Asynchronous Terminal Emulation (ATE)

The above list is not exhaustive, and, whatever the product one may use, the emulated ASCII terminal line settings should be set to the factory defaults for the first connection:

Baud rate: 9600 bps
Parity: None
Data bits: 8

Stop bits: 1

The communication parameters should be setup as follows:

Terminal emulation: VT100 (preferred)
Duplex: Full
Flow Control: None

For download In-Band method.

The DMM provides a download In-Band feature that allows you to update your DMM or modules operational or boot EPROMs using TFTP (Trivial File Transfer Protocol).

You must check the following prerequisites prior to initiating the download.

Have a TFTP server on the network to perform download In-Bands.

Connect DMMs to be updated to the same network as the TFTP server.

Verify IP connectivity from the TFTP server to the DMM.

Important

If your TFTP server is running in a **DOS** environment:

Check that the current directory of your PC is the one containing the binary file you want to download when you start the server.

If your TFTP server is running in an **OS/2** environment:

If the TFTP server has been started in foreground session, check that you gave restricted access to the directory where the binary file resides (in opposition with the TFTP server started by INETD super server).

If your TFTP server is running in an **AIX** environment:

Ensure the binary file may be read by everyone. If a file 'tftpaccess.ctl' exists in /etc, be sure that at least one 'allow' line is provided to allow access to the path where the file resides.

For more on that, see below the details in the section Download In-Band.

Installation

The installation of the new version of software microcode requires the following tasks to be performed:

Use the distribution diskettes to create the software files on the hard disk of the workstation (DOS or AIX).

Upgrade all the modules using one of the download methods available.

Distribution Diskettes

There are three 3.5 inches 1.44 MB diskettes (P/N 02L2448, P/N 02L2449 and P/N 02L2450) provided with that Field B/M (P/N 02L2446). Every diskette contains a **readme** file and these installation installations (not compressed), some boot and operational code files, in compressed format (xxx**.zip**), and three EXEC files (**unzipaix.exe**, **unzipdos.exe** and **unzipos2.exe**) to be used to decompress these compressed code files from the diskette into a temporary directory on the hard disk of your workstation, according to its operating system (AIX, DOS or OS/2), before downloading within the 8260 Nways(*) Multiprotocol Switching Hub blades.

Distribution Diskette P/N 02L2448

The first diskette, part number P/N 02L2448, contains the following files:

readme: Notice file (not compressed), that details the contents of the diskettes.

install.doc: These Installation Instructions (not compressed), P/N 02L2446, EC level EC E46587.

unzipaix.exe: AIX executable, used later to decompress the notice, if any, the software files and the associated command files contained in the diskette(s), on the current directory of an AIX platform that may later be used as a TFTP file server.

unzipdos.exe: DOS executable, used later to decompress the notice, if any, related to an adapter, the software files and the associated command files, contained in the diskette(s), on a directory of your DOS workstation.

unzipos2.exe: OS/2 executable, used later to decompress the notice, if any, related to an adapter, the software files and the associated command files, contained in the diskette(s), on a directory of your OS/2 workstation.

rctlv114.zip: Compressed file, that will produce, when decompressed in a directory of the workstation, the following files related to the Fault-Tolerant Controller Module (8000-RCTL):

- **rctlv103.bt**: Boot Software of the Fault-Tolerant Controller Module (8000-RCTL),
- **rctlboot.cmd**: Related ProComm DOS command file,
- **rctlv114.op**: Operational Software of the Fault-Tolerant Controller Module (8000-RCTL),
- **rctloper.cmd**: Related ProComm DOS command file.

dmm_v510.zip: Compressed file, that will produce, when decompressed in a directory of the workstation, the following files related to the Distributed Management Module (DMM, EC-DMM):

- **dmm_v103.bt**: Boot Software of the Distributed Management Module (DMM, EC-DMM),
- **dmm_boot.cmd**: Related ProComm DOS command file,
- **dmm_v510.op**: Operational Software of the Distributed Management Module (DMM, EC-DMM),
- **dmm_oper.cmd**: Related ProComm DOS command file.

Distribution Diskette P/N 02L2449

The second diskette, part number P/N 02L2449, contains the following files:

readme: Notice file (not compressed), that details the contents of the diskettes.

install.doc: These Installation Instructions (not compressed), P/N 02L2446, EC level EC E46587.

unzipaix.exe: AIX executable, used later to decompress the notice, if any, the software files and the associated command files contained in the diskette(s) on the current directory of an AIX platform that may later be used as a TFTP file server.

unzipdos.exe: DOS executable, used later to decompress the notice, if any, related to an adapter, the software files and the associated command files, contained in the diskette(s), on a directory of your DOS workstation.

unzipos2.exe: OS/2 executable, used later to decompress the notice, if any, related to an adapter, the software files and the associated command files, contained in the diskette(s), on a directory of your OS/2 workstation.

actlv114.zip: Compressed file, for Advanced DMM / Controller Module (Controller part) updating, that will produced, when decompressed in a directory of the workstation, the following files related to the Advanced DMM / Controller Module (Controller part):

- **actlv103.bt**: Boot Software of the Advanced DMM / Controller Module (Controller part),
- **actlboot.cmd**: Related ProComm DOS command file,
- **actlv114.op**: Operational Software of the Advanced DMM / Controller Module (Controller part),
- **actloper.cmd**: Related ProComm DOS command file.

admmv510.zip: Compressed file, for Advanced DMM / Controller Module (DMM part) updating, that will produced, when decompressed in a directory of the workstation, the following files related to Advanced DMM / Controller Module (DMM part):

- **admmv103.bt**: Boot Software of the Advanced DMM / Controller Module (DMM part),
- **admmboot.cmd**: Related ProComm DOS command file,
- **admmv510.op**: Operational Software of the Advanced DMM / Controller Module (DMM part),
- **admmoper.cmd**: Related ProComm DOS command file.

Distribution Diskette P/N 02L2450

The third diskette, part number P/N 02L2450, contains the following files:

readme: Notice file (not compressed), that details the contents of the diskettes.

install.doc: These Installation Instructions (not compressed), P/N 02L2446, EC level EC E46587.

unzipaix.exe: AIX executable, used later to decompress the notice, if any, the software files and the associated command files contained in the diskette(s), on the current directory of an AIX platform that may later be used as a TFTP file server.

unzipdos.exe: DOS executable, used later to decompress the notice, if any, related to an adapter, the software files and the associated command files, contained in the diskette(s), on a directory of your DOS workstation.

unzipos2.exe: OS/2 executable, used later to decompress the notice, if any, related to an adapter, the software files and the associated command files, contained in the diskette(s), on a directory of your OS/2 workstation.

emacv300.zip: Compressed file, that will produce, when decompressed in a directory of the workstation, the following files related to the Ethernet Medium Access Control Card (E-MAC):

- **emacv101.bt**: Boot Software of the Ethernet Medium Access Control Card (E-MAC),
- **emacboot.cmd**: Related ProComm DOS command file,
- **emacv300.op**: Operational Software of the Ethernet Medium Access Control Card (E-MAC),
- **emacoper.cmd**: Related ProComm DOS command file.

tmacv400.zip: Compressed file, that will produce, when decompressed in a directory of the workstation, the following files related to the Token Ring Medium Access Control Card (T-MAC) (and T-MAC Token Ring Chipset):

- **tmacv200.bt**: Boot Software,
- **tmacboot.cmd**: Related ProComm DOS command file,
- **tmacv400.op**: Operational Software,
- **tmacoper.cmd**: Related ProComm DOS command file,
- **tmacv400.chp**: Associated TRchipset Software of the T-MAC Token Ring Chipset,
- **tmacchip.cmd**: Related ProComm DOS command file.

hemcv210.zip: Compressed file, that will produce, when decompressed in a directory of the workstation, the following files related to High-End Ethernet Medium Access Control Card (HEMAC):

- **hemcv210.doc**: Notice related to that level of software for the High-End Ethernet Medium Access Control Card (HEMAC),
- **hemcv100.bt**: Boot Software of the High-End Ethernet Medium Access Control Card (HEMAC),
- **hemcboot.cmd**: Related ProComm DOS command file,
- **hemcv210.op**: Operational Software of the High-End Ethernet Medium Access Control Card (HEMAC),
- **hemcoper.cmd**: Related ProComm DOS command file.

htmcv210.zip: Compressed file, that will produce, when decompressed in a directory of the workstation, the following files related to the High-End Token Ring Medium Access Control Card (HTMAC) (and HTMAC Token Ring Chipset):

- **htmcv101.bt**: Boot Software,
- **htmcboot.cmd**: Related ProComm DOS command file,
- **htmcv210.op**: Operational Software,

  Note: The ECAM code is part of the HTMAC Operational code (there is no specific file for ECAM).

- **htmcoper.cmd**: Related ProComm DOS command file,
- **htmcv100.chp**: Associated TRchipset Software of the HTMAC Token Ring Chipset,
- **htmcchip.cmd**: Related ProComm DOS command file.

Note: The ProComm DOS command file is interpreted by ProComm DOS only. It encapsulates a 'sendfile' command.

Safety

Since this update is to be performed with machine powered on, review the **Safety Notices** delivered with the shipping group.

References

Installation Instructions for IBM Universal Code Download Kit, part number 80G3152.

8260 DMM Commands Guide, form number SA33-0275.

8260 DMM User's Guide, form number SA33-0259.

ProComm Reference Manual.

Release Note, part number P/N 02L2447.

DMM Memory Upgrade Installation Instructions, part number P/N 29H4293.

Upgrading the E-MAC and/or T-MAC Boot and/or Operational Codes

Creating the Software on a DOS or OS/2 Workstation

Important Preliminary Step

This is a necessary step if you plan:

To use the **out-of-band** method for downloading the Ethernet Medium Access Control Card (E-MAC) and/or Token Ring Medium Access Control Card (T-MAC) software microcode(s) from a **DOS** or **OS/2** platform.

To use the **in_band** method for downloading the Ethernet Medium Access Control Card (E-MAC) and/or Token Ring Medium Access Control Card (T-MAC) software microcode(s) from a **DOS** or **OS/2** Workstation acting as a **TFTP** server.

Note: The Ethernet Medium Access Control Card (E-MAC) software microcode requires 0.3 MB of hard disk space, and the Token Ring Medium Access Control Card (T-MAC) microcode 0.6 MB.

1. Insert the third software distribution diskette, part number P/N 02L2450, in the DOS or OS/2 Workstation diskette unit.
2. Run the **unzipdos.exe** or **unzipos2.exe** executable from the diskette (A:), i. e. type, when in DOS:

   a:unzipdos a:emacv300
   a:unzipdos a:tmacv400

   or, when in OS/2:

   a:unzipos2 a:emacv300
   a:unzipos2 a:tmacv400

3. The executable will decompress, from the diskette into your current directory, the following software files:

   emacv101.bt: Code file.
   emacboot.cmd: ProComm DOS Command file for Boot code.
   emacv300.op:Operational Code file.
   emacoper.cmd: ProComm DOS Command File for Operational code.

   tmacv200.bt: Boot Code file.
   tmacboot.cmd: ProComm DOS Command file for Boot code.
   tmacv400.op:Operational Code file.
   tmacoper.cmd: ProComm DOS Command File for Operational code.
   (**tmacv400.chp**:TRchipset Code file.)
   (**tmacchip.cmd**: ProComm DOS Command File for TRchipset code.)

   These last two items, related to TRchipset code, are not used in that step. They will be used later in chapter “Upgrading the T-MAC and/or HTMAC Token Ring Chipset Codes” on page 45.

Creating the Software on an AIX Workstation

Important Preliminary Step

This is a necessary step if you plan:

To use the **out-of-band** method for downloading the Ethernet Medium Access Control Card (E-MAC) and/or Token Ring Medium Access Control Card (T-MAC) software microcode(s) from an **AIX** Workstation.
To use the **in_band** method for downloading the Ethernet Medium Access Control Card (E-MAC) and/or Token Ring Medium Access Control Card (T-MAC) software microcode(s) from an **AIX** Workstation acting as a **TFTP** server.

Note: The Ethernet Medium Access Control Card (E-MAC) software microcode requires 0.3 MB of hard disk space, and the Token Ring Medium Access Control Card (T-MAC) microcode 0.6 MB.

1. Insert the third software distribution diskette, part number P/N 02L2450, into the RISC System/6000 diskette unit.
2. Copy the **unzipaix.exe** executable and the **emacv300.zip** and/or **tmacv400.zip** compressed files from the diskette into your current directory.

   dosread unzipaix.exe unzip
   (New name assigned is **unzip**)
   dosread emacv300.zip emacv300.zip
   dosread tmacv400.zip tmacv400.zip
3. Make the just created **unzip** executable:

   chmod a+rx unzip
4. Decompress the just created compressed file(s):

   ./unzip emacv300.zip
   ./unzip tmacv400.zip

   The **unzip** will decompress, within the current directory, the **emacv300.zip** and/or **tmacv400.zip** compressed files, and will produce four and/or six files:

   emacv101.bt: Code file.
   emacboot.cmd: ProComm DOS Command file for Boot code.
   emacv300.op:Operational Code file.
   emacoper.cmd: ProComm DOS Command File for Operational code.

   tmacv200.bt: Boot Code file.
   tmacboot.cmd: ProComm DOS Command file for Boot code.
   tmacv400.op:Operational Code file.
   tmacoper.cmd: ProComm DOS Command File for Operational code.
   (**tmacv400.chp**:TRchipset Code file.)
   (**tmacchip.cmd**: ProComm DOS Command File for TRchipset code.)

   These last two items, related to TRchipset code, are not used in that step. They will be used later in chapter “Upgrading the T-MAC and/or HTMAC Token Ring Chipset Codes” on page 45.
5. Erase the executable and the compressed files:

   rm unzip
   rm emacv300.zip

rm tmacv400.zip

6. Make sure that the just created notice, command and software files may be read by everyone.

   Set path to the software file.

   chmod a+r emacv101.bt
   chmod a+r emacboot.cmd
   chmod a+r emacv300.op
   chmod a+r emacoper.cmd

   chmod a+r tmacv200.bt
   chmod a+r tmacboot.cmd
   chmod a+r tmacv400.op
   chmod a+r tmacoper.cmd

Download Out-of-Band

General Scenario

1. Establish the connection between your Workstation and the Management Module. Refer to the appropriate *Installation and Operations Guide* or *User's Guide*.
2. Start the ASCII Terminal Emulator.
3. Start the download out-of-band procedure that pertains to the Management Module the terminal is connected to.
4. When the Management Module is expecting the file to be sent, start the send file procedure.

Scenario for UCDK Users

1. Establish the connection between your DOS station and the Management Module. Refer to the appropriate *Installation and Operations Guide* or *User's Guide*.
2. Start the ProComm software.
3. After the terminal screen is displayed, press the 'Alt-B' keys to specify the path to the directory where your previously decompressed software resides (in the 'PATH' input field).
4. Start the download out-of-band procedure that pertains to the Management Module the terminal is connected to, for Ethernet Medium Access Control Card (E-MAC) and/or Token Ring Medium Access Control Card (T-MAC) module(s), i. e.:

   Enter the commands, in that order:

   - **download out_of_band module <slot>.2 boot**
     to initiate the download of Boot code on the Ethernet Medium Access Control Card (E-MAC) or Token Ring Medium Access Control Card (T-MAC) specified by slot information and subslot 2.
   - **download out_of_band module <slot>.2 operational**
     to initiate the download of Operational code on the Ethernet Medium Access Control Card (E-MAC) or Token Ring Medium Access Control Card (T-MAC) specified by slot information and subslot 2.

   When the Management Module is expecting the file to be sent
   (you may see the 'Please initiate file transfer' prompt message):

   a. Press the 'Alt-F5' key.
   b. You must select, according to the previous **download** command:
      - The **emacboot.cmd** file, in order to initiate the download of the Boot code version v1.01 on the Ethernet Medium Access Control Card (E-MAC).
      - The **emacoper.cmd** file, in order to initiate the download of the Flash code version v3.00 on the Ethernet Medium Access Control Card (E-MAC).
      - The **tmacboot.cmd** file, in order to initiate the download of the Boot code version v2.00 on the Token Ring Medium Access Control Card (T-MAC).
      - The **tmacoper.cmd** file, in order to initiate the download of the Flash code version v4.00 on the Token Ring Medium Access Control Card (T-MAC).

        Note: The T-MAC Token Ring Chipset code of the Token Ring Medium Access Control Card (T-MAC) will be updated after having upgrading the Distributed Management Module (DMM, EC-DMM) codes (please refer to chapter “Upgrading the T-MAC and/or HTMAC Token Ring Chipset Codes” on page 45).
   c. File transfer progress will be indicated on the terminal until completion.

Download In-Band

The DMM provides an download In-Band feature that allows you to update 8260 modules using TFTP (Trivial File Transfer Protocol).

Use the following procedure to perform an download In-Band:

1. Verify that the TFTP server is able to PING the DMM.
2. Be sure to have running TFTP Daemon on your server.
3. Check that the previously decompressed Boot and/or Operational Code files are on a directory of your TFTP server.
4. Configure the TFTP parameters in the DMM by issuing the following management commands as shown below:
   a. > **set tftp file_name** <name of the file> (you may need a path)
   b. > **set tftp server_ip_address** <ip address of your TFTP server>
   c. > **clear tftp result**
   d. > **save tftp**

   Note: This can be accomplished either by TELNETing to the DMM, or by direct attachment to the DMM front panel serial port via a RS-232 connection.
5. Issue the **show tftp** command to verify the TFTP parameters previously set.

   > **show tftp**
6. For the Ethernet Medium Access Control Card (E-MAC) and/or Token Ring Medium Access Control Card (T-MAC) Boot and/or Operational code upgrade, issue the appropriate **download in_band** command(s), in the order as shown below, to begin the download:

   > **download in_band module <slot>.2 boot**
   to initiate the download of Boot code on the Ethernet Medium Access Control Card (E-MAC) or Token Ring Medium Access Control Card (T-MAC) specified by slot information and subslot 2.

   > **download in_band module <slot>.2 operational**
   to initiate the download of Operational code on the Ethernet Medium Access Control Card (E-MAC) or Token Ring Medium Access Control Card (T-MAC) specified by slot information and subslot 2.
7. Once the download process begins, do not press any keys or interfere with the process. You will have messages prompted to you.
8. Verify, with a **show module <slot>.2 verbose** command, that the code is now the updated version.

Upgrading the 8000-RCTL Boot and/or Operational Codes

Creating the Software on a DOS or OS/2 Workstation

Important Preliminary Step

This is a necessary step if you plan:

To use the **out-of-band** method for downloading the Fault-Tolerant Controller Module (8000-RCTL) software microcode from a **DOS** or **OS/2** platform.

To use the **in_band** method for downloading the Fault-Tolerant Controller Module (8000-RCTL) software microcode from a **DOS** or **OS/2** Workstation acting as a **TFTP** server.

Note: The Fault-Tolerant Controller Module (8000-RCTL) software microcode requires 0.2 MB of hard disk space.

1. Insert the first software distribution diskette, part number P/N 02L2448, in the DOS Workstation diskette unit, if not already done.
2. Run the **unzipdos.exe** or **unzipos2.exe** executable from the diskette (A:), i. e. type, when in DOS:

   a:unzipdos a:rctlv114

   or, when in OS/2:

   a:unzipos2 a:rctlv114
3. The executable will decompress, from the diskette into your current directory, the following software files:

   rctlv103.bt: Boot Code file.
   rctlboot.cmd: ProComm DOS Command file for Boot code.
   rctlv114.op:Operational Code file.
   rctloper.cmd: ProComm DOS Command File for Operational code.

Creating the Software on an AIX Workstation

Important Preliminary Step

This is a necessary step if you plan:

To use the **out-of-band** method for downloading the Fault-Tolerant Controller Module (8000-RCTL) software microcode from an **AIX** Workstation.
To use the **in_band** method for downloading the Fault-Tolerant Controller Module (8000-RCTL) software microcode from an **AIX** Workstation acting as a **TFTP** server.

Note: The Fault-Tolerant Controller Module (8000-RCTL) software microcode requires 0.2 MB of hard disk space.

1. Insert the first software distribution diskette, part number P/N 02L2448, into the RISC System/6000 diskette unit.
2. Copy the **unzipaix.exe** executable and the **rctlv114.zip** compressed files from the diskette into your current directory.

   dosread unzipaix.exe unzip
   (New name assigned is **unzip**).
   dosread rctlv114.zip rctlv114.zip
3. Make the just created **unzip** executable:

   chmod a+rx unzip
4. Decompress the just created compressed file:

   ./unzip rctlv114.zip

   The **unzip** will decompress, within the current directory, the **rctlv114.zip** compressed file, and will produce five new files:

   rctlv103.bt: Boot Code file.
   rctlboot.cmd: ProComm DOS Command file for Boot code.
   rctlv114.op:Operational Code file.
   rctloper.cmd: ProComm DOS Command File for Operational code.
5. Erase the executable and the compressed files:

   rm unzip
   rm rctlv114.zip
6. Make sure that the just created notice, command and software files may be read by everyone.

   Set path to the software file.

   chmod a+r rctlv103.bt
   chmod a+r rctlboot.cmd
   chmod a+r rctlv114.op
   chmod a+r rctloper.cmd

Download Out-of-Band

General Scenario

1. Establish the connection between your Workstation and the Management Module. Refer to the appropriate *Installation and Operations Guide* or *User's Guide*.
2. Start the ASCII Terminal Emulator.
3. Start the download out-of-band procedure that pertains to the Management Module the terminal is connected to.
4. When the Management Module is expecting the file to be sent, start the send file procedure.

Scenario for UCDK Users

1. Establish the connection between your DOS station and the Management Module. Refer to the appropriate *Installation and Operations Guide* or *User's Guide*.
2. Start the ProComm software.
3. After the terminal screen is displayed, press the 'Alt-B' keys to specify the path to the directory where your previously decompressed software resides (in the 'PATH' input field).
4. Start the download out-of-band procedure that pertains to the Management Module the terminal is connected to, i. e.:

   Enter the commands, in that order:

   - **download out_of_band module <slot.subslot> boot**
     to initiate the download of Boot code on the Fault-Tolerant Controller Module (8000-RCTL) specified by slot and subslot information.
   - **download out_of_band module <slot.subslot> operational**
     to initiate the download of Operational code on the Fault-Tolerant Controller Module (8000-RCTL) specified by slot and subslot information.

   When the Management Module is expecting the file to be sent
   (you may see the 'Please initiate file transfer' prompt message):

   a. Press the 'Alt-F5' key.
   b. You must select, according to the previous **download** command:
      - The **rctlboot.cmd** file, in order to initiate the download of the Boot code version v1.03 on the Fault-Tolerant Controller Module (8000-RCTL).
      - The **rctloper.cmd** file, in order to initiate the download of the Flash code version v1.14 on the Fault-Tolerant Controller Module (8000-RCTL).
   c. File transfer progress will be indicated on the terminal until completion.

Download In-Band

The DMM provides an download In-Band feature that allows you to update 8260 modules using TFTP (Trivial File Transfer Protocol).

Use the following procedure to perform an download In-Band.

1. Verify that the TFTP server is able to PING the DMM.
2. Be sure to have running TFTP Daemon on your server.
3. Check that the previously decompressed Boot and/or Operational Code files are on a directory of your TFTP server.
4. Configure the TFTP parameters in the DMM by issuing the following management commands as shown below:
   a. **> set tftp file_name** <name of the file> (you may need a path)
   b. **> set tftp server_ip_address** <ip address of your TFTP server>
   c. **> clear tftp result**
   d. **> save tftp**

   Note: This can be accomplished either by TELNETing to the DMM, or by direct attachment to the DMM front panel serial port via a RS-232 connection.
5. Issue the **show tftp** command to verify the TFTP parameters previously set.

   > show tftp
6. For the Fault-Tolerant Controller Module (8000-RCTL) Boot and/or Operational code upgrade, issue the appropriate **download in_band** command(s), in the order as shown below, to begin the download:

   > download in_band module <slot.subslot> boot
   to initiate the download of Boot code on the Fault-Tolerant Controller Module (8000-RCTL) specified by slot and subslot information.

   > download in_band module <slot.subslot> operational
   to initiate the download of Operational code on the Fault-Tolerant Controller Module (8000-RCTL) specified by slot and subslot information.
7. Once the download process begins, do not press any keys or interfere with the process. You will have messages prompted to you.
8. Verify, with a **show module <slot>.all verbose** command, that the code is now the updated version.

Upgrading the DMM-CTLR (Controller part) Boot and/or Operational Codes

Creating the Software on a DOS or OS/2 Workstation

Important Preliminary Step

This is a necessary step if you plan:

To use the **out-of-band** method for downloading the Advanced DMM / Controller Module (Controller part) software microcode from a **DOS** or **OS/2** platform.

To use the **in_band** method for downloading the Advanced DMM / Controller Module (Controller part) software microcode from a **DOS** or **OS/2** Workstation acting as a **TFTP** server.

Note: The Advanced DMM / Controller Module (Controller part) software microcode requires 0.2 MB of hard disk space.

1. Insert the second software distribution diskette, part number P/N 02L2449, in the DOS Workstation diskette unit.
2. Run the **unzipdos.exe** or **unzipos2.exe** executable from the diskette (A:), i. e. type, when in DOS:

   a:unzipdos a:actlv114

   or, when in OS/2:

   a:unzipos2 a:actlv114
3. The executable will decompress, from the diskette into your current directory, the following software files:

   actlv103.bt: Boot Code file.
   actlboot.cmd: ProComm DOS Command file for Boot code.
   actlv114.op:Operational Code file.
   actloper.cmd: ProComm DOS Command File for Operational code.

Creating the Software on an AIX Workstation

Important Preliminary Step

This is a necessary step if you plan:

To use the **out-of-band** method for downloading the Advanced DMM / Controller Module (Controller part) software microcode from an **AIX** Workstation.
To use the **in_band** method for downloading the Advanced DMM / Controller Module (Controller part) software microcode from an **AIX** Workstation acting as a **TFTP** server.

Note: The Advanced DMM / Controller Module (Controller part) software microcode requires 0.2 MB of hard disk space.

1. Insert the second software distribution diskette, part number P/N 02L2449, into the RISC System/6000 diskette unit.
2. Copy the **unzipaix.exe** executable and the **actlv114.zip** compressed files from the diskette into your current directory.

   dosread unzipaix.exe unzip
   (New name assigned is **unzip**).
   dosread actlv114.zip actlv114.zip
3. Make the just created **unzip** executable:

   chmod a+rx unzip
4. Decompress the just created compressed file:

   ./unzip actlv114.zip

   The **unzip** will decompress, within the current directory, the **actlv114.zip** compressed file, and will produce five new files:

   actlv103.bt: Boot Code file.
   actlboot.cmd: ProComm DOS Command file for Boot code.
   actlv114.op:Operational Code file.
   actloper.cmd: ProComm DOS Command File for Operational code.
5. Erase the executable and the compressed files:

   rm unzip
   rm actlv114.zip
6. Make sure that the just created notice, command and software files may be read by everyone.

   Set path to the software file.

   chmod a+r actlv103.bt
   chmod a+r actlboot.cmd
   chmod a+r actlv114.op
   chmod a+r actloper.cmd

Download Out-of-Band

General Scenario

1. Establish the connection between your Workstation and the Management Module. Refer to the appropriate *Installation and Operations Guide* or *User's Guide*.
2. Start the ASCII Terminal Emulator.
3. Start the download out-of-band procedure that pertains to the Management Module the terminal is connected to.
4. When the Management Module is expecting the file to be sent, start the send file procedure.

Scenario for UCDK Users

1. Establish the connection between your DOS station and the Management Module. Refer to the appropriate *Installation and Operations Guide* or *User's Guide*.
2. Start the ProComm software.
3. After the terminal screen is displayed, press the 'Alt-B' keys to specify the path to the directory where your previously decompressed software resides (in the 'PATH' input field).
4. Start the download out-of-band procedure that pertains to the Management Module the terminal is connected to, i. e.:

   Enter the commands, in that order:

   - **download out_of_band module <slot>.1 boot**
     to initiate the download of Boot code on the Advanced DMM / Controller Module (Controller part) specified by slot information and subslot 1.
   - **download out_of_band module <slot>.1 operational**
     to initiate the download of Operational code on the Advanced DMM / Controller Module (Controller part) specified by slot information and subslot 1.

   When the Management Module is expecting the file to be sent
   (you may see the 'Please initiate file transfer' prompt message):

   a. Press the 'Alt-F5' key.
   b. You must select, according to the previous **download** command:
      - The **actlboot.cmd** file, in order to initiate the download of the Boot code version v1.03 on the Advanced DMM / Controller Module (Controller part).
      - The **actloper.cmd** file, in order to initiate the download of the Flash code version v1.14 on the Advanced DMM / Controller Module (Controller part).
   c. File transfer progress will be indicated on the terminal until completion.

Download In-Band

The DMM provides an download In-Band feature that allows you to update 8260 modules using TFTP (Trivial File Transfer Protocol).

Use the following procedure to perform an download In-Band.

1. Verify that the TFTP server is able to PING the DMM.
2. Be sure to have running TFTP Daemon on your server.
3. Check that the previously decompressed Boot and/or Operational Code files are on a directory of your TFTP server.
4. Configure the TFTP parameters in the DMM by issuing the following management commands as shown below:
   a. **> set tftp file_name** <name of the file> (you may need a path)
   b. **> set tftp server_ip_address** <ip address of your TFTP server>
   c. **> clear tftp result**
   d. **> save tftp**

   Note: This can be accomplished either by TELNETing to the DMM, or by direct attachment to the DMM front panel serial port via a RS-232 connection.
5. Issue the **show tftp** command to verify the TFTP parameters previously set.

   > show tftp
6. For the Advanced DMM / Controller Module (Controller part) Boot and/or Operational code upgrade, issue the appropriate **download in_band** command(s), in the order as shown below, to begin the download:

   > download in_band module <slot>.1 boot
   to initiate the download of Boot code on the Advanced DMM / Controller Module (Controller part) specified by slot information and subslot 1.

   > download in_band module <slot>.1 operational
   to initiate the download of Operational code on the Advanced DMM / Controller Module (Controller part) specified by slot information and subslot 1.
7. Once the download process begins, do not press any keys, or interfere with the process. You will have messages prompted to you.
8. Verify, with a **show module <slot>.1 verbose** command, that the code is now the updated version.

Upgrading the DMM and EC-DMM Boot and/or Operational Codes

Read this carefully.

Prior to downloading microcode on **DMMs**, please check that your DMM(s) has(have) the memory (both CPU RAM and FLASH) requested by that new level of Software. For that, refer to warning “Read This First” on page 5.

Creating the Software on a DOS or OS/2 Workstation

Important Preliminary Step

This is a necessary step if you plan:

To use the **out-of-band** method for downloading the Distributed Management Module (DMM, EC-DMM) software microcode from a **DOS** or **OS/2** platform.

To use the **in_band** method for downloading the Distributed Management Module (DMM, EC-DMM) software microcode from a **DOS** or **OS/2** Workstation acting as a **TFTP** server.

Note: The Distributed Management Module (DMM, EC-DMM) software microcode requires 2.3 MB of hard disk space.

1. Insert the first software distribution diskette, part number P/N 02L2448, in the DOS Workstation diskette unit.
2. Run the **unzipdos.exe** or **unzipos2.exe** executable from the diskette (A:), i. e. type, when in DOS:

   a:unzipdos a:dmm_v510

   or, when in OS/2:

   a:unzipos2 a:dmm_v510
3. The executable will decompress, from the diskette into your current directory, the following software files:

   dmm_v103.bt: Boot Code file.
   dmm_boot.cmd: ProComm DOS Command file for Boot code.
   dmm_v510.op:Operational Code file.
   dmm_oper.cmd: ProComm DOS Command File for Operational code.

Creating the Software on an AIX Workstation

Important Preliminary Step

This is a necessary step if you plan:

To use the **out-of-band** method for downloading the Distributed Management Module (DMM, EC-DMM) software microcode from an **AIX** Workstation.
To use the **in_band** method for downloading the Distributed Management Module (DMM, EC-DMM) software microcode from an **AIX** Workstation acting as a **TFTP** server.

Note: The Distributed Management Module (DMM, EC-DMM) software microcode requires 2.3 MB of hard disk space.

1. Insert the first software distribution diskette, part number P/N 02L2448, into the RISC System/6000 diskette unit.
2. Copy the **unzipaix.exe** executable and the **dmm_v510.zip** compressed files from the diskette into your current directory.

   dosread unzipaix.exe unzip
   (New name assigned is **unzip**).
   dosread dmm_v510.zip dmm_v510.zip
3. Make the just created **unzip** executable:

   chmod a+rx unzip
4. Decompress the just created compressed file:

   ./unzip dmm_v510.zip

   The **unzip** will decompress, within the current directory, the **dmm_v510.zip** compressed file, and will produce five new files:

   dmm_v103.bt: Boot Code file.
   dmm_boot.cmd: ProComm DOS Command file for Boot code.
   dmm_v510.op:Operational Code file.
   dmm_oper.cmd: ProComm DOS Command File for Operational code.
5. Erase the executable and the compressed files:

   rm unzip
   rm dmm_v510.zip
6. Make sure that the just created notice, command and software files may be read by everyone.

   Set path to the software file.

   chmod a+r dmm_v103.bt
   chmod a+r dmm_boot.cmd
   chmod a+r dmm_v510.op
   chmod a+r dmm_oper.cmd

Download Out-of-Band

General Scenario

1. Establish the connection between your Workstation and the Management Module. Refer to the appropriate *Installation and Operations Guide* or *User's Guide*.
2. Start the ASCII Terminal Emulator.
3. Start the download out-of-band procedure that pertains to the Management Module the terminal is connected to.
4. When the Management Module is expecting the file to be sent, start the send file procedure.

Scenario for UCDK Users

1. Establish the connection between your DOS station and the Management Module. Refer to the appropriate *Installation and Operations Guide* or *User's Guide*.
2. Start the ProComm software.
3. After the terminal screen is displayed, press the 'Alt-B' keys to specify the path to the directory where your previously decompressed software resides (in the 'PATH' input field).
4. Start the download out-of-band procedure that pertains to the Management Module the terminal is connected to, i. e.:

   Enter the commands, in that order:

   - **download out_of_band device boot**
     to initiate the download of Boot code on the Distributed Management Module (DMM, EC-DMM).
   - **download out_of_band device operational**
     to initiate the download of Operational code on the Distributed Management Module (DMM, EC-DMM).

   When the Management Module is expecting the file to be sent
   (you may see the 'Please initiate file transfer' prompt message):

   a. Press the 'Alt-F5' key.
   b. You must select, according to the previous **download** command:
      - The **dmm_boot.cmd** file, in order to initiate the download of the Boot code version v1.03 on the Distributed Management Module (DMM, EC-DMM).
      - The **dmm_oper.cmd** file, in order to initiate the download of the Flash code version v5.10 on the Distributed Management Module (DMM, EC-DMM).
   c. File transfer progress will be indicated on the terminal until completion.

Download In-Band

The DMM provides an download In-Band feature that allows you to update 8260 modules using TFTP (Trivial File Transfer Protocol).

Use the following procedure to perform an download In-Band to the DMM.

1. Verify that the TFTP server is able to PING the DMM.
2. Be sure to have running TFTP Daemon on your server.
3. Check that the previously decompressed Boot and/or Operational Code files are on a directory of your TFTP server.
4. Configure the TFTP parameters in the DMM by issuing the following management commands as shown below:
   a. **> set tftp file_name** <name of the file> (you may need a path)
   b. **> set tftp server_ip_address** <ip address of your TFTP server>
   c. **> clear tftp result**
   d. **> save tftp**

   Note: This can be accomplished either by TELNETing to the DMM, or by direct attachment to the DMM front panel serial port via a RS-232 connection.
5. Issue the **show tftp** command to verify the TFTP parameters previously set.

   > show tftp
6. For the Distributed Management Module (DMM, EC-DMM) Boot and/or Operational code upgrade, issue the appropriate **download in_band** command(s), in the order as shown below, to begin the download:

   > download in_band device boot
   to initiate the download of Boot code on the Distributed Management Module (DMM, EC-DMM).

   > download in_band device operational
   to initiate the download of Operational code on the Distributed Management Module (DMM, EC-DMM).
7. Once the download process begins, do not press any keys or interfere with the process. You will have messages prompted to you.
8. Verify, with a **show module <slot>.all verbose** command, that the code is now the updated version.

Upgrading the DMM-CTLR (DMM part) Boot and/or Operational Codes

Creating the Software on a DOS or OS/2 Workstation

Important Preliminary Step

This is a necessary step if you plan:

To use the **out-of-band** method for downloading the Advanced DMM / Controller Module (DMM part) software microcode from a **DOS** or **OS/2** platform.

To use the **in_band** method for downloading the Advanced DMM / Controller Module (DMM part) software microcode from a **DOS** or **OS/2** Workstation acting as a **TFTP** server.

Note: The Advanced DMM / Controller Module (DMM part) software microcode requires 2.3 MB of hard disk space.

1. Insert the second software distribution diskette, part number P/N 02L2449, in the DOS Workstation diskette unit.
2. Run the **unzipdos.exe** or **unzipos2.exe** executable from the diskette (A:), i. e. type, when in DOS:

   a:unzipdos a:admmv510

   or, when in OS/2:

   a:unzipos2 a:admmv510
3. The executable will decompress, from the diskette into your current directory, the following software files:

   admmv103.bt: Boot Code file.
   admmboot.cmd: ProComm DOS Command file for Boot code.
   admmv510.op:Operational Code file.
   admmoper.cmd: ProComm DOS Command File for Operational code.

Creating the Software on an AIX Workstation

Important Preliminary Step

This is a necessary step if you plan:

To use the **out-of-band** method for downloading the Advanced DMM / Controller Module (DMM part) software microcode from an **AIX** Workstation.
To use the **in_band** method for downloading the Advanced DMM / Controller Module (DMM part) software microcode from an **AIX** Workstation acting as a **TFTP** server.

Note: The Advanced DMM / Controller Module (DMM part) software microcode requires 2.3 MB of hard disk space.

1. Insert the second software distribution diskette, part number P/N 02L2449, into the RISC System/6000 diskette unit.
2. Copy the **unzipaix.exe** executable and the **admmv510.zip** compressed files from the diskette into your current directory.

   dosread unzipaix.exe unzip
   (New name assigned is **unzip**).
   dosread admmv510.zip admmv510.zip
3. Make the just created **unzip** executable:

   chmod a+rx unzip
4. Decompress the just created compressed file:

   ./unzip admmv510.zip

   The **unzip** will decompress, within the current directory, the **admmv510.zip** compressed file, and will produce five new files:

   admmv103.bt: Boot Code file.
   admmboot.cmd: ProComm DOS Command file for Boot code.
   admmv510.op:Operational Code file.
   admmoper.cmd: ProComm DOS Command File for Operational code.
5. Erase the executable and the compressed files:

   rm unzip
   rm admmv510.zip
6. Make sure that the just created notice, command and software files may be read by everyone.

   Set path to the software file.

   chmod a+r admmv103.bt
   chmod a+r admmboot.cmd
   chmod a+r admmv510.op
   chmod a+r admmoper.cmd

Download Out-of-Band

General Scenario

1. Establish the connection between your Workstation and the Management Module. Refer to the appropriate *Installation and Operations Guide* or *User's Guide*.
2. Start the ASCII Terminal Emulator.
3. Start the download out-of-band procedure that pertains to the Management Module the terminal is connected to.
4. When the Management Module is expecting the file to be sent, start the send file procedure.

Scenario for UCDK Users

1. Establish the connection between your DOS station and the Management Module. Refer to the appropriate *Installation and Operations Guide* or *User's Guide*.
2. Start the ProComm software.
3. After the terminal screen is displayed, press the 'Alt-B' keys to specify the path to the directory where your previously decompressed software resides (in the 'PATH' input field).
4. Start the download out-of-band procedure that pertains to the Management Module the terminal is connected to, i. e.:

   Enter the commands, in that order:

   - **download out_of_band device boot**
     to initiate the download of Boot code on the Advanced DMM / Controller Module (DMM part).
   - **download out_of_band device operational**
     to initiate the download of Operational code on the Advanced DMM / Controller Module (DMM part).

   When the Management Module is expecting the file to be sent
   (you may see the 'Please initiate file transfer' prompt message):

   a. Press the 'Alt-F5' key.
   b. You must select, according to the previous **download** command:
      - The **admmboot.cmd** file, in order to initiate the download of the Boot code version v1.03 on the Advanced DMM / Controller Module (DMM part).
      - The **admmoper.cmd** file, in order to initiate the download of the Flash code version v5.10 on the Advanced DMM / Controller Module (DMM part).
   c. File transfer progress will be indicated on the terminal until completion.

Download In-Band

The DMM provides an In-Band d=wnload feature that allows you to update 8260 modules using TFTP (Trivial File Transfer Protocol).

Use the following procedure to perform an download In-Band.

1. Verify that the TFTP server is able to PING the DMM.
2. Be sure to have running TFTP Daemon on your server.
3. Check that the previously decompressed Boot and/or Operational Code files are on a directory of your TFTP server.
4. Configure the TFTP parameters in the DMM by issuing the following management commands as shown below:
   a. **> set tftp file_name** <name of the file> (you may need a path)
   b. **> set tftp server_ip_address** <ip address of your TFTP server>
   c. **> clear tftp result**
   d. **> save tftp**

   Note: This can be accomplished either by TELNETing to the DMM, or by direct attachment to the DMM front panel serial port via a RS-232 connection.
5. Issue the **show tftp** command to verify the TFTP parameters previously set.

   > show tftp
6. For the Advanced DMM / Controller Module (DMM part) Boot and/or Operational code upgrade, issue the appropriate **download in_band** command(s), in the order as shown below, to begin the download:

   > download in_band device boot
   to initiate the download of Boot code on the Advanced DMM / Controller Module (DMM part).

   > download in_band device operational
   to initiate the download of Operational code on the Advanced DMM / Controller Module (DMM part).
7. Once the download process begins, do not press any keys, or interfere with the process. You will have messages prompted to you.
8. Verify, with a **show module <slot>.all verbose** command, that the code is now the updated version.

Upgrading the HEMAC and/or HTMAC Boot and/or Operational Codes

Creating the Software on a DOS or OS/2 Workstation

Important Preliminary Step

This is a necessary step if you plan:

To use the **out-of-band** method for downloading the High-End Ethernet Medium Access Control Card (HEMAC) and/or High-End Token Ring Medium Access Control Card (HTMAC) software microcode(s) from a **DOS** or **OS/2** platform.

To use the **in_band** method for downloading the High-End Ethernet Medium Access Control Card (HEMAC) and/or High-End Token Ring Medium Access Control Card (HTMAC) software microcode(s) from a **DOS** or **OS/2** Workstation acting as a **TFTP** server.

Note: The High-End Ethernet Medium Access Control Card (HEMAC) software microcode requires 0.4 MB of hard disk space, and the High-End Token Ring Medium Access Control Card (HTMAC) microcode 1.5 MB.

1. Insert the third software distribution diskette, part number P/N 02L2450, in the DOS Workstation diskette unit.
2. Run the **unzipdos.exe** or **unzipos2.exe** executable from the diskette (A:), i. e. type, when in DOS:

   a:unzipdos a:hemcv210
   a:unzipdos a:htmcv210

   or, when in OS/2:

   a:unzipos2 a:hemcv210
   a:unzipos2 a:htmcv210

3. The executable will decompress, from the diskette into your current directory, the following software files:

   hemcv210.doc: Notice.
   hemcv100.bt: Boot Code file.
   hemcboot.cmd: ProComm DOS Command file for Boot code.
   hemcv210.op:Operational Code file.
   hemcoper.cmd: ProComm DOS Command File for Operational code.

   htmcv101.bt: Boot Code file.
   htmcboot.cmd: ProComm DOS Command file for Boot code.
   htmcv210.op:Operational Code file.
   htmcoper.cmd: ProComm DOS Command File for Operational code.
   (**htmcv100.chp**:TRchipset Code file.)
   (**htmcchip.cmd**: ProComm DOS Command File for TRchipset code.)

   These last two items, related to TRchipset code, are not used in that step. They will be used later in chapter “Upgrading the T-MAC and/or HTMAC Token Ring Chipset Codes” on page 45.

Creating the Software on an AIX Workstation

Important Preliminary Step

This is a necessary step if you plan:

To use the **out-of-band** method for downloading the High-End Ethernet Medium Access Control Card (HEMAC) and/or High-End Token Ring Medium Access Control Card (HTMAC) software microcode(s) from an **AIX** Workstation.
To use the **in_band** method for downloading the High-End Ethernet Medium Access Control Card (HEMAC) and/or High-End Token Ring Medium Access Control Card (HTMAC) software microcode(s) from an **AIX** Workstation acting as a **TFTP** server.

Note: The High-End Ethernet Medium Access Control Card (HEMAC) software microcode requires 0.4 MB of hard disk space, and the High-End Token Ring Medium Access Control Card (HTMAC) microcode 1.5 MB.

1. Insert the third software distribution diskette, part number P/N 02L2450, into the RISC System/6000 diskette unit.
2. Copy the **unzipaix.exe** executable and the **hemcv210.zip** and/or **htmcv210.zip** compressed files from the diskette into your current directory.

   dosread unzipaix.exe unzip
   (New name assigned is **unzip**).
   dosread hemcv210.zip hemcv210.zip
   dosread htmcv210.zip htmcv210.zip
3. Make the just created **unzip** executable:

   chmod a+rx unzip
4. Decompress the just created compressed file:

   ./unzip hemcv210.zip
   ./unzip htmcv210.zip

   The **unzip** will decompress, within the current directory, the **hemcv210.zip** and/or **htmcv210.zip** compressed files, and will produce five and/or six new files:

   hemcv210.doc: Notice.
   hemcv100.bt: Boot Code file.
   hemcboot.cmd: ProComm DOS Command file for Boot code.
   hemcv210.op:Operational Code file.
   hemcoper.cmd: ProComm DOS Command File for Operational code.

   htmcv101.bt: Boot Code file.
   htmcboot.cmd: ProComm DOS Command file for Boot code.
   htmcv210.op:Operational Code file.
   htmcoper.cmd: ProComm DOS Command File for Operational code.
   (**htmcv100.chp**:TRchipset Code file.)
   (**htmcchip.cmd**: ProComm DOS Command File for TRchipset code.)

   These last two items, related to TRchipset code, are not used in that step. They will be used later in chapter “Upgrading the T-MAC and/or HTMAC Token Ring Chipset Codes” on page 45.
5. Erase the executable and the compressed files:

   rm unzip

rm hemcv210.zip
rm htmcv210.zip

6. Make sure that the just created notice, command and software files may be read by everyone.

   Set path to the software file.

   chmod a+r hemcv210.doc
   chmod a+r hemcv100.bt
   chmod a+r hemcboot.cmd
   chmod a+r hemcv210.op
   chmod a+r hemcoper.cmd

   chmod a+r htmcv101.bt
   chmod a+r htmcboot.cmd
   chmod a+r htmcv210.op
   chmod a+r htmcoper.cmd

Download Out-of-Band

General Scenario

1. Establish the connection between your Workstation and the Management Module. Refer to the appropriate *Installation and Operations Guide* or *User's Guide*.
2. Start the ASCII Terminal Emulator.
3. Start the download out-of-band procedure that pertains to the Management Module the terminal is connected to.
4. When the Management Module is expecting the file to be sent, start the send file procedure.

Scenario for UCDK Users

1. Establish the connection between your DOS station and the Management Module. Refer to the appropriate *Installation and Operations Guide* or *User's Guide*.
2. Start the ProComm software.
3. After the terminal screen is displayed, press the 'Alt-B' keys to specify the path to the directory where your previously decompressed software resides (in the 'PATH' input field).
4. Start the download out-of-band procedure that pertains to the Management Module the terminal is connected to, for High-End Ethernet Medium Access Control Card (HEMAC) and/or High-End Token Ring Medium Access Control Card (HTMAC) module(s), i. e.:

   Enter the commands, in that order:

   - **download out_of_band module <slot>.2 boot**
     to initiate the download of Boot code on the High-End Ethernet Medium Access Control Card (HEMAC) or High-End Token Ring Medium Access Control Card (HTMAC) specified by slot information and subslot 2.
   - **download out_of_band module <slot>.2 operational**
     to initiate the download of Operational code on the High-End Ethernet Medium Access Control Card (HEMAC) or High-End Token Ring Medium Access Control Card (HTMAC) specified by slot information and subslot 2.

   When the Management Module is expecting the file to be sent
   (you may see the 'Please initiate file transfer' prompt message):

   a. Press the 'Alt-F5' key.
   b. You must select, according to the previous **download** command:

      - The **hemcboot.cmd** file, in order to initiate the download of the Boot code version v1.00 on the High-End Ethernet Medium Access Control Card (HEMAC).
      - The **hemcoper.cmd** file, in order to initiate the download of the Flash code version v2.10 on the High-End Ethernet Medium Access Control Card (HEMAC).
      - The **htmcboot.cmd** file, in order to initiate the download of the Boot code version v1.01 on the High-End Token Ring Medium Access Control Card (HTMAC).
      - The **htmcoper.cmd** file, in order to initiate the download of the Flash code version v2.10 on the High-End Token Ring Medium Access Control Card (HTMAC).

        Note: The HTMAC Token Ring Chipset code of the High-End Token Ring Medium Access Control Card (HTMAC) will be updated after having upgrading the Distributed Management Module (DMM, EC-DMM) codes (please refer to chapter “Upgrading the T-MAC and/or HTMAC Token Ring Chipset Codes” on page 45).

c. File transfer progress will be indicated on the terminal until completion.

Download In-Band

The DMM provides an download In-Band feature that allows you to update 8260 modules using TFTP (Trivial File Transfer Protocol).

Use the following procedure to perform an download In-Band:

1. Verify that the TFTP server is able to PING the DMM.
2. Be sure to have running TFTP Daemon on your server.
3. Check that the previously decompressed Boot and/or Operational Code files are on a directory of your TFTP server.
4. Configure the TFTP parameters in the DMM by issuing the following management commands as shown below:
   a. **> set tftp file_name** <name of the file> (you may need a path)
   b. **> set tftp server_ip_address** <ip address of your TFTP server>
   c. **> clear tftp result**
   d. **> save tftp**

   Note: This can be accomplished either by TELNETing to the DMM, or by direct attachment to the DMM front panel serial port via a RS-232 connection.
5. Issue the **show tftp** command to verify the TFTP parameters previously set.

   > show tftp
6. For the High-End Ethernet Medium Access Control Card (HEMAC) and/or High-End Token Ring Medium Access Control Card (HTMAC) Boot and/or Operational code upgrade, issue the appropriate **download in_band** command(s), in the order as shown below, to begin the download:

   > download in_band module <slot>.2 boot
   to initiate the download of Boot code on the High-End Ethernet Medium Access Control Card (HEMAC) or High-End Token Ring Medium Access Control Card (HTMAC) specified by slot information and subslot 2.

   > download in_band module <slot>.2 operational
   to initiate the download of Operational code on the High-End Ethernet Medium Access Control Card (HEMAC) or High-End Token Ring Medium Access Control Card (HTMAC) specified by slot information and subslot 2.
7. Once the download process begins, do not press any keys or interfere with the process. You will have messages prompted to you.
8. Verify, with a **show module <slot>.2 verbose** command, that the code is now the updated version.

Upgrading the T-MAC and/or HTMAC Token Ring Chipset Codes

If not kept from the previous step when upgrading T-MAC and/or HTMAC (please refer to chapter “Upgrading the E-MAC and/or T-MAC Boot and/or Operational Codes” on page 17), execute either the following chapter or the next one to decompress the TRchipset codes on your workstation.

Creating the Software on a DOS or OS/2 Workstation

Important Preliminary Step

This is a necessary step if you plan:

To use the **out-of-band** method for downloading the T-MAC Token Ring Chipset and/or the HTMAC Token Ring Chipset software microcode(s) from a **DOS** or **OS/2** platform.

To use the **in_band** method for downloading the T-MAC Token Ring Chipset and/or the HTMAC Token Ring Chipset software microcode(s) from a **DOS** or **OS/2** Workstation acting as a **TFTP** server.

Note: The T-MAC Token Ring Chipset software microcode requires 0.6 MB of hard disk space, and the HTMAC Token Ring Chipset microcode 1.5 MB.

1. Insert the third software distribution diskette, part number P/N 02L2450, in the DOS Workstation diskette unit.
2. Run the **unzipdos.exe** or **unzipos2.exe** executable from the diskette (A:), i. e. type, when in DOS:

   a:unzipdos a:tmacv400
   a:unzipdos a:htmcv210

   or, when in OS/2:

   a:unzipos2 a:tmacv400
   a:unzipos2 a:htmcv210

3. The executable will decompress, from the diskette into your current directory, the following software files:

   (**tmacv200.bt**: Boot Code file.)
   (**tmacboot.cmd**: ProComm DOS Command file for Boot code.)
   (**tmacv400.op**: Operational Code file.)
   (**tmacoper.cmd**: ProComm DOS Command File for Operational code.)
   tmacv400.chp: TRchipset Code file.
   tmacchip.cmd: ProComm DOS Command File for TRchipset code.

   (**htmcv101.bt**: Boot Code file.)
   (**htmcboot.cmd**: ProComm DOS Command file for Boot code.)
   (**htmcv210.op**: Operational Code file.)
   (**htmcoper.cmd**: ProComm DOS Command File for Operational code.)
   htmcv100.chp: TRchipset Code file.
   htmcchip.cmd: ProComm DOS Command File for TRchipset code.

   Only the last two items of each subset are used in that step. The first four ones were previously used in chapter “Upgrading the E-MAC and/or T-MAC Boot and/or Operational Codes” on page 17.

Creating the Software on an AIX Workstation

Important Preliminary Step

This is a necessary step if you plan:

To use the **out-of-band** method for downloading the T-MAC Token Ring Chipset and/or HTMAC Token Ring Chipset software microcode(s) from an **AIX** Workstation.
To use the **in_band** method for downloading the T-MAC Token Ring Chipset and/or HTMAC Token Ring Chipset software microcode(s) from an **AIX** Workstation acting as a **TFTP** server.

Note: The T-MAC Token Ring Chipset software microcode requires 0.6 MB of hard disk space, and the HTMAC Token Ring Chipset microcode 1.5 MB.

1. Insert the third software distribution diskette, part number P/N 02L2450, into the RISC System/6000 diskette unit.
2. Copy the **unzipaix.exe** executable and the **tmacv400.zip** and/or **htmcv210.zip** compressed files from the diskette into your current directory.

   dosread unzipaix.exe unzip
   (New name assigned is **unzip**).
   dosread tmacv400.zip tmacv400.zip
   dosread htmcv210.zip htmcv210.zip
3. Make the just created **unzip** executable:

   chmod a+rx unzip
4. Decompress the just created compressed file:

   ./unzip tmacv400.zip
   ./unzip htmcv210.zip

   The **unzip** will decompress, within the current directory, the **tmacv400.zip** and/or **htmcv210.zip** compressed file(s), and will produce six new files for each subset:

   (**tmacv200.bt**: Boot Code file.)
   (**tmacboot.cmd**: ProComm DOS Command file for Boot code.)
   (**tmacv400.op**: Operational Code file.)
   (**tmacoper.cmd**: ProComm DOS Command File for Operational code.)
   tmacv400.chp: TRchipset Code file.
   tmacchip.cmd: ProComm DOS Command File for TRchipset code.

   (**htmcv101.bt**: Boot Code file.)
   (**htmcboot.cmd**: ProComm DOS Command file for Boot code.)
   (**htmcv210.op**: Operational Code file.)
   (**htmcoper.cmd**: ProComm DOS Command File for Operational code.)
   htmcv100.chp: TRchipset Code file.
   htmcchip.cmd: ProComm DOS Command File for TRchipset code.

   Only the last two items of each subset are used in that step. The first four ones were previously used in chapter “Upgrading the E-MAC and/or T-MAC Boot and/or Operational Codes” on page 17.
5. Erase the executable and the compressed files:

   rm unzip
   rm tmacv400.zip

rm htmcv210.zip

6. Make sure that the just created notice, command and software files may be read by everyone.

   Set path to the software file.

   chmod a+r tmacv400.chp
   chmod a+r tmacchip.cmd

   chmod a+r htmcv100.chp
   chmod a+r htmcchip.cmd

Download Out-of-Band

General Scenario

1. Establish the connection between your Workstation and the Management Module. Refer to the appropriate *Installation and Operations Guide* or *User's Guide*.
2. Start the ASCII Terminal Emulator.
3. Start the download out-of-band procedure that pertains to the Management Module the terminal is connected to.
4. When the Management Module is expecting the file to be sent, start the send file procedure.

Scenario for UCDK Users

1. Establish the connection between your DOS station and the Management Module. Refer to the appropriate *Installation and Operations Guide* or *User's Guide*.
2. Start the ProComm software.
3. After the terminal screen is displayed, press the 'Alt-B' keys to specify the path to the directory where your previously decompressed software resides (in the 'PATH' input field).
4. Start the download out-of-band procedure that pertains to the Management Module the terminal is connected to, for T-MAC Token Ring Chipset and/or HTMAC Token Ring Chipset module(s), i. e.:

   Enter the command:

   – **download out_of_band module <slot>.2 TRchipset**
   to initiate the download of the T-MAC Token Ring Chipset code on the Token Ring Medium Access Control Card (T-MAC), or of the HTMAC Token Ring Chipset code on the High-End Token Ring Medium Access Control Card (HTMAC), specified by slot information and subslot 2.

   When the Management Module is expecting the file to be sent
   (you may see the 'Please initiate file transfer' prompt message):

   a. Press the 'Alt-F5' key.
   b. You must select:

      – The **tmacchip.cmd** file, in order to initiate the download of the T-MAC TRchipset code version v4.00 on the Token Ring Medium Access Control Card (T-MAC).

      – The **htmcchip.cmd** file, in order to initiate the download of the HTMAC TRchipset code version v1.00 on the High-End Token Ring Medium Access Control Card (HTMAC).

   c. File transfer progress will be indicated on the terminal until completion.
   d. Verify that the code is now the updated version, by issuing the following command:

      > show module <slot>.2 verbose

      The version of the Token Ring Chipset code is identified by the **Adapter Microcode Version**.

      – For T-MAC TRchipset code version v4.00, it's:

      00 00 01 c1 e3 f1 c1 c4 f0 40

      – For HTMAC TRchipset code version v1.00, it's:

      00 00 01 c1 e3 f1 c1 c4 f0 40

Download In-Band

The DMM provides an download In-Band feature that allows you to update 8260 modules using TFTP (Trivial File Transfer Protocol).

Use the following procedure to perform an download In-Band:

1. Verify that the TFTP server is able to PING the DMM.
2. Be sure to have running TFTP Daemon on your server.
3. Check that the previously decompressed TRchipset Code files are on a directory of your TFTP server.
4. Configure the TFTP parameters in the DMM by issuing the following management commands as shown below:
   a. **> set tftp file_name** <name of the file> (you may need a path)
   b. **> set tftp server_ip_address** <ip address of your TFTP server>
   c. **> clear tftp result**
   d. **> save tftp**

   Note: This can be accomplished either by TELNETing to the DMM, or by direct attachment to the DMM front panel serial port via a RS-232 connection.
5. Issue the **show tftp** command to verify the TFTP parameters previously set.

   > show tftp
6. For the T-MAC Token Ring Chipset and/or HTMAC Token Ring Chipset code upgrade, issue the appropriate **download in_band** command, as shown below, to begin the download:

   > download in_band module <slot>.2 TRchipset
   to initiate the download of the T-MAC Token Ring Chipset code on the Token Ring Medium Access Control Card (T-MAC), or of the HTMAC Token Ring Chipset code on the High-End Token Ring Medium Access Control Card (HTMAC), specified by slot information and subslot 2.
7. Once the download process begins, do not press any keys or interfere with the process. You will have messages prompted to you.
8. Verify that the code is now the updated version, by issuing the following command:

   > show module <slot>.2 verbose

   The version of the Token Ring Chipset code is identified by the **Adapter Microcode Version**.

   For T-MAC TRchipset code version v4.00, it's:

   00 00 01 c1 e3 f1 c1 c4 f0 40

   For HTMAC TRchipset code version v1.00, it's:

   00 00 01 c1 e3 f1 c1 c4 f0 40

After Installation

Labelling

After the upgrade of the microcode, you may change from current P/Ns to the new P/Ns, as follow:

For Distributed Management Module (DMM, EC-DMM),
the new Part Number is P/N 02L2442.

For Ethernet Carrier Distributed Management Module (EC-DMM),
the new Part Number is P/N 02L2443.

For Advanced DMM / Controller Module,
the new Part Number is P/N 02L2444.

For Fault-Tolerant Controller Module (8000-RCTL),
the new Part Number is P/N 02L2484.

For Ethernet Medium Access Control Card (E-MAC),
the new Part Number is P/N 29H4270.

For High-End Ethernet Medium Access Control Card (HEMAC),
the new Part Number is P/N 29H4414.

For Token Ring Medium Access Control Card (T-MAC),
the new Part Number is P/N 02L0745.

For High-End Token Ring Medium Access Control Card (HTMAC),
the new Part Number is P/N 02L2445.

Publication Update

Insert the companion Release Note, part number P/N 02L2447, in your publications binder.

Parts disposition

Not applicable.

End of Document

DSMKIM520E IMBED OR APPEND FILE NOT FOUND.
DSMMOM395I '.EDF$EXST' LINE 680: .im DSMSTYL1
DSMMOM397I '.EDF$EXST' WAS IMBEDDED AT LINE 680 OF '.EDF$EXST'
DSMMOM397I '.EDF$EXST' WAS IMBEDDED AT LINE 920 OF '.EDF#INIT'
DSMMOM397I '.EDF#INIT' WAS IMBEDDED AT LINE 360 OF '.EDF#MAIN'
DSMMOM397I '.EDF#MAIN' WAS IMBEDDED AT LINE 650 OF '.EDFDOCPF'
DSMMOM397I '.EDFDOCPF' WAS IMBEDDED AT LINE 53 OF 'P02L2446'
+++EDF122E Style INSTA60 (DSMSTYL1) not found or is missing a ZSTYLE tag. (Page 0 File: P02 L2446 SCRIPT)
DSMMOM397I '.EDF$EXST' WAS IMBEDDED AT LINE 920 OF '.EDF#INIT'
DSMMOM397I '.EDF#INIT' WAS IMBEDDED AT LINE 360 OF '.EDF#MAIN'
DSMMOM397I '.EDF#MAIN' WAS IMBEDDED AT LINE 650 OF '.EDFDOCPF'
DSMMOM397I '.EDFDOCPF' WAS IMBEDDED AT LINE 53 OF 'P02L2446'
DSMBEG323I STARTING PASS 2 OF 2.
DSMKIM520E IMBED OR APPEND FILE NOT FOUND.
DSMMOM395I '.EDF$EXST' LINE 680: .im DSMSTYL1
DSMMOM397I '.EDF$EXST' WAS IMBEDDED AT LINE 680 OF '.EDF$EXST'
DSMMOM397I '.EDF$EXST' WAS IMBEDDED AT LINE 920 OF '.EDF#INIT'
DSMMOM397I '.EDF#INIT' WAS IMBEDDED AT LINE 360 OF '.EDF#MAIN'
DSMMOM397I '.EDF#MAIN' WAS IMBEDDED AT LINE 178 OF 'EDFPRF40'
DSMMOM397I 'EDFPRF40' WAS IMBEDDED AT LINE 0 OF 'P02L2446'
+++EDF122E Style INSTA60 (DSMSTYL1) not found or is missing a ZSTYLE tag. (Page 0 File: P02 L2446 SCRIPT)
DSMMOM397I '.EDF$EXST' WAS IMBEDDED AT LINE 920 OF '.EDF#INIT'
DSMMOM397I '.EDF#INIT' WAS IMBEDDED AT LINE 360 OF '.EDF#MAIN'
DSMMOM397I '.EDF#MAIN' WAS IMBEDDED AT LINE 178 OF 'EDFPRF40'
DSMMOM397I 'EDFPRF40' WAS IMBEDDED AT LINE 0 OF 'P02L2446'
+++EDF248W Page check: document requires more passes or extended cross-reference to resolve corre ctly. (Page 4 File: P02L2446 SCRIPT)
DSMMOM397I '.EDFPGCK' WAS IMBEDDED AT LINE 320 OF '.EDFHEAD1'
DSMMOM397I '.EDFHEAD1' WAS IMBEDDED AT LINE 100 OF '.EDF#HD1'
DSMMOM397I '.EDF#HD1' WAS IMBEDDED AT LINE 90 OF '.EDFPREF'
DSMMOM397I '.EDFPREF' WAS IMBEDDED AT LINE 88 OF 'P02L2446'