



**DSS NETWORKS**  
**Metro-Switch Model 8261**  
**Release Notes**

*Firmware Version 1.14g*  
*Document P/N 131802*  
May 2007

## Release Notes

These release notes apply to version 1.14d of the Metro-Switch Model 8261 board, onboard firmware and Linux Operating System support as of August 2006. Also updated to include information on OEM Developer Kits for both onboard firmware and Linux SDK(s).

## See Also

Please also see the following documents on our website at [www.dssnetworks.com](http://www.dssnetworks.com)

**Datasheets** – please see product datasheets and other updated product information on our website.

**Release Notes** -- DSS Document part no 131802. Where updated information is provided on new features, compatibility, performance benchmarks, platform information and corrected problems.

**Users Manual** – DSS Document part no 131902. Contains hardware information, installation, configuration and operational instructions.

## New to this release

- ❑ Add support for Model 8260
- ❑ Add support for Broadcom switches: BCM5695, BCM5696, BCM5698
- ❑ Better menus and command display
- ❑ Remote Telnet Access
- ❑ Improve configuration and register displays.
- ❑ Add Linux PCI bus driver support (for additional management via PCI bus)
- ❑ Add Linux PCI bus driver utility for testing and register access
- ❑ Add Web-browser framework (basic Linux web-browser toolset for developing remote switch management via web-browser)
- ❑ Provide SDK for developing fully managed switch

## Notes from previous releases

- ❑ Add support for Trunking and Egress Mask setting
- ❑ Add support for protected ports
- ❑ Add additional support for port mirroring control (configuration, status)
- ❑ Better menus and command display
- ❑ Improve configuration and register displays.

- ❑ Fix any outstanding SPR(s)
- ❑ Add support for FFP (Fast Filter “Content-Aware” Processor) (configuration, statistics) via ‘gimask’, ‘girule’, ‘gffp-ctr’ and ‘gffp-pkt’ cmds
- ❑ Add support for port mirroring control (configuration, status)
- ❑ Add support for port trunking
- ❑ Add link state (up/down) summary display
- ❑ Add other enhancements and SPR corrections (see notes below).
- ❑ Additional menu commands and improved displays
- ❑ Display of SNMP / RMON statistics counters with names.
- ❑ Add VLAN support ‘vlan set’ cmd
- ❑ Add spanning tree group support ‘vlan set’ cmd
- ❑ Add ‘switch reset’ command
- ❑ Add eeprom ‘register set’ command
- ❑ Add ‘cfg save’ command
- ❑ Add other enhancements and SPR corrections (see notes below).

## CLI Command Support

**Note:** The CLI commands supported in this firmware release include commands to invoke the following capabilities:

- Switch status
- Switch statistics
- Link status
- Link (port) statistics
- Port-based VLANs
- Tagged and untagged VLANs
- Spanning tree groups (MSTP)
- Switch reset
- Fast Filter processor (FFP)
- Port mirroring
- Port statistics
- Trunking
- Egress Mask Set
- Configuration commands
- Eeprom access commands

**Note:** Additional features including trunking, port aggregation, protected ports, IPv4 IP static routing and QoS will be available in upcoming releases of the switch firmware as shown in the table below.

## FUNCTION SUPPORT MATRIX

The following function support matrix table shows which functions are provided in the onboard switch hardware and status of corresponding onboard firmware and external Linux software support provisioned to manage feature set.

Feature	Supported in Switch Hardware	Supported in Switch Firmware	Supported in Linux	Planned for upcoming release
SNMP, RMON and Ethernet MIB counters	Yes	Yes	Yes	Completed
Remote Telnet Access	Yes	Yes	Yes	Completed
Layer 2 switching	Yes	Yes	Yes	Completed
Layer 2 multicast switching	Yes	Yes	Yes	Completed
VLAN support (tagged, untagged, port)	Yes	Yes	Yes	Completed
Switch reset	Yes	Yes	Yes	Completed
Flash eeprom configuration	Yes	Yes	Saved to HDD	Completed
Trunking and link aggregation	Yes	Yes	Yes	Completed
Port security	Yes	Yes	Yes	Completed
Static IPv4 addressing	Yes	No	No	Yes
Qos (8-levels), priority, weighted RR, Combined	Yes	No	No	Yes
Fast filter processing (L2-L7)	Yes	Yes	Yes	Completed
Spanning tree (simple, rapid, multiple)	Yes	No	No	Yes
Packet mirroring	Yes	Yes	Yes	Completed
Differentiated services	Yes	No	No	Yes
Egress rate shaping	Yes	No	No	Yes
Packet aging	Yes	Yes	Yes	Completed
Packet rate shaping/control and Advanced flow control	Yes	No	No	Yes
Add Linux PCI driver support	Yes	Yes	Yes	Completed
Add Linux PCI driver utility	N/A	Yes	Yes	Completed
Provide SDK and Linux Web Browser	N/A	No	No	Yes

## Industry Standards Compliance

- PICMG 2.0 R3.0 Compact PCI compliant (6U form factor)
- PICMG specifications: 2.16 R1.0 Packet Switching Backplane (PSB) complaint fabric board (occupies one fabric slot per board, up to two per chassis)
- PICMG 2.9 R1.0 IPMI support
- PICMG 2.1 R2.0 hot-swap (basic hot-swap hardware connection layer)
- IEEE specifications: 802.3-2002, 802.1D, 802.1Q, 802.3x, 802.3z
- Spanning tree: IEEE 802.1D (STP), 802.1s (MSTP), 802.1w (RSTP)
- RMON, SNMP and Ethernet MIB statistics, RFCs 1213, 1493, 1573, 1757, 2358 and IEEE 802.3 Ethernet MIB
- Remote Telnet Access
- 12 ports 1000 Base T routed to backplane
- Two onboard 850nm multimode fiber LC connectors (1000 Base SX) via front panel interface
- Optional support for two 1310nm singlemode fiber LC connectors (1000 Base LX)
- 10-Gigabit Ethernet fiber uplink (extended model)

## Product Shipment Contents

- Model 8261 board hardware
- Users Manual
- Release notes
- Serial port cable

## Optional Product Shipment Contents

- Firmware OEM Developer Kit
- Linux Managed Switch OEM Developer Kit

## Test Procedures

**Gigabit Ethernet Testing:** ICMP/Ping, Fast Ping, ARP, IP, TCP, FTP, Telnet, HTTP, Windows/SMB/NBT, Network Browsing, Network Printing

**Modes Tested:** 10 Base T, 100 Base T, 1000 Base T, 1000 Base SX  
Half and Full-Duplex, Copper and Fiber Interfaces

**Vlan support:** Tested and verified

**Performance tested:** Wire-speed frame generator and blaster/blastee through switch.

## SPR Problems Fixed in this release

- ❑ Enhancements to CLI configuration and switch initialization
- ❑ Added new capabilities for FFP and Port Mirroring
- ❑ Fix DHCP packet forwarding problem after link reset

## SPR Problems Fixed from previous releases

- ❑ Minor changes for better LED control
- ❑ Fix minor initialization bug on memory allocation
- ❑ Fix operation with 100Mb speed ports
- ❑ Improvements in link initialization
- ❑ Enhancements to CLI configuration and switch initialization

## Known problems and/or limitations

- ❑ Some features available in switch hardware are not configurable as of this release (see support matrix above).