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# 8239 Release Notes

# Operational Code Version 2.0
# 10/19/98

These release notes contain information related to the 8239 Token-Ring Stackable Hub.  The major sections are:

- Enhancements
- Fixes
- Known Problems
- Current MIB Information
- Where to Go for Information
- Questions
- Using the Terminal Interface
- Operating Considerations
- Updating 8239 Operational Code
- Documentation Changes

For the latest product and documentation updates, check our website at
*http://www.networking.ibm.com/support*.

## Enhancements

- Added support for Segmentation.  Segmentation allows the units within an 8239 stack to be assigned to different token-ring data segments.  A single stack may consist of 1 to 8 data segments.

- Enhanced POST diagnostic for the management interface on 8239 Model 1.

- 8239 User's Guide has been updated with:

    – corrections

    – information on Segmentation

    – enhancements to the Problem Determination chapter

## Fixes

**Fixes from Operational Code Version 1.1**

## Updating Operational Code

When 8239 Model 1 code is updated using the LOAD OPERATIONAL_CODE or REPLICATE OPERATIONAL_CODE terminal interface command and there are three or more Model 1s in the stack, the Model 1 initiating the update resets. This problem has been corrected. For more information about updating V1.0 operational code in a stack with three or more Model 1s, see "Loading New 8239 Operational Code" on page 7.

## Private Traps

Some 8239-specific traps contained an incorrect trap type or specific trap type. This problem has been corrected.

## Changing the Default Gateway

When the default gateway is set up or changed (using the SET IP terminal interface command or via BOOTP), a message is displayed on the terminal interface giving the IP address of the router that was added or deleted. At the end of this message, spurious text enclosed in parentheses appears. This problem has been corrected.

**Fixes from Operational Code Version 1.7**

## Sending MIB II Traps via SNMP

In order to send MIB II traps to a trap receiver via SNMP, the community name for the trap receiver must be `traps`. To set the community name, enter the following terminal command: **set trap_community rmon/mib2 traps** *ip_address*. This problem has been corrected.

## Reset when IP Address or Default Gateway is not in the Correct Subnet

When an 8239 Model 1 has been configured with an invalid combination of IP information and V1.1 operational code is loaded, the hub may:

1. immediately reset and erase any configuration data not saved including the IP information; or

2. be placed into a state where it performs continuous resets.

This problem has been corrected.

## Beacon Recovery Errors

- Beacon wrapped LED's remain on after the beacon condition has been removed. This problem has been corrected.

- Despite a station request to wrap the port, the **Data In** wrap point was incorrectly unwrapped during beacon recovery. This problem has been corrected.

- Intermittently, the beacon recovery process hangs up in the port fault detection routine. **Data In/Out** goes into beacon wrapped state and never recovers. This problem has been corrected.

## Reset when DISPLAY RMON Commands Issued

When the **Display RMON host_data all_by_creation_order** command is issued and the host_data table contains more than 4000 entries, a hub reset will occur. Also, when the **Display RMON matrix_data involving** command is issued for large matrix tables, a hub reset will occur. These problems have been corrected.

## REM Trap Problems

The **remPreWeightExceeded** REM trap is not displayed correctly. Also, the **remWeightExceeded** receiver trap and the **remErrorRateDecaying** receiver trap are not sent. These problems have been corrected.

## Known Problems

## Loading the MIB

For information about problems loading the MIB, see "MIB Fails to Load" under "Current MIB Information."

## Current MIB Information

## IBM Private MIBs Supported by the 8239

The latest IBM 8239 MIB may be obtained from our website at *http://www.networking.ibm.com/support*.

## MIB Fails to Load

The 8239 V1.0 MIB file (`mib/ibm8239.mib`) on the CD-ROM dated June, 1998, cannot be loaded by some MIB browsers. **Action**: Download the current 8239 MIB from our website: *http://www.networking.ibm.com/support*.

## MIB Version

Be sure you use the 8239 MIB V2.0 with operational code V2.0.

## Where to Go for Information

Use this section for information about where to find:

- Code updates
- Product information
- Network management applications

## Code Updates

The latest 8239 operational code may be obtained using either of these methods:

- Retrieve it from our website at *http://www.networking.ibm.com/support*.

- If the 8239 is under warranty, contact your reseller or call IBM. In the United States, call IBM at **1-800-772-2227**; in Canada, call IBM at **1-800-IBM-SERV (1-800-426-7378)**.

If the 8239 is not under warranty, call IBM at **1-800-IBM-SERV (1-800-426-7378)**.

## Product Information

The latest versions of the following documentation may be obtained from our website at
*http://www.networking.ibm.com/support*.

- *8239 Token-Ring Stackable Hub Setup and User's Guide*
- *8239 Token-Ring Stackable Hub Command Reference*
- *8239 Token-Ring Stackable Hub Quick Reference*
- *8239 Release Notes* (this document)

## Network Management Applications

Network management for the 8239 is provided by the following Nways Network Management products:

For graphical device (element) management

- IBM Nways Workgroup Manager for Windows NT Version 1.1.2 or later
- IBM Nways Manager for AIX Version 1.2.2 or later - Campus Manager LAN component
- IBM Nways Manager for HP-UX Version 1.2 or later - Element Manager component

For remote network monitoring (RMON/RMON2/ECAM)

- IBM Nways Workgroup Remote Monitor for Windows NT Version 1.1 or later
- IBM Nways Manager for AIX Version 1.2 or later - Remote Monitor and Traffic Monitor components
- IBM Nways Manager for HP-UX Version 1.2 or later - Remote Monitor component

For media management using the IBM Token Ring Surrogate MIB

- IBM Nways Manager for AIX Version 1.2.2 or later - Campus Manager LAN component

The 8239 fully supports RMON, RMON 2 and ECAM. However, the versions of remote network monitoring applications mentioned above have varying levels of RMON, RMON 2, or ECAM support.

The latest information about these products can be obtained from our website at
*http://www.networking.ibm.com/netmgt*.

## Questions

To report problems or ask questions:

- If the 8239 is under warranty, contact your reseller or call IBM. In the United States, call IBM at **1-800-772-2227**; in Canada, call IBM at **1-800-IBM-SERV (1-800-426-7378)**.

- For warranty upgrade or post-warranty maintenance service, call IBM at **1-800-IBM-SERV (1-800-426-7378)**.

## Using the Terminal Interface

This section contains information about logging on to the terminal interface and about configuration settings for the terminal emulation sessions. For more information, see the *8239 Setup and User's Guide*.

## Login Name and Password

To use the terminal interface via Telnet or the EIA-232 port, you must enter a login name and password. The default administrator access login name is "admin" with no password. You should change the 8239 login password to a more secure password. If you forget your passwords associated with login names that have administrator access, contact IBM using the telephone numbers listed in "Questions."

## Using the 8239 EIA-232 Port

To connect a workstation directly to the 8239's EIA-232 port, a null-modem cable is required. To connect a modem to the 8239's EIA-232 port, use a standard EIA-232 cable. Configure your terminal emulation application with:

- 9600 bps
- No parity
- 8 data bits
- 1 stop bit
- No flow control
- VT100 emulation
- The communications port

## Operating Considerations

This section contains information about these topics:

- Address-to-port mapping
- Configuration Report Server
- Ring in/ring out
- Soft errors

## Address-to-Port Mapping

When known external stations are not appearing in network_map (for example, in the DISPLAY NETWORK_MAP ALL_STATIONS command), the 8239's RMON ring station table may be full. To clear the RMON ring station table, issue the CLEAR RMON RINGSTATION_ALL terminal interface command to the 8239 Model 1. Once the Token Ring Neighbor Notification Process completes successfully, subsequent displays of the network_map will include all currently active stations.

## Configuration Report Server

When the Configuration Report Server (CRS) surrogate agent on the 8239 Model 1 is active, it sends CRS Request MAC frames to all stations participating in the token-ring Neighbor Notification Process every 10 minutes and after NAUN changes occur. If a station does not respond to the CRS Request frame, the 8239 sends out the CRS Request MAC frames every minute; if this situation occurs, the DISPLAY TR_SURROGATE CRS_STATION ALL command identifies the MAC address that did not respond so that you can take further action.

## Ring In/Ring Out

Be sure that both ends of the RI/RO cables are connected before enabling the RI and RO interfaces. Any of these interfaces that are not going to be used should be administratively disabled. The default administrative mode value for RI/RO is disabled.

## Soft Errors

The 8239 automatically detects and isolates faults that result in hard errors (beaconing) on the network. The 8239 cannot automatically resolve soft errors (such as ring purges, burst errors, and token errors) on the network. When configured, you can use the 8239 network management features like RMON or REM to detect or identify the occurrence of soft errors on the data network. Refer to the *Token-Ring Problem Determination Guide* (SX27-3710) for information about isolating soft errors.

Some faults in the Stack In/Out cable can cause soft errors on the control ring, resulting in connectivity problems between the hubs and unexpected Hub Up/Down traps. If you are experiencing unexpected Hub Up/Down traps, consider replacing the SI/SO cable.

## Updating 8239 Operational Code

This section contains the following information:

- Obtaining 8239 operational code
- Loading 8239 operational code using XMODEM or TFTP
- Updating 8239 V1.0 to a later version with three or more Model 1s in the stack
- Updating 8239 V1.1 to a later version when continuous hub resets are occurring

## Obtaining New 8239 Operational Code

The 8239 operational code is contained in a binary file. The files used for the 8239 Model 1 and the 8239 Model 2 are unique files. The Model 1 and Model 2 filenames have a format of m1r*xv**y*.opr and m2r*xv**y*.opr, respectively, where *x* is the release number and *y* is the version number.

The Model 1 operational code file, which contains both the Model 1 and Model 2 operational code, is loaded on a Model 1; all of the Model 1s and Model 2s in the stack will be updated with the code. The Model 2 operational code file, which contains only the Model 2 operational code, is loaded on a Model 2; all of the Model 2s in the stack will be updated with the code. All 8239s in the same stack should run the same code level.

The most recent 8239 operational code can be obtained by either of these methods.

- Retrieving it from our website at *http://www.networking.ibm.com/support*.

- If the 8239 is under warranty, contact your reseller or call IBM. In the United States, call IBM at **1-800-772-2227**; in Canada, call IBM at **1-800-IBM-SERV (1-800-426-7378)**.

  For warranty upgrade or post-warranty maintenance service, call IBM at **1-800-IBM-SERV (1-800-426-7378)**.

If you have a Model 1 in the stack, obtain the Model 1 operational code file; this file contains both the Model 1 and Model 2 operational code. If you have only Model 2s in the stack, obtain the Model 2 operational code file.

# Loading New 8239 Operational Code

The Model 1 will update all Model 1s and Model 2s in the stack.  The Model 1 operational code file is loaded on the Model 1 using either XMODEM or TFTP.  After the code is loaded, the appropriate code is automatically copied to all of the other 8239 Model 1s and Model 2s in the stack.  To start executing the new code, all of the 8239s in the stack must be reset.

The Model 2 will update only Model 2s in the stack.  Load the Model 2 operational code file on the Model 2 using XMODEM.  After the code is loaded, the code is automatically copied to all of the other 8239 Model 2s in the stack.  To start executing the new code, all of the 8239 Model 2s in the stack must be reset.

**Updating Using XMODEM:**   To load new code onto your Model 1 or Model 2 using XMODEM:

1. Put the file containing the new code on the workstation that connects to the 8239 EIA-232 port.

2. Log onto the 8239 using your terminal emulation software.

3. If your terminal baud rate has not been changed from the default value of 9 600 bits per second, you may want to configure both the 8239 and the terminal emulation software for a higher baud rate so that the file transfer goes faster.

4. Issue the LOAD OPERATIONAL_CODE XMODEM command.

5. When the message *Ready to RECEIVE File in binary mode* appears, indicate to your terminal emulation software that the file transfer should start.  Specify:

   - XMODEM or 1K-XMODEM for the protocol.  1K-XMODEM causes the file transfer to occur faster.
   - The filename of the file to be transferred.

6. After the file transfer is completed, the 8239 will automatically update the code on the appropriate hubs in the stack.  Once the message *Code load complete* appears, the hubs can be reset at any time to execute the new code; for example, you can issue the RESET_HUB ALL command.

**Updating Using TFTP:**   Code can be updated using TFTP on Model 1s only.  The code transfer can be triggered through a terminal interface command or SNMP. Only the instructions for updating code using the terminal interface are described here.

1. Put the file containing the new code on your TFTP server.  Make sure that the permission code for the file allows read-access for "others".  For example, on AIX or UNIX systems, specify *chmod o+r FILE*, where *FILE* is the name of the file to be transferred.

2. Log onto the 8239 using either your terminal emulation software or Telnet.

3. Issue the LOAD OPERATIONAL_CODE TFTP command, specifying the TFTP server's IP address and the filename of the file to be transferred.

4. After the file transfer is done, the 8239 will automatically update the code on all other hubs in the stack.  Once the message *Code load complete* appears, the hubs can be reset at any time to execute new code; for example, you can issue the RESET_HUB ALL command.

**Updating 8239 V1.0 with Three or More Model 1s in the Stack:**   When there are three or more 8239 Model 1s in a stack running V1.0 operational code and a code update is performed, the Model 1 initiating the update may reset.  This problem does not exist in V1.1, or later, operational code.  To update the Model 1 from V1.0 to a later version, follow these steps:

1. Load the V1.1 or later code onto one of the Model 1s running V1.0.

2. If the Model 1 resets, issue the REPLICATE OPERATIONAL_CODE command on the Model 1 after it becomes operational; the rest of the Model 1s will then be updated with the new code.

**Updating 8239 Model 1 V1.1 When Continuous Hub Resets are Occurring:** When an 8239 Model 1 has been configured with an invalid combination of IP information and Version 1.1 operational code is loaded, the hub may be placed into a state where it performs continuous resets. This makes it impossible to load new code by the methods described above. This problem exists only when Version 1.1 operational code is installed. There is a procedure to perform this code update. To obtain the information needed to update a Model 1 hub, that is in this state, from V1.1 to a later code version, please call IBM using the telephone numbers listed in "Questions."

## Documentation Changes

There have been additions and changes to the following 8239 publications:

- *8239 Token-Ring Stackable Hub Setup and User's Guide*
- *8239 Token-Ring Stackable Hub Command Reference*

*The latest versions of these publications may be obtained from our website at http://www.networking.ibm.com/support.*

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