

Where to Go for Information

Code updates

The latest 8275-416 operational code may be obtained using any of these methods:

- Retrieve it from our Web site at **<http://www.networking.ibm.com/support>**.
- If the 8275-416 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 8275-416 is not under warranty, call IBM at **1-800-IBM-SERV (1-800-426-7378)**.

Product Information

Visit the IBM Web site:

<http://www.networking.ibm.com/support/docs.nsf/8275docs?OpenView>

for the latest versions of the **IBM 8275 Model 416 High Performance Ethernet Switch**:

- **User's Guide**
- **Release Notes**

Network Management Applications

Network management using graphical network management applications is provided by the following IBM Nways Network Management products:

- IBM Nways Manager for NT V2.0 or later
- IBM Nways Manager for HP-UX V2.0 or later
- IBM Nways Manager for AIX V2.0 or later

The latest information about these products can be obtained from our Web site at:

<http://www.networking.ibm.com/netmgt>

Questions

To report problems or ask questions visit the IBM Web site:

<http://www.networking.ibm.com/support>

or

- If the 8275-416 is under warranty, contact you 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 IBM 8275-416 is not under warranty, call IBM at **1-800-IBM-SERV (1-800-426-7378)**.

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New Functions

The following are new functions for Version 1.1:

- Virtual LANs, as specified in IEEE 802.1Q and IEEE 802.3AC
- GVRP as specified in IEEE 802.1Q
- 4-port 100BaseFX Module support
- Priority and Traffic Class support as specified in IEEE 802.1Q and IEEE 802.1D standards. The IEEE 802.1D incorporates the IEEE supplemental P802.1P.

Additional Changes

The following additional changes are in Version 1.1:

- Enhanced statistics screens
- Forwarding database search available in the user's interface

Known Problems

Incorrect Statistics

The following Statistics counters can be incorrect:

- Undersized packets received
- CRC errors
- Alignment errors

The hardware counters do not correctly detect Undersized packets received. The hardware detects these packet types as CRC or alignment errors.

The following counters will always return a value of zero:

- Drop Events
- Transmit Packet Discards
- Receive Packet Unknown Protocol
- Transmit Queue Length

Accessing the 8275-416

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 8275-416 *User's Guide*.

Login Name and Password

To access the 8275-416 using a VT100 terminal emulation application (EIA 232 port or telnet) or Web browser, you must enter a login name and password. The default read/write access login name is "admin" with no password, and the default read-only access login name is "guest" with no password. You should change the login password to a more secure password. If you forget your read/write user name or password, contact IBM using the telephone numbers listed under the "Questions" or "Code Updates" sections above.

Using the 8275-416 EIA 232 Port

To connect a workstation directly to the 8275-416's EIA 232 port, a null modem cable is required. To connect a modem to the 8275-416's EIA 232 port, use a standard EIA 232 cable. Configure your terminal emulation application with:

- 19200 bps
- No parity
- 8 data bits
- 1 stop bit
- No flow control
- VT100 emulation
- The communication port

Default SNMP Community Names

To access the 8275-416 using SNMP, the default SNMP read/write community name is "private" and the default read-only community name is "public". You should change the community name to a more secure name.

8275-416 MIB Information

The latest IBM 8275-416 MIB can be obtained from our Web site at:
<http://www.networking.ibm.com/support>

Be sure you use the 8275-416 MIB Version 2 with operational code version 1.1.

The following objects in the 8275-416 MIB are not supported by this version of code:

- swPortMonitorNetworkConnection
- swDevTrapConsole

Whenever the above objects are accessed, the 8275-416 will return an SNMP GetResponse-PDU[2] error-status = no SuchName(2)

Operating Considerations

Considerations When Using the Terminal Interface

The terminal interface uses VT100 terminal emulation and can be accessed using either the EIA 232 port or telnet. Up to 6 terminal interface sessions (1 EIA 232 and up to 5 telnet) can be simultaneously active. The terminal interface supports 1 user name with read/write access and up to 5 user names with read only access. All active users will see the same information, including any configuration changes that have not been applied yet. Each user's screen will automatically refresh with the latest information every few seconds. When multiple users are logged in, it is recommended that only 1 session is logged on using the read/write user name to avoid conflicting configuration changes.

When logged on using the EIA 232 port and the screen does not display a complete menu (for example, the EIA 232 cable was used on another device and then moved back to the 8275-416) a key that is valid for the current 8275-416 menu must be pressed to refresh the entire screen. F1 (Help Menu) or F3 (Previous Menu) are keys that can be pressed in this situation since they are valid on almost all screens.

Considerations When Using the Web Interface

All Web browsers do not take the same action when the Enter key is pressed. For example, Microsoft © Internet Explorer© will generate a "submit action on the next available button" when the Enter key is pressed while in an input field. On most menus, this will trigger the Apply function.

Considerations When Using Windows NT DHCP Service

If you are using Windows NT© DHCP Service, reload service pack 4, or later version, for Windows NT 4.0 to ensure that you have the latest fixes or the 8275-416 will not work correctly with the DHCP Service in Windows NT. To set up the DHCP service to work correctly with the 8275-416, create a reservation. Be sure to set the IP Address, Subnet Mask, Router, and Host Name as options in the DHCP Service. If you do not set the option for the Host Name then when the 8275-416 gets the IP Address from the DHCP Service the client name in the DHCP Service is deleted.

Considerations When Using 802.3X Flow Control

If you enable flow control, ensure that the ports are fixed as 100 Mbps full-duplex (not auto-negotiated). For information on how to configure ports, see the *User's Guide*.

Port Monitoring Operation

1. The monitoring port transmits all frames as tagged; therefore, a network analyzer is remotely manageable only if it is 802.1Q-aware.
2. The port monitoring function has the following characteristics:
 - The monitoring port is automatically made a member of every VLAN of which the port being monitored is a member.

This holds true for both static and dynamic VLANs of which the monitored port is a member. When port monitoring is disabled, the monitoring port reverts to its current VLAN configuration, as displayed on the user interface.

- All frames transmitted out of the monitoring port are transmitted as tagged. This provides the advantage of determining the VLAN membership of each frame switched through the monitoring port.
3. The monitoring port always transmits frames with the NCFI bit set. Therefore, frames not transmitted on the monitored port due to untagging and a set NCFI bit cannot be detected and filtered by the monitoring port. In this case, the monitoring port will transmit these frames, even though they are not transmitted by the monitored port. The existence of such frames in a network is expected to be a rare occurrence.
 4. Frames not forwarded by the monitored port will not be monitored. These include:
 - Local frames
 - 802.3x PAUSE frames
 - Frames dropped due to ingress rules
 - Frames dropped due to forwarding rules

Recommended Distribution of VLAN Port Memberships

Up to 32 VLANs are concurrently supported by the 8275-416, but there are restrictions on VLAN configurations across base ports and across feature modules. For details, refer to the section entitled "Duplicate VLAN Configurations and Oversubscription of Switch Resources" in the updated *8275 Model 416 High Performance Ethernet Workgroup Switch, User's Guide*. The message `Operation succeeded. WARNING: Resources exceeded!` appears when a potential oversubscription of switch resources is detected due to your VLAN configuration.

Updating 8275-416 Operational Code

This section contains the following information:

- Obtaining 8275-416 operational code
- Loading 8275-416 operational code using XMODEM or TFTP

To determine the code version currently loaded on the 8275-416, either of the following methods can be used:

- On the Login panel displayed using the terminal interface, look at the lower right corner and the version number appears after the word "Operational".
- On the Inventory Information Menu under the System Information Menu, look at the value given for "Software Version".

Obtaining New 8275-416 Operational Code

All of the code necessary for the 8275-416 to operate is contained in a single binary file. For information on how to obtain the most recent version, see section "Code Updates" under "Where to Go for Information".

Loading New 8275-416 Operational Code

The code can be loaded onto the 8275-416 using either XMODEM (EIA 232 port only) or TFTP. To start executing the new code, the 8275-416 must be reset.

Loading Using XMODEM

To load new code using XMODEM, you must be using the EIA 232 port:

1. Put the file containing the new code on the workstation that is connected to the 8275-416 EIA 232 port.
2. Log on to the 8275-416 using your terminal emulation software and your read/write user name and password.
3. If your terminal baud rate has not been changed from the default value of 19200 bits per second, you may want to configure the 8275-416 and the terminal emulation software for a higher baud rate so that the file transfer goes faster.
4. Select the System Utilities Menu and then the Download File to Switch Menu.
 - a. Make sure that Download Mode is set to "XMODEM".
 - b. Change Start File Transfer to "Yes".
 - c. Select APPLY.
5. When the message "Ready to Receive File code.bin in binary mode" appears, indicate to your terminal emulation application to start the file transfer. 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. Use the backslash (\) to separate the path name from the file name; use the forward slash "/" for AIX systems.
6. After the file transfer is complete, the 8275-416 will automatically copy the code to flash. Once the message "File transfer operation completed successfully." appears, at any time you can reset the 8275-416 to execute the new code. Go to the System Utilities Menu, select **Reset Menu**, and then select **System Reset**.

Loading Using TFTP

TFTP code transfer can be done through the terminal interface, Web, or SNMP. The following instructions are for using the terminal interface:

1. Put the file containing the new code on your TFTP server. Make sure that the permission code for the file allows read access or "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 on to the 8275-416 using your terminal emulation software and your read/write user name and password.
3. Select the System Utilities Menu and then the Download File to Switch Menu.
 - a. Make sure that Download Mode is set to "TFTP".
 - b. Configure the appropriate values for TFTP Server IP Address, TFTP File Path, and TFTP File Name. Use the backslash (\) to separate the path name from the file name; use the forward slash "/" for AIX systems.
 - c. Change Start File Transfer to "Yes".
 - d. Select APPLY.
4. After the file transfer is complete, the 8275-416 will automatically copy the code to flash. Once the message "File transfer operation completed successfully." appears, at any time you can reset the 8275-416 to execute the new code. For example, go to the System Utilities Menu and select **Reset Menu**, and then select **System Reset**.

For a description of the messages displayed during a TFTP file transfer, refer to the User's Guide.