

IBM INSTALLATION INSTRUCTIONS

8260 Nways Multiprotocol Switching Hub

Installation Instructions

for

DMM 2.3, T-MAC 3.0, and E-MAC 3.0 Software Microcode Upgrade Field B/M

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Read This First

Read this carefully

These 8260 Nways Multiprotocol Switching Hub installation instructions have been rewritten to :

- Offer a consistent "look and feel" among all IBM instructions
- Take into account the new requirements of DMM expanding over 2 diskettes
- Allow all the download capabilities (inband and out_of_band) from a multiplatform point of view. This is done by providing a consistent set of preliminary steps based upon the workstation platform (DOS, OS/2, AIX)

Consequently, the succession of the habitual download steps as described in previous instructions is different , and there is a strong need to read this book first and understand what is new.

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Windows	Microsoft Corporation
Softterm Custom	Softronic, Inc.

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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, Ethernet Carrier DMM Module, Token Ring Medium Access Card and Ethernet Medium Access Card using material provided in the field B/M P/N 29H4274.

Machines Affected

This installation instruction, part number P/N 29H4266 EC level E28002, applies to 8260 Nways Multiprotocol Switching Hub feature code 1000, feature code 1100, feature code 8913, feature code 8918.

Requirements

Important Notice

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

- Download Version 3.0 T-MAC and E-MAC code (boot and operational)
- Download DMM Version v2.3 (boot and operational)
- Download Token Ring TRChipset (T-MAC adapter code)

Refer to the Release Note (P/N 80G3429) for more on this

For Out-of-Band download 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.

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- 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
- Data bits: 8
- Parity: None
- Stop bits: 1

The terminal parameters should be setup as follows:

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

For Inband download method.

The DMM provides an inband download 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 initializing the download.

- Have a TFTP server on the network to perform inband downloads.
- Connect DMMs to be updated to the same network as the TFTP server.
- Verify IP connectivity from the TFTP server to the DMM

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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 a **OS/2** environment
If the TFTP server has been started in foreground session check that you gave access restricted 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 a **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 Inband Download.

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Installation

The installation of 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 on the workstation (DOS or AIX).
- Upgrade all the modules using one of the download methods available.

Distribution Diskettes

There are 3 diskettes provided (P/N 29H4267, P/N 29H4272, P/N 29H4273) with the Field B/M.

Distribution Diskettes for Distributed Management Module

The Distributed Management Module software microcode update is distributed on two 3.5 inches 1.44MB diskette(s).

1. The first diskette, part number P/N 29H4267, contains:
 - A notice file (readme) that details the contents of the diskettes
 - The first part of the operational software (dmmv230.lo) of the Distributed Management Module. and a ProComm DOS command file (dmmoper.cmd).

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

 - A DOS executable (install.bat) used later to copy the software file and the command file contained in the diskettes on a directory of your workstation while rebuilding Distributed Management Module operational code in one unique file .
 - An AIX Script file (install.aix) used to copy the software file contained in the diskette(s) on the current directory of an AIX platform that may later be used as a TFTP file server.
2. The second diskette part number P/N 29H4272, contains:
 - The second part of the operational software (dmmv230.hi) of the Distributed Management Module.

Distribution Diskette for Token Ring Medium Access Card and Ethernet Medium Access Card

There is a third diskette, part number P/N 29H4273, containing:

- The operational software (tnmcv300.op) of the Token Ring Medium Access Card. and a ProComm DOS command file (tnmcoper.cmd).
- The operational software (enmcv300.op) of the Ethernet Medium Access Card. and a ProComm DOS command file (enmcoper.cmd).
- The TRChipset software (tnmcv300.chp) of the Token Ring Medium Access Card. and a ProComm DOS command file (tnmcchip.cmd).

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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 SA33-0275-03

8260 DMM User's Guide, form number SA33-0259-04

ProComm Reference Manual.

Release Note, part number P/N 80G3429, EC level E28002.

Upgrading the Token Ring Medium Access Card and Ethernet Medium Access Card operational code

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 diskette unit where the distribution diskette will be mounted (in the "PATH" input field).
4. Insert the IBM Distribution Diskette P/N 29H4273
5. Start the download out-of-band procedure that pertains to the Management module the terminal is connected to i.e.
 - Enter the command **download out_of_band module <slot.subslot> operational** to initiate the download of operational code to the Token Ring Medium Access Card or Ethernet Medium Access Card module 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 the tnmcooper.cmd file** in order to initiate the download of the Flash code version V3.0 on the Token Ring Medium Access Card or the enmcooper.cmd file in order to initiate the download of the Flash code version V3.0 on the Ethernet Medium Access Card.
 - c. File transfer progress will be indicated on the terminal until completion.

Download Inband

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

Use the following procedure to perform an inband download .

1. Verify that the TFTP server is able to PING the DMM.
2. Be sure to have running TFTP Daemon on your server.
3. Copy the operational code files on a directory of your TFTP server.
4. Configure the TFTP parameters in the DMM by issuing the following management commands as shown:
 - 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 results
 - d. > save tftp

Note:

This can be accomplished either by TELNETing to the DMM or by directly attaching to the DMM front panel serial port via an RS-232 connection.

5. Issue the SHOW TFTP command to verify the TFTP parameters previously set.

> SHOW TFTP

6. Issue the appropriate INBAND DOWNLOAD command as shown below to begin the download.

For Token Ring Medium Access Card or Ethernet Medium Access Card operational code upgrade you must use the following commands :

Enter the command **download inband module <slot.subslot> operational** to initiate the download of operational code to the module 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 that the code is now the updated version with SHOW DEVICE command.

Upgrading the Distributed Management Module operational code

Creating the software and command files 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 software microcode from a **DOS** or **OS/2** platform.
- To use the **inband** method for downloading the Distributed Management Module software microcode from an **DOS** or **OS/2** Workstation acting as a TFTP server.

Note: The Distributed Management Module software microcode requires 1.7 MB of hard disk space.

1. Insert the distribution diskette part number P/N 29H4267 in the DOS workstation diskette unit (a:).
2. Run the **install.bat** executable from the diskette (type in **install** to get the online help).
3. The executable will copy the software files from the diskettes to the directory you assigned and will name it **dmmv230.op**. You will be prompted to insert the second diskette part number P/N 29H4272.

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 software microcode from an **AIX** Workstation.
- To use the **inband** method for downloading the Distributed Management Module software microcode from an **AIX** Workstation acting as a **TFTP** server.

Note: The Distributed Management Module software microcode requires 1.7 MB of hard disk space.

1. Insert the first software distribution diskette part number P/N 29H4267 into the RS/6000 diskette unit.
2. Copy the **install.aix** script file from the diskette to the current directory, assign it a name of your choice ("aixdmm" for instance).
 - "dosread -a install.aix aixdmm" (New name assigned is "aixdmm")
3. Execute the just created script by entering its name preceded by "ksh".
 - "ksh aixdmm"

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The script will copy the software file from the diskettes to the current directory and will name it **dmmv230.op**. You will be prompted to insert the second diskette part number P/N 29H4272. Remove the first diskette, insert the second one then press the "enter" key.

4. Erase the script file
 - "rm aixdmm"
5. Make sure that the just created software file (dmmv230.op) may be read by everyone.
 - Login as root
 - set path to the software file
 - "chmod a+r dmmv230.op"

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 resides the software (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 command **download out_of_band device operational** to initiate the download of operational code to the Distributed Management Module module.
 - 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. select the **dmmoper.cmd** file in order to initiate the download of the Flash code version V2.3 on the Distributed Management Module.
 - c. File transfer progress will be indicated on the terminal until completion.

Download Inband

The DMM provides an inband download feature that allows you to update 8260 blades using TFTP (Trivial File Transfer Protocol).

Use the following procedure to perform an inband download 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. Configure the TFTP parameters in the DMM by issuing the following management commands as shown:
 - 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 results
 - d. > save tftp

Note:

This can be accomplished either by TELNETing to the DMM or by directly attaching to the DMM front panel serial port via and RS-232 connection.

4. Issue the SHOW TFTP command to verify the TFTP parameters previously set.
 - > SHOW TFTP
5. Issue the appropriate INBAND DOWNLOAD command as shown below to begin the download.
 - For Distributed Management Module operational code upgrade you must use the following commands :
 - a. > **download inband device Operational**
6. Once the download process begins, do not press any keys or interfere with the process . You will have messages prompted to you .
7. Verify that the code is now the updated version with SHOW DEVICE command.

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Upgrading the Token Ring Medium Access Card TRChipset adapter code

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 diskette unit where the distribution diskette will be mounted (in the "PATH" input field).
4. Insert the IBM Distribution Diskette P/N 29H4273
5. Start the download out-of-band procedure that pertains to the Management module the terminal is connected to i.e.
 - Enter the command **download out_of_band trchipset** to initiate the download of TRChipset code to the Token Ring Medium Access Card
 - 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. **Select the tnmccchip.cmd file** in order to initiate the download of the tnmcv300.chp on the Token Ring Medium Access Card
 - c. File transfer progress will be indicated on the terminal until completion.

Download Inband

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

Use the following procedure to perform an inband download .

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1. Verify that the TFTP server is able to PING the DMM.
2. Be sure to have running TFTP Daemon on your server.
3. Copy the operational code files on a directory of your TFTP server.
4. Configure the TFTP parameters in the DMM by issuing the following management commands as shown:
 - 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 results
 - d. > save tftp

Note:

This can be accomplished either by TELNETing to the DMM or by directly attaching to the DMM front panel serial port via and RS-232 connection.

5. Issue the SHOW TFTP command to verify the TFTP parameters previously set.

> SHOW TFTP

6. Issue the appropriate INBAND DOWNLOAD command as shown below to begin the download.

For Token Ring Medium Access Card TRChipset adapter code upgrade you must use the following commands : Enter the command **download inband module <slot.2> trchipset** to initiate the download of operational code to the module specified by slot 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 that the code is now the updated version with SHOW DEVICE command.

After Installation

Labelling

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

- New Part Number for Distributed Management Module is P/N 29H4268
- New Part Number for Ethernet Carrier DMM Module is P/N 29H4269
- New Part Number for Token Ring Medium Access Card is P/N 29H4271 if current PN was P/N 29H4230
- New Part Number for Token Ring Medium Access Card is P/N 29H4251 if current PN was P/N 29H4231
- New Part Number for Token Ring Medium Access Card is P/N 29H4252 if current PN was P/N 80G3403
- New Part Number for Ethernet Medium Access Card is P/N 29H4270

Publication Update

Insert the companion Release Note, part number P/N 80G3429 EC level E28002, in your publications binder.

Parts disposition

Not applicable.

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End of Document