



Ethernet Routing Switch

8300

Software Release 4.0.x.x

Software Release 4.0.1.0..... 2



Ethernet Routing Switch

8300

Software Release 4.0.1.0

1. Release Summary

Release Date: June 12, 2008

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

2. Important Notes before Upgrading to This Release

None.

3. Platforms Supported

Ethernet Routing Switch 8300 modules in 8006 and 8010 chassis.

Ethernet Routing Switch 8300 modules in 8306 and 8310 chassis.

4. Notes for Upgrade

Please see the *Nortel Ethernet Routing Switch 8300 Release Notes - Software Release 4.0* and *Nortel Ethernet Routing Switch 8300 Upgrades - Software Release 4.0* (Part No : NN46200-401 and Part No : NN46200-400) available at <http://www.nortel.com/support> , (select Ethernet Routing Switch family) for details on how to upgrade your Ethernet Routing Switch 8300.

File Names for This Release

File Name	Module or File Type	File Size (bytes)
p83b4010.img	Boot monitor image	1082919
p83a4010.img	Runtime image	6935652
p83f4010.img	Pre-Boot monitor image ^{**} See IMPORTANT Note below	230786

** Nortel recommends that the Pre-Boot Image ONLY be upgraded if the system is currently running a Pre-Boot Monitor Software Rel 3.6. Systems running a Pre-Boot image Rel 3.7 should not be upgraded as there have been no changes to the Pre Boot Image for this release. Please use the CLI command '**show sys sw**' to know the Pre-Boot Monitor Software version.

p83r4010.dld	Ethernet module image (Required for I/O) cards	2285976
p83c4010.aes	Encryption module for SNMPv3 (DES)	26960
p83c4010.img	Encryption module for SSH (3DES)	52424
p83a4010.mib	MIB file (Private)	3129565
p83a4010.mib.zip	MIB (zip file)	498466
p83a4010.md5	md5 checksum file	524

5. Version of Previous Release

Software Version **4.0.0.0**

6. Compatibility

This software release is managed with Java Device Manager (JDM) release 6.0.7.0.

7. Changes in This Release

New Features in This Release

This section describes the new software features for the Ethernet Routing Switch 8300 Software Release 4.0.1.0.

CR Reference	Description
Q01654490-01	Output Redirection Enhancement for CLI command “show”
Q01656405-01	Regular Expression Enhancement for CLI command “grep”

Output Redirection Enhancement for CLI command “show”

This enhancement provides a mechanism to save the output of the CLI command “show” to a file on FLASH or PCMCIA.

Syntax

< show command> > <file>

where

<show command> is an instance of CLI command “show”, for example “show ip arp info”, or “show vlan info fdb-entry <vid>” etc.

<file> is the file name in the format /pcmcia/<file> | /flash/<file>. The file name, including the directory structure, can be up to 99 characters.

Regular Expression Enhancement for CLI command “grep”

Based on the existing CLI command “grep”, this enhancement provides a mechanism to grep the specified text file by using regular expression. The syntax of the CLI command “grep” is the same as usual:

Syntax

grep <string> <file>

where

<string> is the character string to be matched, from 1 to 600 characters.

<file> is a file name, in the form /pcmcia/<file> or /flash/<file> from 1 to 99 characters.

The general usage of this enhancement includes using wildcard to search for expected MAC addresses:

First, redirect the output of the “show vlan info fdb-entry <VID>” to a file by running “show vlan info fdb-entry <VID> > /flash/fdbentry.log”.

Then, using wildcards to search expected MAC by using “grep <regular expression> /flash/fdbentry.log”. The grep will consider each line of the file as one independent string, and it will perform the regular expression searching according to the input criteria pattern.

Note: This feature doesn’t support the matching a string across lines. For example: at the end of the first line, there is a string such as “exam”. At the beginning of the second line, there is a string such as “ple”. The search criteria “example” will not match across these two lines.

As far as the regular expression is concerned, the following operators are supported:

Operator	Functional Description	Examples
.	Dot: Matches any single character.	A.A matches AxA and A2A etc G..D matches strings such as Good, GabD and G12D etc
\	Backslash: Matches (escapes) special characters like ". * [] ^ ? \$" etc. For example, if the user want to look for "[" in the string, the "\" should be specified as input.	192\.\. matches 192.16.10.10 but not 192.168.10.10 \. allows a period to be matched as a period
[]	Square brackets: Matches the characters or a range of characters separated by a hyphen, within left and right square brackets.	[01357a-z] matches 1, 7, and w, but not 2, 6, or W.
^	Caret: Matches the character or null string at the beginning of an input string.	^BCD matches BCDE, but not ABCDE
?	Question Mark: Matches zero or one occurrence of the pattern. It has to be used with parentheses to be differentiated from the common help sign.	(Go?d) matches god and good
\$	Dollar sign: Matches the character or null string at the end of an input string.	BCD\$ matches ABCD, but not ABCDE
*	Asterisk: Matches zero or more sequences of the character preceding the asterisk.	A* matches any occurrence of the number A including none

+	Plus: Matches one or more sequences of the character preceding the plus sign.	A+ requires there to be at least one character A in the string to be matched
() []	Nest characters for matching. Separate endpoints of a range with a dash (-).	(ab)* matches any number of the two-character string ab ([A-Za-z][0-9])+ matches one or more instances of letter-digit pairs: b8 and W4, as examples.
 	Vertical line: Concatenates constructs. Matches one of the characters or character patterns on either side of the vertical bar.	A(B C)D matches ABD and ACD, but not AD, ABCD, ABBD, or ACCD

Note:

1. The backslash("\") only applies to the Regular Expressions Operators listed in the above table (such as ".", "\", "[]" etc). However, if the backslash is applied to the normal letters (a-z A-Z) or numbers (0-9) ---- like "\a" or "\0", we will consider it as normal letter or number.
2. In the common command line interface (i.e. CLI/NNCLI, Solaris's sh/csh/ksh etc), the question mark "?" is always considered as a sign of asking for the help information of the current command. So, in this feature, we will use parentheses mark to specify that this question mark is for Regular Expression. For example, (Go?d) matches god and good.
3. Up to 9 pairs of parentheses in one regular expression are supported.

The user can combine the period operator (.) and the asterisk operator (*) to implement the wildcard function. The following example matches the characters A and any characters that follow A, for example "A", "Aabc", "A1234" etc

A.*

The user can reverse the matching of the range by including a caret (^) sign at the start of the range. The following example matches any letter except the ones listed:

[^a-gptw]

The following example matches anything except a right square bracket (]) or the letter D:

[^\]D]

Here are several common examples for your reference:

Expected Result	Regular Expression Pattern
String that contains "00:11:AA"	00:11:AA
String that contains "00", "AA", and between of them there can be any number of characters.	00.*AA
String that begins with "A" or "a", and ends with digit 0~9.	^[Aa].*[0-9]\$
String that begins with "filter", and ends with "0xffff"	^(filter).*(0xffff)\$
String that contains the ". [] ()", such as "[192.168.10.1]"	\[192\.168\.\10\.\1\]

Old Features Removed From This Release

None

Issues Resolved

Security NSNA

When NSNA is enabled, default filters now function properly with DHCP requests. (Q01755998)

IP Unicast General

Static routes now become inactive when their next hop is unreachable. (Q01812274)

VRRP

An ARP entry for a VRRP IP address will now be correctly populated, if a VRRP transition happens. (Q01783625)

Layer 2 switching General

The ERS8300 no longer has connectivity issues and incorrectly sends out packets with a destination MAC address of all Zeros, when some host is switched between different ports of the same VLAN or same port but different VLANs. (Q01826915, Q01873030-01)

MLT/SMLT

The FDB entries are now learned correctly when there are two triangle SMLTs in same VLAN, and one of IST Core peer switches is power cycled. (Q01757473)

MAC updating because of a remote SMLT port down no longer adversely affects CPU utilization. (Q01740028-01)

Platform General

The power-limit allocation function of PoE modules functions properly now. (Q01744042)

All I/O modules will now be properly initialized after being swapped. (Q01749411)

Link negotiation between 8348GTX / 8348GTX-POE / 8324GTX card and any external devices using Broadcom NICs will now operate properly under all conditions. (Q01588716-01)

Switch Management General

A SNMP MIB walk for the table "rcBridgeNewFdbTable", the system now returns the results that are contiguous in the lexicographical ordering. (Q01802262)

The system login banner and boot banner of the ERS8300 are correctly shown as "Ethernet Routing Switch" now. (Q01746661)

The value of the "Usage" column, which is under the Menu "Edit" -> "Security" -> "Access Policies" in JDM, now increases when the device is accessed via SNMP (i.e. JDM or other SNMP device managers). (Q01744400-01)

The port scanning over the management port no longer can cause system instability. (Q01789274-02)

There is no longer an error message displayed when the command to show the dhcp-relay counters is executed under CLI. (Q01646621-01)

NNCLI

The configuration of “autotopology” in NNCLI now takes effect properly across a system reboot. (Q01824082)

In CLI/NNCLI mode, the description for the “default-metric” now is defined as the following: (Q01153279-01):

Set the value of the default metric to apply to routes imported into the RIP domain. This is the metric used for routes not learned through RIP if a route policy does not specify a metric for a particular protocol (OSPF etc). The value 0 is used to deconfigure this parameter and restore the default value (the default value is 8).

8. Known Issues

TCP applications with any operating system that uses large TCP window sizes may experience performance degradation. The suggestion at this time is to tune the TCP window size for such applications to the lowest amount possible. Please use a value of 52560 bytes or lower, using even a lower value whenever possible. Such tuning may not be possible with Microsoft Vista operating system. (Q01693903).

9. Known Limitations

This section describes issues known to exist in the 8300 Series Software Release 4.0.1.0. in the following categories:

CR Reference	Description
Software	
Q01813362	The 8348GTX&8348GTX-POE modules adopted an advanced technology to provide better efficiency and effectivity. There is a hardware limitation on this architecture: when a QoS shaper is configured on one port, this configuration will actually affect four related ports (3 additional ports). This affect is in groups of 4 ports like <1,5,9,13>, <2,6,10,14>, <3,7,11,15> etc. So any such configuration on any one of the same group port, affects all 4 ports. Similarly (for example), such a configuration on say port 7, affects ports 3, 11 and 15.

Please also see “**Known limitations and considerations in this release**” of “Nortel Ethernet Routing Switch 8300 Release Notes - Software Release 4.0” (Part No: NN46200-401).

10. Documentation Corrections

None.

Copyright © 2008 Nortel Networks Limited - All Rights Reserved. Nortel, Nortel Networks, the Nortel logo, Globe mark, and Ethernet Routing Switch 8100/8300/8600 are trademarks of Nortel Networks Limited.

The information in this document is subject to change without notice. The statements, configurations, technical data, and recommendations in this document are believed to be accurate and reliable, but are presented without express or implied warranty. Users must take full responsibility for their applications of any products specified in this document. The information in this document is proprietary to Nortel.

To access more technical documentation, search our knowledge base, or open a service request online, please visit Nortel Technical Support on the web at: <http://www.nortel.com/support>