



# 8271 NWAYS ETHERNET LAN SWITCH FAMILY RELEASE NOTES

Please use these notes in conjunction with the following documents:

- “*IBM 8271 Nways Ethernet LAN Switch Model E12 and E24 User’s Guide*”  
Part number: 35L2181
- “*IBM 8271 Nways Ethernet LAN Switch Model F12 and F24 User’s Guide*”  
Part number: 35L2188
- “*IBM 8271 Nways Ethernet LAN Switch Management Guide*”  
Part number: 35L2186

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## Software License Agreements

Before you use the software on the IBM 8271 Nways Ethernet LAN Switch E12/E24 and F12/F24 Family CD-ROM, please ensure that you read the license agreement text. You can find this text in `license.txt` and `!license.txt` files on the CD-ROM.

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## New Features In This Release

Management software version 2.16J provides the following new features:

- IBM 8271 Nways Ethernet LAN Switch 1000BASE-SX Module support
- Traffic prioritization
- Port trunking
- VLANs (Virtual LANs)
- FastIP
- Multicast filtering
- Roving analysis

Version 2.16J of the Management Software provides extra functionality for units in the Switch E12/24 and F12/24 family. (Note that when you upgrade from a previous version of Management Software, all configuration data is retained.)

- The IfIndex ordering for Ports is enhanced so that they are allocated sequential ordered Indexes as opposed to random Indexes.
- Support is provided to enable/disable link state trap. This can be set-up using the MIB Browser to configure the ifXTable (RFC 1573).
- Configuration of speed, duplex mode, flow control, Auto-negotiation on per unit basis is now available via the Command Line Interface.

For more information about the 1000BASE-SX Module, refer to the “*IBM 8271 Nways Ethernet LAN Switch 1000BASE-SX Module User Guide*” (02L0896). For more information about the other features, refer to the “*IBM 8271 Nways Ethernet LAN Switch Management Guide*” (35L2186).

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## Recommendations When Using This Release

### 1000BASE-SX Link Configuration

If you install an IBM 8271 Nways Ethernet LAN Switch 1000BASE-SX Module and connect the Module port to another 1000BASE-SX device, we recommend that both ends of the link are configured to use the same IEEE 802.3z auto-negotiation setting.

### Auto-negotiation and the Port Setup Page

The Port Setup page of the web interface contains an Auto-negotiation listbox that allows you to enable and disable auto-negotiation for twisted pair ports.

If you set the Auto-negotiation listbox to Enabled and click *Apply*, the true speed and duplex settings may not be shown immediately on the Port Setup page. We recommend that you click the relevant port icon on the Switch Graphic to refresh the page and show the true settings.

### Configuring FastIP, Traffic Prioritization, Multicast Filtering

FastIP is a feature that requires an IP router, and is implemented through features in appropriate NIC cards.

Traffic Prioritization and Multicast Filtering is a feature that can be enabled or disabled from the Switch. The actual configuration of this feature is done with the appropriate NIC card software.

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## Known Problems

### Out of Specification 1000BASE-SX Signal Levels Affect Switch Operation

If you install an IBM 8271 Nways Ethernet LAN Switch 1000BASE-SX Module into your Switch, ensure that the optical connection to the Module port conforms to IEEE 802.3z. If the signal levels are outside the IEEE 802.3z standard, the Switch may not operate correctly.

### Auto-negotiation of IEEE 802.3x Flow Control on 10BASE-T/100BASE-TX Ports (Switch Model E12/E24 only)

The 10BASE-T/100BASE-TX ports on your Switch cannot auto-negotiate IEEE 802.3x flow control.

If you want to enable IEEE 802.3x flow control on a 10BASE-T/100BASE-TX port:

- 1 From the Port Setup page of the web interface, set the Auto-negotiation listbox to *Disabled*.
- 2 Click *Apply*.
- 3 Set the FD Flow Control listbox to *Enabled*.
- 4 Configure the port to the desired speed and full duplex operation.
- 5 Click *Apply*.

### **Limitation in IGMP Version 1 Results in Multicast Addresses Not Being Removed**

IGMP version 1 applications have a limitation that results in the IGMP multicast filtering system not removing some multicast addresses from the Switch Database.

### **RMON Can Overestimate the Number of Oversize Packets**

Packets that have an IEEE 802.1Q tag can have a legal length of up to 1522 bytes. RMON categorizes packets over 1518 bytes as oversize packets, which means that some 802.1Q-tagged packets may be recorded as oversize.

### **Roving Analysis Duplicates Flooded Packets**

Roving analysis generates up to three copies of each flooded packet. To avoid this duplication, remove the analysis port from all the VLANs to which the monitor port belongs. If you do this, the analysis port generates all VLAN-tagged packets as untagged packets.

### **Link Up Traps May Not Be Generated on a 1000BASE-SX Connection**

If you are using an IBM 8271 Nways Ethernet LAN Switch 1000BASE-SX Module and you configure Link Up traps for the Module port, some of the traps may not be generated. To ensure that Link Up traps always reach your management workstation, configure the traps on both ends of the link.

### **IEEE802.1Q VLAN Learning (GVRP)**

IEEE 802.1Q VLAN Learning (GVRP) will only function correctly in networks with 16 or less 802.1Q VLANs.

### **Forward Unknown VLAN Tags Feature and the Switch 1000BASE-SX Module**

When the IBM 8271 Nways Ethernet LAN Switch 1000BASE-SX Module is installed in the Switch the *Fwd Unknown VLAN Tags* option for the 1000BASE-SX port will not function correctly and should not be set to *Enabled*.

### **TFTP Upgrade Release Note documentation**

When upgrading a stack via TFTP from versions of the agent code earlier than version 2.16J, some units in the stack may not upgrade successfully. This is due to a fault in the earlier version of code, that has now been corrected in version 2.16J.

Following an upgrade to version 2.16J, it is advisable to check that all units on the stack have upgraded successfully. If any units have failed to upgrade, please take one of the following actions:

a) repeat TFTP upgrade until all units have successfully upgraded.

Ensure there is no network error such as intermittent connectivity when loading a stack of units across a network. Alternatively the stack may be loaded locally via a portable TFTP server.

b) use the serial update utility on the failed unit.

## Web Management

Infrequently, web screens may become incorrectly formatted. This can be corrected by using the browser reload or refresh feature.

Some broken graphics may appear. Click on the browser reload or refresh feature to obtain a clear graphic.

## Problems with PortMode Settings

Inconsistent results may be observed if portMode settings are changed from CLI and web management interface at the same time.

From the web, if auto-negotiate is enabled, the portMode setting will have no effect.

From the CLI, if auto-negotiate is enabled, the portMode setting may be incorrectly modified.

## Restrictions on Use of Resilient Links and Spanning Tree

A resilient link pair must be configured on the same unit in a stack. Resilient link and Spanning Tree implementation will be supported on multiple Gigabit modules in a redundant configuration on the same stack in a future release.

Redundant links in a spanning tree topology must be configured on the same unit in a stack.