

# Ethernet Routing Switch 5510/5520/5530

Software Release 5.0.6

# 1. Release Summary

Release Date: 23-July-2007

Purpose: Software patch release to address customer found software issues.

## 2. Important Notes Before Upgrading to This Release

For customers upgrading from older software versions, a series of upgrades are required to prevent configuration corruption under certain circumstances. This upgrade path includes the following releases: 4.0, 4.1, 4.2, and 5.0. Those customers who upgraded to from earlier versions to previously posted 5.0.6.022/023s need to upgrade to the current release (5.0.6.026/027s).

# 3. Platforms Supported

Ethernet Routing Switch 5510/5520/5530

## 4. Notes for Upgrade

Please see "System Configuration Guide for Nortel Ethernet Routing Switch 55xx Series, Software Release 5.0" (Part No. 217468-B, available at <a href="http://www.nortel.com/support">http://www.nortel.com/support</a>). In the Product Finder, select Routers and Routing Switches- Ethernet Routing Switch 5510, 5520, or 5530-24TFD, followed by Documentation) for details on how to upgrade your Ethernet Routing Switch.

#### **File Names for This Release**

File Name	Module or File Type	File Size (bytes)
5530_500003_diag.bin	Diagnostic image	811,864
5530_506026.img	Agent code image	5,385,436
5530_506027s.img	Agent code image (SSH)	5,610,816

# 5. Version of Previous Release

Software Version 5.0.6.022/023s

# 6. Compatibility

This software release is managed with Java Device Manager (JDM) release 6.0.2.

# 7. Changes in This Release

#### **New Features in This Release**

#### **Unicast Storm Control Feature (CLI Only)**

This feature allows the discarding of known and unknown unicast on a per-port basis when the level of the unicast traffic exceeds a user specified watermark, specified in packets per second (pps). While the traffic is being discarded, the rate continues to be monitored and the unicast traffic will again be allowed to flow when the rate of traffic drops below a user specified low watermark. The feature includes logging of watermark crossings and sending of traps for the low and high watermark crossings. Traps for high watermark exceeded may be sent repeatedly at a user specified interval.

#### Command syntax:

show storm-control unicast

shows control settings

Output format (default settings shown):

Unicast Storm Control: Disabled Low Watermark: 200 packets/second High Watermark: 500 packets/second

Poll Interval: 30.00 seconds Trap Send Interval: 5 poll intervals

show storm-control unicast interface

shows port participation

#### Output format:

#### Unit/Port Unicast Storm Control

\_\_\_\_\_

1/1 Disabled

1/2 Disabled 1/3 Disabled

1/4 Disabled

### storm-control unicast {

[enable] enable storm-control operation [low-watermark <10-100000000>] set low watermark in pps [high-watermark <10-100000000>] set high watermark in pps [poll-interval <5-300>] set interval for watermark checks [trap-interval <0-1000>] set trap sending interval when above high watermark (0 = do not send)

default storm-control unicast [enable] [low-watermark] [high-watermark] [poll-interval] [trap-interval]

#### Interface mode:

storm-control unicast enable [port <portlist>] [action shutdown] no storm-control unicast enable [port <portlist>] [action shutdown] default storm-control unicast enable [port <portlist>] [action shutdown]

Add interface to control Remove interface from control Default settings

#### **User Defined Protocol VLANs**

This enhancement is introduced as a fix for:

**Q01584366** - When using a user defined protocol based vlan, intermittant packet loss may appear.

A new user defined protocol VLAN type was introduced: LLC User Defined. With older software versions (e.g. 4.2), User Defined protocol VLANs could be created only for Ethernet II protocols.

©2007 Nortel Networks Limited Rev: 1.3 (23-Jul-2007) Page 2 of 4 Now we can create LLC Ethernet protocol VLANs using "VLAN Configuration" console menu with protocol type "LLC User Defined".

#### Limitations:

For 5.0.6 software release, this enhancement is available only from Menu interface.

Currently, on ERS55xx platforms, no more than 7 protocol VLANs can be activated. 7 is the limit for the number of active protocol VLANs.

For ERS5520 and ERS5530 platforms, there is no supplementary limitation for the number of active LLC User Defined protocols. Up to 7 LLC User Defined protocols can be enabled. This is also true for a stack build with these unit types.

For ERS5510 platform there is a limitation for the number of active LLC User Defined protocols: only 2 LLC User Defined protocol VLANs can be activated, out of the 7 allowed protocol VLANs. This is also true for a stack containing at least 1 ERS5510 unit.

For example, if we have activated 2 LLC User Defined protocol VLANs, the rest of 5 protocol VLANs allowed must be of Ethernet II type.

#### **Old Features Removed From This Release**

The option "1" is no longer available for the "mem-show" command.

#### **Problems Resolved in This Release**

Every time the status of a LLDP enabled port changed, the NVRAM was written to, opening up a window of opportunity for possible config, corruption (Q01693967).

When the "autosave" feature is disabled, the mac-security settings return to default values after reset (Q01592825).

When DHCP snooping is enabled, some UDP fragments may be dropped (Q01612570)

Arp cache and forwarding table are inconsistent when a station moves to a different SLT (Q01584289, Q01587279)

QBridgeMib (RFC 2674) does not return any value on 55xx (Q01391509-01).

Non-base unit switch IP is not reachable after a stack failure (Q01583888).

ERS 55xx to OM5200 fiber link does not recover if the link goes down (Q01557384).

Stack password got corrupted if the stack broke apart (Q01592862).

Using "mem-show 1" command from CLI caused the IP connectivity to be lost (Q01587939).

When using a user defined protocol based VLAN, intermittent packet loss resulted (Q01584366).

Using a specific configuration, with stack resets the configuration was defaulted when the stack was accessed via JDM (Q01638661).

In a two-unit stack, a loss of routing for 19 minutes could have resulted if a unit was powered off (Q01606521).

Duplicate OFFER and ACK packets were sent when using DHCP-Relay (Q01521609).

QoS DHCP Snooping configured on a tagged access port allowed address assignment with DHCP Relay (Q01652793).

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For specific static route with next hop within the management VLAN, packets were not forwarded according to the routing table after a reboot (Q01638014).

Under certain conditions, the Telnet server did not return the prompt or the banner to client's session (Q01656420).

# 8. Outstanding Issues

QoS DHCP Snooping configured on an untagged access port allows address assignment with DHCP relay (Q01672367).

Unicast Storm Control port settings will not change if the units in the stack are renumbered (Q01685807).

On a two-unit stack if the non-base unit is powered off, the routing traffic will be lost (Q01675500).

Disconnecting/reconnecting a DHCP server to the switch may cause connectivity issues under certain conditions (Q01676804).

# 9. Known Limitations

When using ERS 5510, filter-untagged-frame should not be used in order to ensure that STP, LACP and VLACP are functioning properly (Q01679819).

# 10. Documentation Corrections

For other known issues, please refer to the product release notes and technical documentation available from the Nortel Technical Support web site at: <a href="http://www.nortel.com/support">http://www.nortel.com/support</a>.

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