

Nortel Ethernet Routing Switch 8300

Command Reference — CLI

NN46200-513 (317360-F Rev 01)

Document status: Standard
Document version: 03.01
Document date: 27 August 2007

Copyright © 2007, Nortel Networks
All Rights Reserved.

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 Networks.

The software described in this document is furnished under a license agreement and may be used only in accordance with the terms of that license. The software license agreement is included in this document.

Trademarks

*Nortel, Nortel Networks, the Nortel Networks logo, and the Globemark are trademarks of Nortel Networks.

Adobe and Acrobat Reader are trademarks of Adobe Systems Incorporated.

Microsoft, Windows, and Windows NT are trademarks of Microsoft Corporation.

The asterisk after a name denotes a trademarked item.

Restricted rights legend

Use, duplication, or disclosure by the United States Government is subject to restrictions as set forth in subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.227-7013.

Notwithstanding any other license agreement that may pertain to, or accompany the delivery of, this computer software, the rights of the United States Government regarding its use, reproduction, and disclosure are as set forth in the Commercial Computer Software-Restricted Rights clause at FAR 52.227-19.

Statement of conditions

In the interest of improving internal design, operational function, and/or reliability, Nortel reserves the right to make changes to the products described in this document without notice.

Nortel does not assume any liability that may occur due to the use or application of the product(s) or circuit layout(s) described herein.

Portions of the code in this software product may be Copyright © 1988, Regents of the University of California. All rights reserved. Redistribution and use in source and binary forms of such portions are permitted, provided that the above copyright notice and this paragraph are duplicated in all such forms and that any documentation, advertising materials, and other materials related to such distribution and use acknowledge that such portions of the software were developed by the University of California, Berkeley. The name of the University may not be used to endorse or promote products derived from such portions of the software without specific prior written permission.

SUCH PORTIONS OF THE SOFTWARE ARE PROVIDED "AS IS" AND WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

In addition, the program and information contained herein are licensed only pursuant to a license agreement that contains restrictions on use and disclosure (that may incorporate by reference certain limitations and notices imposed by third parties).

Nortel software license agreement

This Software License Agreement ("License Agreement") is between you, the end-user ("Customer") and Nortel Networks Corporation and its subsidiaries and affiliates ("Nortel Networks"). PLEASE READ THE FOLLOWING CAREFULLY. YOU MUST ACCEPT THESE LICENSE TERMS IN ORDER TO DOWNLOAD AND/OR USE THE

SOFTWARE. USE OF THE SOFTWARE CONSTITUTES YOUR ACCEPTANCE OF THIS LICENSE AGREEMENT. If you do not accept these terms and conditions, return the Software, unused and in the original shipping container, within 30 days of purchase to obtain a credit for the full purchase price.

"Software" is owned or licensed by Nortel Networks, its parent or one of its subsidiaries or affiliates, and is copyrighted and licensed, not sold. Software consists of machine-readable instructions, its components, data, audio-visual content (such as images, text, recordings or pictures) and related licensed materials including all whole or partial copies. Nortel grants you a license to use the Software only in the country where you acquired the Software. You obtain no rights other than those granted to you under this License Agreement. You are responsible for the selection of the Software and for the installation of, use of, and results obtained from the Software.

1. **Licensed Use of Software.** Nortel grants Customer a nonexclusive license to use a copy of the Software on only one machine at any one time or to the extent of the activation or authorized usage level, whichever is applicable. To the extent Software is furnished for use with designated hardware or Customer furnished equipment ("CFE"), Customer is granted a nonexclusive license to use Software only on such hardware or CFE, as applicable. Software contains trade secrets and Customer agrees to treat Software as confidential information using the same care and discretion Customer uses with its own similar information that it does not wish to disclose, publish or disseminate. Customer will ensure that anyone who uses the Software does so only in compliance with the terms of this Agreement. Customer shall not a) use, copy, modify, transfer or distribute the Software except as expressly authorized; b) reverse assemble, reverse compile, reverse engineer or otherwise translate the Software; c) create derivative works or modifications unless expressly authorized; or d) sublicense, rent or lease the Software. Licensors of intellectual property to Nortel Networks are beneficiaries of this provision. Upon termination or breach of the license by Customer or in the event designated hardware or CFE is no longer in use, Customer will promptly return the Software to Nortel Networks or certify its destruction. Nortel Networks may audit by remote polling or other reasonable means to determine Customer's Software activation or usage levels. If suppliers of third party software included in Software require Nortel Networks to include additional or different terms, Customer agrees to abide by such terms provided by Nortel Networks with respect to such third party software.

2. **Warranty.** Except as may be otherwise expressly agreed to in writing between Nortel Networks and Customer, Software is provided "AS IS" without any warranties (conditions) of any kind. NORTEL NETWORKS DISCLAIMS ALL WARRANTIES (CONDITIONS) FOR THE SOFTWARE, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND ANY WARRANTY OF NON-INFRINGEMENT. Nortel Networks is not obligated to provide support of any kind for the Software. Some jurisdictions do not allow exclusion of implied warranties, and, in such event, the above exclusions may not apply.

3. **Limitation of Remedies.** IN NO EVENT SHALL NORTEL NETWORKS OR ITS AGENTS OR SUPPLIERS BE LIABLE FOR ANY OF THE FOLLOWING: a) DAMAGES BASED ON ANY THIRD PARTY CLAIM; b) LOSS OF, OR DAMAGE TO, CUSTOMER'S RECORDS, FILES OR DATA; OR c) DIRECT, INDIRECT, SPECIAL, INCIDENTAL, PUNITIVE, OR CONSEQUENTIAL DAMAGES (INCLUDING LOST PROFITS OR SAVINGS), WHETHER IN CONTRACT, TORT OR OTHERWISE (INCLUDING NEGLIGENCE) ARISING OUT OF YOUR USE OF THE SOFTWARE, EVEN IF NORTEL NETWORKS, ITS AGENTS OR SUPPLIERS HAVE BEEN ADVISED OF THEIR POSSIBILITY. The foregoing limitations of remedies also apply to any developer and/or supplier of the Software. Such developer and/or supplier is an intended beneficiary of this Section. Some jurisdictions do not allow these limitations or exclusions and, in such event, they may not apply.

4. **General**

   a. If Customer is the United States Government, the following paragraph shall apply: All Nortel Networks Software available under this License Agreement is commercial computer software and commercial computer software documentation and, in the event Software is licensed for or on behalf of the United States Government, the respective rights to the software and software documentation are governed by Nortel Networks standard commercial license in accordance with U.S. Federal Regulations at 48 C.F.R. Sections 12.212 (for non-DoD entities) and 48 C.F.R. 227.7202 (for DoD entities).

   b. Customer may terminate the license at any time. Nortel Networks may terminate the license if Customer fails to comply with the terms and conditions of this license. In either event, upon termination, Customer must either return the Software to Nortel Networks or certify its destruction.

   c. Customer is responsible for payment of any taxes, including personal property taxes, resulting from Customer's use of the Software. Customer agrees to comply with all applicable laws including all applicable export and import laws and regulations.

   d. Neither party may bring an action, regardless of form, more than two years after the cause of the action arose.

e. The terms and conditions of this License Agreement form the complete and exclusive agreement between Customer and Nortel Networks.

f. This License Agreement is governed by the laws of the country in which Customer acquires the Software. If the Software is acquired in the United States, then this License Agreement is governed by the laws of the state of New York.

Contents

New in this release 25
Features 25
Layer 2 IGMP snoop querier 25
Multicast Stream Limitation 25
Network Load Balancing Support 25
Protocol Independent Multicast-Sparse Mode 25
Simple Loop Protection Protocol 26
Static source groups 26
Other changes 26
system management commands 26
config commands 27

Preface 29
Before you begin 29
Text conventions 30
How to get help 32
Getting help from the Nortel web site 32
Getting help over the phone from a Nortel Solutions Center 32
Getting help from a specialist using an Express Routing Code 33
Getting help through a Nortel distributor or reseller 33

Chapter 1 System management commands 35
.. 37
attribute 37
back 37
boot 37
box 38
cd 38
clear 38
clear ip 38
clear ports 39
copy 39
cp 40
cwc 40
date 40

Copyright © 2007, Nortel Networks

directory 40
dos-chkdsk 41
dos-format 41
edit 41
exit 41
format-flash 41
grep 42
help 42
help commands mode 42
help modes 43
history 43
install 43
login 44
logout 44
ls 44
mkdir 44
more 44
mv 45
pcmcia-stop 45
peer 45
ping 45
pwc 46
pwd 46
quit 46
remove 46
rename 47
reset 47
rlogin 47
rm 47
rsh 48
save 48
show interfaces gbic-info 49
show sys hash-calc mltindex ip dest-mac dest-ip src-mac src-ip src-port mlt 49
Syntax 49
Parameters 49
Command mode 50
show sys hash-calc mltindex non-ip dest-mac src-mac src-port mlt 50
Syntax 50
Parameters 50
Command mode 50
show sys hash-calc mltindex ip-mcast source group vlan-id src-port mltId 51
Syntax 51
Parameters 51

Copyright © 2007, Nortel Networks

Command mode 51
show sys hash-calc mltindex non-ip-mcast dest-mac vlan-id src-port mlt 51
Syntax 51
Parameters 52
Command mode 52
show system verbose 52
shutdown 52
source 53
telnet 53
top 54
trace 54
traceroute 55

Chapter 2 config commands 57
bootconfig choice license-file 65
Syntax 65
Parameters 65
config 65
config auto-recover-delay 66
Syntax 66
config bootconfig 66
config bootconfig bootp 67
config bootconfig choice 68
config bootconfig cli 69
config bootconfig flags 70
config bootconfig flags jumboframe 72
Syntax 72
Parameters 72
config bootconfig host 72
config bootconfig net 74
config bootconfig show 75
config bootconfig sio 76
config bootconfig tz 77
config cli 78
config cli banner 80
config cli monitor 81
config cli motd 81
config cli password 82
config diag bootp 83
config diag mirror-by-port 83
config diag ping-snoop create src-ip dst-ip 85
Syntax 85
config diag ping-snoop add-ports 85
Syntax 85

Copyright © 2007, Nortel Networks

config diag ping-snoop enable 85
Syntax 85
config diag ping-snoop remove-ports 85
Syntax 86
config diag ping-snoop delete 86
Syntax 86
Parameters 86
config diag vct 86
config ether lldp config-notification 87
Syntax 87
Parameters 87
config ether lldp tx-tlv config-notification 87
Syntax 87
Parameters 87
config ether lldp tx-tlv port-desc 87
Syntax 87
Parameters 88
config ether lldp tx-tlv sys-name 88
Syntax 88
Parameters 88
config ether lldp tx-tlv sys-cap 88
Syntax 88
Parameters 89
config ether lldp tx-tlv dot1 port-vlan-id 89
Syntax 89
Parameters 89
config ether lldp tx-tlv dot1 vlan-name 89
Syntax 89
Parameters 89
config ether lldp tx-tlv dot1 port-protocol-vlan-id 90
Syntax 90
Parameters 90
config ether lldp tx-tlv dot1 protocol-identity 90
Syntax 90
Parameters 90
config ether lldp tx-tlv dot3 mac-phy-config-status 90
Syntax 90
Parameters 91
config ether lldp tx-tlv dot3 mdi-power-support 91
Syntax 91
Parameters 91
config ether lldp tx-tlv dot3link-aggregation 91
Syntax 91

Copyright © 2007, Nortel Networks

Parameters 91
config ether lldp tx-tlv dot3 maximum-frame-size 92
Syntax 92
Parameters 92
config ether lldp tx-tlv med network-policy 92
Syntax 92
Parameters 92
config ether lldp tx-tlv med location 92
Syntax 92
Parameters 93
config ether lldp tx-tlv med extendedPSE 93
Syntax 93
Parameters 93
config ether lldp tx-tlv med inventory 93
Syntax 93
Parameters 94
config ethernet 94
config eth eap 96
config ethernet auto-negotiate-advertisements 99
config ethernet auto-recover-port 100
Syntax 100
config ethernet bcast-mcast-rate-limit enable 100
config ethernet eapol guest-vlan 101
config ethernet eapol guest-vlan-id 101
config ethernet eapol multi-host 101
config ethernet eapol max-multi-hosts 101
config ethernet eapol allow-non-eap-clients 101
config ethernet eapol max-non-eap-clients 101
config ethernet eapol non-eap-mac add 102
config ethernet eapol non-eap-mac remove 102
config ethernet eapol non-eap-mac clear 102
config ethernet eapol non-eap-mac info 102
config ethernet filter 102
config ethernet lldp 103
Syntax 103
Parameters 103
config ethernet lldp info 103
Syntax 103
Parameters 104
config ethernet lldp tx-tlv 104
Syntax 104
Parameters 104
config ethernet lldp tx-tlv info 104

Copyright © 2007, Nortel Networks

Syntax 104
Parameters 105
config ethernet lldp tx-tlv dot1 105
Syntax 105
Parameters 105
config ethernet lldp tx-tlv dot1 info 105
Syntax 105
Parameters 106
config ethernet lldp tx-tlv dot3 106
Syntax 106
Parameters 106
config ethernet lldp tx-tlv dot3 info 106
Syntax 106
Parameters 107
config ethernet lldp tx-tlv med 107
Syntax 107
Parameters 107
config ethernet lldp tx-tlv med info 107
Syntax 107
Parameters 108
config ethernet lldp location-identification civic-address 108
Syntax 108
Parameters 108
config mlt perform-tagging 109
config ethernet nsna 109
Syntax 110
Parameters 110
config ethernet qos 110
config ethernet slpp 112
Syntax 112
config ethernet smlt 112
Syntax 112
config ethernet stg 113
config ethernet unknown-mac-discard 114
config ethernet vct 114
config filter acl create 115
config filter acl action 116
config filter acl debug 119
config filter acl delete 120
config filter acl ethernet 120
config filter acl ip 122
config filter acl port 124
config filter acl protocol 125

Copyright © 2007, Nortel Networks

config filter acg create 127
config filter acg delete 128
config filter acg modify 128
config filter act ethernet 129
config filter act ip 131
config filter act delete 133
config ip 134
config ip arp 134
config ip circuitless-ip-int 136
config ip dhcp-relay 136
config ip dhcp-relay created-fwd-path agent 137
config ip dhcp-relay enable-fwd-path agent 137
config ip dhcp-relay disable-fwd-path agent 137
config ip dhcp-relay delete-fwd-path agent 137
config ip dhcp-relay info mode 138
config ip forwarding 138
config ip igmp generate-log 138
Syntax 138
config ip igmp generate-trap 138
Syntax 138
config ip igmp interface 138
Syntax 139
config ip igmp interface access-control 140
Syntax 140
Parameters 141
config ip igmp interface stream-limit 142
Syntax 142
config ip igmp interface stream-limit-members 142
Syntax 143
config ip mroute static-source-group 143
Syntax 143
config ip ospf 144
Syntax 145
config ip ospf accept adv-rtr 145
Syntax 145
config ip ospf area 146
Syntax 146
config ip ospf area range 147
Syntax 147
config ip ospf area virtual-interface 148
Syntax 148
config ip ospf host-route 150
Syntax 150

Copyright © 2007, Nortel Networks

Parameters 150
config ip ospf interface 150
config ip ospf redistribute 153
config ip ospf redistribute apply 154
Syntax 154
config ip ospf redistribute direct 154
Syntax 154
config ip ospf redistribute rip 155
Syntax 155
config ip ospf redistribute static 156
Syntax 156
config ip pim 157
Syntax 157
Parameters 157
config ip pim interface 158
Syntax 158
Parameters 159
config ip pim candbsr interface 159
Syntax 159
Parameters 160
config ip pim candrp 160
Syntax 160
Parameters 160
config ip pim debug-pktfw 161
Syntax 161
Parameters 161
config ip pim debug-pimmsg 161
Syntax 162
Parameters 162
config ip pim interface virtual-neighbor 163
Syntax 163
Parameters 163
config ip pim static-rp 163
Syntax 164
Parameters 164
config ip prefix-list 164
config ip rip 165
config ip rip interface 167
config ip route-discovery 171
config ip route-policy 172
config ip route preference 176
config ip static-route 177
config ip udpfwd interface 178

Copyright © 2007, Nortel Networks

config ip udpfwd portfwd 179
config ip udpfwd portfwdlist 180
config ip udpfwd protocol 181
config ip vrrp info 182
Syntax 182
config ip vrrp ping-virtual-address 182
Syntax 182
config ip vrrp send-trap 182
Syntax 182
Parameters 182
config lldp 182
Syntax 183
Parameters 183
config lldp tx-interval 183
Syntax 183
config lldp tx-hold-multiplier 183
Syntax 183
config lldp reinit-delay 183
Syntax 183
config lldp tx-delay 184
Syntax 184
config lldp notification-interval 184
Syntax 184
config lldp local-mgmt-addr-tx 184
Syntax 184
Parameters 184
config lldp med-fast-start 185
Syntax 185
config lldp location-identification coordinate-base 185
Syntax 185
Parameters 185
config lldp location-identification civic-address 185
Syntax 185
Parameters 186
config lldp location-identification ecs-elin 186
Syntax 186
config lldp info 187
Syntax 187
config log 187
config log filter add 188
config log filter delete 188
config log filter info 189
config mlt 189

Copyright © 2007, Nortel Networks

config mlt add 190
config mlt add ports 191
config mlt add vlan 191
config mlt create 192
config mlt delete 192
config mlt ntstg disable 192
config mlt remove ports 193
config mlt remove 193
config mlt remove vlan 194
config mlt smlt 195
Syntax 195
config nsna 195
Syntax 195
Parameters 196
config nsna nsnas 196
Syntax 196
Parameters 196
config nsna phone-signature 197
Syntax 197
Parameters 197
config nsna state 197
Syntax 197
config poe card admin 198
config poe card info 198
config poe card notification-control 198
config poe card power-priority 199
config poe card power-usage-threshold 199
config poe port admin 200
config poe port info 200
config poe port power-detection-control 200
config poe port power-limit 201
config poe port power-priority 201
config poe port type 202
config qos egress-counter-set 202
config qos mac-qos-level-override 203
config qos map 204
config qos policy create 205
config qos policy 207
config radius 208
config radius server 210
config rmon 213
config slot 217
config slpp 217

Copyright © 2007, Nortel Networks

Syntax 217
config snmp-server 218
config snmp-v3 community 219
config snmp-v3 group-access 220
config snmp-v3 group-member 222
config snmp-v3 mib-view 224
config snmp-v3 usm 226
config stg 227
config sys access-policy 228
config sys access-policy policy 229
config sys access-policy policy service 231
config sys info 232
config sys link-flap-detect 232
config sys mcast-software-forwarding 233
config sys set 233
config sys set action 235
config sys set eapol 236
config sys set eapol default-guest-vlan 236
config sys set eapol guest-vlan 236
config sys set snmp 237
config sys syslog 237
config sys syslog host 238
config vlan 240
config vlan create 242
config vlan fdb-entry 243
config vlan fdb-filter 244
config vlan fdb-static 245
config vlan ip dhcp-relay broadcast 246
config vlan ip dhcp-relay 246
config vlan ip dhcp-relay max-hop 246
config vlan ip dhcp-relay min-sec 247
config vlan ip dhcp-relay mode 247
config vlan ip dhcp-relay info 247
config vlan ip 247
config vlan ip arp-response 248
config vlan ip igmp 248
config vlan ip igmp access-control 250
Syntax 251
config vlan ip igmp fast-leave-members 252
config vlan ip igmp snoop-querier 252
Syntax 253
config vlan ip igmp snoop-querier-addr 253
Syntax 253

Copyright © 2007, Nortel Networks

config vlan ip igmp static-members 253
config vlan ip igmp stream-limit-members 254
Syntax 254
config vlan ip ospf 255
Syntax 255
config vlan ip pim 257
Syntax 257
Parameters 257
config vlan ip pim candbsr 258
Syntax 258
Parameters 259
config vlan ip proxy 259
config vlan ip rip 260
config vlan ip vrrp 263
Syntax 263
config vlan ip vrrp 264
Syntax 265
Parameters 265
config vlan ip vrrp action 265
Syntax 265
Parameters 265
config vlan ip vrrp address 265
Syntax 265
Parameters 265
config vlan ip vrrp adver-int 266
Syntax 266
Parameters 266
config vlan ip vrrp critical-ip 266
Syntax 266
Parameters 266
config vlan ip vrrp critical-ip-enable 266
Syntax 266
Parameters 267
config vlan ip vrrp delete 267
Syntax 267
Parameters 267
config vlan ip vrrp holddown-timer 267
Syntax 267
Parameters 267
config vlan ip vrrp priority 267
Syntax 268
Parameters 268
config vlan ip vrrp backup-master 268

Copyright © 2007, Nortel Networks

Syntax 268
Parameters 268
config vlan ip vrrp enable 268
Syntax 268
Parameters 268
config vlan ip vrrp disable 269
Syntax 269
Parameters 269
config vlan nlb-mode 269
Syntax 269
config vlan nsna color 269
Syntax 269
Parameters 269
config vlan nsna info 270
Syntax 270
config vlan ports 270
config vlan static-mcastmac 271
config web-server 272

Chapter 3 show commands 275

config diag ping-snoop info 280
Syntax 280
config info 280
Syntax 280
monitor mlt stats interface utilization 280
show bootconfig 280
show cli 281
show config 282
show date 282
show diag mirror-by-port 282
show diag ping-snoop 283
Syntax 283
show filter acg 283
show filter acl ace 283
show filter acl action 283
show filter acl debug 283
show filter acl ethernet 284
show filter acl info 284
show filter acl ip 284
show filter acl port 285
show filter acl protocol 285
show filter acl statistics 285
show filter act ethernet 285
show filter act ip 286

Copyright © 2007, Nortel Networks

show ip 286
show ip arp 286
show ip circuitless info 287
show ip dhcp-relay fwd-path 287
show ip dhcp-relay counters 287
show ip forwarding 287
show ip igmp 287
show ip igmp stream-limit-interface 288
Syntax 288
show ip igmp stream-limit-port 288
Syntax 289
show ip interface 289
show ip mroute static-source-group 289
Syntax 289
show ip ospf 289
Syntax 289
show ip ospf accept 289
Syntax 289
show ip ospf area 289
Syntax 289
show ip ospf ase 290
Syntax 290
show ip ospf authentication interface 290
Syntax 290
show ip ospf default-metric 291
Syntax 291
show ip ospf host-route 291
Syntax 291
show ip ospf ifstats 291
Syntax 291
show ip ospf info 291
Syntax 292
show ip ospf int-auth 292
Syntax 292
show ip ospf int-timers 292
Syntax 292
show ip ospf interface 292
Syntax 292
show ip ospf lsdb 292
Syntax 293
show ip ospf neighbors interface 293
Syntax 293
294

Copyright © 2007, Nortel Networks

show ip ospf accept info 294
show ip ospf redistribute 294
Syntax 294
show ip ospf redistribute info 294
show ip ospf stats 294
Syntax 294
show ip ospf timer interface 294
Syntax 294
show ip pim active-rp 295
Syntax 295
show ip pim bsr 295
Syntax 295
show ip pim candidate-rp 295
Syntax 295
show ip pim info 295
Syntax 295
show ip pim interface 295
Syntax 296
show ip pim mode 296
Syntax 296
show ip pim mroute 296
Syntax 296
show ip pim neighbor 296
Syntax 296
show ip pim rp-set 296
Syntax 296
show ip pim static-rp 296
Syntax 296
show ip pim virtual-neighbor 296
Syntax 296
show ip prefix-list 296
show ip route-discovery 297
show ip route info 297
show ip route-policy info 297
show ip route preference info 297
show ip static-route info 297
show ip tcp 298
show ip udpfwd interface info 298
show ip udpfwd portfwd 298
show ip udpfwd portfwdlist 298
show ip udpfwd protocol info 299
show ip vrrp info 299
Syntax 299

Copyright © 2007, Nortel Networks

show ip vrrp global-settings 299
Syntax 299
show ip vrrp stats 299
Syntax 299
show license 299
show lldp 299
Syntax 300
Parameters 300
show lldp stats 301
Syntax 301
show lldp tx-stats 301
Syntax 301
show lldp rx-stats 301
Syntax 301
show lldp local-sys-data 301
Syntax 301
show lldp local-sys-data dot1 301
Syntax 301
show lldp local-sys-data dot3 301
Syntax 302
show lldp local-sys-data med 302
Syntax 302
show lldp local-sys-data detail 302
Syntax 302
show lldp mgmt-sys-data 302
Syntax 302
show lldp neighbor 302
Syntax 302
Parameters 302
show lldp neighbor dot1 303
Syntax 303
Parameters 303
show lldp neighbor dot3 303
Syntax 303
show lldp neighbor med capabilities 304
Syntax 304
show lldp neighbor med network-policy 304
Syntax 304
show lldp neighbor med location 304
Syntax 304
show lldp neighbor med extended-power 304
Syntax 304
show lldp neighbor med inventory 304

Copyright © 2007, Nortel Networks

Syntax 304
show lldp neighbor detail 304
Syntax 304
show lldp neighbor-mgmt-addr 304
Syntax 304
config lldp info 305
Syntax 305
config ethernet lldp info 305
Syntax 305
show log 305
show mlt 306
show mlt error 306
show mlt error collision 307
show mlt error main 307
show mlt info 307
show mlt ist info 307
Syntax 308
show mlt stats 308
308
show mlt ist stat 308
Syntax 308
show mlt smlt info 308
Syntax 308
show nsna client 308
Syntax 308
show nsna info 308
Syntax 308
show nsna interface 308
Syntax 308
show nsna nsnas 309
Syntax 309
show nsna phone-signature 309
Syntax 309
show nsna vlan 309
Syntax 309
show poe card info 309
show poe port stats 309
show poe port info 309
show poe port power-measurement 310
show poe sys info 310
show port info lldp 310
Syntax 310
show ports error 310

Copyright © 2007, Nortel Networks

show ports info 310
show ports info interface 312
Syntax 312
show ports info slpp 312
Syntax 312
show ports info smlt 312
Syntax 312
show ports stats 312
show ports stats dhcp-relay 312
show ports stats interface 313
show qos egress-stats 313
show qos egress-counter-set 313
show qos info 314
show qos map 802.1p-to-class-map 314
show qos map 802.1p-to-drop-precedence-map 314
show qos map 802.1p-to-dscp-map 314
show qos map class-to-802.1p-map 314
show qos map class-to-802.1p-policed-map 314
show qos map dscp-to-cos-policed-map 315
show qos policy 315
show qos policy-stats 315
show radius 315
show rmon 316
show slot 316
show slpp 317
Syntax 317
show smlt info 317
Syntax 317
show stg info 317
show sys 318
show sys access-policy info 319
show sys syslog general-info 319
show sys syslog host info 319
show tech 319
show test 320
show trace 320
show vlan info 321
show vlan info nlb-mode 322
Syntax 322
show vlan info pim 322
Syntax 322
show vlan info vrrp extended 322
Syntax 322

Copyright © 2007, Nortel Networks

show vlan info vrrp main 322
Syntax 322
show web-server 323

Copyright © 2007, Nortel Networks

Copyright © 2007, Nortel Networks

New in this release

The following sections detail what is new in *Nortel Ethernet Routing Switch 8300 Command Reference — CLI* (NN46200-513) for Release 4.0.

- "Features" (page 25)
- "Other changes" (page 26)

Features

The following new features in Release 4.0, have these added commands:

Layer 2 IGMP snoop querier

- `config vlan ip igmp snoop-querier`
- `config vlan ip igmp snoop-querier-addr`

Multicast Stream Limitation

- `config ip igmp interface stream-limit`
- `config ip igmp interface stream-limit-members`
- `show ip igmp stream-limit-interface`
- `show ip igmp stream-limit-port`

Network Load Balancing Support

- `config vlan nlb-mode`
- `show vlan info nlb-mode`

Protocol Independent Multicast-Sparse Mode

- `config ip pim`
- `config ip pim interface`
- `config ip pim candbsr interface`
- `config ip pim candrp`
- `config ip pim debug-pktfw`
- `config ip pim debug-pimmsg`

Copyright © 2007, Nortel Networks

- config ip pim interface virtual-neighbor
- config ip pim static-rp
- config ip mroute static-source-group
- show ip pim active-rp
- show ip pim bsr
- show ip pim candidate-rp
- show ip pim info
- show ip pim interface
- show ip pim mode
- show ip pim mroute
- show ip pim neighbor
- show ip pim rp-set
- show ip pim static-rp
- show ip pim virtual-neighbor

Simple Loop Protection Protocol

- config ethernet slpp
- config slpp
- show ports info slpp
- show slpp

Static source groups

- config ip mroute static-source-group
- show ip mroute static-source-group

Other changes

The following added commands are not associated with new features:

system management commands

- show sys hash-calc mltindex ip dest_mac dest_ip src_mac src_ip in_port mltId
- show sys hash-calc mltindex non-ip dest_mac src_mac in_port mltId
- show sys hash-calc mltindex ip-mcast source group vlanId in_port mltId
- show sys hash-calc mltindex non-ip-mcast dest_mac vlanId in_port mltId

Copyright © 2007, Nortel Networks

config commands

- `config auto-recover-delay`
- `config ip igmp generate-log`
- `config ip igmp generate-trap`
- `config ip igmp interface access-control`

Copyright © 2007, Nortel Networks

Copyright © 2007, Nortel Networks

Preface

The Nortel* Ethernet Routing Switch 8300 is a flexible and multifunctional Layer 2/Layer 3 switch that supports diverse network architectures and protocols. The Ethernet Routing Switch 8300 provides security and control features such as Extensible Authentication Protocol over LAN (EAPoL), Simple Network Management Protocol, Version 3 (SNMP3), and Secure Shell (SSH). The Ethernet Routing Switch 8300 provides quality of service (QoS) for a high number of attached devices and supports future network requirements for QoS for critical applications, such as Voice over IP (VoIP).

This guide describes the commands that you can execute using the Ethernet Routing Switch 8300 command line interface (CLI).

To learn the basic structure and operation of the Ethernet Routing Switch 8300 CLI, refer to *Nortel Ethernet Routing Switch 8300 Command Reference—CLI* (NN46200-513). This reference guide describes the function and syntax of each CLI command.

Before you begin

This guide is intended for network administrators who have the following background:

- basic knowledge of networks, Ethernet bridging, and IP routing
- familiarity with networking concepts and terminology
- experience with windowing systems or GUIs
- basic knowledge of network topologies

Before using this guide, you must complete the following procedures. For a new switch:

Step	Action
1	Install the switch.

Copyright © 2007, Nortel Networks

For installation instructions, see *Nortel Ethernet Routing Switch 8300 Installation — Chassis Installation and Maintenance* (NN46200-304) and *Nortel Ethernet Routing Switch 8300 Installation—Modules* (NN46200-305).

2 Connect the switch to the network.

For more information, see *Nortel Ethernet Routing Switch 8300 Installation and Commissioning — Quick Start* (NN46200-100).

—End—

Ensure that you are running the latest version of Nortel Ethernet Routing Switch 8300 software. For information about upgrading the Ethernet Routing Switch 8300, see *Nortel Ethernet Routing Switch 8300 Upgrades—Software Release 4.0* (NN46200-400).

Text conventions

This guide uses the following text conventions:

angle brackets (< >)	Indicate that you choose the text to enter based on the description inside the brackets. Do not type the brackets when entering the command. Example: If the command syntax is **`ping <ip_address>`**, you enter **`ping 192.32.10.12`**
bold body text	Indicates objects such as window names, dialog box names, and icons, as well as user interface objects such as buttons, tabs, and menu items.
`bold Courier text`	Indicates command names, options, and text that you must enter. Example: Use the **`dinfo`** command. Example: Enter **`show ip`** {**`alerts`**|**`routes`**}.

Copyright © 2007, Nortel Networks

braces ({})	Indicate required elements in syntax descriptions where there is more than one option. You must choose only one of the options. Do not type the braces when entering the command. Example: If the command syntax is **`show ip {alerts|routes}`**, you must enter either **`show ip alerts`** or **`show ip routes`**, but not both.
brackets ([ ])	Indicate optional elements in syntax descriptions. Do not type the brackets when entering the command. Example: If the command syntax is **`show ip interfaces [-alerts]`**, you can enter either **`show ip interfaces`** or **`show ip interfaces -alerts`**.
ellipsis points (. . .)	Indicate that you repeat the last element of the command as needed. Example: If the command syntax is **`ethernet/2/1 [ <parameter> <value> ]...`**, you enter **`ethernet/2/1`** and as many parameter-value pairs as needed.
italic text	Indicates variables in command syntax descriptions. Also indicates new terms and book titles. Where a variable is two or more words, the words are connected by an underscore. Example: If the command syntax is **`show at <valid_route>`**, **`valid_route`** is one variable and you substitute one value for it.
`plain Courier text`	Indicates command syntax and system output, for example, prompts and system messages. Example: `Set Trap Monitor Filters`

Copyright © 2007, Nortel Networks

separator (>)	Shows menu paths. Example: **Protocols > IP** identifies the **IP** command on the **Protocols** menu.
vertical line (|)	Separates choices for command keywords and arguments. Enter only one of the choices. Do not type the vertical line when entering the command. Example: If the command syntax is **`show ip {alerts|routes}`**, you enter either **`show ip alerts`** or **`show ip routes`**, but not both.

How to get help

This section explains how to get help for Nortel products and services.

Getting help from the Nortel web site

The best way to get technical support for Nortel products is from the Nortel Technical Support web site:

www.nortel.com/support

This site provides quick access to software, documentation, bulletins, and tools to address issues with Nortel products. From this site, you can:

- download software, documentation, and product bulletins
- search the Technical Support Web site and the Nortel Knowledge Base for answers to technical issues
- sign up for automatic notification of new software and documentation for Nortel equipment
- open and manage technical support cases

Getting help over the phone from a Nortel Solutions Center

If you do not find the information you require on the Nortel Technical Support web site, and you have a Nortel support contract, you can also get help over the phone from a Nortel Solutions Center.

In North America, call 1-800-4NORTEL (1-800-466-7835).

Outside North America, go to the following web site to obtain the phone number for your region:

Copyright © 2007, Nortel Networks

www.nortel.com/callus

Getting help from a specialist using an Express Routing Code

To access some Nortel Technical Solutions Centers, you can use an Express Routing Code (ERC) to quickly route your call to a specialist in your Nortel product or service. To locate the ERC for your product or service, go to:

www.nortel.com/erc

Getting help through a Nortel distributor or reseller

If you purchased a service contract for your Nortel product from a distributor or authorized reseller, contact the technical support staff for that distributor or reseller.

Copyright © 2007, Nortel Networks

Copyright © 2007, Nortel Networks

Chapter 1
System management commands

This chapter describes the Ethernet Routing Switch 8300 Series Switch system management commands.

Command
"../" (page 37)
"attribute" (page 37)
"back" (page 37)
"boot" (page 37)
"box" (page 38)
"cd" (page 38)
"clear" (page 38)
"clear ip" (page 38)
"clear ports" (page 39)
"copy" (page 39)
"cp" (page 40)
"cwc" (page 40)
"date" (page 40)
"directory" (page 40)
"dos-chkdsk" (page 41)
"dos-format" (page 41)
"edit" (page 41)
"exit" (page 41)
"format-flash" (page 41)
"grep" (page 42)
"help" (page 42)
"help commands mode" (page 42)

Copyright © 2007, Nortel Networks

Command
"help modes" (page 43)
"history" (page 43)
"install" (page 43)
"login" (page 44)
"logout" (page 44)
"ls" (page 44)
"mkdir" (page 44)
"more" (page 44)
"mv" (page 45)
"pcmcia-stop" (page 45)
"peer" (page 45)
"ping" (page 45)
"pwc" (page 46)
"pwd" (page 46)
"quit" (page 46)
"remove" (page 46)
"rename" (page 47)
"reset" (page 47)
"rlogin" (page 47)
"rm" (page 47)
"rsh" (page 48)
"save" (page 48)
"show interfaces gbic-info" (page 49)
"show sys hash-calc mltindex ip dest-mac dest-ip src-mac src-ip src-port mlt" (page 49)
"show sys hash-calc mltindex non-ip dest-mac src-mac src-port mlt" (page 50)
"show sys hash-calc mltindex ip-mcast source group vlan-id src-port mltId" (page 51)
"show sys hash-calc mltindex non-ip-mcast dest-mac vlan-id src-port mlt" (page 51)
"show system verbose" (page 52)
"shutdown" (page 52)
"source" (page 53)
"telnet" (page 53)

Copyright © 2007, Nortel Networks

Command
"top" (page 54)
"trace" (page 54)
"traceroute" (page 55)

..

This command takes you back one level (performs the same function as the **back** command).

Syntax

```
..
```

attribute

This command modifies the MS-DOS file attributes.

Syntax

attribute <file> <attributes>

where

- **file** is the file name.
- **attributes** is {+ | - | A | S | H | R} (string length is 1 to 1024).

back

This command takes you back up one level.

Syntax

back

boot

This command boots the switch. The command options let you specify the boot source (flash, PCMCIA card, or TFTP server) and file name. If you do not specify a device and file, the Run-Time CLI uses the software and configuration files on the primary boot device that is defined by the Boot Monitor **choice** command.

Syntax

boot [<file>] [config <value>] [-y]

where

Copyright © 2007, Nortel Networks

- **<file>** is the software image device and file name in the format a.b.c.d:**<file>** | /pcmcia/**<file>** | /flash/**<file>**. The file name, including the directory structure, can be up to 1536 characters.
- **config <value>** is the software configuration device and file name in the format a.b.c.d:**<file>** | /pcmcia/**<file>** | /flash/**<file>**. The file name, including the directory structure, can be up to 1536 characters.
- **-y** suppresses the confirmation message before the switch reboots. If you omit this parameter, you are asked to confirm the action before the switch reboots.

box

This command takes you to the top or the box level.

Syntax

box

cd

This command changes the current file system directory path.

Syntax

cd <dir>

where

dir is a directory path name up to 1536 characters.

clear

This command clears statistics from the switch or ends a Telnet session.

Syntax

clear

Parameter

This command includes the following option:

clear **followed by:**	
telnet **<session id>**	Ends the specified Telnet session. **session id** is a number between 0 and 7.

clear ip

This command clears ARP entries from the ARP table or route entries from the route table.

Copyright © 2007, Nortel Networks

Syntax

clear ip

Parameters

This command includes the following options:

clear ip **followed by:**	
arp vlan <vid>	Clears ARP entries associated with the specified virtual LAN. *vid* is the vlan id with a range of 1 to 2000.
route vlan <vid>	Clears route entries associated with the specified virtual LAN. **vid** is the vlan id with a range of 1 to 2000.

clear ports

This command clears port statistics from the switch counters.

Syntax

clear ports

Parameter

This command includes the following option:

clear ports **followed by:**	
stats [<ports>]	Clears statistics from the specified port. • **ports** specifies one or more ports, shown as **{slot/port[-slot/port][,...]}**.

copy

This command copies a file from one device to another; it can be used with a wildcard pattern.

Syntax

copy <srcfile> <destfile>

where

Copyright © 2007, Nortel Networks

- **srcfile** specifies the source device and file name (1 to 1536 characters).
- **destfile** specifies the destination device and file name (1 to 99 characters).

cp

This command copies a file from one device to another; it can be used with a wildcard pattern.

Syntax

```
cp <srcfile> <destfile> [ -y ]
```

where

- **srcfile** specifies the source device and file name (1 to 1536 characters).
- **destfile** specifies the destination device and file name (1 to 99 characters).
- **-y** skips the confirmation prompt.

cwc

This command changes the current working level.

Syntax

```
cwc [..]
```

where: . . specifies to go back one level.

date

This command displays the current calendar time for the switch.

Syntax

```
date
```

directory

This command lists the files in MS-DOS format.

Syntax

```
directory [ <dir> ] [ -l ]
```

where

Copyright © 2007, Nortel Networks

- **dir** is the destination device and file name, up to 1536 characters.
- **-l** provides details.

dos-chkdsk

This command runs a check of the file system for inconsistencies.

Syntax

dos-chkdsk <device> [repair]

where

- **device** is the device name, for example /flash | /pcmcia, up to 1536 characters.
- **repair** repairs the errors found.

dos-format

This command formats the device (flash or PCMCIA card) with an MS-DOS file system.

Syntax

dos-format <device>

where

device is the device name (for example, /flash or /pcmcia) up to 1536 characters.

edit

This command is a simple vi line editor to modify script files.

Syntax

edit <file>

where

file is the file name.

exit

This command lets you exit the CLI session

Syntax

exit

format-flash

This command formats the on-board flash with FTL and MS-DOS file system.

Copyright © 2007, Nortel Networks

Syntax

format-flash

grep

This commands displays all lines in a file that have one or more matching strings within the file.

Syntax

grep <string> <file>

where

- **string** is the character string to be matched, from 1 to 1536 characters.
- **file** is a file name, in the form /**pcmcia**/**<file>** or /**flash**/**<file>** from 1 to 1536 characters.

help

This command displays an explanation of the available types of online Help.

Syntax

help [commands|ttychars| <command>]

where

- **commands** provides a list of commands you can enter from the current prompt.
- **ttychars** provides a list of special terminal editing characters.
- **<command>** describes a specific command or provides a list of sub-commands that you can enter from within the specified command.

help commands mode

This command displays the list of commands available on the device, either for the current mode of operation or as a complete list of all the commands available on the device.

Syntax

help commands [mode (current | exec | privExec | config | ifconfig)]

where

- **mode** displays commands either in the current mode
- **current** displays only commands in the current mode

Copyright © 2007, Nortel Networks

- **exec** displays the Exec commands
- **privExec** displays the Privileged Exec commands
- **config** displays the Configure commands
- **ifconfig** displays the Interface configuration commands

help modes

This command displays information regarding the available CLI modes on the switch.

Syntax

help [modes]

where

mode displays the modes available on the switch.

history

This command lists the commands that you have entered during the current session.

Syntax

history

Parameters

This command includes the following options:

history **followed by:**	
!!	Reenters the most recently entered command.
! <number>	Enters the command identified in the command history by the variable **number**
! <str>	Runs the last command that matches the given string **str**.
!? <substr>	Runs the last command that matches the given substring **substr**.
^ <sstr> ^ <rstr>	Enters the most recent command but substitutes a new string for a given string.

install

This command starts the 8300 Series Setup Utility

Syntax

install

Copyright © 2007, Nortel Networks

login

This command logs you in to a different access level.

Syntax

login

logout

This command logs you out of the system.

Syntax

logout

ls

This commands lists the files in UNIX format.

Syntax

ls [<dir>] [-r]

where

- **dir** is the directory path name.
- **-r** recurs into directories to include the contents of all subdirectories.

mkdir

This command creates a directory, from 1 to 1536 characters.

Syntax

mkdir <dir>

where

dir is the directory name.

more

This command displays the contents of a file.

Syntax

more <file> [type]

- **file** is the device and file name with a string length of 1 to 1536 characters (**a.b.c.d: <file>** | **/pcmcia/ <file>** | **/flash/ <file>**).
- **type** is the file type of either {**binary** | **ascii**}.

Copyright © 2007, Nortel Networks

mv

This command moves or renames a file; it can be used with a wildcard pattern. You cannot use the **mv** command to move a file between two devices. Use the **cp** or the **copy** command instead.

Syntax

mv <old> <new>

where

- **old** is the old device and file name with a string length of 1 to 1536 characters
  (/**pcmcia**/ **<file>** | /**flash**/ **<file>**).
- **new** is the new device and file name with a string length of 1 to 99 characters
  (/**pcmcia**/ **<file>** | /**flash**/ **<file>**).

pcmcia-stop

This command enables you to terminate access to the PCMCIA card.

Syntax

pcmcia-stop <file>

peer

This command enables you to use Telnet or rlogin to access the standby CPU. You can use this command to make changes to the standby CPU without reconnecting to the console port on that module.

Syntax

peer <operation>

where

operation is either telnet or rlogin.

Note: You must set an rlogin access policy on the standby CPU before you can use the peer command to access it from the master CPU using rlogin. To set an access policy on the standby CPU, connect a terminal to the Console port on the standby CPU.

ping

This command tests the network connection to another network device. The command sends an Internet Control Message Protocol (ICMP) packet from the switch to the target device. If the device receives the packet, it sends

Copyright © 2007, Nortel Networks

a ping reply. When the switch receives the reply, it displays a message indicating that the specified IP address is alive. If no reply is received, a message indicates that the address is not responding.

Syntax

ping <ipaddr> [datasize <value>] [count <value>] [-s] [-I <value>] [-t <value>] [-d]

where

- **ipaddr** is the IP address {a.b.c.d} of the other network device.
- **datasize <value>** is the size of the ping data (16 to 4076 bytes).
- **count <value>** is the number of times to ping (1 to 9999). The default is 1.
- **-s** is a continuous ping at the interval rate defined by [-I <value>].
- **-I <value>** is the interval between transmissions in seconds (1 to 60).
- **-t <value>** is the no-answer timeout value in seconds (1 to 120).
- **-d** sets ping debug mode. In debug mode, the ping reply includes additional information about the device being pinged.

pwc

This command displays the current working context.

Syntax

pwc

pwd

This command prints the current working directory in the file system.

Syntax

pwd

quit

This command quits out of the CLI session.

Syntax

quit

remove

This command deletes a file from a boot device.

Copyright © 2007, Nortel Networks

Syntax

remove <file> [-y]

- **file** is the destination device and file name.
- **-y** skips the confirmation prompt.

rename

This command moves or renames the file or directory; it can be used with a wildcard pattern.

Syntax

rename <old> <new>

where

- **old** is the old device and file name with a string length of 1 to 1536 characters
(/**pcmcia**/ **<file>** | /**flash**/ **<file>**).
- **new** is the new device and file name with a string length of 1 to 99 characters
(/**pcmcia**/ **<file>** | /**flash**/ **<file>**).

reset

This command resets the switch. When you reset the switch, the most recently saved configuration file is used to reload the system parameters.

Syntax

reset [-y]

where

-y skips the confirmation prompt.

rlogin

This command allows login to a remote host.

Syntax

rlogin <ipaddr>

where

ipaddr is the IP address of the remote device.

rm

This command removes a file or directory and can be used with a wildcard pattern.

Copyright © 2007, Nortel Networks

Syntax

rm <file> [-y]

where

- **file** is the file name with a string length of 1 to 1536 characters (/**pcmcia**/ **<file>** | /**flash**/ **<file>**).
- **-y** skips the confirmation prompt.

rsh

This command executes a shell command on a remote machine.

Syntax

rsh <ipaddr> -l <value> <cmd>

where

- **ipaddr** is the IP address {a.b.c.d} of the remote device.
- **-l <value>** is the user login name, from 0 to 1536 characters.
- **cmd** is the command to execute on the remote host (string length 1 to 1536).

save

This command saves the running configuration to a file.

Syntax

save <savetype> [file <value>] [verbose] [standby <value>] [backup <value>]

where

- **savetype** specifies the type of file to save; options are **config**, **bootconfig**, **log**, and **trace**.
- **file <value>** is the device and file name with a string length of 1 to 99 characters (**a.b.c.d :<file>** | /**pcmcia**/ **<file>** | /**flash**/ **<file>**).
- **verbose** saves default and current configuration. If you omit the [verbose] parameter, only the current configuration is saved.
- **standby <value>** saves the specified file name to the standby CPU (/**pcmcia**/ **<file>** | /**flash**/ **<file>**).
- **backup <value>** saves the specified file name and identifies the file as a backup file (**a.b.c.d**:**<file>** | /**pcmcia**/ **<file>** | /**flash**/ **<file>**).

Copyright © 2007, Nortel Networks

show interfaces gbic-info

This command displays hardware specifications for GBICs on the switch.

Note: Detailed GBIC information is now also available to users through the Console, Web-based management, and SNMP when the GBIC is plugged in.

Syntax

```
show interfaces [gbic-info | name] [<portList>]
```

where

- **gbic-info** specifies the type of information to be available to the user, including GBIC Type, Vendor Name, Vendor OUI, Vendor Part #, Vendor Revision, Vendor Serial #, HW Options, Date Code, Vendor Data.
- **name** is the name of the hardware.
- **portList** lists the GBIC port information.

show sys hash-calc mltindex ip dest-mac dest-ip src-mac src-ip src-port mlt

Use this command to calculate unicast IP traffic distribution.

Syntax

```
show sys hash-calc mltindex ip dest-mac <value> dest-ip
<value> src-mac <value> src-ip <value> src-port value>
mlt <value>
```

Parameters

This command includes the following parameters

show sys hash-calc mltindex ip **followed by:**	
dest-mac < value>	Specifies the destination MAC address in hexa decimal {0x00:0x00:0x00:0x00:0x00:0x00:0x00}.
dest-ip< value>	Specifies the destination IP address {a.b.c.d}.
src-mac<value>	Specifies the source MAC address in hexadeci mal {0x00:0x00:0x00:0x00:0x00:0x00:0x00}.
src-ip<value>	Specifies the source IPaddress {a.b.c.d}.

Copyright © 2007, Nortel Networks

show sys hash-calc mltindex ip **followed by:**	
in-port <value>	Specifies the ingress port in the format {slot/port}.
mlt<value>	Specifies the MLT ID. Value is an integer in the range of 1 to 31.

Command mode

Global configuration mode

show sys hash-calc mltindex non-ip dest-mac src-mac src-port mlt

Use this command to calculate unicast non-IP distribution.

Syntax

```
show sys hash-calc mltindex non-ip dest_mac <value>
src-mac <value> src-port <value> mlt <value>
```

Parameters

This command includes the following parameters.

show sys hash-calc mltindex non-ip **followed by:**	
dest-mac < value>	Specifies the destination MAC address in hexa decimal {0x00:0x00:0x00:0x00:0x00:0x00:0x00:0x00}.
src-mac<value>	Specifies the source MAC address in hexadeci mal {0x00:0x00:0x00:0x00:0x00:0x00:0x00:0x00}.
src-port <value>	Specifies the ingress port in the format {slot/port}.
mlt<value>	Specifies the MLT ID. Value is an integer in the range of 1 to 31.

Command mode

Global configuration mode

Copyright © 2007, Nortel Networks

show sys hash-calc mltindex ip-mcast source group vlan-id src-port mltId

Use this command to calculate multicast traffic distribution.

Syntax

```
show sys hash-calc mltindex ip-mcast source <value>
group <value> vlanid <value> src-port <value> mlt
<value>
```

Parameters

This command includes the following parameters:

show sys hash-calc mltindex ip-mcast **followed by:**	
source < value>	Specifies the multicast source address {a.b.c.d}.
group<value>	Specifies the multicast source address {a.b.c.d}.
vlanid<value>	Specifies the VLAN ID. Value is an integer from 1 to 4000. The egress VLAN ID is used for IP-Mcast hash.
src-port <value>	Specifies the ingress port in the format {slot/port}.
mlt<value>	Specifies the MLT ID. Value is an integer in the range of 1 to 31.

Command mode

Global configuration mode

show sys hash-calc mltindex non-ip-mcast dest-mac vlan-id src-port mlt

Use this command to calculate non-IP multicast traffic distribution.

Syntax

```
show sys hash-calc mltindex non-ip-mcast dest-mac
<value> vlanid <value> src-port <value> mlt <value>
```


Copyright © 2007, Nortel Networks

Parameters

This command includes the following parameters:

show sys hash-calc mltindex non-ip-mcast **followed by:**	
dest-mac< value>	Specifies the destination mac address in hexad ecimal {0x00:0x00:0x00:0x00:0x00:0x00:0x00}.
vlanid<value>	Specifies the VLAN ID. Value is an integer from 1 to 4000. The egress VLAN ID is used for IP-Mcast hash.
src-port <value>	Specifies the ingress port in the format {slot/port}.
mlt<value>	Specifies the MLT ID. Value is an integer in the range of 1 to 31.

Command mode

Global configuration mode

show system verbose

This command displays additional system characteristics including the status of switch fans, the power status and the serial number of the switch.

Note: Detailed fan status information is now also available to users through the Console, Web-based management, SNMP and Device Manager.

Syntax

show system [verbose]

where **verbose** provides a complete dump of all the information contained in the **show sys-info** and **show stack-info** commands, organized into a section of the global system information, followed by blocks of information about each unit in the stack.

shutdown

This command resets the switch one to ten minutes after saving the configuration. Users are informed that they have between one and ten minutes to unplug the switch; otherwise, the switch is reset.

Copyright © 2007, Nortel Networks

Note: The shutdown command is also available from the Console Interface.

Syntax

shutdown

Parameters

This command includes the following options:

trace **followed by:**	
minutes-to-wait]	Displays the trace message file. The **minutes-to-wait** option allows you set the time to wait until reset from 1 to 10 minutes. The default wait time is 2 minutes.

source

This command merges a configuration file into the running configuration without having to reboot the switch.

Syntax

source <file> [stop] [debug] [syntax]

where

- **file** is the device and file name of the new configuration file with a string length of 1 to 1536 characters (**a.b.c.d**:**<file>** | /**pcmcia**/**<file>** | /**flash**/ **<file>**).
- **stop** stops the script when it finds an error in the file.
- **debug** provides a debug script output.
- **syntax** verifies the script's syntax.

telnet

This command sets up a Telnet session to a remote device, for example, to the standby CPU.

Syntax

telnet [<ipaddr>]

where

ipaddr is the IP address {a.b.c.d} of the remote device.

Copyright © 2007, Nortel Networks

top

This command takes you to the box or top level (same as the **box** command).

Syntax

top

trace

This command displays the status of the switch at any given time.

Syntax

trace

Parameters

This command includes the following options:

trace **followed by:**	
info [tail]	Displays the trace message file. The **tail** option allows you to view the log in reverse order, with the most recent information first.
clear	Clears the trace file.
filter	Filters trace messages.
grep	Performs a comparison of trace messages.
level <modid> [<level>]	Displays the trace level on a software module for the specified module ID when the optional **level** parameter is omitted. Use the **modid-list** parameter to see a list of module ID numbers. Sets the trace level on a software module for the specified module ID when the optional **level** parameter is included. The level is one of the following values: • 0 = Disabled • 1 = Very terse • 2 = Terse • 3 = Verbose

Copyright © 2007, Nortel Networks

trace **followed by:**	
	• 4 = Very verbose
modid-list	Displays the module ID numbers which can be traced.
off	Disables tracing on a module.
route-policy	Traces a route policy.
screen [<*setting*>]	Enables or disables displaying the trace file. **setting** is **on** or **off**.

traceroute

This command traces the route to a remote host. It is a valuable tool for troubleshooting because it shows all the routes that are used or indicates that the remote network cannot be reached.

Syntax

traceroute <ipaddr> [<datasize>] [-m <value>] [-p <value>] [-q <value>] [-w <value>] [-v]

where

- **ipaddr** is the IP address {a.b.c.d} of the remote host.
- **datasize** is the size of the probe packet (1 to 1464).
- **-m <value>** is maximum time-to-live (TTL) value (1 to 255).
- **-p <value>** is the base UDP port number (0 to 65535).
- **-q <value>** is the number of probes per TTL (1 to 255).
- **-w <value>** is the wait time per probe (1 to 255).
- **-v** is the verbose mode (showing all).

Copyright © 2007, Nortel Networks

Copyright © 2007, Nortel Networks

Chapter 2
config commands

This chapter describes all Ethernet Routing Switch 8300 Series Switch config commands and their parameters.

config Command
"config" (page 65)
"config auto-recover-delay" (page 66)
"config bootconfig" (page 66)
"config bootconfig choice" (page 68)
"config bootconfig cli" (page 69)
"bootconfig choice license-file" (page 65)
"config bootconfig flags" (page 70)
"config bootconfig flags jumboframe" (page 72)
"config bootconfig host" (page 72)
"config bootconfig net" (page 74)
"config bootconfig show" (page 75)
"config bootconfig sio" (page 76)
"config bootconfig tz" (page 77)
"config cli" (page 78)
"config cli banner" (page 80)
"config cli monitor" (page 81)
"config cli motd" (page 81)
"config cli password" (page 82)
"config diag bootp" (page 83)
"config diag mirror-by-port" (page 83)
"config diag ping-snoop create src-ip dst-ip" (page 85)
"config diag ping-snoop add-ports" (page 85)

Copyright © 2007, Nortel Networks

config Command
"config diag ping-snoop enable" (page 85)
"config diag ping-snoop remove-ports" (page 85)
"config diag ping-snoop delete" (page 86)
"config diag vct" (page 86)
"config diag ping-snoop info" (page 280)
"config ether lldp config-notification" (page 87)
"config ether lldp tx-tlv config-notification" (page 87)
"config ether lldp tx-tlv port-desc" (page 87)
"config ether lldp tx-tlv sys-name" (page 88)
"config ether lldp tx-tlv sys-cap" (page 88)
"config ether lldp tx-tlv dot1 port-vlan-id" (page 89)
"config ether lldp tx-tlv dot1 vlan-name" (page 89)
"config ether lldp tx-tlv dot1 port-protocol-vlan-id" (page 90)
"config ether lldp tx-tlv dot1 protocol-identity" (page 90)
"config ether lldp tx-tlv dot3 mac-phy-config-status" (page 90)
"config ether lldp tx-tlv dot3link-aggregation" (page 91)
"config ether lldp tx-tlv dot3 maximum-frame-size" (page 92)
"config ether lldp tx-tlv med network-policy" (page 92)
"config ether lldp tx-tlv med location" (page 92)
"config ether lldp tx-tlv med extendedPSE" (page 93)
"config ether lldp tx-tlv med inventory" (page 93)
"config ether lldp tx-tlv med inventory" (page 93)
"config ip ospf host-route" (page 150)
"config ethernet" (page 94)
"config eth eap" (page 96)
"config ethernet auto-negotiate-advertisements" (page 99)
"config ethernet bcast-mcast-rate-limit enable" (page 100)
"config ethernet eapol guest-vlan" (page 101)
"config ethernet eapol guest-vlan-id" (page 101)
"config ethernet eapol multi-host" (page 101)
"config ethernet eapol max-multi-hosts" (page 101)
"config ethernet eapol allow-non-eap-clients" (page 101)
"config ethernet eapol max-non-eap-clients" (page 101)
"config ethernet eapol non-eap-mac add" (page 102)

Copyright © 2007, Nortel Networks

config Command
"config ethernet eapol non-eap-mac remove" (page 102)
"config ethernet eapol non-eap-mac clear" (page 102)
"config ethernet eapol non-eap-mac info" (page 102)
"config ethernet filter" (page 102)
"config ethernet lldp" (page 103)
"config ethernet lldp info" (page 103)
"config ethernet lldp tx-tlv" (page 104)
"config ethernet lldp tx-tlv info" (page 104)
"config ethernet lldp tx-tlv dot1" (page 105)
"config ethernet lldp tx-tlv dot1 info" (page 105)
"config ethernet lldp tx-tlv dot3" (page 106)
"config ethernet lldp tx-tlv dot3 info" (page 106)
"config ethernet lldp tx-tlv med" (page 107)
"config ethernet lldp tx-tlv med info" (page 107)
"config ethernet lldp location-identification civic-address" (page 108)
"config ethernet nsna" (page 109)
"config ethernet qos" (page 110)
"config ethernet slpp" (page 112)
"config ethernet smlt" (page 112)
"config ethernet stg" (page 113)
"config ethernet unknown-mac-discard" (page 114)
"config ethernet vct" (page 114)
"config filter acl create" (page 115)
"config filter acl action" (page 116)
"config filter acl debug" (page 119)
"config filter acl delete" (page 120)
"config filter acl ethernet" (page 120)
"config filter acl ip" (page 122)
"config filter acl port" (page 124)
"config filter acl protocol" (page 125)
"config filter acg create" (page 127)
"config filter acg delete" (page 128)
"config filter acg modify" (page 128)
"config filter act ethernet" (page 129)

Copyright © 2007, Nortel Networks

config Command
"config filter act ip" (page 131)
"config filter act delete" (page 133)
"config ip" (page 134)
"config ip arp" (page 134)
"config ip circuitless-ip-int" (page 136)
"config ip dhcp-relay" (page 136)
"config ip dhcp-relay created-fwd-path agent" (page 137)
"config ip dhcp-relay enable-fwd-path agent" (page 137)
"config ip dhcp-relay disable-fwd-path agent" (page 137)
"config ip dhcp-relay delete-fwd-path agent" (page 137)
"config ip dhcp-relay info mode" (page 138)
"config ip forwarding" (page 138)
"config ip igmp generate-log" (page 138)
"config ip igmp generate-trap" (page 138)
"config ip igmp interface access-control" (page 140)
"config ip igmp interface stream-limit" (page 142)
"config ip igmp interface stream-limit-members" (page 142)
"config ip mroute static-source-group" (page 143)
"config ip ospf" (page 144)
"config ip ospf accept adv-rtr" (page 145)
"config ip ospf area" (page 146)
"config ip ospf area range" (page 147)
"config ip ospf area virtual-interface" (page 148)
"config ip ospf host-route" (page 150)
"config ip ospf interface" (page 150)
"config ip ospf redistribute" (page 153)
"config ip ospf redistribute apply" (page 154)
"config ip ospf redistribute direct" (page 154)
"config ip ospf redistribute rip" (page 155)
"config ip ospf redistribute static" (page 156)
"config ip pim" (page 157)
"config ip pim interface" (page 158)
"config ip pim candbsr interface " (page 159)
"config ip pim candrp" (page 160)

Copyright © 2007, Nortel Networks

config Command
"config ip pim debug-pktfw" (page 161)
"config ip pim debug-pimmsg" (page 161)
"config ip pim interface virtual-neighbor" (page 163)
"config ip pim static-rp" (page 163)
"config ip prefix-list" (page 164)
"config ip rip" (page 165)
"config ip rip interface" (page 167)
"config ip route-discovery" (page 171)
"config ip route-policy" (page 172)
"config ip route preference" (page 176)
"config ip static-route" (page 177)
"config ip udpfwd interface" (page 178)
"config ip udpfwd portfwd" (page 179)
"config ip udpfwd portfwdlist" (page 180)
"config ip udpfwd protocol" (page 181)
"config ip vrrp info" (page 182)
"config ip vrrp ping-virtual-address" (page 182)
"config ip vrrp send-trap" (page 182)
"config lldp" (page 182)
"config lldp tx-interval" (page 183)
"config lldp tx-hold-multiplier" (page 183)
"config lldp reinit-delay" (page 183)
"config lldp tx-delay" (page 184)
"config lldp notification-interval" (page 184)
"config lldp local-mgmt-addr-tx" (page 184)
"config lldp med-fast-start" (page 185)
"config lldp location-identification coordinate-base" (page 185)
"config lldp location-identification civic-address" (page 185)
"config lldp location-identification ecs-elin" (page 186)
"config lldp info" (page 187)
"config log" (page 187)
"config mlt" (page 189)
"config mlt add" (page 190)
"config mlt add ports " (page 191)

Copyright © 2007, Nortel Networks

config Command
"config mlt add vlan " (page 191)
"config mlt create" (page 192)
"config mlt delete" (page 192)
"config mlt ntstg disable" (page 192)
"config mlt perform-tagging" (page 109)
"config mlt remove ports" (page 193)
"config mlt remove" (page 193)
"config mlt remove vlan" (page 194)
"config mlt smlt" (page 195)
"config nsna" (page 195)
"config nsna nsnas" (page 196)
"config nsna phone-signature" (page 197)
"config poe card admin" (page 198)
"config poe card info" (page 198)
"config poe card notification-control" (page 198)
"config poe card power-priority" (page 199)
"config poe card power-usage-threshold" (page 199)
"config poe port admin" (page 200)
"config poe port info" (page 200)
"config poe port power-detection-control" (page 200)
"config poe port power-limit" (page 201)
"config poe port power-priority" (page 201)
"config poe port type" (page 202)
"config qos egress-counter-set" (page 202)
"config qos mac-qos-level-override" (page 203)
"config qos map" (page 204)
"config qos policy create" (page 205)
"config qos policy" (page 207)
"config radius" (page 208)
"config radius server" (page 210)
"config rmon" (page 213)
"config slot" (page 217)
"config slpp" (page 217)
"config snmp-v3 community" (page 219)

Copyright © 2007, Nortel Networks

config Command
"config snmp-v3 group-access" (page 220)
"config snmp-v3 group-member" (page 222)
"config snmp-v3 mib-view" (page 224)
"config snmp-v3 usm" (page 226)
"config stg" (page 227)
"config sys access-policy" (page 228)
"config sys access-policy policy" (page 229)
"config sys access-policy policy service" (page 231)
"config sys info" (page 232)
"config sys link-flap-detect" (page 232)
"config sys mcast-software-forwarding" (page 233)
"config sys set" (page 233)
"config sys set action" (page 235)
"config sys set eapol" (page 236)
"config sys set eapol default-guest-vlan" (page 236)
"config sys set eapol guest-vlan" (page 236)
"config sys set snmp" (page 237)
"config sys syslog" (page 237)
"config sys syslog host" (page 238)
"config vlan" (page 240)
"config vlan create" (page 242)
"config vlan fdb-entry" (page 243)
"config vlan fdb-filter" (page 244)
"config vlan fdb-static" (page 245)
"config vlan ip" (page 247)
"config vlan ip arp-response" (page 248)
"config vlan ip dhcp-relay broadcast" (page 246)
"config vlan ip dhcp-relay" (page 246)
"config vlan ip dhcp-relay max-hop" (page 246)
"config vlan ip dhcp-relay min-sec" (page 247)
"config vlan ip dhcp-relay mode" (page 247)
"config vlan ip dhcp-relay info" (page 247)
"config ip dhcp-relay info mode" (page 138)
"config vlan ip igmp" (page 248)

Copyright © 2007, Nortel Networks

config Command
"config vlan ip igmp access-control" (page 250)
"config vlan ip igmp fast-leave-members" (page 252)
"config vlan ip igmp snoop-querier" (page 252)
"config vlan ip igmp snoop-querier-addr" (page 253)
"config vlan ip igmp static-members" (page 253)
"config vlan ip igmp stream-limit-members" (page 254)
"config vlan ip ospf" (page 255)
"config vlan ip pim" (page 257)
"config vlan ip pim candbsr" (page 258)
"config vlan ip proxy" (page 259)
"config vlan ip rip" (page 260)
"config vlan static-mcastmac" (page 271)
"config vlan ip vrrp" (page 263)
"config vlan ip vrrp" (page 264)
"config vlan ip vrrp action" (page 265)
"config vlan ip vrrp address" (page 265)
"config vlan ip vrrp adver-int" (page 266)
"config vlan ip vrrp critical-ip" (page 266)
"config vlan ip vrrp critical-ip-enable" (page 266)
"config vlan ip vrrp delete" (page 267)
"config vlan ip vrrp holddown-timer" (page 267)
"config vlan ip vrrp priority" (page 267)
"config vlan ip vrrp backup-master" (page 268)
"config vlan ip vrrp enable" (page 268)
"config vlan ip vrrp disable" (page 269)
"config vlan nlb-mode" (page 269)
"config vlan nsna color" (page 269)
"config vlan nsna info" (page 270)
"config vlan ports" (page 270)
"config web-server" (page 272)
"config web-server" (page 272)

Copyright © 2007, Nortel Networks

bootconfig choice license-file

This command allows users to access the license file remotely and specify the file name that they want to use in the boot configuration file. The license file is required to activate advance features including OSPF, VRRP and SMLT.

Syntax

bootconfig choice [primary|secondary|tertiary <boot choice> license-file <file>

Parameters

This command includes the following parameters:

bootconfig **followed by:**	
choice <boot choice>	Specifies the order in which the specified boot path is accessed when the switch is rebooted: primary, secondary, or tertiary.
license-file <file>	The source can be Flash memory, a PCMCIA card, or a remote TFTP server. • /flash/<file_name>{string length 0...256} • /pcmcia/<file_name> • <a.b.c.d>:<file_name>

config

This command sets the calendar time.

Syntax

config

Parameters

This command includes the following parameters:

config **followed by:**

Copyright © 2007, Nortel Networks

info	Displays current level parameter settings and next level directories.
license load license- file	Specifies the license file.
load-module <3DES|DES> <sourcefile>	Specifies the source file for the load module.
setdate <MMddyyyyhhmmss>	Sets the calendar time in the format month, day, year, hour, minutes, seconds. You must be logged in as rwa to use this command.

config auto-recover-delay

Use this command to set the auto recover delay.

Syntax

config auto-recover-delay <seconds>

where

<seconds> is the time delay for the auto-recovery of ports. The range is 5 to 3600 and the default is 30.

config bootconfig

This command configures the Boot Monitor CLI while you are in the Run-Time CLI.

Syntax

config bootconfig

Parameters

This command includes the following options:

config bootconfig **followed by:**	
info	Displays the configured values for **delay, master**, and **multicast**.
delay <seconds>	Sets the number of seconds a standby CPU should wait (delay) before trying to become the master CPU. This command applies only during a cold start and does not apply to a failover start. The default is 2 seconds delay.

Copyright © 2007, Nortel Networks

config bootconfig followed by:	
logfile	Specifies the following: minFreeSpace, maxFileSize, maxoccupyPercentage.
master <cpu-slot>	Indicates which CPU should become master when the switch is turned on. The master CPU performs a loopback test to test the switch fabric. The default master is set for slot 5. • cpu-slot specifies the module position, either slot 5 or slot 6

config bootconfig bootp

This command specifies the current bootp.

Syntax

```
config bootconfig bootp image-name <image-name>
[<slot number>] info
```

where

bootconfig is the order that the specified bootp device is accessed when the switch is rebooted.

Parameters

This command includes the following options:

config bootconfig bootp followed by:	
image-name <file>	Identifies the bootp image file name. file is the device and file name.

Copyright © 2007, Nortel Networks

config bootconfig bootp followed by:	
[<slot-number>]	Identifies the slot number.
info	Displays the current bootp choices and associated files.

config bootconfig choice

This command changes the order in which the boot sources (flash and PCMCIA card) are accessed.

Syntax

config bootconfig choice [primary | secondary | tertiary] <bootconfig>

where

bootconfig is the order that the specified boot device is accessed when the switch is rebooted. The options are primary, secondary, or tertiary.

Parameters

This command includes the following options:

config bootconfig choice <bootconfig> followed by:	
info	Displays the current boot choices and associated files.
config-file <file>	Identifies the run-time configuration file to load. • **file** is the device and file name.
image-file <file>	Identifies the run-time image file to load. • **file** is the device and file name.
backup-config-file <file>	Specifies the name of the back-up configuration file.

Copyright © 2007, Nortel Networks

config bootconfig cli

This command changes the Boot Monitor CLI while you are in the Run-Time CLI.

Syntax

```
config bootconfig cli
```

Parameters

The config bootconfig cli commands include the following options:

config bootconfig cli **followed by:**	
info	Displays the current settings for the Boot Monitor CLI.
more <true|false>	Sets scrolling for the output display. The default is true. • **true** sets output display scrolling to one page at a time. • **false** sets the output display to continuous scrolling.
prompt <value>	Changes the Boot Monitor prompt to the defined string. • **value** is a string from 1 to 32 characters.
rlogin-sessions <value>	Sets the allowable number of inbound remote Boot Monitor CLI login sessions; the default is 8. • **value** is the number of sessions (0 to 8).
screenlines <value>	Sets the number of lines in the output display; the default is 23. • **value** is the number of lines (1 to 64).

Copyright © 2007, Nortel Networks

config bootconfig cli followed by:	
telnet-sessions <value>	Sets the allowable number of inbound Telnet sessions; the default is 1. • value is the number of sessions (0 to 8).
timeout <seconds>	Sets the idle timeout period before automatic logout for CLI sessions; the default is 900 seconds. • seconds is the timeout period in seconds (0 to 65536).

config bootconfig flags

This command sets system flags to true or false. Changes to certain flags (factorydefaults, ftpd, tftpd, wdt) take effect only after you save changes to the boot configuration file and reset the switch.

Syntax

config bootconfig flags

Parameters

This command includes the following options:

config bootconfig flags followed by:	
info	Displays current flag settings.
autoboot <true|false>	Controls whether the switch automatically runs the run-time image after being reset or stops at the monitor prompt. Setting autoboot to false is useful for some debugging tasks. The default is true.
block-snmp <true|false>	True blocks the Simple Network Management Protocol (SNMP) access and false unblocks it. The default is false. ***Note:*** The SSH secure mode must be disabled before the block-snmp boot flag can be set to false.

Copyright © 2007, Nortel Networks

config bootconfig flags **followed by:**	
daylight-saving-time <true|false>	Enables or disables daylight saving time on the switch. The default is false.
debugmode <true|false>	Controls whether the switch stops in debug mode following a fatal error. Debug mode provides information equivalent to the **trace** commands. • **true** means the switch stops in debug mode following a fatal error. A list of options is displayed that allows you to select a software module to debug. • **false** means the switch is automatically rebooted following a fatal error. The default is false.
debug-config <true|false>	Enables or disables run-time debugging of the configuration file. The default is false.
factorydefaults <true|false>	Sets the runtime switch configuration to factory default settings. The default is false.
ftpd <true|false>	Enables or disables FTP server on the switch. The default is false.
logging <true|false>	Enables or disables system logging to a file on the PCMCIA card. The default is true.
nncli <true|false>	True enables Nortel Networks Command Line Interface (NNCLI) services on a switch and false disables NNCLI services. ***Note:*** Passport Command Line Interface (PPCLI) services are provided when NNCLI is disabled.
reboot <true|false>	Enables or disables the option to reboot on fatal error. The default is true.
rlogind <true|false>	Enables or disables the rlogin/rsh server. The default is false.

Copyright © 2007, Nortel Networks

config bootconfig flags followed by:	
savetostandby <true|false>	Allows you to save a configuration to a standby CPU if one is available. The default is false.
telnetd <true|false>	Enables or disables the Telnet server. The default is false.
tftpd <true|false>	Enables or disables the TFTP server. The default is false.
trace-logging <true|false>	Enables or disables system tracing to a file on the PCMCIA card. The default is false.
verify-config <true|false>	Enables syntax checking of the configuration file and prevents execution of the file if an error is found. The factory default configuration file will be loaded instead. The default is false.
vid-max4k <true|false>	The default is false.
wdt <true|false>	Enables or disables the hardware watchdog timer, which monitors a hardware circuit. The watchdog timer reboots the switch based on software errors. The default for this command is true.
nocheck-sw-version false	Enables checking of the software version.

config bootconfig flags jumboframe

This command enables Jumbo frame support on the chassis.

Syntax

```
config bootconfig flags jumboframe <true|false>
```

Parameters

This command includes the following parameters:

config bootconfig flags jumboframe <true|false> followed by:	
true	Enables jumbo frame
false	Disables jumbo frame

config bootconfig host

This command defines conditions for remote host login.

Copyright © 2007, Nortel Networks

Syntax

```
config bootconfig host
```

Parameters

This command includes the following options:

config bootconfig host **followed by:**	
info	Displays current settings for remote host login.
ftp-debug <true|false>	Enables or disables debug mode on FTP/FTP. The default is false.
password <value>	Sets the FTP password, where **value** is the password, from 0 to 16 characters. This command enables FTP transfers.
tftp-debug <true|false>	Enables or disables debug mode on TFTP. The default is false.
tftp-hash <true|false>	Enables or disables the TFTP hash bucket display. The default is false.
tftp-rexmit <seconds>	Sets the TFTP retransmission timeout. • **seconds** is 1 to 2147483647. The default is 6.
tftp-timeout <seconds>	Sets TFTP transfer timeout. • **seconds** is 1 to 2147483647
user <value>	Sets the remote user login name. • **value** is the user login name, from 0 to 16 characters. The default is **target**.

Copyright © 2007, Nortel Networks

config bootconfig net

This command configures the CPU network port devices. The three network ports are the management port, the CPU port, and the PCMCIA card, if it is acting as a network port.

Syntax

config bootconfig net <cpu-net-port>

where

cpu-net-port is **mgmt**.

Parameters

This command includes the following options:

config bootconfig net <cpu-net-port> **followed by:**	
info	Displays information about the current configuration of the specified port.
autonegotiate <true|false>	Enables or disables autonegotiation for the specified port. The default is: • For **mgmt:** true
bootp <true|false>	Enables or disables the Bootstrap Protocol (BootP) for the specified port. The default is true for all specified port types.
enable <true|false>	Enables or disables the specified network port. The default is: • For **mgmt:** true
fullduplex <true|false>	Enables or disables full-duplex mode for the specified port. The default is: • For **mgmt:** false
ip <ipaddr/mask> [cpu-slot <value>]	Specifies the IP address/mask for the specified port. The default is 0.0.0.0.
restart	Shuts down and reinitializes the specified port.

Copyright © 2007, Nortel Networks

config bootconfig net <cpu-net-port> **followed by:**	
route [add|del] <netaddr/mask> <gateway>	Enables or disables a route for the specified port. • add|del adds or deletes the specified route. • netaddr is the IP address of the destination network. • mask is the IP address of the mask. • gateway is the IP address of the gateway.
speed <10|100>	Sets the connection speed for the port to 10 Mb/s or to 100 Mb/s. The default is: • For mgmt: 10
tftp <ipaddr>	Specifies the TFTP server ip address for the specified port. The default is 0.0.0.0.

config bootconfig show

This command displays the current configuration of the Boot Monitor and the Boot Monitor CLI.

Syntax

```
config bootconfig show
```

Parameters

This command includes the following options:

config bootconfig show	
info	Displays the current boot monitor settings.
bootp	Displays the boot parameter configuration.
choice	Displays the boot configuration choices.

Copyright © 2007, Nortel Networks

config bootconfig show	
cli	Displays the CLI configuration.
config [verbose]	Displays the current boot configuration. Optional parameter: • **verbose** displays all possible information.
flags	Displays the flags settings.
host	Displays the host configuration.
master	Displays the current CPU slot set as master.
net	Displays the current configuration of the CPU network ports.
sio	Displays the current configuration of CPU serial ports.
tz	Displays the switch's time zone setting.

config bootconfig sio

This command configures the CPU serial port devices.

Syntax

config bootconfig sio <cpu-sio-port>

where

cpu-sio-port is console.

Copyright © 2007, Nortel Networks

Parameters

This command includes the following options:

config bootconfig sio <cpu-sio-port> followed by:	
info	Displays configuration information about the specified port.
baud <rate>	Sets the baud rate for the port. The default is 9600.
8databits <true|false>	Specifies either 8 (true) or 7 (false) data bits per byte for software to interpret. The default is false.
enable <true|false>	Enables or disables the port. The default is true.
restart	Shuts down and reinitializes the port.

config bootconfig tz

This command sets the relation of the switch time zones.

Syntax

```
config bootconfig tz
```

Parameters

This command includes the following options:

config bootconfig tz followed by:	
info	Displays information about the current time zone settings for the switch.
dst-end <Mm.n.d/hhmm|MMddhhmm>	Sets the ending date of daylight saving time. You can specify the time in one of two ways: • Specify an hour on the nth occurrence of a weekday in a month. For example, M10.5.0/0200 means the 5th occurrence of Sunday in the 10th month (October) at 2:00 a.m. • Specify a month, day, hour, and minute. For example, 10310200 means October 31 at 2:00 a.m.

Copyright © 2007, Nortel Networks

config bootconfig tz followed by:	
dst-name <dstname>	Sets an abbreviated name for the daylight saving local time zone, up to 7 characters. • dstname is the name (for example, "pdt" is Pacific Daylight Time)
dst-offset <minutes>	Sets the daylight saving adjustment in minutes. The range is -240 to 240.
dst-start <Mm.n.d/hhmm|MMddhhmm>	Sets the starting date of daylight saving time. The format is the same as for setting the ending date.
offset-from-utc <minutes>	Sets the time zone offset, in minutes to subtract from UTC, where positive numbers mean west of Greenwich and negative numbers mean east of Greenwich. The range is -840 to 840.
name <tz>	Sets an abbreviated name for the local time zone, up to 7 characters. • tz is the name (for example, "pst" is Pacific Standard Time).

config cli

This command configures and manages the command line interface.

Syntax

```
config cli
```

Parameters

This command includes the following options:

config cli followed by:	
info	Displays the current CLI parameter settings.
defaultlogin <true|false>	Enables or disables using the default login string. false displays the user-defined login string and true displays the default login string. The default value is true.
defaultpassword <true|false>	Enables or disables using the default password string. false displays the user-defined password string and true displays the default password string. The default value is true.

Copyright © 2007, Nortel Networks

config cli **followed by:**	
loginprompt <string>	Changes the CLI login prompt. Enclose the string in quotation marks if it contains more than one word. • **string** is an ASCII string from 1 to 1536 characters.
more <true|false>	Sets scrolling for the output display. The default is true. • **true** sets output display scrolling to one page at a time. • **false** sets the output display to continuous scrolling.
passwordprompt <string>	Changes the CLI password prompt. Enclose the string in quotation marks if it contains more than one word. • **string** is an ASCII string from 1 to 1536 characters.
prompt <prompt>	Sets the root level prompt to a defined string. Enclose the string in quotation marks if it contains more than one word. • **prompt** is a string from 1 to 255 characters. If you set the string length to 0, the prompt become none:<master cpu #>
rlogin-sessions <nsessions>	Sets the allowable number of inbound remote CLI login sessions; the default is 8. • **nsessions** is the number of sessions (0 to 8).

Copyright © 2007, Nortel Networks

config cli followed by:	
screenlines <nlines>	Sets the number of lines in the output display; the default is 23. • nlines is the number of lines (8 to 64).
telnet-sessions <nsessions>	Sets the allowable number of inbound Telnet sessions; the default is 8. • nsessions is the number of sessions (0 to 8).
timeout <seconds>	Sets the idle timeout period before automatic logout for CLI sessions; the default is 900. • seconds is the timeout period in seconds (0 to 65535).

config cli banner

This command configures and manages the CLI login banner.

Syntax

```
config cli banner
```

Parameters

This command includes the following options:

config cli banner followed by:	
info	Displays the text that was added to the login banner using the add option.
add <string>	Adds lines of text to the user-customized CLI login banner. Enclose the text in quotation marks if it contains more than one word. • string is an ASCII string from 1 to 80 characters.

Copyright © 2007, Nortel Networks

config cli banner followed by:	
defaultbanner <true|false>	Enables or disables using the default CLI login banner.
delete	Deletes an existing customized login banner.

config cli monitor

This command configures and manages monitor duration (refresh rate).

Syntax

config cli monitor

Parameters

This command includes the following options:

config cli monitor followed by:	
info	Displays the current setting for the monitor duration and interval used by the **monitor** commands.
duration <integer>	Changes the monitoring time duration (refresh rate) for the **monitor** commands. • **integer** is the time duration in seconds (1 to 1800). The default is 300.
interval <integer>	Changes the monitoring time interval between screen updates set by the **monitor** commands. • **integer** is the time duration in seconds (1 to 600). The default is 5.

config cli motd

This command configures and manages the message of the day (motd).

Copyright © 2007, Nortel Networks

Syntax

config cli motd

Parameters

This command includes the following options:

config cli motd **followed by:**	
info	Displays information about the message of the day.
add <string>	Creates a " message of the day" that can be displayed with the login banner. Enclose the string in quotation marks if it contains more than one word. • **string** is an ASCII string from 1 to 1536 characters.
displaymotd <true|false>	Displays (**true**) or does not display (**false**) the message of the day.
delete	Deletes the existing customized message of the day.

config cli password

This command changes the login or password for the different access levels of the switch. The optional parameter **password** is the password associated with the user name or login name. You must have read-write-all privileges in order to view or change passwords.

Syntax

config cli password

Parameters

This command includes the following options:

config cli password **followed by:**	
info	Displays current login and password settings. The output from this command is the same as the output from **show cli password**.
ro <username> [<password>]	Sets the Read-Only login and/or password. The default login and password are ro.

Copyright © 2007, Nortel Networks

config cli password **followed by:**	
l1 <username> [<password>]	Sets the layer 1 Read/Write login and/or password. The default login and password are l1.
l2 <username> [<password>]	Sets the layer 2 Read/Write login and/or password. The default login and password are l2.
l3 <username> [<password>]	Sets the layer 3 Read/Write login and/or password. The default login and password are l3.
rw <username> [<password>]	Sets the Read/Write login and/or password.
rwa <username> [<password>]	Sets the Read/Write/All login and/or password.

config diag bootp

This command diagnoses the system by monitoring bootp.

Syntax

```
config diag bootp
```

Parameters

This command includes the following options:

config cli bootp **followed by:**	
info	Displays current bootp settings.
command <run|stop|normal>[<slot-number>]	Controls diagnostics by slot number.

config diag mirror-by-port

This command diagnoses the system by monitoring/mirroring a port.

Syntax

```
config diag mirror-by-port <id>
```

where

`id` is the mirror-by-port entry ID with a value range of 1 to 383.

Note: One mirroring port and up to 10 mirrored ports can be configured.

Copyright © 2007, Nortel Networks

Parameters

This command includes the following options:

config diag mirror-by-port <id> **followed by:**	
info	Displays current port mirroring settings.
create in-port <value> out-port <value> [mode <value>] [enable <value>]	Creates a new mirror-by-port table entry. • **in-port <value>** is the mirrored port. **value** specifies the port in the slot/port form. • **out-port <value>** is the mirroring port. **value** specifies the port in the slot/port form. • **mode <value>** sets the mirror mode. **value** see the description for mode in this table. • **enable <value>** enables the mirroring port. When this feature is enabled, the mirrored (source) port's ingress or egress packets are forwarded normally and a copy of the packets is sent out the mirrored port to the mirroring (destination) port. **value** is **true** or **false**.
enable <true|false>	Enables or disables a mirroring port already created in the mirror-by-port table.
delete	Deletes an entry from the mirror-by-port table.
mirrored-port <port>	Specifies the mirrored port. • **port** specifies the port in the slot/port form.

Copyright © 2007, Nortel Networks

config diag mirror-by-port <id> followed by:	
mirroring-port <port>	Specifies the mirroring port. • port specifies the port in the slot/port form.
mode <tx|rx|both>	Sets the mirroring mode. • tx mirrors transmit packets. • rx mirrors receive packets. • both mirrors both transmit and receive packets.

config diag ping-snoop create src-ip dst-ip

This command sets the SIP and DIP patterns the user is trying to look for in order to capture the ICMP flow.

Syntax

```
config diag ping-snoop create src-ip <ip/mask> dst-ip
<ip/mask>
```

config diag ping-snoop add-ports

This command enables the Ping-Snoop filter on the given port(s). Upon matching with the SIP and DIP patterns configured, the packet will be copied to the CPU.

Syntax

```
config diag ping-snoop add-ports <port-list>
```

config diag ping-snoop enable

This command enables or disables the messages being displayed on the console. It is important to note that this command does not delete the Ping-Snoop filter. Use config diag ping-snoop to delete the command.

Syntax

```
config diag ping-snoop enable
```

config diag ping-snoop remove-ports

This command removes the port(s) from the ping-snoop configuration.

Copyright © 2007, Nortel Networks

Syntax

config diag ping-snoop remove-ports <port-list>

config diag ping-snoop delete

This command deletes the ping-snoop filter from the switch.

Syntax

config ether <slot/port> lldp status <tx/AndRx|rx-Only|txOnly|disable>

Parameters

This command includes the following parameters:

config ether lldp status **followed by:**	
ether <slot/port>	Sets the ethernet slot and port location.
lldp status <tx/AndRx|rxOnly|txOnly|disable>	Sets the lldp status. Default is disable.

config diag vct

This command initiates a virtual cable test or displays Virtual Cable Tester (VCT) information for a range of ports.

Syntax

config diag vct

Parameters

This command includes the following parameters:

config diag vct **followed by:**	
info <portlist>	Displays the results of the last virtual cable test. **portlist** specify the ports in the portlist form **{slot/port[-slot/port][, ...]}**.
test <portlist>	Starts a virtual cable test on the specified ports. **portlist** specify the ports in the portlist form **{slot/port[-slot/port][, ...]}**.

Copyright © 2007, Nortel Networks

config ether lldp config-notification

This command enables or disables notifications from the agent. Default is disable.

Syntax

```
config ether <slot/port> lldp config-notification
<enable/disable>
```

Parameters

This command includes the following parameters:

config ether lldp config-notification followed by	
<slot/port>	Sets the ethernet slot and port location.
<enable/disable>	Enables or disables the notifications from the agent. Default is disable.

config ether lldp tx-tlv config-notification

This command enables or disables notifications from the agent. Default is disable.

Syntax

```
config ether <slot/port> lldp tx-tlv config-
notification <enable/disable>
```

Parameters

This command includes the following parameters:

config ether lldp tx-tlv config-notification followed by:	
<slot/port>	Sets the ethernet slot and port location.
<enable/disable>	Enables or disables the notifications from the agent. Default is disable.

config ether lldp tx-tlv port-desc

This command enables or disables transmission of port-desc tlv on the port. Default is disable.

Syntax

```
config ether <slot/port> lldp tx-tlv port-desc
<enable/disable>
```


Copyright © 2007, Nortel Networks

Parameters

This command includes the following parameters:

config ether lldp tx-tlv port-desc followed by:	
<slot/port>	Sets the ethernet slot and port location.
<enable/disable>	Enables or disables the transmission of the port description tlv on the port. Default is disable.

config ether lldp tx-tlv sys-name

This command enables or disables transmission of sys-name tlv on the port. Default is disable.

Syntax

```
config ether <slot/port> lldp tx-tlv sys-name
<enable/disable>
```

Parameters

This command includes the following parameters:

config ether lldp tx-tlv sys-name followed by:	
<slot/port>	Sets the ethernet slot and port location.
<enable/disable>	Enables or disables the transmission of the system name tlv on the port. Default is disable.

config ether lldp tx-tlv sys-cap

This command enables or disables transmission of sys-cap tlv on the port. Default is disable.

Syntax

```
config ether <slot/port> lldp tx-tlv sys-cap
<enable/disable>
```


Copyright © 2007, Nortel Networks

Parameters

This command includes the following parameters:

config ether lldp tx-tlv sys-cap followed by:	
<slot/port>	Sets the ethernet slot and port location.
<enable/disable>	Enables or disables the transmission of the system cap tlv on the port. Default is disable.

config ether lldp tx-tlv dot1 port-vlan-id

This command enables or disables transmission of the port vlan-id tlvs on the port. Default is disable.

Syntax

```
config ether <slot/port> lldp tx-tlv dot1 port-vlan-id
<enable/disable>
```

Parameters

config ether lldp tx-tlv dot1 port-vlan-id followed by:	
<slot/port>	Sets the ethernet slot and port location.
<enable/disable>	Enables or disables the transmission of the port vlans tlv on the port. Default is disable.

config ether lldp tx-tlv dot1 vlan-name

This command enables or disables transmission vlan name tlv instances on the port. Default is disable.

Syntax

```
config ether <slot/port> lldp tx-tlv dot1 vlan-name
<vlanList><enable/disable>
```

Parameters

This command includes the following parameters:

config ether lldp tx-tlv dot1 vlan-name followed by:	
<slot/port>	Sets the ethernet slot and port location.
<vlanList><enable/disable>	Enables or disables the transmission of the vlan name tlv on the port. Default is disable.

Copyright © 2007, Nortel Networks

config ether lldp tx-tlv dot1 port-protocol-vlan-id

This command enables or disables transmission protocol vlan tlv instances on the port. Default is disable.

Syntax

```
config ether <slot/port> lldp tx-tlv dot1 port-
protocol-vlan-id <vlanList><enable/disable>
```

Parameters

This command includes the following parameters:

config ether lldp tx-tlv dot1 port-protocol-vlan-id **followed by:**	
<slot/port>	Sets the ethernet slot and port location.
<vlanList><enable/disable>	Enables or disables the transmission of the vlan tlv instances on the port. Default is disable.

config ether lldp tx-tlv dot1 protocol-identity

This command enables or disables transmission of protocol tlv instances on the port. Default is disable.

Syntax

```
config ether <slot/port> lldp tx-tlv dot1 protocol-
identity <EAP/STP/LLDP><enable/disable>
```

Parameters

This command includes the following parameters:

config ether lldp tx-tlv dot1 protocol-identity **followed by:**	
<slot/port>	Sets the ethernet slot and port location.
<EAP/STP/LLDP><enable/disable>	Enables or disables the transmission of the protocol tlv instances on the port. Default is disable.

config ether lldp tx-tlv dot3 mac-phy-config-status

This command enables or disables transmission of the MAC/PHY configuration/ status tlv.

Syntax

```
config ether <slot/port> lldp tx-tlv dot3 mac-phy-
config-status <enable/disable>
```


Copyright © 2007, Nortel Networks

Parameters

This command includes the following parameters:

config ether lldp tx-tlv dot3 mac-phy-config-status followed by:	
<slot/port>	Sets the ethernet slot and port location.
<enable/disable>	Enables or disables the transmission of the MAC/ PHY configuration status tlv on the port.

config ether lldp tx-tlv dot3 mdi-power-support

This command enables or disables transmitting power via the MDI tlv.

Syntax

```
config ether <slot/port> lldp tx-tlv dot3 mdi-power-
support <enable/disable>
```

Parameters

This command includes the following parameters:

config ether lldp tx-tlv dot3 mdi-power-support followed by:	
<slot/port>	Sets the ethernet slot and port location.
<enable/disable>	Enables or disables the transmission of power via the MDI tlv.

config ether lldp tx-tlv dot3link-aggregation

This command enables or disables transmitting the Link Aggregation tlv.

Syntax

```
config ether <slot/port> lldp tx-tlv dot3link-
aggregation <enable/disable>
```

Parameters

This command includes the following parameters:

config ether lldp tx-tlv dot3link-aggregation followed by:	
<slot/port>	Sets the ethernet slot and port location.
<enable/disable>	Enables or disables the transmission the Link Aggregation tlv.

Copyright © 2007, Nortel Networks

config ether lldp tx-tlv dot3 maximum-frame-size

This command enables or disables transmitting the maximum-frame-size tlv.

Syntax

```
config ether <slot/port> lldp tx-tlv dot3 maximum-
frame-size <enable/disable>
```

Parameters

This command includes the following parameters:

config ether lldp tx-tlv dot3 maximum-frame-size **followed by:**	
<slot/port>	Sets the ethernet slot and port location.
<enable/disable>	Enables or disables the transmission the Link Aggregation tlv.

config ether lldp tx-tlv med network-policy

This command enables or disables transmitting the network-policy tlv.

Syntax

```
config ether <slot/port> lldp tx-tlv med network-policy
<enable/disable>
```

Parameters

This command includes the following parameters:

config ether lldp tx-tlv med network-policy **followed by:**	
<slot/port>	Sets the ethernet slot and port location.
<enable/disable>	Enables or disables transmitting the network-policy tlv.

config ether lldp tx-tlv med location

This command enables or disables transmitting the location identification tlv.

Syntax

```
config ether <slot/port> lldp tx-tlv med location
<enable/disable>
```


Copyright © 2007, Nortel Networks

Parameters

This command includes the following parameters:

config ether lldp tx-tlv med location followed by:	
<slot/port>	Sets the ethernet slot and port location.
<enable/disable>	Enables or disables transmitting the location id tlv.

config ether lldp tx-tlv med extendedPSE

This command enables or disables transmitting the extended Power-via-MDI tlv.

Syntax

```
config ether <slot/port> lldp tx-tlv med extendedPSE
<enable/disable>
```

Parameters

This command includes the following parameters:

config ether lldp tx-tlv med extendedPSE followed by:	
<slot/port>	Sets the ethernet slot and port location.
<enable/disable>	Enables or disables transmitting the extended Power-via-MDI tlv.

config ether lldp tx-tlv med inventory

This command enables or disables transmitting the inventory management tlv set.

Syntax

```
config ether <slot/port> lldp tx-tlv med inventory
<enable/disable>
```


Copyright © 2007, Nortel Networks

Parameters

This command includes the following parameters:

config ether lldp tx-tlv med inventory **followed by:**	
<slot/port>	Sets the ethernet slot and port location.
<enable/disable>	Enables or disables transmitting the inventory management tlv set.

config ethernet

This command sets parameters for specified switch ports.

Syntax

config ethernet <ports>

where

ports specify the ports in the portlist form {**slot/port[-slot/port]** [, ...]}.

Parameters

This command includes the following options:

config ethernet <ports> **followed by:**	
action <action choice>	Specifies the action.
info	Displays the current port settings.
auto-negotiate <enable|disable>	Enables or disables autonegotiation (adjusting between 10 Mb/s and 100 Mb/s and half- or full-duplex) on selected ports. The default is **enable**.
bcast-mcast-rate-limit <value> [<enable|disable>]	Sets the broadcast and multicast rate limits on ports. **value** is the broadcast and multicast rate-limit with a range of 1 to 100. Optional parameter: **enable|disable** enables or disables the broadcast and multicast rate-limit.

Copyright © 2007, Nortel Networks

config ethernet <ports> **followed by:**	
cp-limit <enable|disable> [multicast-limit <value>] [broadcast-limit <value>]	• **cp-limit <enable|disable>** enables or disables control packet rate limit (CP-Limit). The default setting is **enable**. ***Note:*** After a CP-Limit has been disabled on a port, it can only be reenabled by disabling and re-enabling the port with command: **config ethernet <slot/port> state <disable | enable>**. Optional parameters: • **multicast-limit <value>** sets the multicast control frame packet per second rate (1000 to 100000). • **broadcast-limit <value>** sets the broadcast frame packet per second rate (1000 to 100000).
default-vlan-id <vid>	Defines the default vlan identification on selected ports. **vid** is the vlan id with a range of 1 to 4094.
duplex <half|full>	Sets the operating mode of the port to half-duplex or full-duplex when autonegotiation is disabled. The default is **half**.
linktrap <enable|disable>	Enables or disables the link up/down trap for a port. The default is enabled.
lock <true|false>	Locks a port for exclusive use if the portlock feature is globally enabled by the **config sys set portlock on|off** command. The default is **false**.
name <name>	Assigns a name to the specified port or ports. • **name** is a string up to 20 characters long.
perform-tagging <enable|disable>	Enables or disables the perform tagging option on selected ports.

Copyright © 2007, Nortel Networks

config ethernet <ports> followed by:	
speed <10|100>	Sets the port speed to 10 Mb/s or 100 Mb/s when autonegotiation is disabled. The default is 10.
state <enable|disable|test>	Specifies the administrative state on the port as up, down, or test. The default is up (enable).
tx-queue	Sets the transmit queue parameters.
untagged-frames-discard <enable|disable>	Enables or disables the discard untagged frames option.
untag-port-default-vlan	Untag frames egressing on the default VLAN of the port.

config eth eap

This command sets parameters for the specified Extensible Authorization Protocol (EAP) Ethernet ports.

Syntax

config eth <ports> eap

where

ports specify the ports in the portlist form {**slot/port[-slot/port]** [, ...]}.

Parameters

This command includes the following options:

config eth <ports> eap followed by:	
info	Displays the current EAP port settings.
initialize <true|false>	Initializes (true) or disables (false) EAP authentication on the port. Setting this field to true causes the reinitialization of EAP authentication. The default is false.

Copyright © 2007, Nortel Networks

config eth <ports> eap **followed by:**	
admin-status <auto | force unauthorized | force authorized>	Sets the EAP status of the port. **auto** sets the port authorization status to change automatically depending on the result of EAP authentication. • **force unauthorized** sets the port authorization status to always unauthorized. • **force authorized** sets the port authorization status to always authorized. The default is **auto**.
admin-traffic-control <incoming and outgoing | incoming only>	Sets the desired level of traffic control on the port. • **incoming and outgoing** blocks both incoming and outgoing traffic on the port when EAP authentication fails. • **incoming only** blocks only incoming traffic on the port when EAP authentication fails. The default is **incoming and outgoing**.
oper-traffic-control <incoming and outgoing | incoming only>	Sets the read only value for the actual level of traffic control on the port. • **incoming and outgoing** reads the level of traffic control on the port for both incoming and outgoing traffic. • **incoming only** reads the level of traffic control on the port for only incoming traffic. The default is **incoming and outgoing**.

Copyright © 2007, Nortel Networks

config eth <ports> eap **followed by:**	
reauthentication <true | false>	Sets whether to re-authenticate or not. • **true** causes reauthentication of an existing supplicant (wireless station, such as a laptop, etc.) at the time interval specified in Reauthentication Period field. • **false** disables reauthentication of an existing supplicant. The default is **false**.
reauthentication-period <value>	Sets the time interval between successive re-authentications. Its value range is 1 – 2147483647 seconds. The default value is 3600 seconds.
reauthenticate-now <true | false>	Selecting "**true**" for this field causes reauthentication to start immediately. The default is **false**.
quiet-period <value>	Sets the time interval between an authentication failure and the start of a new authentication. Its value range is 1 – 65535 seconds. The default value is 60 seconds.
transmit-period <value>	Sets the time to wait for a response from the supplicant (wireless station, such as a laptop, etc.) for EAP Request/Identity packets. Its value range is 1 – 65535 seconds. The default value is 30 seconds.

Copyright © 2007, Nortel Networks

config eth <ports> eap followed by:	
supplicant-timeout <value>	Sets the timeout Time to wait for a response from the supplicant (wireless station, such as a laptop, etc.) for all EAP packets except EAP Request/Identity. Its value range is 1–65535 seconds. The default value is 30 seconds.
max-req <value>	Sets the maximum number of requests to retry sending packets to the supplicant (wireless station, such as a laptop, etc.). Its value range is 1–10. The default value is 2.

config ethernet auto-negotiate-advertisements

This command configures autonegotiation advertisements by port or slot.

Syntax

```
config ethernet <slot/port> auto-negotiate-advertisements
[<10-full>] [<10-half>] [<100-full>] [<100-half>]
[<1000-full>] [<1000-half>] [<default>] [<none>]
```

Parameters

This command includes the following parameters:

config ethernet auto-negotiate-advertisements followed by:	
[<10-full>]	The combination of speed-duplex settings to use for this ethernet port.
[<10-half>]	The combination of speed-duplex settings to use for this ethernet port.
[<100-full>]	The combination of speed-duplex settings to use for this ethernet port.
[<100-half>]	The combination of speed-duplex settings to use for this ethernet port.
[<100-full>]	The combination of speed-duplex settings to use for this ethernet port.

Copyright © 2007, Nortel Networks

config ethernet auto-negotiate-advertisements **followed by:**	
[<1000-half>]	The combination of speed-duplex settings to use for this ethernet port.
[<default>]	The combination of speed-duplex settings to use for this ethernet port.
[<none>]	The combination of speed-duplex settings to use for this ethernet port.

config ethernet auto-recover-port

Use this command to enable or disable the auto-recovery of a port.

Syntax

config ethernet <ports>auto-recover-port <enable|disable>

where

<ports> is the list of ports in the form {slot/ port[-slot/port][, ...]}.
<enable|disable> enables or disables the auto-recovery.

config ethernet bcast-mcast-rate-limit enable

In the Ethernet Routing Switch 8300, L2 broadcast and multicast rate limiting is supported on a per port basis and always includes both multicast and broadcast traffic. Broadcast and or multicast traffic received on a given port is discarded when it exceeds the configured limit. On the Ethernet Routing Switch 8300, you can set the limit in a percentage of total link bandwidth from 1 to 100 percent of total traffic for both multicast and broadcast traffic individually. If rate limiting is enabled on an MLT port, the same settings will be applied to all ports in the MLT. Rate limiting counts broadcast and multicast together; there is no possibility to count them separate.

This command enables rate limiting on a port.

Syntax

config ethernet <slot/port> bcast-mcast-rate-limit <percent allowed> enable

Copyright © 2007, Nortel Networks

Parameter

This command includes the following parameters:

Rate limiting command

Parameter	Description
`<slot/port>`	`slot/Ports`: The port(s) for which rate limiting is to take effect, expressed as: {slot/port[-slot/port][,...]}.
`<percent allowed>`	Specifies the rate limit to use, expressed as a percentage. The value can be from 1-100.

config ethernet eapol guest-vlan

This command configures the ethenet EAPOL guest VLAN by port or slot.

Syntax

```
config ethernet <slot/port> eapol guest-vlan enable/disable
```

config ethernet eapol guest-vlan-id

This command configures the ethernet EAPOL guest VLAN by VLAN ID.

Syntax

```
config ethernet <slot/port> eapol guest-vlan-id <vid>
```

config ethernet eapol multi-host

This command enables EAPOL multi-host.

Syntax

```
config ethernet <slot/port> eapol multi-host <enable/disable>
```

config ethernet eapol max-multi-hosts

This command sets the maximum number of multi-hosts.

Syntax

```
config ethernet <slot/port> eapol max-multi-hosts <int value
1-8>
```

config ethernet eapol allow-non-eap-clients

This command allows non-EAP clients for ethernet EAPOL.

Syntax

```
config ethernet <slot/port> eapol allow-non-eap-clients
<enable/disable>
```

config ethernet eapol max-non-eap-clients

This command specifies the maximum number of non-EAP clients.

Copyright © 2007, Nortel Networks

Syntax

```
config ethernet <slot/port> eapol max-non-eap-clients <int
value 1-8>
```

config ethernet eapol non-eap-mac add

This command configures EAPOL for a non-EAP MAC Address.

Syntax

```
config ethernet <slot/port> eapol non-eap-mac add <mac-addr>
```

config ethernet eapol non-eap-mac remove

This command removes the MAC Address of a non-EAP MAC address.

Syntax

```
config ethernet <slot/port> eapol non-eap-mac remove
<mac-addr>
```

config ethernet eapol non-eap-mac clear

This command clears all non-EAP MAC Addresses.

Syntax

```
config ethernet <slot/port> eapol non-eap-mac clear
```

config ethernet eapol non-eap-mac info

This command specifies information for a non-EAP MAC Address.

Syntax

```
config ethernet <slot/port> eapol non-eap-mac info
```

config ethernet filter

This command configures an ethernet filter.

Syntax

```
config ethernet <port> filter
```

where

port specifies the port in the portlist form.

Copyright © 2007, Nortel Networks

Parameters

This command includes the following parameters:

config ethernet <port> filter followed by:	
create <acg-id>	Creates an ethernet filter.
delete	Deletes an ethernet filter.
modify<acg-id>	Changes information about an ethernet filter.
info	Displays ethernet information for the selected port.

config ethernet lldp

This command sets the LLDP port parameters.

Syntax

```
config ethernet lldp <portlist> lldp [status {rx | txAndRx| tx |disabled}]
```

Parameters

This command includes the following parameters:

config ethernet lldp followed by:	
[status {rx | txAndRx| tx |disabled}]	Sets the LLDPU transmit and receive status on the ports • rx: enables LLDPU receive only • txAndRx: enables LLDPU transmit and receive • tx: enables LLDPU transmit only • disabled: disables LLDPU transmit and receive on the ports (default value is txAndRx)

config ethernet lldp info

This command displays the lldp configuration per port.

Syntax

```
config ethernet <portlist> lldp info
```


Copyright © 2007, Nortel Networks

Parameters

This command includes the following parameters:

config ethernet lldp info followed by:	
<portlist>	Specifies the port in the portlist form {slot/port[-slot/port][, ...]}

config ethernet lldp tx-tlv

This command set the optional Management TLVs to be included in the transmitted LLDPDUs.

Syntax

```
config ethernet <portlist> lldp tx-tlv [port-desc
<enable|disable> ] [sys-name <enable|disable>] [sys-desc
<enable|disable>] [sys-cap <enable|disable>] [local-mgmt-addr
<enable|disable>]
```

Parameters

This command includes the following parameters:

config ethernet lldp tx-tlv followed by:	
[port-desc <enable|disable>]	Enables and disables transmission of the port description TLV (default value is disabled
[sys-name <enable|disable>]	Enables and disables transmission of the system name TLV (default value is disabled)
[sys-desc <enable|disable>]	Enables and disables transmission of the system description TLV (default value is disabled)
[sys-cap <enable|disable>]	Enables and disables transmission of the system capabilities TLV (default value is disabled)
[local-mgmt-addr <enable|disable>]	Enables and disables transmission of the local management address TLV (default value is disabled)

config ethernet lldp tx-tlv info

This command displays the optional tlv settings per port.

Syntax

```
config ethernet <portlist> lldp tx-tlv info
```


Copyright © 2007, Nortel Networks

Parameters

This command includes the following parameters:

config ethernet lldp tx-tlv info followed by:	
<portlist>	Specifies the ports in the portlist form {slot/port[-slot/port][, ...]}.

config ethernet lldp tx-tlv dot1

This command sets the optional IEEE 802.1 organizationally-specifc TLVs to be included in the transmitted LLDPDUs.

Syntax

```
config ethernet <portlist> lldp tx-tlv dot1 [port-vlan-id
<enable|disable>] [vlan-name <enable|disable>] [port-protocol
-vlan-id <enable|disable>] [protocol-identity [EAP | LLDP |
STP] <enable|disable>]
```

Parameters

This command includes the following parameters:

config ethernet lldp tx-tlv dot1 followed by:	
[port-vlan-id <enable|disable>]	Enables and disables transmission of the Port VLAN ID TLV (default value is false: not included)
[vlan-name <enable|disable>]	Enables and disables transmission of the VLAN Name TLV (default value is none)
[port-protocol-vlan-id <enable|disable>]	Enables and disables transmission of the Port and Protocol VLAN ID TLV (default value is none)
[protocol-identity [EAP | LLDP | STP] <enable|disable>]	Enables and disables transmission of the Protocol Identity TLV (default value is none)

config ethernet lldp tx-tlv dot1 info

This command displays dot1 tlv settings per port.

Syntax

```
config ethernet <portlist> lldp tx-tlv dot1 info
```


Copyright © 2007, Nortel Networks

Parameters

This command includes the following parameters:

config ethernet lldp tx-tlv dot1 info followed by:	
<portlist>	Specifies the ports in the portlist form {slot/port[-slot/port][, ...]}.

config ethernet lldp tx-tlv dot3

This command specifies the optional IEEE 802.3 organizationally-specifc TLVs to be included in the transmitted LLDPDUs.

Syntax

```
config ethernet <portlist> lldp tx-tlv dot3 [mac-phy-config-status <enable|disable>] [mdi-power-support <enable|disable>] [link-aggregation <enable|disable>] [maximum-frame-size <enable|disable>]
```

Parameters

This command includes the following parameters:

config ethernet lldp tx-tlv dot3 followed by:	
[mac-phy-config-status <enable|disable>]	Enables and disables transmission of the MAC/Phy Configuration/Status TLV (default value is disabled)
[mdi-power-support <enable|disable>]	Enables and disables transmission of the Power Via MDI TLV (default value is disabled)
[link-aggregation <enable|disable>]	Enables and disables transmission of the Link Aggregation TLV (default value is disabled)
[maximum-frame-size <enable|disable>]	Enables and disables transmission of the Maximum Frame Size TLV (default value is disabled)

config ethernet lldp tx-tlv dot3 info

This command displays the dot3 tlv settings per port.

Syntax

```
config ethernet <portlist> lldp tx-tlv dot3 info
```


Copyright © 2007, Nortel Networks

Parameters

This command includes the following parameters:

config ethernet lldp tx-tlv dot3 info followed by:	
<portlist>	Specifies the ports in the portlist form {slot/port[-slot/port][, ...]}.

config ethernet lldp tx-tlv med

This command specifies the optional organizationally-specific TLVs for use by MED devices to be included in the transmitted LLDPDUs.

Syntax

```
config ethernet <portlist> lldp tx-tlv med [extendedPSE
<enable|disable>] [location <enable|disable>] [network-policy
<enable|disable>]
```

Parameters

This command includes the following parameters:

config ethernet lldp tx-tlv med followed by:	
[extendedPSE <enable|disable>]	Enables and disables transmission of the Extended PSE TLV (default value is disabled)
[location <enable|disable>]	Enables and disables transmission of the Location Identification TLV (default value is disabled
[network-policy <enable|disable>]	Enables and disables transmission of the Network Policy TLV (default value is disabled)

config ethernet lldp tx-tlv med info

This command displays the MED tlv settings per port.

Syntax

```
config ethernet <portlist> lldp tx-tlv med info
```


Copyright © 2007, Nortel Networks

Parameters

This command includes the following parameters:

config ethernet lldp tx-tlv med info followed by:	
<portlist>	Specifies the ports in the portlist form {slot/port[-slot/port][, ...]}.

config ethernet lldp location-identification civic-address

This command sets the LLDP civic address parameters, use the following command:

Syntax

```
config ethernet <portlist> lldp location-identifica
tion civic-address [country-code] [additional-code]
[additional-information] [apartment] [block] [building]
[city] [city-district] [county] [floor] [house-number]
[house-number-suffix] [landmark] [leading-street-direction]
[name] [p.o.box] [place-type] [postal-community-name]
[postal-zip-code] [room-number] [state] [street]
[street-suffix] [trailing-street-suffix]
```

Parameters

This command includes the following parameters:

config ethernet lldp location-identification civic-address followed by:	
[country-code]	Country code value
[additional-code]	Additional code
[additional-information]	Additional location information
[apartment]	Unit (apartment, suite)
[block]	Neighborhood, block
[building]	Building (structure)
[city]	City, township, shi (JP)
[city-district]	City division, city district, ward
[county]	County, parish, gun (JP), district (IN)
[floor]	Floor
[house-number]	House number.
[house-number-suffix]	House number suffix
[landmark]	Landmark or vanity address
[leading-street-direction]	Leading street direction

Copyright © 2007, Nortel Networks

config ethernet lldp location-identification civic-address followed by:	
[name]	Residence and office occupant
[p.o.box]	Post office box
[place-type]	Office
[postal-community-name]	Postal community name
[postal-zip-code]	Postal zip code
[room-number]	Room number
[state]	National subdivisions (state, canton, region)
[street]	Street
[street-suffix]	Street suffix
[trailing-street-suffix]	Trailing street suffix

config mlt perform-tagging

This command configures tagging for the ports in a link aggregation group.

Syntax

```
config mlt <mid> perform-tagging <enable|disable>
```

Parameter

This command includes the following parameters:

Parameters	Description
<mid>	A value that uniquely identifies the link aggregation group. • For 8348 modules, allowable MIDs are 1-7. • For 8324 modules, allowable MIDs are 1-31.
perform-tagging <enable|disable>	Configures tagging for all ports in the link aggregation group. • **Enable:** Enables tagging. • **Disable:** Disables tagging.

config ethernet nsna

This command configures NSNA on ports.

Copyright © 2007, Nortel Networks

where

<ports> uses the convention {slot/port[–slot/port][,...]}.

Syntax

config ethernet ports nsna

Parameters

This command includes the following parameters:

config ethernet <ports> nsna **followed by:**	
disable	Enables or disables the NSNA state of the port.
dynamic [voip-vlans <value>]	Sets the NSNAS 4050 dynamic port configuration. • **<value>** is the VoIP VLAN IDs (vlan-id[-vlan-id][,...]).
info	Shows the current NSNA settings for the port.
uplink uplink-vlans <value>	Defines the NSNAS 4050 uplink VLAN list. • **<value>** is the NSNA VLAN IDs (vlan-id[-vlan-id][,...]).

config ethernet qos

Use this command to configure the QoS level on ports. The default is level 1, and level 7 is reserved for network traffic.

Syntax

config ethernet <ports> qos

where

ports specifies the ports to be configured.

Copyright © 2007, Nortel Networks

Parameter

This command includes the following options:

config ethernet <ports> qos **followed by:**	
info	Displays the QoS configuration information for the selected ports.
8021p-override <enable|disable>	Enables the Differentiated Service IEEE 802.1P override feature. The default is disable.
qos-level <level>	Sets the QoS level (0 to 7) associated with the traffic service class. The default is 0.
shaper [<enable|disable>] [rate <value>] [burst-size <value>]	Enables or disables shaper on the port. The default is disable. • **[rate <value>]** sets the shaping rate in Mbps. ***Note:*** The actual shaping rate might be different from the configured rate due to the rate granularity of the shaper. The range is from 1 to 10000, and the default is **10**. **[burst-size <value>]** sets the burst size in Kbps. ***Note:*** The actual burst size might be different from the configured size due to the granularity of the shaper. The range is from 4 to 16000, and the default is **4**.
trust-dscp <enable|disable>	Enables or disables DSCP being trusted in an IPv4/6 packet. When enabled, the **dscp-to-cos-map** will be used to decide on packet's traffic class and 802.1p value. This allows applications to activate Layer-3 based CoS on trusted interface. Default is disabled. ***Note 1:*** Trust DSCP can only be enabled on either 8348GTX or 8348GTX-PWR modules ***Note 2:*** Trust DSCP should be enabled on filter associated with same port for consistent trusting of DSCP. See *Configuring QoS and Filters using the CLI* .(317339-C) on page 166 for details.

Copyright © 2007, Nortel Networks

config ethernet <ports> qos followed by:	
update-dynamic-mac-qos-level <enable|disable>	Enables or disable updating of the qos level. The default is disable.

config ethernet slpp

This command configures SLPP on a port.

Syntax

config ethernet <portlist> slpp

where

<portlist> is the slot/port.

Parameters

This command includes the following parameters:

config ethernet <portlist> slpp followed by:	
packet-rx <enable|disable>	Enables or disables SLPP packet reception on the listed ports.
packet-rx-threshold <integer>	Specifies the SLPP reception threshold on the ports. The threshold is an integer with a range of 1 to 500. The default value is 1.
info	Shows current level parameter settings and next level directories.

config ethernet smlt

This command creates a single port SMLT.

Syntax

config ethernet <port> smlt <smltid>

where

- <port> is the port number

Copyright © 2007, Nortel Networks

- <smltit> is the SMLT ID

Parameters

This command includes the following parameters:

config ethernet smlt **followed by:**	
info	Shows the port SMLT information.
create	Creates a single port SMLT
delete	Deletes single port SMLT.

config ethernet stg

This command configures parameters for the ports in a specified Spanning Tree Group (STG).

Syntax

config ethernet <ports> stg <sid>

where

- **ports** specify the ports in the portlist form {**slot/port[-slot/port]**[, ...]}.
- **sid** is the spanning tree group ID, which has a number range of 1 to 64.

Note: Ports must have tagging enabled to belong to multiple spanning tree groups.

Parameters

This command includes the following parameters:

config ethernet <ports> stg <sid> **followed by:**	
info	Displays current settings for the port spanning tree group.
faststart <enable|disable>	Enables or disables the FastStart feature. When FastStart is enabled, the port goes through the normal listening and learning states before forwarding, but the hold time for these states is the bridge hello timer (2 seconds by default) instead of the bridge forward delay timer (15 seconds by default).

Copyright © 2007, Nortel Networks

config ethernet <ports> stg <sid> **followed by:**	
change-detection <enable|disable>	Enables or disables topology change detection for the specified spanning tree. The default is enable.
pathcost <intval>	Sets the contribution of this port to the path cost. • <intval> is the cost (1 to 65535).
priority <intval>	Sets the priority of this port. • <intval> is the priority (0 to 255).
stp <enable|disable>	Enables or disables the spanning tree protocol. ***Note:*** Nortel Networks recommends enabling FastStart as an alternative to disabling spanning tree protocol on an individual port.

config ethernet unknown-mac-discard

This command discards the unknown source mac frames.

Syntax

config ethernet <port> unknown-mac-discard

where

port specifies the port in the portlist form.

config ethernet vct

This command initiates a virtual cable test or displays Virtual Cable Tester (VCT) information for a specified ethernet port.

Syntax

config ethernet <slot/port> vct

where

slot/port specifies the port in the portlist form.

Copyright © 2007, Nortel Networks

Parameters

This command includes the following parameters:

config ethernet <slot/port> vct followed by:	
info	Displays the results of the last virtual cable test.
test	Starts a virtual cable test on the specified port.

config filter acl create

Use this command to create a new Access Control List (ACL), an ordered list of filter rules.

Syntax

config filter acl <acl-id> create <acl-type> [acl-name <value>] [act-id <act-id>]

where

- **<acl-id>** is a unique identifier (from 1 to 512) for this ACL entry.
- **<acl-type>** specifies the type of ACL: IP or non-IP

  Note: ACLs can be of either type, access control entities (ACEs) have the capability to match packets classified as 'ip' (ip header and below) or 'non-ip' (ethernet header).

For example, to filter out all ping requests (protocol icmp), you would create an 'ip' ACL to inspect the IP header of the packet. Similarly, to permit ARP messages (ether-type).

Parameter

This command includes the following options:

config filter acl <acl-id> create <acl-type> followed by:	
info	Displays information on the selected ACL.

Copyright © 2007, Nortel Networks

config filter acl <acl-id> create <acl-type> **followed by:**	
acl-name <*value*>	A descriptive name that identifies this ACL. If you do not assign a name, the system automatically assigns one.
act-id <*act-id*>	Identifies the access control template (ACT) bound to this interface. The range is 1 to 2. ***Note:*** The rules in the ACL specified in AclIdList must be a subset of the values defined in the ACT entry.

config filter acl action

Use this command to create an Access Control Entity (ACE).

Syntax

config filter acl <acl-id> ace <ace-id> action <mode> [trust-dscp <value>] [remark-dscp <value>] [remark-user-priority <value>] [police <value][<ace-name>] [<next-hop>] [<unreachable>] [precedence <value>] [traffic-type <value>]

where

- **<acl-id>** is a unique identifier (from 1 to 512) for this ACL entry.
- **<ace-id>** is a unique identifier (from 1 to 256) for this ACE entry.

Note: This command creates the ACE with a mode of 'deny'. The 'ace <ace-id> action command is used to modify the mode.

Parameter

This command includes the following options:

followed by: **config filter acl <acl-id> <ace-id> action <mode>**

Copyright © 2007, Nortel Networks

remark-dscp <value>	Causes DSCP to remark nonstandard traffic classes so it uses a local per hop behavior (PHB). **<value>** is one of the following choices: • disable phbcs0 phbcs1 phbaf11 • phbaf12 phbaf13 phbcs2 phbaf21 • phbaf22 phbaf23 phbcs3 phbaf31 • phbaf32 phbaf33 phbcs4 phbaf41 • phbaf42 phbaf43 phbcs5 phbef • phbcs6 phbcs7 The default setting is disable.
remark-user-priority <value>	Sets the User Priority as described by Layer 2 standards: 802.1Q, 802.1p. **value** is one of the following choices: • disable | zero | one | ... | seven • 0 ... 7 The default setting is **disable**.
police <value>	**police <value>** sets the desired policing profile identifier in the range from 0 to 128. When policing is not desired, set to disable (0).
<ace-name>	**<ace-name>** is a string that names the ACE. If you do not assign a name, the system automatically assigns one.

Copyright © 2007, Nortel Networks

followed by: **config filter acl <acl-id> <ace-id> action <mode>**	
<next-hop>	**<next-hop>** is an IP address **{a.b.c.d}**. This value redirects matching IP traffic to the next hop, as specified by this IP address.
<unreachable>	**<unreachable>** sets the behavior for redirected traffic when the specified next hop is not reachable. This value is {**deny**|**permit**}. The default setting is **deny**.
trust-dscp <value> <enable | disable>	Specifies trust packet's dscp and map to CoS.
precedence <value>	**precedence** sets the order for when each ACE is applied within an ACL. This value is in the range from 1 to 256. An ACL can contain multiple ACEs that match a packet. The lower the value that you assign to an ACE increases its order of precedence. For example, the highest precedence that you can assign to an ACE is 1, and the lowest precedence (256) is reserved for the default ACE.
traffic-type <value>	This value indicates the type of packets that the ACE is set to match. • <value> can be {all | bridged | routed | tagged | untagged | tagged-bridged | tagged-routed | untagged-bridged | untagged-routed } • all- matched all traffic-types; bridged, routed, tagged, untagged, tagged-bridged, tagged-routed, untagged-bridged, untagged-routed. • **bridged**-matches bridged packets. • **routed**-matches IPv4 unicast routed packets. • tagged-matches all tagged packets untagged-matches all untagged packets • tagged-bridged - matches all tagged bridged packets

Copyright © 2007, Nortel Networks

followed by: **config filter acl <acl-id> <ace-id> action <mode>**	
	• tagged-routed - matches all tagged routed packets • untagged-bridged - matches all untagged bridged packets • untagged-routed - matches all untagged routed packets. The default setting is **all**.

config filter acl debug

Use this command to debug an Access Control Entity (ACE).

Syntax

config filter acl <acl-id> ace <ace-id> debug

where

- **<acl-id>** is a unique identifier (from 1 to 512) for this ACL entry.
- **<ace-id>** is a unique identifier (from 1 to 256) for this ACE entry.

Parameter

This command includes the following options:

config filter acl <acl-id> ace <ace-id> debug **followed by:**	
match-count <value>	Counts the packets and octets of matching traffic from all ports where the list is active. *value* is one of the following choices: • **disable-**Set this mode when counters are not required. This is the default. • **bytes-pkts-**Set this mode when the count of octets is accurately required. • **kbytes-pkts-**Set this mode when the octets count is desired in kilobytes.

Copyright © 2007, Nortel Networks

config filter acl <acl-id> ace <ace-id> debug **followed by:**	
	Note: There is potential for an overflow of the octet counter. For example, consider an interface with a forwarding rate of 17 million 64-byte pkts per second. If the statistics are accumulated from 10 such interfaces in a 64-bit counter, the counter could overflow in approximately a year.
mirror <value>	Mirrors packets to an interface specified by <value>. <value> is {enable | disable}

config filter acl delete

Use this command to delete an Access Control List (ACL) or an Access Control Entity (ACE).

Syntax

```
config filter acl <acl-id> delete
config filter ace <ace-id> delete
```

where

- <acl-id> is a unique identifier (from 1 to 512) for this ACL entry.
- <ace-id> is a unique identifier (from 1 to 255) for this ACE entry.

Note: Executing this command will also delete all associated ACEs.

config filter acl ethernet

Use this command to configure the Ethernet values of an Access Control Entity (ACE).

Syntax

```
config filter acl <acl-id> ace <ace-id> ethernet
```

where

- <acl-id> is a unique identifier (from 1 to 512) for this ACL entry.
- <ace-id> is a unique identifier (from 1 to 512) for this ACE entry.

Copyright © 2007, Nortel Networks

Parameter

This command includes the following options:

config filter acl <acl-id> ace <ace-id> ethernet **followed by:**	
src-mac <value> <ace-op> <src-mac>	Specifies the MAC source address <value>to match {aa:bb:cc:dd:ee:ff} <ace-op> specifies the logical operator: {any|eq|ne|le|ge|range|mask}. The default is any. <src-mac> sets the mask or higher address for MAC source address, when <ace-op> is set to mask or range.
dst-mac <value> <ace-op> <dst-mac>	Specifies the MAC destination address <value>to match {aa:bb:cc:dd:ee:ff} <ace-op> specifies the logical operator: {any|eq|ne|le|ge|range|mask}. The default is any. <dst-mac> sets the mask or higher address for MAC source address, when <ace-op> is set to mask or range.
ether-type <value>	Specifies the EtherType value from the Ethernet header. • **ip** • **arp** • **rarp** • **appleTalk** • **decLat** • **ipv6** • **0 - 65535** • **0x0 - 0xffff** • **any** (range 0-65535)

Copyright © 2007, Nortel Networks

config filter acl <acl-id> ace <ace-id> ethernet **followed by:**	
	The default is **any**.
vlan-id <value>	Specifies the VLAN ID to match. value is 0 to 4095. The default is 0.
anyvlan	Sets the mode to match 'any' VLAN ID. This is the default mode for VLAN ID matching.
user-priority <value>	Specifies the 802.1Q .p bit to match.. **<value>** is one of the following choices: • disable | zero | one | ... | seven • 0 ... 7 • 0x0 ... 0x07 The default setting is **disable**.

config filter acl ip

Use this command to configure IP values of an Access Control Entity (ACE).

Syntax

config filter acl <acl-id> ace <ace-id> ip

where

- **<acl-id>** is a unique identifier (from 1 to 512) for this ACL entry.
- **<ace-id>** is a unique identifier (from 1 to 256) for this ACE entry.

Copyright © 2007, Nortel Networks

Parameter

This command includes the following options:

config filter acl <acl-id> ace <ace-id> ip **followed by:**	
src-ip <value> <ace-op> <src-ip>	Specifies the IP source address to match **{a.b.c.d} from the IP header**. **<ace-op>** specifies the logical operator: {**any**|**eq**|**ne**|**le**|**ge**|**range**|**mask**}. The default is **any**. **<src-ip>** sets the mask or higher address for the IP source address, when **ace-op** is set to mask or range.
dst-ip <value> <ace-op> <dst-ip>	Specifies the IP destination address to match {a.b.c.d} from the IP header. **<ace-op>** specifies the logical operator: **{any|eq|ne|le|ge|range|mask}**. The default is **any**. **<dst-ip>** sets the mask or higher address for the IP destination address, when: **ace-op** is set to mask or range.
dscp <value> <ace-op> dscp-pair <value>	Specifies the DSCP to match. **<value>** is one of the following choices: disable phbcs0 phbcs1 phbaf11 phbaf12 phbaf13 phbcs2 phbaf21 phbaf22 phbaf23 phbcs3 phbaf31 phbaf32 phbaf33 phbcs4 phbaf41

Copyright © 2007, Nortel Networks

config filter acl <acl-id> ace <ace-id> ip **followed by:**	
	phbaf42 phbaf43 phbcs5 phbef phbcs6 phbcs7 0 ... 63 0x0 ... 0x3f The default setting is **disable**. **<ace-op>** specifies the logical operator: {**any**|**eq**|**ne**|**lt**|**gt**|**range**|**mask**}. The default is **any**. **dscp-pair <value>** sets the mask or higher address for the DSCP pair value, when**ace-op** is set to mask or range.

config filter acl port

Use this command to configure the port values of an Access Control Entity (ACE).

Syntax

config filter acl <acl-id> ace <ace-id> port

where

- **<acl-id>** is a unique identifier (from 1 to 512) for this ACL entry.
- **<ace-id>** is a unique identifier (from 1 to 255) for this ACE entry.

Note: The protocol must be set prior to configuring port values.

Copyright © 2007, Nortel Networks

Parameter

This command includes the following options:

config filter acl <acl-id> ace <ace-id> port **followed by:**	
src-port <value> <ace-op> **src-port-pair <value>**	Specifies the TCP or UDP source port to match. • **<ace-op>** specifies the logical operator: **{any|eq|ne|lt|gt|range|mask}**. The default is any. • <*src-port*> set the mask or higher source port, when: ace-op is set to mask or range
dst-port <value> <ace-op> **dst-port-pair <value>**	Specifies the TCP or UDP destination port to match. <value> is one of the following: • {any | bgp | bootstrap | bootpd-dhcp | dns | echo | ftpcontrol | ftpdata | hdot323 | http | rip | rtp | rtcp | ssh | telnet | tftp } • 0 - 65535 • 0x0 - 0xffff <*ace-op*> specifies the logical operator: {any|eq|ne|le|ge|range|mask}. The default is any. **dst-port-pair <value>** sets the mask or higher address for the TCP or UDP destination port, when **ace-op** is set to mask or range.

config filter acl protocol

Use this command to configure the protocol values of an Access Control Entity (ACE).

Copyright © 2007, Nortel Networks

Syntax

config filter acl <acl-id> ace <ace-id> protocol <ip-protocol>

where

- **<acl-id>** is a unique identifier (from 1 to 512) for this ACL entry.
- **<ace-id>** is a unique identifier (from 1 to 256) for this ACE entry.
- **<ip-protocol>** is the protocol name: {**any** | **icmp** | **ipsecah** | **ipsecesp** | **ospf** | **tcp** | **udp** | **vrrp**|0x0...0xff or 0...255}

Parameter

This command includes the following options:

config filter acl <acl-id> ace <ace-id> protocol <ip-protocol> **followed by:**	
<ace-op> <ip-protocol>	**<ace-op>** specifies the logical operator: {**any** | **eq** | **ne** | **le** | **ge** | **range** | **mask**}. The default is any. **<ip-protocol>** sets the mask or higher protocol, when: **ace-op** is set to mask or range.
icmp <value>	When the needed ICMP message type and code are not in the enumerated list, this variable sets the expected ICMP type and code values as 16-bit value encoding the 8 bits of icmp-type in MSB and 8 bits of icmp-code in LSB. **<value>** is one of the following choices: • **echoreply** • **redirect** • **echorequest** • **any--**outside the range • 0 - 65535 • 0x0 - 0xffff The default is **any**.

Copyright © 2007, Nortel Networks

config filter acl <acl-id> ace <ace-id> protocol <ip-protocol> **followed by:**	
flags-tcp <value> **mask-flags-tcp <value>**	Matches one or more TCP flags from the TCP header. **<value>** is one of the following choices: • fin • **syn** • **rst** • **push** • **ack** • **urg** • **any** • none • - 0 - 63 • - 0x0 - 0x3f The default is **any** **mask-flags-tcp <value>** displays the mask used to ignore particular TCP flags. Mask setting should not mask-off the bits required for the selection in **tcp-flags <value>**. The default is **63**.

config filter acg create

Use this command to create an Access Control Group (ACG).

Syntax

config filter acg <acg-id> create

where

<acg-id> is a unique identifier (from 1 to 1024) for this ACG entry.

Copyright © 2007, Nortel Networks

Parameter

This command includes the following options:

config filter acg <acg-id> create followed by:	
info	Displays information on the selected ACG.
acl-id-list	Identifies the ACL to add to the ACG entry.
acg-name <value>	A descriptive name that identifies this ACG. If you do not assign a name, the system automatically assigns one.

config filter acg delete

Use this command to delete an Access Control Group (ACG).

Syntax

config filter acg <acg-id> delete

where

<acg-id> is a unique identifier (from 1 to 1024) for this ACG entry.

config filter acg modify

Use this command to modify an Access Control Group's (ACG) acl-id-list.

Syntax

config filter acg <acg-id> modify

where

<acg-id> is a unique identifier (from 1 to 1024) for this ACG entry.

Parameter

This command includes the following options:

config filter acg <acg-id> modify followed by:	
<acl-id-list>	Identifies the ACL to add to the ACG entry.
acg-name <value>	A descriptive name that identifies this ACG. If you do not assign a name, the system automatically assigns one.

Copyright © 2007, Nortel Networks

config filter act ethernet

Use this command to create or modify an Ethernet Access Control Template (ACT).

Syntax

config filter act <act-id> ethernet <acl-type>

where

- **<act-id>** is a unique identifier (from 1 to 2) for this ACT.
- **<acl-type>** specifies the type of ACL: IP or non-IP. ACLs can be of either type because access control entities (ACEs) have the capability to match packets classified as 'ip','non-ip'.

Parameter

This command includes the following options:

config filter act <act-id> ethernet <acl-type> **followed by:**	
act-id	Identifies the access control template (ACT). The range is 1 to 2. The default is 1. ***Note:*** Partial masking is not supported. Masks must be defined as either all 0's or all 1's.
src-mac <value>	Specifies a mask for the source MAC address. This mask is used by the ACEs that are members of the ACLs using this ACT. ***Note 1:*** A MAC address with all zeros indicates this value is not desired in the match criteria. ***Note 2:*** Partial masking is not supported. Masks must be defined as either all 0's or all 1's.

Copyright © 2007, Nortel Networks

config filter act <act-id> ethernet <acl-type> **followed by:**	
dst-mac <value>	Specifies a mask for the destination MAC address. This mask is used by the ACEs that are members of the ACLs using this ACT. ***Note 1:*** A MAC address with all zeros indicates this value is not desired in the match criteria. ***Note 2:*** Partial masking is not supported. Masks must be defined as either all 0's or all 1's.
ether-type <*value*>	Specifies a mask for the Ether type value to match. The range for this value is from 0 to 65535 or 0x0 to 0xffff. ***Note 1:*** An Ether type of zero indicates this value is not desired in the match criteria. ***Note 2:*** Partial masking is not supported. Masks must be defined as either all 0's or all 1's.
vlan-mask <*value*>	Specifies a mask for both the VLAN ID and User-priority. To specify VLAN id only, use a mask of 0x0fff. To specify user-priority only, use a mask of 0xf000. To include both VLAN ID and user-priority, use a mask of 0xffff. ***Note 1:*** A value of zero indicates the VLAN Tag information is not desired in the match criteria. ***Note 2:*** Partial masking is not supported. Masks must be defined as either all 0's or all 1's.
name <value>	A descriptive name that identifies this ACT. If you do not assign a name, the system automatically assigns one. ***Note:*** Partial masking is not supported. Masks must be defined as either all 0's or all 1's.

Copyright © 2007, Nortel Networks

config filter act ip

Use this command to create or modify an IP Access Control Template (ACT).U

Syntax

config filter act <act-id> ip <acl-type>

where

- **<act-id>** is a unique identifier (from 1 to 2) for this ACT.
- **<acl-type>** specifies the type of ACL: IP or non-IP. ACLs can be of either type because access control entities (ACEs) have the capability to match packets classified as 'ip','non-ip'.

Parameter

This command includes the following options:

config filter act <act-id> ip <acl-type> **followed by:**	
<src-mask>	Specifies a mask for the IP source address value to match. The range for this value is 0.0.0.0 to 255.255.255.255. ***Note 1:*** An IP address with all zeros indicates this value is not desired in the match criteria. ***Note 2:*** Partial masking is not supported. Masks must be defined as either all 0's or all 1's.
<dst-mask>	Specifies a mask for the destination IP address. The range for this value is 0.0.0.0 to 255.255.255.255. ***Note 1:*** Partial masking is not supported. Masks must be defined as either all 0's or all 1's. ***Note 2:*** A destination IP address with all zeros indicates this value is not desired in the match criteria.

Copyright © 2007, Nortel Networks

config filter act <act-id> ip <acl-type> **followed by:**	
protocol<*value*>	Specifies a mask for the protocol value in the IP header to match. The range for this value is from 0 to 255 or 0x0 to 0xff. ***Note 1:*** Partial masking is not supported. Masks must be defined as either all 0's or all 1's. ***Note 2:*** A value of zero indicates this value is not desired in the match criteria.
tos<*value*>	Specifies a mask for the TOS byte (DSCP value) in the IP header to match. DSCP is encoded in the 6 most significant bits of the ToS byte (see RFC 2474). The range for this value is from 0 to 255 or 0x0 to 0xff.. ***Note 1:*** Partial masking is not supported. Masks must be defined as either all 0's or all 1's. ***Note 2:*** A value of zero indicates this value is not desired in the match criteria.
src-port <value>	Specifies a mask for the source TCP/UDP port in TCP/UDP header to match. The range for this value is from 0 to 65535 or 0x0 to 0xffff. ***Note 1:*** Partial masking is not supported. Masks must be defined as either all 0's or all 1's. ***Note 2:*** A value of zero indicates this value is not desired in the match criteria.

Copyright © 2007, Nortel Networks

config filter act <act-id> ip <acl-type> **followed by:**	
dst-port <value>	Specifies a mask for the destination TCP/UDP port in TCP/UDP header to match. The range for this value is from 0 to 65535 or 0x0 to 0xffff. ***Note 1:*** Partial masking is not supported. Masks must be defined as either all 0's or all 1's. ***Note 2:*** A value of zero indicates this value is not desired in the match criteria.
tcp-flags <value>	Specifies a mask for the 6 bits in the TCP flags value in the TCP header to match. The range for this value is from 0 to 65535 or 0x0 to 0xffff. ***Note 1:*** Partial masking is not supported. Masks must be defined as either all 0's or all 1's. ***Note 2:*** A value of zero indicates this value is not desired in the match criteria.
icmp <value>	Specifies a mask for the ICMP message Type and Code to match. The 8-bit Type value is encoded in the MSB and the 8-bit Code value is encoded in the LSB. The range for this value is from 0 to 65535 or 0x0 to 0x3f. ***Note 1:*** Partial masking is not supported. Masks must be defined as either all 0's or all 1's. ***Note 2:*** A value of zero indicates this value is not desired in the match criteria.

config filter act delete

Use this command to delete an Access Control Template (ACT).

Syntax

config filter act delete <acl-type>

Copyright © 2007, Nortel Networks

where

<acl-type> specifies the type of ACL: IP or non-IP. ACLs can be of either type because access control entities (ACEs) have the capability to match packets classified as 'ip','non-ip'.

config ip

This command configures IP routing on the switch.

Syntax

config ip

Parameters

This command includes the following parameters:

config ip **followed by:**	
info	Displays current config ip info command output.
alternative-route <enable|disable>	Allows you to enable or disable alternative routes. The default value is enabled. ***Note:*** If the alternative-route parameter is disabled, all existing alternative routes are removed. When the parameter is enabled, all alternative routes are added back.
icmp-unreach-msg <enable|disable>	When enabled, allows the generation of Internet Control Message Protocol (ICMP) net unreachable messages if the destination network is not reachable from this router. These messages assist in determining if the routing switch is reachable over the network. The default is disabled.
default-ttl <seconds>	Sets the default time to live (ttl) value for a routed packet. It is the maximum number of seconds before a packet is discarded. • **seconds** is a number between 1 and 255. The default value of 255 is inserted in the ttl field whenever one is not supplied in the datagram header.

config ip arp

This command modifies the Address Resolution Protocol (ARP) parameters on the switch.

Copyright © 2007, Nortel Networks

Syntax

config ip arp

Parameters

This command includes the following parameters:

config ip arp **followed by:**	
info	Displays ARP characteristics.
add ports <value> ip <value> mac <value> [vlan <value>]	Adds a static entry to the ARP table. • **ports value** are the port numbers, shown as {*slot/port*[-*slot/port*][,...]}. • **ip value** is the IP address {a.b.c.d}. • **mac value** is the 48-bit hardware MAC address in the format {0x00:0x00:0x00:0x00:0x00:0x00}. Vlan <value> specifies the VLAN ID to add the static entry. The valid values are 1 to 2000.
aging <minutes>	Sets the length of time in minutes and entry remains in the ARP table before timeout. • **minutes** is a number between 1 and 32767.
delete <ipaddr>	Removes an entry from the ARP table. • **ipaddr** is the IP address in dotted-decimal notation {a.b.c.d}.
multicast-mac-flooding <enable|disable>	An option to choose whether ARP entries for multicast MAC addresses are associated with the VLAN or the port interface on which it was learned. This is useful if multiple end stations or servers are sharing a multicast MAC address as is the case with certain Microsoft network load balancing applications, wherein the traffic is flooded to the VLAN to ensure that every end station using this virtual multicast MAC address is receiving a copy

Copyright © 2007, Nortel Networks

config ip arp followed by:	
	of the stream. Default is disable. This option is not dynamic, in that if the setting of this feature is changed it will not dynamically reprogram all previously learned ARP entries from multicast MAC addresses.

config ip circuitless-ip-int

This command creates a CLIP interface.

Syntax

config ip circuitless-ip-int <id>

where

<id> is an integer value in the range 1 to 32 that indicates the identification number for the specific CLIP interface

This command includes the following parameters:

config ip circuitless-ip-int <id> followed by:	
info	Displays the configured parameters for the CLIP interface.
create <ipaddr/mask>	Creates a CLIP interface. • **<ipaddr/mask>** is the IP address and subnet mask of the CLIP interface.
delete <ipaddr>	Deletes the specified CLIP interface. • **<ipaddr>** is the IP address of the CLIP interface to be deleted.

config ip dhcp-relay

This command specifies configuration of ip dhcp-relay.

Syntax

config ip dhcp-relay

Copyright © 2007, Nortel Networks

config ip dhcp-relay created-fwd-path agent

This command specifies the forward path agent.

Syntax

```
config ip dhcp-relay created-fwd-path agent <ipaddr>
server <ipaddr> [mode <bootp|dhcp|bootp_dhcp>] [state
<enable|disable>]
```

Parameters

This command includes the following parameters:

created-fwd-path agent <ipaddr> **followed by:**	
server <ipaddr>	Specifies the IP address of the DHCP server in the network. If this IP address corresponds to the locally configured IP network, the DHCP packet is broadcast out the interface.
[mode <bootp|dhcp|bootp_dhcp>]	Specifies the mode to forward BootP messages only, DHCP messages only, or both {bootp | dhcp | bootp_dhcp}.
[state <enable|disable>]	Enables or disables the forwarding path.

config ip dhcp-relay enable-fwd-path agent

This command enables the forward path agent by agent and server ip address.

Syntax

```
config ip dhcp-relay enable-fwd-path agent <ipaddr> server
<ipaddr>
```

config ip dhcp-relay disable-fwd-path agent

This command disables the forward path agent.

Syntax

```
config ip dhcp-relay disable-fwd-path agent <ipaddr> server
<ipaddr>
```

config ip dhcp-relay delete-fwd-path agent

This command deletes the forward path agent.

Syntax

```
config ip dhcp-relay delete-fwd-path agent <ipaddr> server
<ipaddr>
```


Copyright © 2007, Nortel Networks

config ip dhcp-relay info mode

This command specifies the information mode.

Syntax

```
config vlan info mode <mode> agent <ipaddr> server <ipaddr>
```

config ip forwarding

This command enable or disables IP forwarding (routing) on the entire switch.

Syntax

```
config ip forwarding
```

Parameters

This command includes the following parameters:

config ip forwarding **followed by:**	
info	Displays current config ip info command output.
disable	Disables IP forwarding (routing) on the entire switch.
enable	Enables IP forwarding (routing) on the entire switch. Default is enable.

config ip igmp generate-log

This command enables or disables an IGMP log.

Syntax

```
config ip igmp generate-log <enable|disable>
```

where

<enable|disable> enables or disables an IGMP log.

config ip igmp generate-trap

Syntax

```
config ip igmp generate-trap <enable|disable>
```

where

<enable|disable> enables or disables an IGMP trap.

config ip igmp interface

Use this command to configure IGMP on an interface.

Copyright © 2007, Nortel Networks

Syntax

config ip igmp interface <ipaddr>

where

ipaddr indicates the IP address of the selected interface.

This command includes the following parameters:

config ip igmp interface <ipaddr> **followed by:**	
info	Displays the access list of the IGMP interface.
fast-leave <enable|disable>	Enables or disables the fast-leave option on the interface.
flush <mrouter|sender| grp-member> [<SenderAddress>] [<GroupAddress>]	Flushes the specified table. ***Note:*** The optional *SenderAddress* and *GroupAddress* parameters are valid only if the flush action is sender. For example: flush sender 239.1.0.0 flush grp-member
last-memb-query-int 1/10 seconds	Specifies the maximum response time inserted into group-specific queries sent in response to leave group messages and is also the amount of time between group-specific query messages.
proxy-snoop <enable|disable>	Enables or disables the proxy-snoop option for the VLAN. ***Note:*** When IGMP report messages come from different clients, all of these messages are sent to the querier. If you enable IGMP proxy snoop, then only one report message is sent to the querier for that group. As a result, this parameter allows you to suppress control messages going to the CPU.
query-interval <seconds>	Sets the frequency (in seconds) at which host query packets are transmitted on the interface. • *seconds* is the range from 1 to 65535 with a default of 125.

Copyright © 2007, Nortel Networks

config ip igmp interface <ipaddr> **followed by:**	
query-max-resp 1/10 seconds	Specifies the maximum query response time advertised in IGMPv2 queries on the interface.
robustval <integer>	Allows tuning for the expected packet loss of a network. *integer* an integer value with a range of 2 to 255 seconds. The default value is 2 seconds. Increase the value if you expect the network to experience some packet loss.
router-alert <enable|disable>	Enables or disables the router alert option. When enabled, this parameter instructs the router to drop packets without the router-alert flag in the IP header. ***Note:*** To maximize your network performance, Nortel Networks recommends that you set this parameter according to the version of IGMP currently in use. • IGMPv1 - Disable • IGMPv2 - Enable • IGMPv3 - Enable (Not supported in the Ethernet Routing Switch 8300)
snoop <enable|disable>	Enables or disables the snoop option.
version <integer>	Sets the version of IGMP that you want to configure on this interface. For IGMP to function correctly, all routers on a LAN must use the same version. • *integer* is an integer value with a value of 1, 2 or 3. The default value is 2 (IGMPv2).

config ip igmp interface access-control

This command configures multiaccess control for a selected IGMP interface.

Syntax

```
config ip igmp interface <ipaddr> access-control <name>
```

where

Copyright © 2007, Nortel Networks

<ipaddr> is the IP address of the selected interface.
<name> is the name of the access policy. It can be 1 to 64 characters.

Parameters

This command includes the following parameters:

config ip igmp interface <ipaddr> access-control <name> **followed by:**	
info	Displays the settings for the access-control parameter.
create <HostAddress> <HostMask> {deny-tx|deny-rx|deny-both|allow-only-tx|allow-only-rx|allow-only-both}	Creates an access control group entry for a specific IGMP interface. • **HostAddress** is the IP address of the host. • **HostMask** is the subnet mask used to determine the host or hosts covered by this configuration. You can use the host subnet mask to restrict access to a portion of the network for the host. • **deny-tx|deny-rx|deny-both|allow-only-tx|allow-only-rx|allow-only-both** indicates the action you want for the specified IGMP interface. For example, if you specify deny-both, the interface denies both transmitted and received traffic.
delete <HostAddress> <HostMask>	Deletes the access control group entry for the specified IGMP interface. • **HostAddress** is the IP address of the host. • **HostMask** is the subnet mask used to determine the host or hosts covered by this configuration.
mode <HostAddress> <HostMask> {deny-tx|deny-rx|deny-both|allow-only-tx|allow-only-rx|allow-only-both}	Changes the access control group configuration. • **HostAddress** is the IP address of the host. • **HostMask** is the subnet mask used to determine the host or hosts covered by this configuration.

Copyright © 2007, Nortel Networks

config ip igmp interface <ipaddr> access-control <name> **followed by:**	
	• **deny-tx | deny-rx | deny-both | allow-only-tx | allow-only-rx | allow-only-both** indicates the action you want for the specified IGMP interface. For example, if you specify deny-both, the interface denies both transmitted and received traffic.

config ip igmp interface stream-limit

This command configures multicast stream limitation on a selected interface:

Syntax

config ip igmp interface <ipaddr> stream-limit

where

<ipaddr> indicates the IP address of the selected interface.

Parameters

This command includes the following parameters:

config ip igmp interface <ipaddr> stream-limit **followed by:**	
info	Displays information about the stream limits that are set on this interface.
enable	Enables stream limitation on this interface.
disable	Disables stream limitation on this interface.
max-streams <integer>	Sets the maximum number of allowed streams on this interface. The range is from 0–65535, and the default is 4.

config ip igmp interface stream-limit-members

This command configures multicast stream limitation on ports of the selected interface.

Copyright © 2007, Nortel Networks

Syntax

config ip igmp interface <ipaddr> stream-limit-members

where

<ipaddr> indicates the IP address of the selected interface.

Parameters

This command includes the following parameters:

config ip igmp interface <ipaddr> stream-limit-members **followed by:**	
info	Displays information about the stream limit members set on individual ports for this interface.
enable <ports> max-streams <value>	Enables stream limitation and sets the maximum number of allowed streams for the specified ports on this interface. The number of allowed streams cannot exceed the maximum number for the interface. The range is from 0 to 65535, and the default is 4.
disable <ports>	Disables stream limitation for the specified ports on this interface.
set <ports> max-streams <value>	Sets the maximum number of allowed streams for the specified ports on this interface. The range is from 0 to 65535, and the default is 4.

config ip mroute static-source-group

This command configures a static source-group entry in the PIM multicast routing table.

Syntax

config ip mroute static-source-group <GroupAddress>

where

<GroupAddress> is the IP address of the multicast group.

Copyright © 2007, Nortel Networks

Parameters

This command includes the following parameters:

config ip mroute static-source-group <GroupAddress> **followed by:**	
info	Displays information about the source-group entry configures a static source group.
create <SourceAddress> <SubnetMask>	Creates a new static multicast source-group entry. You cannot create duplicate groups.[1] • **SourceAddress** is the multicast source address for this static source-group entry. How you configure the source address depends on the protocol you are using and in what mode. • **SubnetMask** is the subnet mask of the source for this static source-group entry.
delete <SourceAddress> <SubnetMask>	Deletes the source-group entry from the static source-group table. • **SourceAddress** is the multicast source address for this static source-group entry. • **SubnetMask** is the subnet mask of the source for this static source-group entry.

config ip ospf

This command configures global OSPF parameters.

Copyright © 2007, Nortel Networks

Syntax

```
config ip ospf
```

config ip ospf **followed by:**	
info	Displays the current OSPF configuration on the switch
admin-state <enable|disable>	Globally enables or disables the OSPF administrative status. The default is disable.
as-boundary-router <enable|disable>	Enables or disables the OSPF Autonomous System boundary router.
auto-vlink <enable|disable>	Enables or disables automatic creation of OSPF virtual links when required. The default is disable.
default-metric [ethernet <value>] [fast-ethernet <value>] [gig-ether net <value>]	Sets the OSPF default metrics. The range is 1 to 65535. • ethernet <value> is for 10 Mb/s Ethernet (default is 100). • fast-ethernet <value> is for 100 Mb/s (fast) Ethernet (default is 10). • gig-ethernet <value> is for the Gigabit (gig) Ethernet (default is 1).
disable	Globally disables OSPF on the switch.
enable	Globally enables OSPF on the switch.
holddown <seconds>	Sets the OSPF hold-down timer value in seconds. • seconds is the range of seconds from 3 to 60; the default is 10.
router-id <ipaddr>	Sets the OSPF router ID IP address. • ipaddr is the IP address in a.b.c.d format.
spf-run	This option is used to indicate the number of SPF calculations performed by OSPF.
trap <enable|disable>	Enables or disables issuing traps relating to OSPF.

config ip ospf accept adv-rtr

This command creates, deletes, and obtains information about an OSPF acceptance route policy and to set an OSPF acceptance route policy.

Syntax

```
config ip ospf accept adv-rtr <ipaddr>
```


Copyright © 2007, Nortel Networks

where

ipaddr is the IP address of an OSPF area.

Parameters

This command includes the following parameters:

config ip ospf accept adv-rtr **followed by:**	
info	Displays information about the OSPF acceptance policy settings.
apply	Applies the acceptance settings.
create	Creates an acceptance policy.
delete	Deletes an OSPF acceptance policy.
disable	Disables an OSPF acceptance policy.
enable	Enables an OSPF acceptance policy.
metric-type <type1|type2|any>	Sets the metric type as Type 1, Type 2, or any.
route-policy <policy name>	Sets the acceptance route policy name. • policy name is a string of 0 to 64 characters. A black string deletes the policy.

config ip ospf area

This command controls the OSPF area parameters.

Syntax

config ip ospf area <ipaddr>

where

ipaddr is the address of an OSPF area. Use dotted-decimal notation to specify the area name. You can use any value for the OSPF area name (for example, 1.1.1.1 or 200.200.200.200).

Parameters

This command includes the following parameters:

config ip ospf area **followed by:**	
info	Displays OSPF area characteristics
create	Creates an OSPF area.
delete	Deletes an OSPF area.

Copyright © 2007, Nortel Networks

config ip ospf area followed by:	
import-summaries <true|false>	Sets the area's support for importing summary advertisements into a stub area. This field must be used only if the area stub is set to true.
nssa <true|false>	Sets a not so stubby area (true or false). An NSSA prevents flooding of normal route advertisements into the area by replacing them with a default route.
stub <true|false>	Sets the import external option for this area to be stub or not {true|false}. A stub area has only one exit point (router interface) out of the area.
stub-metric <stub-metric>	Stub default metric for this stub area, which is the cost from 0 to 16777215. This is the metric value applied at the indicated type of service.

config ip ospf area range

This command controls the OSPF area range parameters.

Syntax

config ip ospf area <ipaddr> range <ipadd/'mask>

where

ipaddr is the identification of an OSPF area.

where

ipaddr/mask is the IP address and subnet mask of the range.

Parameters

This command includes the following parameters:

config ip ospf area range followed by:	
info	Displays information about the OSPF area range settings.
advertise-metric <cost> lsa type <value>	Changes the advertised metric cost value of the OSPF area range. • cost is an integer value in the range 0 to 65535, which represents the metric cost value for the OSPF area range. • value is the LSA type {summary-link | nssa-extlink}.

Copyright © 2007, Nortel Networks

config ip ospf area range **followed by:**	
advertise-mode <mode> lsa type <value>	Changes the advertise mode of the range. • mode is the mode value {summarize | suppress | no-summarize} • value is the LSA type {summary-link | nssa-extlink}
create advertise-mode <value> lsa-type <value> [advertise-metric <value>]	Creates an OSPF area range with the specified IP address and advertising mode. • advertise-mode <mode> is the mode value {summarize | suppress |no-summarize} • advertise-metric <value> is the cost in the range of 0 to 65535. • lsa-type <value> is the LSA-type {summary-link|nssa-extlink}
delete lsa type <value>	Deletes an OSPF area range. • lsa type <value> is the LSA type {summary-link | nssa-extlink}.

config ip ospf area virtual-interface

This command configures an OSPF area virtual interface.

Syntax

config ip ospf area <ipaddr> virtual-interface <nbr>

where

ipaddr is the identification of an OSPF area in dotted-decimal notation. You can use any value for the OSPF area name (for example, 1.1.1.1 or 200.200.200.200).

where

nbr is the OSPF router ID of the neighbor in IP address format.

Parameters

This command includes the following parameters:

config ip ospf area virtual-interface **followed by:**	
info	Displays current OSPF area virtual interface information.

Copyright © 2007, Nortel Networks

config ip ospf area virtual-interface **followed by:**	
add-message-digest-key <md5-key-id> md5-key <value>	Adds an md5 key to the interface. At most, two md5 keys can be configured to an interface. At most, you can configure two md5 keys to an interface. • md5-key-id is the ID for the message digest key {1 to 255}. • value is an alphanumeric password of up to 16 bytes {string length 0 to 16}.
authentication-key <authenticatio n-key>	Sets the authentication key. • authentication-key is a string that specifies the key in up to eight characters.
authentication-type <auth-type>	Sets the OSPF authentication type for the OSPF area. • auth-type is none, simple password, or MD5 authentication. If simple, all OSPF updates received by the interface must contain the authentication key specified by the area authentication-key command. If MD5, they must contain the md5 key.
change-primary-md5-key <md5-key-id>	Changes the primary key used for encrypting outgoing packets. • md5-key-id is the ID for the message digest key {1 to 255}.
create	Creates a virtual interface area identifier.
delete	Deletes the virtual interface.
delete-message-digest- key <md5-key-id>	Deletes the specified md5 key ID from the configured md5 keys.
hello-interval <seconds>	Sets the hello interval on the virtual interface for the length of time (in seconds) between the hello packets that the router sends on the interface. • seconds is a value between 1 and 65535. The default is 10.
dead-interval <seconds>	Sets the dead interval for the virtual interface, the number of seconds that a router's hello packets are not seen before its neighbors declare the router down. • seconds is an integer between 1 and 214783647. This value must be at least four times the hello interval value. The default is 60.

Copyright © 2007, Nortel Networks

config ip ospf area virtual-interface **followed by:**	
retransmit-interval <seconds>	Sets the retransmit interval for the virtual interface, the number of seconds between link state advertisement retransmissions. • seconds is an integer between 1 and 3600.
transit-delay <seconds>	Sets the transmit delay for the virtual interface, the estimated number of seconds it takes to transmit a link state update over the interface. • seconds is an integer between 1 and 3600.

config ip ospf host-route

This command configures OSPF host route parameters.

Syntax

config ip ospf host-route <ipaddr>

where

ipaddr is the IP address of the interface in a.b.c.d format.

Parameters

This command includes the following parameters:

config ip ospf host-route **followed by:**	
info	Displays the current OSFP host-route configuration on the switch. "
create [metric <value>]	Creates an OSPF host route for the IP address. value is between 1 and 65535.
create [metric <value>] [area <areaid>]	Creates an OSPF host route for the IP address and Sets the metric (cost) for the host route. value is between 1 and 65535.
delete	Deletes an OSPF host route for the IP address.

config ip ospf interface

This command configures an OSPF interface.

Syntax

config ip ospf interface <ipaddr>

where

ipaddr is the IP address of the interface in a.b.c.d format.

Copyright © 2007, Nortel Networks

Parameters

This command includes the following parameters:

config ip ospf interface **followed by:**	
info	Displays OSPF characteristics for the interface
add-message-digest-key <md5-key-id> md5-key <value>	Adds an md5 key to the interface. At most, two md5 keys can be configured to an interface. Multiple md5 key configurations are used for md5 transitions without bringing down an interface. • md5-key-id is ID for the message digest key {1 to 255} • value is an alphanumeric password of up to 16 bytes {string length 0 to 16}
admin-status <enable|disable> [<if-type>]	Sets the state (enabled or disabled) of the OSPF interface. • if-type is the OSPF interface type {broadcast | passive}
area <ipaddr>	Sets the OSPF interface area. • ipaddr is a dotted-decimal notation to specify the area name. ***Note:*** The area name is not related to an IP address. You can use any value for the OSPF area name (for example, 1.1.1.1 or 200.200.200.200).
authentication-key <authentication-key>	Sets the authentication key for the OSPF interface. • authentication-key is a string that specifies the key in up to eight characters.
authentication-type <auth-type>	Sets the OSPF authentication type for the interface. • auth-type is none, simple password, or MD5 authentication. If simple, all OSPF updates received by the interface must contain the authentication key specified by the interface authentication-key command. If MD5, they must contain the MD5 key.
change-primary-md5-key <md5-key-i d>	Changes the primary key used for encrypting outgoing packets. • md5-key-id is ID for the message digest key {1 to 255}
create [<if-type>]	Creates an OSPF interface. • if-type is the OSPF interface type {broadcast|passive}

Copyright © 2007, Nortel Networks

config ip ospf interface followed by:	
dead-interval <seconds>	Sets the OSPF dead interval for the interface. • seconds is the number of seconds the switch OSPF neighbors wait before assuming that this OSPF router is down. The range is from 1 to 2147483647. This value must be at least four times the hello interval value. The default is 40.
delete	Deletes an OSPF interface.
delete-message-digest- key <md5-key-id>	Deletes the specified MD5 key ID from the configured md5 keys.
hello-interval <seconds>	Sets the OSPF hello interval for the interface. • seconds is the number of seconds between hello packets sent on this interface. The range is 1 to 65 535. The default is 10. ***Note:*** When you change the hello interval values, you must save the configuration file and reboot the switch for the values to be restored and checked for consistency.
interface-type <if-type>	Specifies the type of OSPF interface. • if-type is the OSPF interface type {broadcast | passive}
metric <metric>	Sets the OSPF metric for the interface. The switch advertises the metric in router link advertisements. • metric is the range 0 to 65535.
priority <priority>	Sets the OSPF priority for the interface during the election process for the designated router. The interface with the highest priority number is the designated router. The interface with the second-highest priority becomes the backup designated router. If the priority is 0, the interface cannot become either the designated router or a backup. The priority is used only during election of the designated router and backup designated router. The range is 0 to 255. The default is 1.
retransmit-interval <seconds>	Sets the retransmit interval for the OSPF interface, the number of seconds between link state advertisement retransmissions. • seconds is an integer between 1 and 3600.
transmit-delay <seconds>	Sets the transit delay time for the OSPF interface, the estimated time in seconds it takes to transmit a link state update packet over the interface. • seconds is an integer between 1 and 3600.

Copyright © 2007, Nortel Networks

config ip ospf redistribute

This command configures a redistribute entry. Redistribute entries allow OSPF to announce routes of a certain source type, for example, static, RIP, or direct. If you do not configure a route policy field for a redistribute entry, then the default action is taken based on metric, metric-type, and subnet configured. This is called basic redistribution. Otherwise, you use the route policy specified to perform detailed redistribution. If you do not configure a redistribution entry, no external LSA is generated for non-OSPF routes.

Syntax

config ip ospf redistribute <source-type>

Parameter

This command includes the following parameters:

config ip ospf redistribute <source-type> **followed by:**	
info	Displays OSPF redistribute information for a specified source type.
apply	Applies the OSPF redistribute to the routes from the specified source type to generate or refresh AS external LSAs. For example, RIP static or direct.
create	Creates an OSPF redistribute entry for a specified source type.
disable	Disables an OSPF redistribute entry for a specified source type.
delete	Deletes an OSPF redistribute entry for a specified source type.
enable	Enables an OSPF redistribute entry for a specified source type.
metric <metric-value>	Sets the OSPF route redistribution metric for basic redistribution. • **<metric-value>** range is 0 to 65535. If configured as 0, the original cost of the route is used.
metric-type <type1 | type 2>	Sets the OSPF route redistribution metric type for basic redistribution. The default is Type 2.

Copyright © 2007, Nortel Networks

config ip ospf redistribute <source-type> **followed by:**	
route-policy <policy name>	Sets the route policy by name to be used for the detailed redistribution of external routes from a specified source into an OSPF domain. <policy name> string length is 0 to 64 characters. A string of length 0 can be used to remove current configuration. If no policy is configured, basic redistribution is performed.
subnets <allow|supress>	Sets the OSPF route redistribution subnet value (the default value is *allow*): • *allow* sets the switch to allow external subnet routes to be redistributed into an OSPF domain. • *suppress* sets the switch to redistribute external subnet routes into an OSPF domain, with shortened mask lengths. In the advertisement, the external subnet routes mask lengths are shortened to their natural masks. ***Note:*** When set to allow, the switch automatically converts external subnet routes to their natural mask for advertisement on an OSPF interface. The *allow* value does not change the mask for all routes; instead it changes the mask for only the subnet routes with mask lengths that are longer than their natural mask.

config ip ospf redistribute apply

This command applies an OSPF redistribution.

Syntax

```
config ip ospf redistribute apply
```

config ip ospf redistribute direct

This command configures redistribution of local or direct routes, or both, to OSPF.

Syntax

```
config ip ospf redistribute direct
```


Copyright © 2007, Nortel Networks

Parameters

This command includes the following parameters:

config ip ospf redistribute direct followed by:	
info	Displays configuration information about the OSPF redistribution.
apply	Applies the OSPF route redistribution changes.
create	Creates an OSPF route redistribution.
delete	Deletes an OSPF route redistribution.
disable	Disables an OSPF route redistribution.
enable	Enables an OSPF route redistribution.
metric <metric-value>	Sets the metric value 0. The value is in the range 0 to 65535 and the default value is 0.
metric-type <type1|type2>	Sets the metric type as Type 1 or Type 2.
route-policy <policy name>	Sets the OSPF route redistribution route policy name. • policy name is a string of 0 to 64 characters. A blank string deletes the policy.
subnets <allow|suppress>	Allows or suppresses the OSPF route redistribution subnet.

config ip ospf redistribute rip

This command configures OSPF RIP.

Syntax

```
config ip ospf redistribute rip
```

Parameters

This command includes the following parameters:

config ip ospf redistribute rip followed by:	
info	Displays configuration information about the OSPF redistribution.
apply	Applies the OSPF route redistribution changes.
create	Creates an OSPF route redistribution.
delete	Deletes an OSPF route redistribution.
disable	Disables an OSPF route redistribution.
enable	Enables an OSPF route redistribution.

Copyright © 2007, Nortel Networks

config ip ospf redistribute rip **followed by:**	
metric <metric-value>	Sets the metric value 0. The value is in the range 0 to 65535 and the default value is 0.
metric-type <type1|type2>	Sets the metric type as Type 1 or Type 2.
route-policy <policy name>	Sets the OSPF route redistribution route policy name. • policy name is a string of 0 to 64 characters. A blank string deletes the policy.
subnets <allow|suppress>	Allows or suppresses the OSPF route redistribution subnet.

config ip ospf redistribute static

This command configures static OSPF.

Syntax

```
config ip ospf redistribute static
```

Parameters

This command includes the following parameters:

config ip ospf redistribute static **followed by:**	
info	Displays configuration information about the OSPF redistribution.
apply	Applies the OSPF route redistribution changes.
create	Creates an OSPF route redistribution.
delete	Deletes an OSPF route redistribution.
disable	Disables an OSPF route redistribution.
enable	Enables an OSPF route redistribution.
metric <metric-value>	Sets the metric value 0. The value is in the range 0 to 65535 and the default value is 0.
metric-type <type1|type2>	Sets the metric type as Type 1 or Type 2.
route-policy <policy name>	Sets the OSPF route redistribution route policy name. • policy name is a string of 0 to 64 characters. A blank string deletes the policy.
subnets <allow|suppress>	Allows or suppresses the OSPF route redistribution subnet.

Copyright © 2007, Nortel Networks

config ip pim

This command configures Protocol Independent Multicast -Sparse Mode (PIM-SM)

Syntax

config ip pim

Parameters

This command includes the following parameters:

config ip pim **followed by:**	
info	Displays current PIM-SM settings on the switch.
activity-chk-interval **<15|30|210>**	Specifies how often (in seconds) to check traffic activity for a multicast group. The lower the value, the more often the switch checks the activity. • The default is 210. **Notes:** • Before you can change the activity-chk-interval, you must disable PIM-SM globally. • Nortel recommends an activity check interval of 30 seconds. • Nortel recommends that you set the activity check interval to 210 seconds for systems that have a large number (200+) of S,G streams. • When one of the timer activity-chk-interval or fwd-cache-timeout is configured with a nondefault value, the other cannot be configured.
bootstrap-period<integer>	Specifies the interval (in seconds) that the elected BSR waits between originating bootstrap messages. • **integer** is an integer in the range of 5–32757. The default is 60.
c-rp-adv-timeout<integer>	Specifies how often (in seconds) that routers configured as candidate RPs send C-RP advertisement messages. When this timer expires, the C-RP sends an advertisement message to the elected BSR. • **integer** is an integer in the range of 5–26214. The default is 60.
disable	Globally disables PIM-SM on the switch.

Copyright © 2007, Nortel Networks

config ip pim followed by:	
disc-data-timeout<integer>	Specifies how long (in seconds) to discard data until the Join is received from the RP. An ipmc discard record is created after a register packet is sent, until the timer expires or when a Join is received. • integer is an integer in the range of 5–65535. The default is 60.
enable	Globally enables PIM-SM on the switch.
fwd-cache-timeout<integer>	Specifies the forward cache timeout value (in seconds). • integer is an integer in the range of 10 to 86 400. The default is 210.
joinprune-interval<integer>	Specifies how long to wait (in seconds) before the PIM-SM router sends out the next join/prune message to its upstream neighbors. • integer is an integer in the range of 1–18724. The default is 60.
register-suppression-timeout <integer>	Specifies how long (in seconds) the DR suppresses sending registers to the RP. The timer starts when the DR receives a Register Stop message from the RP. • integer is an integer in the range of 5–65535. The default is 60.
unicast-route-change-timeout <integer>	Specifies how often (in seconds) the switch polls the routing table manager (RTM) for unicast routing information updates to be used by PIM-SM. ***Note:*** Lowering this value increases how often the switch polls the RTM. This increase in poll frequency can affect the performance of the switch, especially when a lot of traffic is flowing through the switch. • integer is an integer in the range of 2–65535. The default is 5.

config ip pim interface

This command enables PIM-SM on a particular interface:

Syntax

config ip pim interface <ipaddr>

where

<ipaddr> indicates the IP address of the selected interface.

Copyright © 2007, Nortel Networks

Parameters

This command includes the following parameters:

config ip pim interface <ipaddr> followed by:	
info	Displays current PIM-SM configuration settings on the local switch interface.
create <active|passive>	Enables PIM-SM on a specific interface with a specific type. An active interface allows PIM-SM control traffic to be transmitted and received. A passive interface prevents PIM-SM control traffic from being transmitted or received, thereby reducing the load on a system. This feature is useful when a high number of PIM-SM interfaces exist and are connected to end users, not to other switches.
disable	Disables PIM-SM on the local switch interface.
enable	Enables PIM-SM on the local switch interface.
hellointerval<seconds>	Specifies how long to wait (in seconds) before the PIM-SM switch sends out the next hello message to neighboring switches. The default is 30 seconds.
interface-type <active|passive>	Specifies whether the selected interface is active or passive. You can change the state of a PIM-SM interface after creating the interface. It can be changed only when PIM-SM is disabled on the specified interface.
joinprune-interval<seconds>	Specifies how long to wait (in seconds) before the PIM-SM switch sends out the next join/prune message to its upstream neighbors. The default is 60 seconds.

config ip pim candbsr interface

This command configures a candidate bootstrap router (C-BSR) on a specific interface.

Syntax

config ip pim candbsr interface <ipaddr>

where

<ipaddr> indicates the IP address of the selected interface.

Copyright © 2007, Nortel Networks

Parameters

This command includes the following parameters:

config ip pim candbsr interface <ipaddr> followed by:	
info	Displays the candidate BSR preference setting for this interface.
enable preference <value>	Enables the Candidate BSR on this interface and sets its preference value to become a BSR. The Candidate BSR with the highest BSR preference and address is referred to as the preferred BSR. The default is -1, which indicates that the current interface is not a Candidate BSR.
disable	Disables the Candidate BSR on this interface.

config ip pim candrp

This command configures a rendezvous point (RP) in the RP set.

Syntax

config ip pim candrp

Parameters

This command includes the following parameters:

config ip pim candrp **followed by:**	
info	Displays current RP configuration settings on the local router interface.
add grp <value> mask <value> rp <value>	Adds a candidate RP to the RP set. • **add grp <value>** is the IP address of the multicast group. When combined with the group mask, it identifies the prefix that the local router uses to advertise itself as a C-RP. • **mask <value>** is the address mask of the multicast group. When combined with the group address, it identifies the prefix that the local router uses to advertise itself as a C-RP.

Copyright © 2007, Nortel Networks

config ip pim candrp followed by:	
	• **rp <value>** is the IP address of the C-RP. This address must be one of the local PIM-SM enabled interfaces.
delete grp <value> mask <value>	Deletes a candidate RP from the RP set. • **delete grp <value>** is the IP address of the multicast group. When combined with the group mask, it identifies the prefix that the local router uses to advertise itself as a C-RP. • **mask <value>** is the address mask of the multicast group. When combined with the group address, it identifies the prefix that the local router uses to advertise itself as a C-RP.

config ip pim debug-pktfw

This command configures PIM-SM packet forwarding for troubleshooting.

Syntax

config ip pim debug-pktfw

Parameters

This command includes the following parameters:

config ip pim debug-pktfw followed by:	
entrace source <value> group <value>	Enables the switch to display packet forwarding debug traces when a multicast packet is received by the CPU.. • source **<value>**is the sender IP address. • group **<value>**is the group IP address.
distrace source <value> group <value>	Disables the switch to display packet forwarding debug traces. • source **<value>**is the sender IP address. • group **<value>**is the group IP address.

config ip pim debug-pimmsg

This command configures PIM-SM protocol traces for troubleshooting.

Copyright © 2007, Nortel Networks

Syntax

```
config ip pim debug-pimmsg
```

Parameters

This command includes the following parameters:

Note: For the following parameter values, 1=true and 2=false. The default value for each parameter is 2 (false).

config ip pim debug-pimmsg followed by:	
info	Displays the current PIM-SM debug trace flag settings on the switch. See Config ip pim debug-pimmsg info command output.
assert <true=1|false=2>	Sets the switch to display the assert debug traces.
bstrap <true=1|false=2>	Sets the switch to display bootstrap debug traces.
group <ipaddress>	Sets the switch to display debug traces from a specific group ip-address.
hello <true=1|false=2>	Setst the switch to display hello debug traces.
joinprune <true=1|false=2>	Sets the switch to display join/prune debug traces.
pimdbglog <true=1|false=2>	Controls whether the switch logs debug traces.
pimdbgtrace <true=1|false=2>	Sets the switch to display PIM-SM debug traces.
rcv <true=1|false=2>	Sets the switch to display received debug traces.
register <true=1|false=2>	Sets the switch to display register debug traces.
regstop <true=1|false=2>	Sets the switch to display register stop debug traces.
rp-adv <true=1|false=2>	Sets the switch to display rp advertisement debug traces.

Copyright © 2007, Nortel Networks

config ip pim debug-pimmsg followed by:	
send <true=1|false=2> SetsSets	Sets the switch to display send debug traces.
source <ipaddress>	Sets the switch to display debug traces from a specific source ip-address.

config ip pim interface virtual-neighbor

This command configures a PIM-SM neighbor IP address on the Ethernet Routing Switch 8300 neighbor table.

Syntax

config ip pim interface <ipaddr> virtual-neighbor

where

<ipaddr> indicates the IP address of the selected interface.

Parameters

This command includes the following parameters:

config ip pim interface <ipaddr> virtual-neighbor followed by:	
info	Displays current virtual neighbor settings on the local switch interface.
add <ipaddr>	Adds the virtual neighbor on the local switch interface. • **ipaddr** is the IP address of the selected interface.
delete<ipaddr>	Deletes the virtual neighbor on the local switch interface. • **ipaddr** is the IP address of the selected interface.

config ip pim static-rp

This command configures a static RP.

Copyright © 2007, Nortel Networks

Syntax

```
config ip pim static-rp
```

Parameters

This command includes the following parameters:

config ip pim static-rp followed by:	
info	Displays current PIM-SM settings on the switch.
add grp <value> mask <value> rp <value>	Adds a static RP entry to the RP set. • **grp <value>** is the IP address of the multicast group. When combined with the group mask, it identifies the range of the multicast addresses that the RP handles. • **mask <value>** is the address mask of the multicast group. When combined with the group address, it identifies the range of the multicast addresses that the RP handles. • **rp <value>** is the IP address of the static RP.
delete grp <value> mask <value> rp <value>	Deletes a static RP entry from the RP set. • **grp <value>** is the IP address of the multicast group. When combined with the group mask, it identifies the range of the multicast addresses that the RP handles. • **mask <value>** is the address mask of the multicast group. When combined with the group address, it identifies the range of the multicast addresses that the RP handles. • **rp <value>** is the IP address of the static RP.
disable	Disables static RP on the switch.
enable	Enables static RP on the switch.

config ip prefix-list

This command configures a prefix list which is a list of networks used by route policies to define an action.

Syntax

```
config ip prefix-list
```


Copyright © 2007, Nortel Networks

Parameters

This command includes the following parameters:

config ip prefix-list <prefix-list name> **followed by:**	
info	Displays all of the prefixes in a given list.
add-prefix <ipaddr/mask> [maskLenFrom <value>] [maskLenTo <value>]	Adds a prefix entry to the prefix list. • **<ipaddr/mask>** is the IP address and mask. • **maskLenFrom <value>** is the lower bound of mask length. The default is the mask length. • **maskLenTo <value>** is the higher bound mask length. The default is the mask length. ***Note:*** Lower bound and higher bound mask lengths together can define a range of networks.
delete	Deletes the prefix list.
name <name>	The name command is used to rename the specified prefix list. The name length can be from 1–64 characters.
remove-prefix <ipaddr/mask>	Removes a prefix entry from the prefix list. **ipaddr/mask>** is the IP address and mask.

config ip rip

This command enables or disables RIP globally on the switch and sets the update, holddown, and timeout timers.

Syntax

config ip rip

Copyright © 2007, Nortel Networks

Parameter

This command includes the following parameters:

config ip rip **followed by:**	
default-import-metric <metric>	Sets 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, such as OSPF. • **metric** is an integer value with a range of 0–15. The default is 8. You cannot assign a value of 0 to the default import metric. Entering the command **config ip rip default-import-metric 0** deconfigures this parameter and restores the default value of 8.
disable	Globally disables RIP on the switch.
enable	Globally enables RIP on the switch.
holddown <seconds>	Sets the RIP holddown timer. The value of the holddown timer is the length of time (in seconds) that RIP will continue to advertise a network after determining that it is unreachable. • **seconds** is an integer value with a range of 0–360. The default is 120 seconds. The global **holddown** parameter sets the value of the holddown timer for the VLAN interfaces, but you can override the value for a specific interface.
info	Shows RIP global configuration.
timeout <seconds>	Sets the RIP timeout interval. • **seconds** is an integer value with a range of 15–259200. The default value is set indirectly by the global update time parameter. By default, the timeout timer is set at 6 times the default update timer, in accordance with the RFC specification. With a default global update parameter setting of 30 seconds, the default timeout interval is 180 seconds.

Copyright © 2007, Nortel Networks

config ip rip **followed by:**	
	Configure the timeout parameter only if you want to break the relationship with the update timer. For example, if you have set the global update parameter to a very short interval in order to minimize the problem of fast convergence, the associated default timeout may be too short. In this case, configure the timeout interval manually. The global **timeout** parameter sets the value of the timeout timer for the VLAN interfaces, but you can override the value for a specific interface.
updatetime <seconds>	Sets the RIP update timer. The value of the update timer is the time interval (in seconds) between regular RIP updates. • **seconds** is an integer value with a range of 1–2147483647. The default is 30 seconds. The global **updatetime** parameter sets the update timer for the VLAN interfaces. The **updatetime** value must be less than the timeout interval.

config ip rip interface

There are two sets of commands to configure RIP on a specific interface. The two sets contain some overlapping commands, and in these cases it does not matter which set you use to configure those parameters.

This command configures RIP parameters on a specific interface.

Syntax

- **config ip rip interface <ipaddr>**

  where **ipaddr** indicates the IP address of the interface
- **config vlan <vid> ip rip**

  where **vid** is the VLAN ID

Copyright © 2007, Nortel Networks

Parameter

This command includes the following parameters:

config ip rip interface <ipaddr> **followed by:**	
auto-aggr <enable|disable>	Enables or disables automatic route aggregation on the interface. When enabled, the router switch automatically aggregates routes to their natural mask when they are advertised on an interface in a network of a different class. The default is disabled. Routes with different metrics can be aggregated. RIP uses the out metric associated with the first route found in the routing table that is to be aggregated.
cost <cost>	Sets the RIP cost (metric) for this interface. • **cost** is an integer value with a range of 1–5. The default value is 1.
default-listen <enable|disable>	Configures whether or not the interface will listen for RIP updates for the default route learned through RIP. The default is disabled.
default-supply <enable|disable>	Configures whether or not the interface will send RIP advertisements for the default route, if one exists in the routing table. The default is disabled.
domain <value>	Specifies the value inserted into the Routing Domain field of all RIP packets sent on this interface. • **value** is an integer value with a range of 0–65535. The default is 0.

Copyright © 2007, Nortel Networks

config ip rip interface <ipaddr> **followed by:**	
holddown <seconds>	Sets the RIP holddown timer for the interface. The value of the holddown timer is the length of time (in seconds) that RIP will continue to advertise a network after determining that it is unreachable. • **seconds** is an integer value with a range of 0–360. The default value is set by the global holddown parameter, which has a default of 120 seconds. The interface timer setting overrides the global parameter. However, if you subsequently reset the global parameter, the global setting then overrides the interface timer setting.
info	Shows RIP configuration for the interface.
in-policy <policy name>	Sets the RIP policy for inbound filtering on the interface. The in-policy determines which routes will be learned on the interface. • **policy** name is a string length {0..64}. To delete the policy from the interface configuration, enter an empty string.
listen <enable|disable>	Configures whether or not the interface will listen for RIP routes. The default is enabled.
out-policy <policy name>	Sets the RIP policy for outbound filtering on the interface. The out-policy determines which routes will be advertised from the routing table on the interface. • **policy name** is a string length {0..64}. To delete the policy from the interface configuration, enter an empty string.

Copyright © 2007, Nortel Networks

config ip rip interface <ipaddr> **followed by:**	
poison <enable|disable>	Sets whether or not RIP routes on the interface learned from a neighbor are advertised back to the neighbor. • If disabled, split horizon is invoked, and IP routes learned from an immediate neighbor are not advertised back to the neighbor. • If enabled, the RIP updates sent to a neighbor from which a route is learned are "poisoned" with a metric of 16. Therefore, the receiver neighbor ignores this route because the metric 16 indicates infinite hops in the network. The default is disabled.
receive-mode <mode>	Indicates which version of RIP updates are to be accepted on this interface. The options for **mode** are: • **rip1** — RIP version 1 (complies with RFC 1058). • **rip2** — RIP version 2 (complies with RFC 2453). • **rip1orrip2** — both versions of RIP. The default is **rip1orrip2**.
send-mode <mode>	Indicates which version of RIP updates the router sends on this interface. The options for **mode** are: • **notsend** — no updates are sent. • **rip1** — RIP version 1(complies with RFC 1058; updates are broadcast). • **rip1comp** — compatible with RIP version 1 (RIP version 2 updates are broadcast using RFC 1058 route subsumption rules). • **rip2** — RIP version 2 (complies with RFC 2453; updates are multicast). The default is **rip1comp**.

Copyright © 2007, Nortel Networks

config ip rip interface <ipaddr> **followed by:**	
supply <enable|disable>	Enables or disables the interface to supply RIP updates. The default is enabled.
timeout <seconds>	Sets the RIP timeout interval for the interface. • **seconds** is an integer value with a range of 15–259200. The default value is set indirectly by the global update time parameter. By default, the timeout timer is set at 6 times the update timer, in accordance with the RFC specification. With a default global update timer setting of 30 seconds, the default timeout interval is 180 seconds. Configure the timeout parameter on the interface only if you want to break the relationship with the update timer. For example, if you have set the global update parameter to a very short interval in order to minimize the problem of fast convergence, the associated default timeout may be too short. In this case, configure the timeout interval manually. The interface timer setting overrides the global parameter. However, if you subsequently reset the global parameter, the global setting then overrides the interface timer setting. The timeout interval must be greater than the global update time parameter.
trigger <enable|disable>	Enables or disables automatic triggered updates for RIP on this interface. The default is disabled.

config ip route-discovery

This command enables and disable route discovery.

Syntax

config ip route-discovery

Copyright © 2007, Nortel Networks

Parameter

This command includes the following parameters:

config ip route-discovery followed by:	
info	Displays the global status of the router discovery feature.
disable	Disables ICMP router discovery globally on the switch.
enable	Enables ICMP router discovery globally on the switch.

config ip route-policy

This command allows you to configure a route policy.

Syntax

```
config ip route-policy
```

Parameters

This command includes the following parameters:

config ip route-policy <policy name> seq <seq number> followed by:	
info	Displays current configuration information about this policy sequence number.
action <permit|deny>	This field specifies the action to be taken when a policy is selected for a specific route. This can be permit or deny. Permit allows the route, deny ignores the route.
create	Creates a route policy with a policy name and a sequence number. ***Note:*** When creating a route policy in the CLI, the ID is internally generated using an automated algorithm. When you create a route policy in Device Manager, you can manually assign the ID number.
delete	Deletes a route policy with a policy name and a sequence number.

Copyright © 2007, Nortel Networks

config ip route-policy <policy name> seq <seq number> **followed by:**	
disable	Disables a route policy with a policy name and a sequence number.
enable	Enables a route policy with a policy name and a sequence number.
match-interface <prefix-list>	If configured, the switch matches the IP address of the interface by which the RIP route was learned against the contents of the specified prefix list. This field is used only for RIP routes and ignored for all other type of route. • **<prefix-list>** specify the name of up to four defined prefix list separated by a comma.
match-metric <metric>	If configured, the switch matches the metric of the incoming advertisement or existing route against the specified value. If 0, then this field is ignored. • **<metric>** is 1 to 65535. The default is 0.
match-network <prefix-list>	If configured, the switch matches the destination network against the contents of the specified prefix list(s). • **<prefix-list>** specify the name of up to four defined prefix list by name separated by a comma.
match-next-hop <prefix-list>	If configured, matches the next hop IP address of the route against the contents of the specified prefix list. This field applies only to non-local routes. • **<prefix-list>** specify the name of up to four defined prefix list by name separated by a comma.
match-protocol <protocol name>	If configured, matches the protocol through which the route is learned. This field is used only for RIP announce purposes.

Copyright © 2007, Nortel Networks

config ip route-policy <policy name> seq <seq number> **followed by:**	
match-route-src <prefix-list>	If configured, matches the next hop IP address for RIP routes and advertising router IDs for OSPF routes against the contents of the specified prefix list. This option ignored for all other route types. • **<prefix-list>** specify the name of up to four defined prefix list by name separated by a comma.
match-route-type <route-type>	Sets a specific route-type to be matched (applies only to OSPF routes). • **<route-type>** External-1 and External-2 specifies OSPF routes of the specified type only (any other value is ignored).
match-tag <tag>	Applicable to BGP protocol only. Specifies a list of tag(s), that will be used during the match criteria process. It contains one or more tag values. • **match-tag <tag>**
name <policy name>	This command is used to rename a policy once it has been created. This command changes the name field for all sequence numbers under the given policy.
set injectlist <prefix-list>	If configured, the switch replaces the destination network of the route that matches this policy with contents of the specified prefix list. • **<prefix-list>** specify one prefix list by name.

Copyright © 2007, Nortel Networks

config ip route-policy <policy name> seq <seq number> followed by:	
set-mask <ipaddr>	If configured, the switch sets the mask of the route that matches this policy. This applies only to RIP accept policies. **<ipaddr>** is a valid contiguous IP mask.
set-metric <metric-value>	If configured, the switch sets the metric value for the route while announcing a redistributing. The default is 0. If the default is configured, the original cost of the route is advertised into OSPF; for RIP, the original cost of the route or default-import-metric is used.
set-metric-type <metric-type>	If configured, sets the metric type for the routes to be announced into the OSPF domain that matches this policy. The default is type 2. This field is applicable only for OSPF announce policies.
set-nssa-pbit <enable|disable>	Applicable to BGP protocol only. Enable or disable the P bit in specified type 7 LSA. By default P bit is always enabled. If user sets it to the disable state for a particular route policy, then all type 7 LSAs associated with that route policy will have the P bit cleared. With this intact NSSA ABR will not perform translation of these LSAs to type 5. Default is enable.
set-next-hop <ipaddr>	Applicable to BGP protocol only. Set the IP address of the next hop router. Ignored this for DVMRP routes. Default is 0.0.0.0.
set-origin <origin>	Applicable to BGP protocol only. Set to igp, egp, incomplete, or unchanged. If not set the route origin from the IP routing table (protocol) is used. Default is unchanged.
set-origin-egp-as <origin-egp-as>	Applicable to BGP only. Sets the remote autonomous system number. Default is 0.
set-preference <pref-value>	Setting the preference greater than zero, specifies the route preference value to be assigned to the routes which matches this policy. This applies to accept policies only. • **<pref-value>** set from 0 to 255. The default is 0. If the default is configured, the global preference value is used.

Copyright © 2007, Nortel Networks

config ip route-policy <policy name> seq <seq number> followed by:	
set-tag <tag>	Applicable to BGP only. This value is used for setting the tag of the destination routing protocol. If not specified, forward the tag value in the source routing protocol. A value of 0 indicates it is not set. Default is 0.
set-weight <weight>	Applicable to BGP only. Should be used with match as-path condition. This is the weight value for the routing table. For BGP this value will override the weight configured through NetworkTableEntry, FilterListWeight, or NeighborWeight. A value of 0 indicates it is not set. Default is 0.

config ip route preference

This command configures route preferences by protocol. This allows you to override default route preferences and substitute a protocol's preference value for routes learned for a specific protocol.

Note: Changing route preferences is a process-oriented operation that can affect system performance and network accessibility while performing the procedures. Therefore, Nortel recommends that you change a prefix list or a routing protocol before enabling the protocols.

Syntax

```
config ip route preference
```

Parameter

This command includes the following parameters:

config ip route preference followed by:	
info	Displays the route preference configured for different protocols.
protocol <protocol> <value>	Sets the preference value for the specified protocol. • protocol {static|rip} indicates the protocol type. • value is an integer value with a range of 0 to 255.

Copyright © 2007, Nortel Networks

config ip route preference **followed by:**	
	If two protocols have the same configured value, the default value is used to break the tie. The default preference values are: • local routes = 0 • static routes = 5 • RIP routes = 100

config ip static-route

This command creates a new static route, or modifies existing static route parameters.

Syntax

```
config ip static-route
```

Parameters

This command includes the following parameters:

config ip static-route **followed by:**	
info	Displays characteristics of the created static route.
create <ipaddr/mask> next-hop <value> cost <value> [preference <value>]	Adds a static or default route to the switch. • **ipaddr/mask** is the IP address and mask for the route's destination. • **cost <value>** is the metric of the route.
delete <ipaddr/mask> next-hop <value>	Deletes a static route. • **ipaddr/mask** is the IP address and mask for the route's destination.

Copyright © 2007, Nortel Networks

config ip static-route followed by:	
disable <ipaddr/mask> next-hop <value>	Disables a static route. • **ipaddr/mask** is the IP address and mask for the route's destination.
enable <ipaddr/mask> next-hop <value>	Enables a static route. • **ipaddr/mask** is the IP address and mask for the route's destination.
preference <value> <ipaddr/mask> next-hop <value>	Modify static route preference.

config ip udpfwd interface

This command allows you to view and manage the UDP forwarding policies applied to the specified interface.

Syntax

config ip udpfwd interface

where

ipaddr is the IP address (a.b.c.d format) for the local interface.

Parameters

This command includes the following parameters:

config ip udpfwd interface followed by:	
info	Displays current level parameter settings and next level directories.

Copyright © 2007, Nortel Networks

config ip udpfwd interface followed by:	
create <fwdlistid>	Applies a UDP forwarding policy to the specified interface. • **fwdlistid** is name of the desired UDP forwarding policy to apply.
delete	Removes the UDP forwarding policy from the specified interface.
broadcastmask <mask>	Sets the broadcast mask for this interface. This value can be different from the interface mask. • **mask** is the subnet mask in dotted-decimal notation {a.b.c.d}.
maxttl <maxttl>	Sets the maximum TTL value for this interface. • **maxttl** is the maximum TTL value (1..16). Default value is 4.
udpportfwdlist <fwdlistid>	Sets the UDP forwarding policy to use. • **fwdlistid** is name of the desired UDP forwarding policy to apply.

config ip udpfwd portfwd

This command allows you to view and manage forwarding entries.

Syntax

config ip udpfwd portfwd

Copyright © 2007, Nortel Networks

Parameters

This command includes the following parameters:

config ip udpfwd portfwd **followed by:**	
info	Displays the current level parameter settings and next level directories.
add-portfwd <updport> <ipaddr>	Adds a portfwd entry to the list. • **updport** is the UDP port number (1..65535). • **ipaddr** is the forwarding destination. You can enter either a specific server IP address, or an IP limited broadcast in dotted-decimal notation {a.b.c.d}.
remove-portfwd <updport> <ipaddr>	Removes a portfwd entry from the list. • **updport** is the UDP port number (1..65535). • **ipaddr** is the forwarding destination. You can enter either a specific server IP address, or an IP limited broadcast in dotted-decimal notation {a.b.c.d}.

config ip udpfwd portfwdlist

This command allows you to view and manage the specified UDP forwarding policy.

Syntax

config ip udpfwd portfwdlist<fwdlistid>

where

fwdlistId is the policy ID (1..1000) for this protocol, followed by:

Copyright © 2007, Nortel Networks

Parameters

This command includes the following parameters:

config ip udpfwd portfwdlist <fwdlistid> **followed by:**	
info	Displays the current level parameter settings and next level directories.
create	Creates a UDP forwarding policy.
delete	Deletes the UDP forwarding policy.
add-portfwd <updport> <ipaddr>	Adds a portfwd entry to the forwarding policy. • **updport** is the UDP port number (1..65535). • **ipaddr** is the forwarding destination. You can enter either a specific server IP address, or an IP limited broadcast in dotted-decimal notation {a.b.c.d}.
remove-portfwd <updport> <ipaddr>	Removes a portfwd entry from the forwarding policy. • **updport** is the UDP port number (1..65535). • **ipaddr** is the forwarding destination. You can enter either a specific server IP address, or an IP limited broadcast in dotted-decimal notation {a.b.c.d}.
name <name>	Sets the forwarding policy name.

config ip udpfwd protocol

This command allows you to view and manage the UDP protocol for the specified port.

Syntax

config ip udpfwd protocol <updport>

where

<updport> is the port number (1..65535) for this protocol, followed by:

Copyright © 2007, Nortel Networks

Parameters

This command includes the following parameters:

config ip udpfwd protocol <updport> followed by:	
info	Displays the current level parameter settings and next level directories.
create <protoname>	Creates a UDP protocol entry. • protoname is the name applied to the UDP port.
delete	Deletes the UDP protocol entry.

config ip vrrp info

This command shows the global configuration of VRRP.

Syntax

```
config ip vrrp info
```

config ip vrrp ping-virtual-address

This command enables or disables the VRRP ping virtual address.

Syntax

```
config ip vrrp ping-virtual-address
```

config ip vrrp send-trap

This command enables or disables the VRRP send trap.

Syntax

```
config ip vrrp send-trap <enable|disable>
```

Parameters

This command includes the following parameters:

config ip vrrp send-trap followed by:	
<enable|disable>	Enables or disables the VRRP send trap.

config lldp

This command sets the LLDP transmission parameters.

Copyright © 2007, Nortel Networks

Syntax

```
config lldp [tx-interval <5-32768>] [tx-hold-multiplier <2-10
>] [reinit-delay <1-10>] [tx-delay <1-8192>][med-fast-start
<1-10>]
```

Parameters

This command includes the following parameters:

config lldp **followed by:**	
tx-interval <5-32768>	Sets the global interval between successive transmission cycles (default value is 30)
tx-hold-multiplier <2-10>	Sets the multiplier for the tx-interval used to compute the Time To Live value for the TTL TLV (default value is 4)
reinit-delay <1-10>	Sets the delay for the reinitialization attempt if the adminStatus is disabled (default value is 2)
tx-delay <1-8192>	Sets the minimum delay between successive LLDP frame transmissions (default value is 2)
med-fast-start <1-10>	Sets the MED Fast Start repeat count value (default value is 3)

config lldp tx-interval

This command sets the interval <1-32768> in which lldp frames are transmitted. Default value is 30.

Syntax

```
config lldp tx-interval <1-32768 secs>
```

config lldp tx-hold-multiplier

This command determines the ttl value <2 - 10>. TTL = min(65535, tx-interval * tx-hold-multiplier). Default value is 4.

Syntax

```
config lldp tx-hold-multiplier <2 -10>
```

config lldp reinit-delay

This command sets the delay <1 - 10 secs) after which reinitialization of a disabled port will be attempted. Default value is 2.

Syntax

```
config lldp reinit-delay <1- 10 secs>
```


Copyright © 2007, Nortel Networks

config lldp tx-delay

This command sets the minimum delay <1 - 8192> between two successive lldp transmissions. This is used when a series of changes takes place to the local system (multiple triggered updates). To prevent flooding of lldp packets, we maintain a minimum time delay between any 2 successive lldp transmissions. That is, in between this time, if there is a change in configuration, no packets are sent. The update will be sent only after this interval. This command is used to set this time interval. Recommended value is 1 <= tx-delay <= tx-interval. Default value is 2.

Syntax

```
config lldp tx-delay <1 – 8192 secs>
```

where

<1 – 8192 secs> is the minimum delay between two transmissions. The range is 1 to 8192.

config lldp notification-interval

This command sets the interval <1 - 3600 secs> for which not more than one remote tablechangenotification is transmitted. Default is 5.

Syntax

```
config lldp notification-interval <1 – 3600 secs>
```

where

<1 – 3600 secs> is the notification interval. The range is 1 to 3600.

config lldp local-mgmt-addr-tx

This command specifies the ports the local system management address are to be transmitted.

Syntax

```
config lldp local-mgmt-addr-tx <portlist> <enable|disable>
```

Parameters

This command includes the following parameters:

config lldp local-mgmt-addr-tx **followed by:**	
<portlist>	Specifies the ports in the portlist form {slot/port[-slot/port][, ...]}.
<enable|disable>	Enables or disables transmission of the local system management address. Disable is the default value.

Copyright © 2007, Nortel Networks

config lldp med-fast-start

This command sets the LLDP-MED fast start repeat count <1 - 10> which indicates the number of LLDP frame transmissions for one complete fast start interval. Default is 3.

Syntax

```
config lldp med-fast-start <1-10>
```

config lldp location-identification coordinate-base

This command sets the location-identification coordinate-base.

Syntax

```
config lldp location-identification coordinate-base [latitude
<value> {NORTH|SOUTH}] [longitude <value>{EAST|WEST} ]
[altitude <value> {meters|floors}] [datum{WGS84|NAD83/NAVD
88}|NAD83/MLLW}]
```

Parameters

This command includes the following parameters:

config lldp location-identification coordinate-base **followed by:**	
[latitude <value> {NORTH|SOUTH}]	Sets the latitude of the coordinate-base.
[longitude <value> {EAST|WEST}]	Sets the longitude of the coordinate-base.
[altitude <value> {meters|floors}]	Sets the altitude of the coordinate-base.
[datum {WGS84|NAD83/NAVD88}|NAD83 /MLLW}]	Sets the datum of the coordinate-base.

config lldp location-identification civic-address

This command sets the location-identification civic address and its various parameters.

Syntax

```
config lldp location-identification civic-address
[country-code <value 2>] [additional-code <value>]
[additional-information <string>] [apartment <value>] [block
<string>] [building <string>] [city <string>] [city-district
<string>] [county <string>] [floor <value>] [house-number
<value>] [house-number-suffix <string>] [landmark <string>]
[leading-street-direction <string>] [name <string>] [p.o.box
<value>] [place-type <string>] [postal-community-name
<string>] [postal-zip-code <value>] [room-number <value>]
[state <string>] [street <string>] [street-suffix <string>]
```


Copyright © 2007, Nortel Networks

Parameters

This command includes the following parameters:

config lldp location-identification civic-address followed by:	
[country-code <value 2>]	Specifies the country code.
[additional-code <value>]	Specifies the additional code.
[additional-information <string>]	Specifies the additional information.
[apartment <value>]	Specifies the apartment.
[block <string>]	Specifies the block.
[building <string>]	Specifies the building.
[city <string>]	Specifies the city.
[city-district <string>]	Specifies the city district.
[county <string>]	Specifies the county.
[floor <value>]	Specifies the floor.
[house-number <value>]	Specifies the house-number.
[house-number-suffix <string>]	Specifies the house-number-suffix.
[landmark <string>]	Specifies the landmark.
[leading-street-direction <string>]	Specifies the leading street direction.
[name <string>]	Specifies the name.
[p.o.box <value>]	Specifies the post office box number.
[place-type <string>]	Specifies the place-type.
[postal-community-name <string>]	Specifies the postal community name.
[postal-zip-code <value>]	Specifies the postal zip code.
[room-number <value>]	Specifies the room number.
[state <string>]	Specifies the state.
[street <string>]	Specifies the street.
[street-suffix <string>]	Specifies the street suffix.
[trailing-street-suffix <string>]	Specifies the trailing street suffix.

config lldp location-identification ecs-elin

This command sets the location-identification elin (emergency location identification number

Syntax

```
config lldp location-identification ecs-elin <string 10-25>
```


Copyright © 2007, Nortel Networks

config lldp info

This command displays the global LLDP configuration.

Syntax

```
config lldp info
```

config log

This command configures and displays the log files for the switch. When you save the **config bootconfig flags logging true** command in the configuration file, the log entries are written to the **/pcmcia/syslog.txt** file. If the logging flag is not set to true, the entries are stored in memory.

Syntax

```
config log
```

Parameters

This command includes the following options:

config log **followed by:**	
info	Displays the current log settings.
clear	Clears the log file.
level [<level>]	Shows and sets the logging level. **level** is one of these values: • 0 = Information; all messages are recorded. • 1 = Warning; only warning and more serious messages are recorded. • 2 = Error; only error and more serious messages are recorded. • 3 = Manufacturing; this parameter is not available for customer use. • 4 = Fatal; only fatal messages are recorded.
screen [<setting>]	Sets the log display on the screen to on or off. **setting** is **off** or **on**. The default is off.

Copyright © 2007, Nortel Networks

config log followed by:	
write <str>	Writes the log file with the designated string. str is the string or command that you append to the log file. If the string contains spaces, you must enclose the string in quotation marks. The range is 1 to 432 characters.
logToPCMCIA <true|false>	Specifies logging the entries the pcmcia file.
config log filter <filter>	Specifies the config log filter.
config log filter transfer file <filter>	Specifies the config log filter transfer file.

config log filter add

This command adds a new string for matching.

Syntax

```
config log filter add <string> action <value> [pos <value>]
```

Parameters

This command includes the following options:

config log filter add followed by:	
<string>	Specifies the string to match. The string length can be 1 to 80.
action <value>	Specifies the filter match action. The values are: drop|file only|screen only|both.
pos <value>	Specifies the position for inserting the filter string. The values are 1 to 50.

config log filter delete

This command deletes an entry specified by string or by position.

Syntax

```
config log filter delete [string <value>] [pos <value>]
```


Copyright © 2007, Nortel Networks

Parameters

This command includes the following options:

config log filter delete followed by:	
string <value>	Specifies the string to delete. The value can be 1 to 80.
pos <value>	Specifies the position to delete the filter string. The values can be 1 to 80.

config log filter info

This command displays the configured string with position numbers.

Syntax

config log filter info

config mlt

This command sets up MultiLink Trunking (MLT) on the switch.

Syntax

config mlt <mid>

where

mid is the MLT ID. The valid values are 1 to 31.

Parameters

This command includes the following parameters:

config mlt <mid> followed by:	
info	Displays the current settings for the specified MLT.
create	Creates an MLT with the specified MLT ID.
delete	Deletes the specified MLT.

Copyright © 2007, Nortel Networks

config mlt <mid> followed by:	
name <string>	Indicates the name of the MLT. • string is 1 to 20 alphanumeric characters.
perform-tagging <enable|disable>	Enables or disables tagging on the specified MLT. The default value is disable.

config mlt add

This command adds ports to an MLT.

Syntax

config mlt <mid> add

where

mid is the MLT ID. The valid values are 1 to 31.

Parameters

This command includes the following parameters:

config mlt <mid> add followed by:	
info	Displays ports added to the MLT.
ports <ports>	Adds ports to the MLT. • ports is the port number or a list of ports you want to add to the MLT. Use the following convention when adding one or more ports to the MLT: {slot/port[-slot/port][,...]}.
vlan <vid>	Adds the initial configuration of the specified Virtual LAN (VLAN) to the MLT.

Copyright © 2007, Nortel Networks

config mlt <mid> add followed by:	
	• vid is the VLAN ID number, which has a value range of 1 to 4000.

config mlt add ports

This command adds ports to a link aggregation group.

Syntax

config mlt <mid> add ports <ports>

Parameter

This command includes the following parameters:

config mlt add ports command parameters

Parameters	Description
<mid>	A value that uniquely identifies the link aggregation group. • For 8348 modules, allowable MIDs are 1-7. • For 8324 modules, allowable MIDs are 1-31.
ports <ports>	Define the ports to add to the link aggregation group. • **Ports** *:* The port(s) to be added to the link aggregation group, expressed as: {slot/port[-slot/port][,...]}.

config mlt add vlan

This command adds a VLAN to a link aggregation group.

Syntax

config mlt <mid> add vlan <vid>

Copyright © 2007, Nortel Networks

Parameter:

This command includes the following parameters:

config mlt add vlan command parameters

Parameters	Description
<mid>	A value that uniquely identifies the link aggregation group. • For 8348 modules, allowable MIDs are 1-7. • For 8324 modules, allowable MIDs are 1-31.
vlan <vid>	Defines the VLAN to add to the link aggregation group. • **VID** *:* The VLAN ID to be added to the link aggregation group.

config mlt create

This command creates a link aggregation group.

Syntax

config mlt <mid> create

where

mid is a value that uniquely identifies the link aggregation group.

- For 8348 modules, allowable MIDs are 1-7.
- For 8324 modules, allowable MIDs are 1-31.

config mlt delete

This command deletes a link aggregation group.

Syntax

config mlt <mid> delete

where

mid is the link aggregation group number you want to delete.

config mlt ntstg disable

This command enables the Cisco-compatible Spanning Tree mode, you must disable the NTSTG mode.

Copyright © 2007, Nortel Networks

Syntax

config mlt <mid> ntstg disable

where

mid is a value that uniquely identifies the link aggregation group. When the NTSTG mode is disabled, the Cisco-compatible mode is automatically enabled.

config mlt remove ports

This command removes ports from a link aggregation group.

Syntax

config mlt <mid> remove ports <ports>

Parameter

This command includes the following parameters:

Parameters	Description
<mid>	A value that uniquely identifies the link aggregation group. • For 8348 modules, allowable MIDs are 1-7. • For 8324 modules, allowable MIDs are 1-31.
ports <ports>	Define the ports to remove from the link aggregation group. • **Ports** *:* The port(s) to be added to the link aggregation group, expressed as: {slot/port[-slot/port][,...]}.

config mlt remove

This command removes ports or Virtual LANs (VLANs) from a MultiLink Trunk (MLT).

Syntax

config mlt <mid> remove

where *mid* is the MLT ID. The valid values are 1 to 31.

Copyright © 2007, Nortel Networks

Parameters

This command includes the following parameters:

config mlt <mid> remove **followed by:**	
info	Displays the ports removed from the MLT.
ports <ports>	Removes ports from the MLT. • **ports** is the port number or a list of ports to be removed from the MLT. Use the following convention when removing one or more ports from the MLT: **{slot/port[-slot/port]**[,...]}.
vlan <vid>	Removes the specified VLAN from the MLT. • **vid** is the VLAN ID number, which has a value range of 1 to 4000.

config mlt remove vlan

This command removes a VLAN from a link aggregation group.

Syntax

config mlt <mid> remove vlan <vid>

Parameter

This command includes the following parameters:

Parameters	Description
<mid>	A value that uniquely identifies the link aggregation group. • For 8348 modules, allowable MIDs are 1-7. • For 8324 modules, allowable MIDs are 1-31.

Copyright © 2007, Nortel Networks

Parameters	Description
vlan <vid>	Defines the VLAN to remove from the link aggregation group. • **VID** *:* The VLAN ID to be removed from the link aggregation group.

config mlt smlt

This command create an SMLT from an existing MLT.

Syntax

config mlt <mid> smlt

where

- mid is the MLT ID.

Parameters

This command includes the following parameters:

config mlt smlt **followed by:**	
info	Shows ports and VLANs added to the multilink trunk.
create smlt-id<value>	Creates an SMLT from an existing MLT. • <value> is an integer value with a range of 1 to 32. This value must match the peer switch SMLT-ID ***Note:*** If the SMLT-ID already exists on a Single Port SMLT, you cannot assign the same ID to an MLT-based SMLT.
delete	Deletes an existing SMLT.

config nsna

This command globally enables or disables nsna ports to be configured. Note: When nsna is enabled globally, nsna vlans and filters cannot be changed.

Syntax

config nsna

Copyright © 2007, Nortel Networks

Parameters

This command includes the following parameters:

config nsna followed by:	
info	Displays the state of the NSNA parameters.
state <enable|disable>	Enables or disables configuration of NSNA ports.

config nsna nsnas

Syntax

This command configures the NSNA Server (NSNAS) 4050 subnet.

```
config nsna nsnas <ipaddr/mask>
```

where

<ipaddr/mask> is the NSNAS 4050 pVIP address and network mask. Appropriate entries are a.b.c.d/x | a.b.c.d/x.x.x.x | default.

Note: In the default Red filter, the pVIP address restricts the communication of clients in the Red state to the NSNAS 4050. If you use one NSNAS 4050 in the network, use a physical IP address with a 32-bit mask to further restrict traffic flow. The subnet that you specify is added to the filters (Red, Yellow, and VoIP). If you change the NSNAS 4050 subnet after you associate the filters with the NSNA VLANs, you must manually update the NSNAS 4050 subnet in the filters.

Parameters

This command includes the following parameters:

config nsna nsnas <ipaddr/mask> followed by:	
add	Specifies the pVIP address of the NSNAS 4050.
delete	Deletes the pVIP address of the NSNAS 4050. You must globally disable NSNA before you can remove the NSAS 4050.

Copyright © 2007, Nortel Networks

config nsna nsnas <ipaddr/mask> followed by:	
info	Shows the current level parameter settings and next level directories.
nsna-port<value>	Defines the TCP port number for the Switch to NSNAS 4050 Communication Protocol (SSCP) server. The default setting is 5000.

config nsna phone-signature

Use this command to specify IP phone signatures for the NSNA solution.

Syntax

```
config nsna phone-signature
```

Parameters

This command includes the following parameters:

config nsna phone-signature followed by:	
add <string>	Adds a phone signature. String length is in the range 1–64 characters.
delete <string>	Deletes a phone signature. String length is in the range 1–64 characters.
info	Displays information about currently configured phone signatures.

config nsna state

Use this command to enable or disable NSNA.

Syntax

```
config nsna state <enable|disable>
```

where

<enable|disable> enables or disables NSNA.

Copyright © 2007, Nortel Networks

config poe card admin

This command sets the main power administration on the power over ethernet card on the Ethernet Routing Switch 8300.

Syntax

config poe card <slot_number> admin <enable|disable>

where

slot_number is the number of the slot where the power over ethernet card resides.

Parameters

This command includes the following parameters:

config poe card <slot_number> admin **followed by:**	
disable	Disables POE power administration.
enable	Enables POE power administration.

config poe card info

This command shows power information on the power over ethernet card on the Ethernet Routing Switch 8300.

Syntax

config poe card <slot_number> info

where

slot_number is the number of the slot where the power over ethernet card resides.

config poe card notification-control

This command sets the notification control on the power over ethernet card on the Ethernet Routing Switch 8300.

Syntax

config poe card <slot_number> notification-control <enable|disable>

where

slot_number is the number of the slot where the power over ethernet card resides.

Copyright © 2007, Nortel Networks

Parameters

This command includes the following parameters:

config poe card <slot_number> notification-control followed by:	
disable	Disables POE notification control.
enable	Enables POE notification control.

config poe card power-priority

This command sets the power allocation priority on the power over ethernet card on the Ethernet Routing Switch 8300.

Syntax

config poe card <slot_number> power-priority <low|high|critical>

where

slot_number is the number of the slot where the power over ethernet card resides.

Parameters

This command includes the following parameters:

config poe card <slot_number> power-priority followed by:	
low	Specifies low power allocation priority.
high	Specifies high power allocation priority.
critical	Specifies critical power allocation priority.

config poe card power-usage-threshold

This command sets the usage threshold on the power over ethernet card on the Ethernet Routing Switch 8300.

Syntax

config poe card <slot_number> power-usage-threshold <0..99>

Copyright © 2007, Nortel Networks

where

slot_number is the number of the slot where the power over ethernet card resides.

config poe port admin

This command sets the power over ethernet port administrative status at the port level.

Syntax

config poe port <port_number> admin <enable|disable>

where

port_number is the number of the port where the power over ethernet card resides.

Parameters

This command includes the following parameters:

config poe port <port_number> admin **followed by:**	
disable	Disables POE power administration.
enable	Enables POE power administration.

config poe port info

This command displays the power over ethernet port power information at the port level.

Syntax

config poe port <port_number > info

where

port_number is the number of the port where the power over ethernet card resides.

config poe port power-detection-control

This command sets the power detection control for the power over ethernet ports on the Ethernet Routing Switch 8300.

Syntax

config poe port <port_number> power-detection-control

Copyright © 2007, Nortel Networks

where

port_number is the number of the port where the power over ethernet card resides.

Parameters

This command includes the following parameters:

config poe port <port_number> power-detection-control **followed by:**	
auto	Sets POE power detection control to automatic.
test	Sets POE power detection control to test.

config poe port power-limit

This command sets the power limits on power over ethernet port on the Ethernet Routing Switch 8300.

Syntax

config poe port <port_number> power-limit <3..16>

where

port_number is the number of the port where the power over ethernet card resides.

config poe port power-priority

This command sets the power priority for the power over ethernet port on the Ethernet Routing Switch 8300.

Syntax

config poe port <port_number> power-priority <low|high|critical>

where

port_number is the number of the port where the power over ethernet card resides.

Copyright © 2007, Nortel Networks

Parameters

This command includes the following parameters:

config poe port <port_number> power-priority followed by:	
low	Specifies low power allocation priority.
high	Specifies high power allocation priority.
critical	Specifies critical power allocation priority.

config poe port type

This command sets the port type for the power over ethernet port on the Ethernet Routing Switch 8300.

Syntax

config poe port <port_number> type

where

port_number is the number of the port where the power over ethernet card resides.

Parameters

This command includes the following parameters:

config poe port <port_number> type followed by:	
other	Specifies other port type.
telephone	Specifies a telephone as the port type.
webcam	Specifies webcam as the port type.
wireless	Specifies wireless as the port type.

config qos egress-counter-set

Use this command to configure an egress counter that displays the statistics you want to monitor.

Copyright © 2007, Nortel Networks

Syntax

config qos egress-counter-set <counter_set_id>

where

<counter_set_id> is a value in the range from 1 to 40.

Parameter

This command includes the following options:

config qos egress-counter-set <counter_set_id> **followed by:**	
create port <port_num>	Configures the port(s) that you want the counter set to monitor. If you configure one or more ports, the switch disables MONITOR ALL PORTS, which is enabled by default.
create vlan <vlan_id>	Configures the VLAN that you want the counter set to monitor. If you configure a VLAN, the switch disables MONITOR ALL VLANS, which is enabled by default. The VLAN range is 1 to 4000.
create queue <tx_queue_id>	Configures the tx queue ID (0 to 7) that you want the counter set to monitor. If you configure a queue, the switch disables MONITOR ALL Qs, which is enabled by default.
create dp <dp_level>	Configures the Drop Precedence level (low, medium or high) that you want the counter set to monitor. If you configure a Drop Precedence level, the switch disables MONITOR ALL DPs, which is enabled by default.

config qos mac-qos-level-override

Use this command to enable the MAC QoS level and override the ports QoS level.

Syntax

config qos mac-qos-level-override

Copyright © 2007, Nortel Networks

Parameters

This command includes the following parameters:

config qos mac-qos-level-override followed by:	
enable	Enables mac-qos-level-override.
disable	Disables mac-qos-level-override.

config qos map

Use this command to configure QoS mapping tables.

Syntax

```
config qos map
```

Parameter

This command includes the following options:

config qos map followed by:	
info	Displays the QoS mapping information for all ports.
8021p-to-class-map <802.1p> <traffic-class>	Maps the value of the IEEE802.1 p bit (0 to 7) of the incoming packet to one of the traffic classes (0 to 7).
8021p-to-drop- precedence-map <802.1p> <drop-precedence>	Maps the value of the IEEE802.1 p bit (0 to 7) of the incoming packet to one of the following drop precedence levels: • low • medium • high Packets marked with a higher drop precedence will be dropped first during periods of congestion.
class-to-8021p-map <802.1p> <traffic-class>	Maps the value of the traffic class (0 to 7) to the IEEE802.1 p bit (0 to 7) of the incoming packet.

Copyright © 2007, Nortel Networks

config qos map **followed by:**	
class-to-8021p-policed-map <conformance-level> <traffic-class> <802.1p>	Maps the value of the traffic class (0 to 7) to the IEEE802.1 p bit (0 to 7) of the incoming packet based on one of the following conformance levels. • **red** means the packet exceeds the PIR (Peak Information Rate). • **yellow** means the packet does not exceed the PIR, but it does exceed the CIR (Committed Information Rate). • **green** means the packet does not exceed the CIR. The conformance level is the outcome of policing and indicates the behavior of a traffic flow.
dscp-to-cos-policed -map <conformance-level> <dscp> <traffic-class> <8021p> <drop-precedence>	Maps the value of the DSCP (0 to 63) to the CoS of the incoming packet based on one of the following conformance levels. • **red** means the packet exceeds the PIR (Peak Information Rate). • **yellow** means the packet does not exceed the PIR, but it does exceed the CIR (Committed Information Rate). • **green** means the packet does not exceed the CIR. The conformance level is the outcome of policing and indicates the behavior of a traffic flow. After the conformance level, enter the p bit value (0 to 7), the traffic class value (0 to 7), and the drop precedence level (low|medium|high).

config qos policy create

Use this command to create a Quality of Service policy.

Copyright © 2007, Nortel Networks

Syntax

config qos policy <policy-id> create

where

<policy-id> specifies the QoS policy ID number and is a unique ID in the range from 1 to 128.

Parameter

This command includes the following options:

config qos policy <policy-id> create **followed by:**	
enable	Enables the policy that you just created. The default is **enable**.
disable	Disables the policy that you just created. The default is **enable**.
name <value>	Names the policy. You can use up to 32 characters to identify the policy. If you do not assign a name, the switch automatically assigns one.
cir <value>	Sets the Committed Information Rate (CIR) in Kbps. The CIR is used to measure against a traffic stream. The CIR specifies the rate at which incoming traffic is measured against to be considered at a high level of conformance. The range is from 64 to 10000000, and the default is **1000**.
cbs <value>	Sets the Committed Burst Size (CBS) in Kbps. The CBS is used to measure against a traffic stream. The CBS specifies the maximum burst size that is supported for flows to be considered to be at a high level of conformance. The range is from 200 to 512000, and the default is **200**.

Copyright © 2007, Nortel Networks

config qos policy <policy-id> create followed by:	
pir <value>	Sets the Peak Information Rate (PIR) in Kbps. The PIR is used to measure against a traffic stream. The PIR specifies the rate at which incoming traffic can arrive to be considered at a medium level of conformance. The range is from 64 to 10000000, and the default is 1000.
pbs <value>	Sets the Peak Burst Size (PBS) in Kbps. The PBS is used to measure against a traffic stream. The PBS specifies the maximum burst size that is supported for flows to be considered to be at a medium level of conformance. The range is from 2 to 512000, and the default is 2.

config qos policy

Use this command to configure an existing Quality of Service policy.

Syntax

config qos policy <policy-id>

where

<policy-id> specifies the QoS policy ID number and is a unique ID in the range from 1 to 128.

Parameter

This command includes the following options:

config qos policy <policy-id> followed by:	
info	Displays the configuration information for the selected policy.
action drop <enable|disable>	Configures the policy to drop nonconforming traffic. The default is to disable this parameter.
action rmk-cos <enable|disable>	Configures the policy to re-mark CoS parameters. If enabled, the CoS parameters are re-marked according to the DSCP to CoS mapping table. The default is to disable this parameter.

Copyright © 2007, Nortel Networks

config qos policy <policy-id> followed by:	
action rmk-8021p <enable|disable>	Configures the policy to re-mark the 802.1 user priority parameters. If enabled, the user priority is re-marked according to the TrafficClass to 8021p mapping table. The default is to disable this parameter.
action rmk-dp <enable|disable>	Configures the policy to re-mark drop precedence according to the conformance level. The default is to disable this parameter.
delete	Deletes the selected policy.
modify <enable|disable>	Enables or disables the selected policy.
modify name <value>	Changes the name of the policy. You can use up to 32 characters to identify the policy.
modify cir <value>	Changes the Committed Information Rate (CIR) in Kbps. The range is from 64 to 10000000, and the default is **1000**.
modify cbs <value>	Changes the Committed Burst Size (CBS) in Kbps. The range is from 2 to 512000, and the default is **200**.
modify pir <value>	Changes the Peak Information Rate (PIR) in Kbps. The range is from 64 to 10000000, and the default is **1000**.
modify pbs <value>	Changes the Peak Burst Size (PBS) in Kbps. The range is from 2 to 512000, and the default is **200**.

config radius

This command configures Remote Access Dial-in User Services (RADIUS) on the switch.

Syntax

config radius

Copyright © 2007, Nortel Networks

Parameters

This command includes the following parameters:

config radius **followed by:**	
info	Displays global RADIUS settings.
access-priority-attribute <value>	Specific to RADIUS authentication. Sets the vendor-specific attribute value of the Access-Priority attribute to match the type value set in the dictionary file on the RADIUS server. Nortel Networks recommends the default setting of 192 for the Ethernet Routing Switch 8300. The value range is between 192 and 240.
acct-attribute-value **<value>**	Specific to RADIUS accounting. Sets the vendor-specific attribute value of the CLI-command attribute to match the type value set in the dictionary file on the RADIUS server. This value must be different from the access-priority-attribute value configured for authentication. The value range is between 192 and 240 and the default value is 193.
acct-enable <true|false>	Enables (**true**) or disables (**false**) RADIUS accounting globally. RADIUS accounting cannot be enabled unless a valid server is configured. This feature is disabled by default.
acct-include-cli-commands <true|false>	Specifies whether CLI commands are to be included in RADIUS accounting requests. If this parameter is set to true, the commands are included in the requests. If this parameter is set to false, the commands are not included and interim updates are not sent.
cli-commands- attribute <value>	Specifies the value for the cli commands attribute.
cli-profile-enable <true|false>	Specifies Enabling of the profile globally. The default is false.
command-access-attribute <value>	Specific to RADIUS authentication. Sets the vendor-specific attribute value of the Access-Priority attribute to match the type value set in the dictionary file on the RADIUS server. Nortel Networks recommends the default setting of 192 for the Ethernet Routing Switch 8300. The value range is between 192 and 240.
clear-stat	Clears RADIUS statistics from the server.

Copyright © 2007, Nortel Networks

config radius followed by:	
enable <true|false>	Enables (true) or disables (false) the RADIUS authentication feature.
maxserver <value>	Specific to RADIUS authentication. Sets the maximum number of servers allowed for the switch. The value range is between 1 and 10.

config radius server

This command adds a Remote Access Dial-in User Services (RADIUS) server.

Syntax

```
config radius server
```

Parameters

This command includes the following parameters:

config radius server followed by:	
info	Displays a list of all configured RADIUS servers.
delete <ipaddr> usedby {cli|eapol}	Deletes a radius server. • ipaddr is the IP address of the server to be deleted in dotted-decimal notation {a.b.c.d}. • usedby {cli|igap|snmp|eapol} selects one of the following protocols for the user: - Command Line (CLI) - Extensible Authentication Protocol over LANS (EAPOL)

Copyright © 2007, Nortel Networks

config radius server **followed by:**	
create **<ipaddr>** **secret** **<value>** **[usedby** **<value>** **[port** **<value>** **] [priority** **<value>** **] [retry** **<value>** **] [timeout** **<value>** **] [enable** **<value>] [acct-port** **<value>** **] [acct-enable** **<value>** **]**	Creates and configures a server: • **ipaddr** is the IP address of the server to add in dotted-decimal notation {a.b.c.d}. • **secret <value>** is the secret key of the server. Its string length is 0..20. Optional parameters: • **usedby <value>** selects one of the following protocols for the user: - Command Line (CLI) - Extensible Authentication Protocol over LANS (EAPOL) • **port <value>** is the UDP port value for authentication (1..65535). The default value is 1812. • **priority <value>** is the priority value for this server (1..10). The default is 10. • **retry <value>** is the maximum number of authentication retries the server will accept (1..6). The default value is 1. • **timeout <value>** is the number of seconds before the authentication request times out (1..10). The default value is 3. • **enable <value>** enables authentication on the server. • **acct-port <value>** is the UDP port of the RADIUS accounting server (1..65535). The default value is 1813. ***Note:*** The User Datagram Protocol (UDP) port value set for the client must match the UDP value set for the RADIUS server. • **acct-enable <value>** enables RADIUS accounting on this server. By default, RADIUS accounting is enabled on a server.
set **<ipaddr>**	Changes specified server values without having to delete the server and recreate it again:

Copyright © 2007, Nortel Networks

config radius server **followed by:**	
[usedby {cli|eapol}] [secret <value>] [port <value>] [priority <value>] [retry <value>] [timeout <value>] [enable <true|false>] [acct-port <value>] [acct-enable <true|false>]	• **ipaddr** is the IP address of the server to change in dotted-decimal notation {a.b.c.d}. Optional parameters: • **secret <value>** is the secret key of the authentication client. The string length is 0..20. • **usedby {cli|igap|snmp|eapol}** selects one of the following protocols for the user: - Command Line (CLI) - Extensible Authentication Protocol over LANS (EAPOL) ***Note:*** When changing a parameter, the usedby parameter must be included. It is not optional. • **port <value>** is the UDP ports to be used (1..65535). The default value is 1812. • **priority <value>** is the priority value for this server (1..10). The default value is 10. • **retry <value>** is the maximum number of authentication retries the server will accept (1..6). The default value is 1. • **timeout <value>** is the number of seconds before the authentication request times out (1..10). The default value is 3. • **enable <true|false>** true enables the server and false disables it. The default is true. • **acct-port <value>** The UDP port of the RADIUS accounting server (1..65535). The default value is 1813. ***Note:*** The User Datagram Protocol (UDP) port value set for the client must match the UDP value set for the RADIUS server.

Copyright © 2007, Nortel Networks

config radius server followed by:	
	• **acct-enable <true|false> true** enables RADIUS accounting on the server and **false** disables it. By default, RADIUS accounting is enabled on a server.

config rmon

This command configures the Remote Monitoring (RMON) functions on the switch.

Syntax

config rmon

Parameters

This command includes the following options:

config rmon followed by:	
info	Displays whether RMON is enabled or disabled on the switch.
alarm create <id> type <value> intv <value> variable <value> [r_th <value>] [r_ev <value>] [f_th <value>] [f_ev <value>] [owner <value>]	Creates an alarm interface. • **id** is the interface index number (1 to 65535). • **type <value>** is the sample type, absolute or delta. • **intv <value>** is the sample interval (1 to 3600). • **variable <value>** is the variable name or Object Identifier (OID), case sensitive (string length 1 to 1536). ***Note:*** The rising or falling event must exist before an alarm can be created. Optional parameters:

Copyright © 2007, Nortel Networks

config rmon **followed by:**	
	• **r_th <value>** is the rising threshold (– 32768 to + 65535). • **r_ev <value>** is the rising event number (1 to 65535). • **f_th <value>** is the falling threshold ((– 32768 to + to 65535). • **f_ev <value>** is the falling event number (1 to 65535). • **owner <value>** is the name of the owner (string length 1 to 48).
alarm delete <id>	Deletes the specified RMON alarm.
alarm info	Displays information about the RMON alarms.
disable	Disables RMON on the switch.
enable	Enables RMON on the switch.
ether-stats create <id> <ports> [owner <value>]	Creates an ether-stats control interface. • **id** is the index number of the ether-stats control interface (1 to 65535). • **ports** is the single port interface {*slot*/*port*[-slot/port][,...]}. Optional parameter: • **owner <value>** is name of the owner (string length 1 to 48).

Copyright © 2007, Nortel Networks

config rmon **followed by:**	
ether-stats delete <id>	Deletes an ether-stats control interface. **id** is the index number of the ether-stats control interface (1 to 65535).
ether-stats info	Displays the current ether-stats settings.
ether-stats owner <id> <name>	Changes the owner name for the ether-stats control interface. • **id** is the index number of the ether-stats control interface (1 to 65535). • **name** is name of the owner (string length 1 to 48).
event create <id> trap_src <value> trap_dest <value> [desc <value>] [type <value>] [community <value>] [owner <value>]	Creates an event. • **id** is the event index number (1 to 65535). • **trap_src <value>** is the trap source IP address. • **trap_dest <value>** is the trap destination IP address. Optional parameters: • **desc <value>** is the event description (string length 0 to 127). • **type <value>** is the event type, **none**, **log**, **snmp-trap**, or **log-and-trap**. The default is log-and-trap • **community <value>** is the event community (string length 1 to 127). The default is public. • **owner <value>** is the name of the owner (string length 1 to 48). The default is cli.

Copyright © 2007, Nortel Networks

config rmon **followed by:**	
event delete <id>	Deletes an event control interface. **id** is the event index number (0 to 65535).
event info	Displays the event information.
history-control create <id> <ports> [buckets <value>] [intv <value>] [owner <value>]	Creates a history control interface. • **id** is the index number of the history control interface (1 to 65535). • **ports** is the single port interface {*slot*/*port*[-*slot*/*port*][,...]}. Optional parameters: • **buckets <value>** is the number of buckets requested (1 to 350). The default is 50. • **intv <value>** is the time interval in seconds over which the data is sampled for each bucket (1 to 3600). The default is 1800. • **owner <value>** is the name of the owner (string length 1 to 48). The default is cli.
history-control delete <id>	Deletes a history control interface. **id** is the interface index number of the history control interface (1 to 65535).
history-control info	Displays the setting for history control interfaces.
memsize <memsize>	Sets the amount of RAM in bytes to allocate for RMON. **memsize** is the memory size in bytes (250000 to 4000000).

Copyright © 2007, Nortel Networks

config rmon followed by:	
trap-option <toOwner|toAll>	Controls whether the RMON traps should be sent to the owner or all trap recipients. toOwner|toAll is set to either the owner or all trap recipients.
util-method <half|full>	Controls whether port utilization is calculated in half or full duplex.

config slot

This command enables or disables the administrative status of the module.

Syntax

```
config slot <slots>
```

where

slots are the slot numbers in the chassis (**slot [-slot] [,...]**), which have a number range of 1 to 10.

Note: Slots are numbered from top to bottom in the Ethernet Routing Switch 8300.

Parameters

This command includes the following parameters:

config slot <slots> followed by:	
info	Displays the administrative status of the module.
state <enable|disable>	Enables or disables the administrative status of the module.

config slpp

This command configures Simple Loop Prevention Protocol (SLPP).

Syntax

```
config slpp
```


Copyright © 2007, Nortel Networks

Parameters

This command includes the following parameters:

config slpp **followed by:**	
add<vid>	Adds a VLAN to a SLPP transmission list. • <vid> is the ID of the VLAN.
etherType<pid>	Specifies the SLPP PDU Ether type. • <pid> is the SLPP protocol ID in hexadecimal (0x8104) or decimal (12345) format.
remove<vid>	Removes a VLAN from a SLPP transmission list. • <vid> is the ID of the VLAN.
info	Shows current level parameter settings and next level directories.
operation <enable|disable>	Enables or disables the SLPP operation. ***Note:*** The SLPP packets transmit and receive process is active only when the SLPP operation is enabled. When the SLPP operation is disabled, no SLPP packet is sent out, and any received SLPP packet is discarded.
tx-interval <integer>	Sets the SLPP packet transmit interval. • <integer> is the SLPP packet transmit interval. The range is 500 to 5000 ms, and the default is 500 ms.

config snmp-server

This command enables or disables the snmp server.

Copyright © 2007, Nortel Networks

Syntax

```
config snmp-server
```

Parameters

This command includes the following parameters:

config snmp-server **followed by:**	
info	Displays the status of the snmp server.
bootstrap <minsecure|semisecure|verysecure>	Specifies the security level for bootstrapping.

config snmp-v3 community

This command configures a Simple Network Management Protocol (SNMP) version 3 community on an 8300 Series switch.

Syntax

```
config snmp-v3 community
```

Parameters

This command includes the following parameters:

config snmp-v3 community **followed by:**	
info	Displays the current snmp-v3 settings.
create <Comm Idx> <name> <securityname>	Creates a community on an 8300 Series switch. • **Comm Idx** specifies a unique index value of a row in this table. Its range is 1 to 32 characters. • **name** specifies a community string for a row to represent a configuration in this table. Its range is 1 to 20 characters. • **securityname** specifies a security name which maps to a community string in the View-based Access Control Model (VACM) Group Member Table. Its range is 1 to 32 characters.

Copyright © 2007, Nortel Networks

config snmp-v3 community followed by:	
delete <Comm Idx>	Deletes an entry for community table. • Comm Idx is a unique index value of a row in this table. Its range is 1 to 32.
name <Comm Idx> <new-name>	Changes the name for an entry in the community table. • Comm Idx is a unique index value of a row in this table. Its range is 1 to 32. • name specifies a community string for a row to represent a configuration in this table. Its range is 1 to 255 characters.
security <Comm Idx> <new-security>	Changes the security name for an entry in the community table. • Comm Idx is a unique index value of a row in this table. Its range is 1 to 32 characters. • securityname specifies a security name which maps to a community string in the View-based Access Control Model (VACM) Group Member Table. Its range is 1 to 32 characters.

config snmp-v3 group-access

This command configures access for a group in the View-based Access Control Model (VACM) table on an 8300 Series switch.

Syntax

```
config snmp-v3 group-access
```


Copyright © 2007, Nortel Networks

Parameters

This command includes the following parameters:

config snmp-v3 group-access **followed by:**	
info	Displays the current level parameter settings and next level directories.
create <group name> <prefix> <model> <level>	Creates a new group member. • **group name** creates a new entry with this group name. Its range is 1 to 32 characters. • **prefix** assigns a context prefix. Its range is 0 to 32 characters. • **security model** assigns authentication checking to communicate with the switch. One of the following options can be entered: **usm** for the user-based security model **snmpv1** for SNMP version 1 **snmpv2c** for SNMP version 2c • **level** assigns the minimum level of security required to gain the access rights allowed by this conceptual row. Optional parameter: • **match** has the following options: **exact** specifies that all rows where the context Name exactly matches the context prefix are selected. **prefix** specifies that all rows where the context Name whose starting octets exactly match the context prefix are selected.
delete <group name> <prefix> <model> <level>	Removes group access from the v3 VACM table. The range is 1 to 32 characters.

Copyright © 2007, Nortel Networks

config snmp-v3 group-access **followed by:**	
match <exact|prefix> <group name> <prefix> <security model> <level>	Changes group access context match for the v3 VACM table. • **group name** is the name of the group member. Its range is 1 to 32 characters. • **prefix** is the context prefix. Its range is 0 to 32 characters. • **security model** is the authentication checking for communication with the switch. One of the following options can be entered: **usm** for the user-based security model **snmpv1** for SNMP version 1 **snmpv2c** for SNMP version 2c • **level** is the minimum level of security required to gain the access rights allowed by this conceptual row.
view <group name> <prefix> <model> <level> [read <value>] [write <value>]	Changes group access view name match for the v3 VACM table. • **group** name is the name of the group member. Its range is 1 to 32 characters. • **prefix** is the context prefix. Its range is 1 to 32 characters. • **security model** is the authentication checking for communication with the switch. One of the following options can be entered: **usm** for the user-based security model **snmpv1** for SNMP version 1 **snmpv2c** for SNMP version 2c • **level** is the minimum level of security required to gain the access rights allowed by this conceptual row.

config snmp-v3 group-member

This command configures a group member in the View-based Access Control Model (VACM) table on an 8300 Series switch.

Copyright © 2007, Nortel Networks

Syntax

config snmp-v3 group-member

Parameters

This command includes the following parameters:

config snmp-v3 group-member **followed by:**	
info	Displays the VACM group membership configuration.
create <user name> <security model> [<group name>]	Creates a new group member. • **user name** creates a new entry with this user name. Its range is 1 to 32 characters. • **security model** specifies the message processing model to use when generating a Simple Network Management Protocol (SNMP) message. One of the following options can be entered: **usm** for the user-based security model **snmpv1** for SNMP version 1 **snmpv2c** for SNMP version 2c Optional parameter: • **group name** assigns the user to the group for data access. Its range is 1 to 32 characters.
delete <user name> <security model>	Deletes a user group from the v3 VACM table. The range is 1 to 32 characters.
name <user name> <security model> <group name>	Changes the group name for the v3 VACM table. • **user name** is the name of the group member. Its range is 1 to 32 characters. • **security model** is the message processing model to use when generating a Simple Network Management Protocol (SNMP) message. One of the following options can be entered: **usm** for the user-based security model **snmpv1** for SNMP version 1

Copyright © 2007, Nortel Networks

config snmp-v3 group-member followed by:	
	snmpv2c for SNMP version 2c • **group name** is the user of the group for data access. Its range is 1 to 32 characters.

config snmp-v3 mib-view

This command configures an entry for the Management Information Base (MIB) View table on an 8300 Series switch.

Syntax

config snmp-v3 mib-view

Parameters

This command includes the following parameters:

config snmp-v3 mib-view followed by:	
info	Displays the current snmp-v3 mib-view information.
create <view name> <subtree oid> [new-mask <value>] [new-type <include|exclude>]	Creates a new entry for the MIB View table. • **view name** creates a new entry with this group name. Its range is 1 to 32 characters. • **subtree oid** is the prefix that defines the set of MIB objects accessible by this Simple Network Management Protocol (SNMP) entity. Its range is 1 to 32 characters. Optional parameters: • **new-mask <value>** specifies that a bit mask be used with vacmViewTreeFamilySubtree to determine whether an Object Identifier (OID) falls under a view subtree. Its range is 1 to 32 characters. • **new-type <include|exclude>** determines whether access to a MIB object is granted (**include**) or denied (**exclude**).

Copyright © 2007, Nortel Networks

config snmp-v3 mib-view **followed by:**	
delete <view name> <subtree oid>	Deletes an entry for the MIB View table. • **view name** is the entry with this group name. Its range is 1 to 32 characters. • **subtree oid** is the prefix that defines the set of MIB objects accessible by this Simple Network Management Protocol (SNMP) entity. Its range is 1 to 32 characters.
mask <view name> <subtree oid> <new-mask>	Changes the view mask for an entry in the MIB View table. • **view name** is the entry with this group name. Its range is 1 to 32 characters. • **subtree oid** is the prefix that defines the set of MIB objects accessible by this Simple Network Management Protocol (SNMP) entity. Its range is 1 to 32 characters. • **mask <value>** specifies that a bit mask be used with vacmViewTreeFamilySubtree to determine whether an Object Identifier (OID) falls under a view subtree. Its range is 1 to 32 characters.
type <view name> <subtree oid> <new-type>	Changes the type for an entry in the MIB View table. • **view name** is the entry with this group name. Its range is 1 to 32 characters. • **subtree oid** is the prefix that defines the set of MIB objects accessible by this Simple Network Management Protocol (SNMP) entity. Its range is 1 to 32 characters. • **type <include|exclude>** determines whether access to a MIB object is granted (**include**) or denied (**exclude**).

Copyright © 2007, Nortel Networks

config snmp-v3 usm

This command configures a user in the User-based Security Model (USM) table on an 8300 Series switch.

Syntax

config snmp-v3 usm

Parameters

This command includes the following parameters:

config snmp-v3 usm **followed by:**	
info	Displays the current level parameter settings and next level directories.
create <user name> [<auth protocol>] [auth <value>] [priv <value>]	Creates a new user in the USM table. • **user name** specifies the name used as an index to the table. Its range is 1 to 32 characters. Optional parameters: • **auth protocol** specifies an authentication protocol. If no value is entered, the entry has no authentication capability. The protocol choices are MD5 and SHA. • **auth <value>** specifies an authentication password. If no value is entered, the entry has no authentication capability. Its range is 1 to 32 characters. • **priv <value>** assigns a privacy password. If no value is entered, the entry has no privacy capability. Its range is 1 to 32 characters. ***Note:*** An authentication must be set before a privacy option can be set.
delete <user name>	Deletes a user for the v3 View-based Access Control Model (VACM) table. Its range is 1 to 32 characters.
auth <user name> old-pass <value> new-pass <value>	Changes the authentication password. The range for **user name** and password **value** is 1 to 32 characters.
priv <user name> old-pass <value> new-pass <value>	Changes the privacy password. The range for **user name** and password **value** is 1 to 32 characters.

Copyright © 2007, Nortel Networks

config stg

This command configures parameters for a specified Spanning Tree Group (STG).

Syntax

config stg <sid>

where

sid is the spanning tree group ID, which has a number range of 1 to 25.

Parameters

This command includes the following parameters:

config stg <sid> **followed by:**	
info	Displays characteristics of the spanning tree group.
add ports <ports>	Adds ports to a spanning tree group. • **ports** specif{**[-slot/port]**[,...]}.
create [<ports>] [vlan <value>]	Creates a new spanning tree group. • **ports** specifies one or more ports, shown as **{slot/port[-slot/port][,...]}**. • **vlan <value>** is the VLAN ID. If a VLAN spans multiple switches, it must be within the same STG across all switches.
delete	Deletes the specified spanning tree group.
forward-delay <timeval>	Sets the bridge forward delay time in 1/100 seconds. • **timeval** is between 400 and 3000. The default is 1500 (15 seconds).

Copyright © 2007, Nortel Networks

config stg <sid> followed by:	
group-stp <enable|disable>	Enables or disables the spanning tree protocol on the specified spanning tree group. The default is enable.
hello-interval <timeval>	Sets the bridge hello time in 1/100 seconds. • timeval is between 100 and 1000. The default is 200 (2 seconds).
max-age <timeval>	Sets the bridge maximum age time in 1/100 seconds. • timeval is between 600 and 4000. The default is 2000 (20 seconds).
priority <number>	Sets the bridge priority number. • number is between 0 and 65535. The default is 32768.
remove ports <value>	Removes ports from a spanning tree group. • value specifies one or more ports, shown as {slot/port[-slot/port][,...]}.
trap-stp <enable|disable>	Enables or disables the spanning tree protocol trap for the specified spanning tree group. The default is enable.

config sys access-policy

This command configures IP access policies on the switch.

Copyright © 2007, Nortel Networks

Syntax

config sys access-policy

Parameters

This command includes the following options:

config sys access-policy **followed by:**	
info	Displays the global access policy settings.
enable <true|false>	Globally enables or disables the IP access policy feature on the switch. **false** means no policies on the switch are applied. The default is **false**.

config sys access-policy policy

This command creates or modifies specific access policies.

Syntax

config sys access-policy policy <pid>

where

pid is the number which identifies the policy from 1 to 65535. The policy ID is assigned when the policy is created.

Parameters

This command includes the following options:

config sys access-policy policy <pid> **followed by:**	
info	Displays characteristics of the specified access policy.
accesslevel <level>	Sets an access level for a policy. • **level** is the access level **ro**, **rw**, or **rwa**. The default is ro.

Copyright © 2007, Nortel Networks

config sys access-policy policy <pid> **followed by:**	
create	Creates a new access policy with the specified policy ID.
delete	Deletes the access policy with the specified policy ID.
disable	Disables the specified access policy.
enable	Enables the specified access policy. The default is enable.
host <ipaddr>	Sets the access policy trusted host address. Applicable only for remote login and remote shell execution. • **ipaddr** is the IP address **{a.b.c.d}** of the host used to authenticate the user. The login must be the specified user at the specified host for access.
mode <mode>	Sets the specified access policy to allow or deny access. • **mode** is **allow** or **deny**. The default is allow.
name <name>	Sets a name for the specified access policy. • **name** is a string from 0 to 15 characters (for example Group 1). The default is policy <pid>

Copyright © 2007, Nortel Networks

config sys access-policy policy <pid> **followed by:**	
network <ipaddr/mask>	Sets the access policy network address and subnet mask **{a.b.c.d/x|a.b.c.d/x.x.x.x|default}**. This command defines those stations that are affected by the access policy. If you specify an IP address and subnet mask, that location is either allowed or denied access, depending on the setting of the **mode** command. **default** means that everyone on the network is either allowed or denied access, as defined by the **mode** command.
precedence <precedence>	Sets the access policy precedence. The precedence determines which policy to use if multiple policies apply. • **precedence** is a range from 1 to 128, with the lowest number having the highest precedence. The default is 10.
username <string>	Sets the trusted host user name from the trusted host for the specified policy. Applies only to rlogin access. • **string** is the host user name (0 to 30 characters).

config sys access-policy policy service

This command enables or disables an access service for the specified policy.

Syntax

config sys access-policy policy <pid> service

where

pid is the number which identifies the policy from 1 to 65535. The policy ID is assigned when the policy is created.

Copyright © 2007, Nortel Networks

Parameters

This command includes the following options:

config sys access-policy policy <pid> service followed by:	
info	Displays the status (enable or disable) of each service (e.g., ftp, http, rlogin).
ftp <enable|disable>	Enables or disables FTP for the specified policy. The default is disable.
http <enable|disable>	Enables or disables HTTP for the specified policy.The default is disable.
rlogin <enable|disable>	Enables or disables remote login for the specified policy. The default is disable.
snmp <enable|disable>	Enables or disables Simple Network Management Protocol (SNMP) for the specified policy. The default is enable.
telnet <enable|disable>	Enables or disables telnet for the specified policy. The default is disable.
tftp <enable|disable>	Enables or disables Trivial File Transfer Protocol (TFTP) for the specified policy. The default is disable.

config sys info

This command displays the current level parameter settings and next level directories.

Syntax

```
config sys info
```

config sys link-flap-detect

This command monitors link state changes, and take user-defined action if the port state changes too often.

Syntax

```
config sys link-flap-detect
```


Copyright © 2007, Nortel Networks

Parameters

This command includes the following options:

config sys link-flap-detect followed by:	
info	Displays the link-flap-detect settings.
auto-port-down <enable|disable>	Enables or disables automatic disabling of the port, if the link-flap threshold is exceeded. The default is enable.
frequency <frequency>	Sets the number of changes that are allowed during the time specified by the interval command without activating the auto-port-down function. The frequency range is from 1 to 9999 and the default is 10.
interval <interval>	Sets the link-flap-detect interval in seconds. The interval range is from 2 to 600 and the default is 60.
send-trap <enable|disable>	Enables or disables sending traps. The default is enable.

config sys mcast-software-forwarding

This command sets multicast software forwarding.

Syntax

```
config sys mcast-software-forwarding
```

Parameters

This command includes the following options:

config sys mcast-software-forwarding followed by:	
info	Displays characteristics of multicast software forwarding.
disable	Disables multicast software forwarding.
enable	Enables multicast software forwarding. The default is enable.

config sys set

This command sets individual system-level switch parameters.

Copyright © 2007, Nortel Networks

Syntax

config sys set

Parameters

This command includes the following options:

config sys set **followed by:**	
info	Displays current system settings.
clock-sync-time <minutes>	Configures synchronization between the real-time and the system clocks. • **minutes** is the number of minutes between synchronizations. The range is 15 to 3600 minutes and the default is 60 minutes.
contact <contact>	Sets the contact information for the switch. • **contact** is an ASCII string from 0 to 255 characters (for example a phone extension or email address).
location <location>	Sets the location information for the switch. • **location** is an ASCII string from 1 to 1024 characters (for example, Finance).
mgmt-virtual-ip <ipaddr/mask>	Creates a virtual management port in addition to the physical management ports on the switch management modules. • **ipaddr/mask** is the IP address that you assign to the virtual management port. The default is 0.0.0.0/0.0.0.0.

Copyright © 2007, Nortel Networks

config sys set followed by:	
	Note: The mgmt-virtual-ip address must be on the same subnet as the physical management address.
msg-control <enable|disable>	Enables or disables the system message control. Enable this command to suppress duplicate error messages. The default is disable.
name <prompt>	Sets the box or root level prompt name for the switch. • **prompt** is an ASCII string from 1 to 1024 characters (for example, LabSC7 or Closet4).
portlock <on|off>	Turns port locking on or off. To specify the ports to be locked, use the **config ethernet <ports> lock** command. The default is off.
sendAuthenticationTrap <true|false>	Sets whether or not to send authentication failure traps. The default is false.
topology <on|off>	Turns the topology feature on or off. The topology feature generates topology packets used by Optivity* network management software. When this feature is off, the topology table is not generated. The default is on.

config sys set action

This command resets system functions.

Syntax

config sys set action

Parameters

This command includes the following options:

config sys set action followed by:	
info	Displays the current settings for system actions.
cpuswitchover	Resets the switch to change over to the backup CPU.

Copyright © 2007, Nortel Networks

config sys set action followed by:	
resetconsole	Reinitializes the hardware Universal Asynchronous Receiver/Transmitter (UART) drivers. Use this command only if the console connection is hung.
resetcounters	Resets all the statistics counters in the switch to zero.

config sys set eapol

This command sets eapol.

Syntax

```
config sys set eapol
```

Parameters

This command includes the following options:

config sys set action followed by:	
info	Displays the current settings for EAPOL.
acct-enable <true|false>	Sets the EAPOL.
clear stat	Clears the status of EAPOL.
enable	Activates EAPOL>
disable	Disables EAPOL.

config sys set eapol default-guest-vlan

This command enables the EAPOL default guest VLAN.

Syntax

```
config sys set eapol default-guest-vlan <enable/disable>
```

config sys set eapol guest-vlan

This command enables an EAPOL guest VLAN.

Copyright © 2007, Nortel Networks

Syntax

```
config sys set eapol guest-vlan <vid>
```

config sys set snmp

This command configures the Simple Network Management Protocol (SNMP).

Syntax

```
config sys set snmp
```

Parameters

This command includes the following options:

config sys set snmp **followed by:**	
info	Displays the current SNMP settings.
del-trap-recv <ipaddr>	Deletes the SNMP trap receiver. **ipaddr** is the IP address of the trap receiver.
trap-recv <ipaddr> <v1|v2c> <commstr>	Sets an SNMP trap receiver. • **ipaddr** is the IP address of the trap receiver. • **v1|v2c** is the SNMP version; select version 1 or version 2c. • **commstr** is the input community string from 1 to 20 characters.

config sys syslog

This command enables or disables the sending of syslog messages on the switch, and specifies the maximum number of syslog hosts supported.

Syntax

```
config sys syslog
```


Copyright © 2007, Nortel Networks

Parameters

This command includes the following options:

config sys syslog **followed by:**	
info	Displays the current syslog settings.
max-hosts <maxhost>	Specifies the maximum number of syslog hosts supported. **maxhost** is the maximum number of enabled hosts allowed (1 to 10). The default is 5.
state <enable|disable>	Enables or disables sending syslog messages on the switch. The default is enable.

config sys syslog host

This command configures the syslog host.

Syntax

config sys syslog host <id>

where

id is the syslog host ID. It is a value from 1 to 10.

Parameters

This command includes the following options:

config sys syslog host <id> **followed by:**	
info	Displays system log information for the specified host. This command results in the same output as the **show sys syslog host <id> info** command.
address <ipaddr>	Configures a host location for the syslog host. • **address** is the IP address of the system syslog host. The default is 0.0.0.

Copyright © 2007, Nortel Networks

config sys syslog host <id> **followed by:**	
create	Creates a syslog host.
delete	Deletes a syslog host.
facility <facility>	Specifies the facility used in messages to the syslog host. • **facility** is the system syslog host facility (LOCAL0 to LOCAL7). The default is LOCAL7.
host <enable|disable>	Enables or disables the syslog host. The default is disable.
mapinfo <level>	Specifies the syslog severity level to use for Ethernet Routing Switch 8300 Information messages. • **level** is {**emergency|alert| critical|error|warning| notice|info|debug**}. The default is info.
mapwarning <level>	Specifies the syslog severity to use for Ethernet Routing Switch 8300 Warning messages. • **level** is {**emergency|alert| critical|error|warning| notice|info|debug**}. The default is warning

Copyright © 2007, Nortel Networks

config sys syslog host <id> followed by:	
maperror <level>	Specifies the syslog severity to use for Ethernet Routing Switch 8300 Error messages. • level is {emergency|alert| critical|error|warning| notice|info|debug}. • The default is error.
mapfatal <level>	Specifies the syslog severity to use for Ethernet Routing Switch 8300 Fatal messages. • level is {emergency|alert| critical|error|warning| notice|info|debug}. • The default is emergency.
severity <info|warning|error|fatal> [<info|warning|error|fatal>] [<info|warning|error|fatal>] [<info|warning|error|fatal>]	Specifies the severity levels for which syslog messages should be sent for the specified modules. • severity is the severity for which syslog messages are sent. • The default is info|warning|error|fatal
udp-port <port>	Specifies the User Datagram Protocol (UDP) port number on which to send syslog messages to the syslog host. • udp-port port is the system syslog host port number (514 to 530).

config vlan

This command performs general Virtual LAN (VLAN) operations, such a setting a QoS level for the VLAN or adding or changing the name of a VLAN.

Syntax

config vlan <vid>

Copyright © 2007, Nortel Networks

where

vid identifies the VLAN ID, which has a number range of 1 to 4094.

Parameters

This command includes the following parameters:

config vlan <vid> **followed by:**	
info	Displays characteristics of the specified VLAN.
action <action choice>	Flushes a table or triggers a Routing Information Protocol (RIP) update. • **action choice** is **{ none | flushMacFdb | flushArp | flushIp | all }**. To flush all tables, use **all**.
add-mlt <integer>	Adds a MultiLink Trunking (MLT) to a VLAN. **integer** is the MLT ID (1 to 31).
delete	Deletes a VLAN.
name <vname>	Changes the name of a VLAN. **vname** is a string from 0 to 20 characters.
qos-level <integer>	Sets a Quality of Service (QoS) level for a VLAN. • **integer** is the QoS level (0 to 7). ***Note:*** Level 7 is reserved and cannot be set by a user.
update-dynamic-mac-qos- level <enable|disable>	Updates the dynamic mac-qos level.

Copyright © 2007, Nortel Networks

config vlan create

This command creates a Virtual LAN (VLAN). It can specify the type of VLAN and assign an IP address to the VLAN.

Syntax

config vlan <vid> create

where

vid identifies the VLAN ID, which has a number range of 1 to 4094. VLAN 1 is the default VLAN. The default VLAN name is VLAN-vid. For example, VLAN 315 has the default name VLAN-315.

Parameters

This command includes the following parameters:

config vlan <vid> create **followed by:**	
info	Displays information about the type of specified VLAN.
byport <sid> [name <value>] [color <value>]	Creates a port-based VLAN. • **sid** is the spanning tree group ID from 1 to 64 characters. Optional parameters: • **name <value>** is the name of the VLAN from 0 to 20 characters. • **color <value>** is the color of the VLAN {0..32}. The color attribute is used by Optivity software to display the VLAN.
byprotocol <sid> <ip|ipx802dot3| ipx802dot2|ipxSnap| ipxEthernet2|appleTalk| decLat|decOther| sna802dot2 |snaEthernet2|netBios|xns|vines|ipV6| usrDefined|rarp> [<pid>] [name <value>] [color <value>] [encap <value>]	Creates a protocol-based VLAN. • **sid** is a spanning tree ID from 1 to 64. • **ip|ipx802dot3|ipx802dot2| ipxSnap|ipxEthernet2|appleTalk| decLat|decOther|sna802dot2| snaEthernet2|netBios|xns|vines|ipV6|usrDefined|rarp** specifies the protocol.

Copyright © 2007, Nortel Networks

config vlan <vid> create followed by:	
	Optional parameters: • **pid** is a user-defined protocol ID number from 0 to 65535. • **name <value>** is the name of the VLAN from 0 to 20 characters. • **color <value>** is the color number of the VLAN from 0 to 32. The color attribute is used by Optivity software to display the VLAN. • **encap <value>** is the encapsulation method for usrDefined VLANs.

config vlan fdb-entry

This command configures or modifies Virtual LAN (VLAN) entries in the forwarding database.

Syntax

config vlan <vid> fdb-entry

where

vid identifies the VLAN ID, which has a number range of 1 to 4000.

Parameters

This command includes the following parameters:

config vlan <vid> fdb-entry followed by:	
info	Displays the VLAN fdb aging-time, mac addresses, qos-level, and how each entry was learned.

Copyright © 2007, Nortel Networks

config vlan <vid> fdb-entry followed by:	
aging-time <seconds>	aging-time <seconds> sets the forwarding database aging timer. • seconds indicates the time out period in seconds {10..1000000} When this timer expires, the entry is flushed from the fdb table.
flush	Flushes forwarding database.
qos-level <mac> <integer>	Sets a QoS Level for a VLAN. • integer allows you to choose a QoS level from 0 through 7.
sync	Allows the forwarding database of the switch to synchronize with the forwarding database of the other aggregation switch.

config vlan fdb-filter

This command configures Virtual LAN (VLAN) filter members.

Syntax

config vlan <vid> fdb-filter

where

vid identifies the VLAN ID, which has a number range of 1 to 4000.

Copyright © 2007, Nortel Networks

Parameters

This command includes the following parameters:

config vlan <vid> fdb-filter **followed by:**	
info	Displays current information about the VLAN fdb-filter members.
add <mac> port <value> drop <value> [qos <value>]	Allows the addition of a filter member to a VLAN bridge. • **mac** indicates the MAC address. • **port <value>** indicates the port (slot/port) number. • *drop* indicates none|srcOnly|dstOnly|Both Optional parameter: • **qos <value>** is the Quality of Service level. The default value is 1.
remove<mac>	Allows the removal of a filter member from a VLAN bridge. • **mac** indicates the MAC address.

config vlan fdb-static

This command configures Virtual LAN (VLAN) static member parameters.

Syntax

config vlan <vid> fdb-static

where

vid identifies the VLAN ID. Enter a number in the range 1 to 4094.

Copyright © 2007, Nortel Networks

Parameters

This command includes the following parameters:

config vlan <vid> fdb-static **followed by:**	
info	Displays all statistically configured entries in the fdb table for the VLAN.
add <mac> port <value> [qos <value>]	Allows the addition of a static member to a VLAN bridge. • **mac** indicates the MAC address. • **port <value>** indicates the port (slot/port) number. Optional parameter: • **qos <value>** is the Quality of Service level. The default is 1. The range is 0 to 7, where 7 is reserved.
remove <mac>	Allows the removal of a static member from a VLAN bridge. • **mac** indicates the MAC address.

config vlan ip dhcp-relay broadcast

This command enables dhcp-relay broadcasting.

Syntax

config vlan ip dhcp-relay broadcast <enable|disable>

config vlan ip dhcp-relay

This command enables dhcp-relay.

Syntax

config vlan ip dhcp-relay <enable|disable>

config vlan ip dhcp-relay max-hop

This command specifies the value for the dhcp-relay max-hop.

Copyright © 2007, Nortel Networks

Syntax

config vlan ip dhcp-relay max-hop <max-hop>

config vlan ip dhcp-relay min-sec

This command the minutes and seconds of dhcp-relay.

Syntax

config vlan ip dhcp-relay min-sec <min-sec>

config vlan ip dhcp-relay mode

This command specifies the dhcp-relay mode.

Syntax

config vlan ip dhcp-relay mode <bootp|dhcp|bootp_dhcp>

config vlan ip dhcp-relay info

This command specifies dhcp-relay information.

Syntax

config vlan ip dhcp-relay info

config vlan ip

This command assigns an IP address to a Virtual LAN (VLAN).

Syntax

config vlan <vid> ip

where

vid identifies the VLAN ID, which has a number range of 1 to 4000.

Parameters

This command includes the following parameters:

config vlan <vid> ip **followed by:**	
info	Displays current level parameter settings and next level directories.

Copyright © 2007, Nortel Networks

config vlan <vid> ip followed by:	
create <ipaddr/mask>	Assigns an IP address and subnet mask to the VLAN. • ipaddr/mask is the IP address and mask {a.b.c.d}. Optional parameter:
delete <ipaddr>	Deletes the specified VLAN address.

config vlan ip arp-response

This command enables and disables Address Resolution Protocol (ARP) responses on a Virtual LAN (VLAN).

Syntax

config vlan <vid> ip arp-response

where

vid identifies the VLAN ID, which has a number range of 1 to 4000.

Parameters

This command includes the following parameters:

config vlan <vid> ip arp-response followed by:	
info	Displays ARP response status on the VLAN.
disable	Disables ARP responses on the VLAN.
enable	Enables ARP responses on the VLAN.

config vlan ip igmp

This command configures Internet Group Management Protocol (IGMP) on a Virtual LAN (VLAN).

Copyright © 2007, Nortel Networks

Syntax

config vlan <vid> ip igmp

where

vid identifies the VLAN ID, which has a number range of 1 to 4000.

Parameters

This command includes the following parameters:

config vlan <vid> ip igmp **followed by:**	
info	Displays IGMP settings on the VLAN.
del-mrouter <ports>	Deletes multicast router ports. • **ports** specifies one or more ports, shown as {**slot/port[-slot/port][,...]**}.
fast-leave <enable|disable>	Enables or disables IGMP v 2 Fast Leave functionality. A group member can leave a group upon receipt of this message, instead of waiting to time out.
flush <mrouter|sender|grp-member> [<SenderAddress>] [<GroupAddress>]	Flushes the specified table. • **SenderAddress** indicates the IP address of the selected sender. • **GroupAddress** indicates the IP address of the selected multicast group.
last-memb-query-int 1/10 seconds	Specifies the maximum response time inserted into group-specific queries sent in response to leave group messages. This is the amount of time between group-specific query messages.
mrouter <ports>	Adds multicast router ports. • **ports** is the portlist form {**slot/port[-slot/port] [, ...]**}.
proxy-snoop <enable|disable>	Enables or disables the proxy-snoop option for the VLAN.

Copyright © 2007, Nortel Networks

config vlan <vid> ip igmp followed by:	
query-interval <seconds>	Sets the frequency (in seconds) at which host query packets are transmitted on the VLAN. • seconds is the range from 1–65535. The default value is 125 seconds.
query-max-resp 1/10 seconds	Specifies the IGMP query maximum response time.
robustval <integer>	Allows tuning for the expected packet loss of a network. • integer is an integer value with a range of 2–255 seconds. The default value is 2 seconds. Increase the value if you expect the network to experience loss.
router-alert <enable|disable>	Enables or disables the router alert option. When enabled, this parameter instructs the router to process packets not directly addressed to it. ***Note:*** To maximize your network performance, Nortel Networks recommends that you set this parameter according to the version of IGMP currently in use. • IGMPv1 - Disable • IGMPv2 - Enable • IGMPv3 - Enable
snoop <enable|disable>	Enables or disables the snoop option for the VLAN.
version <integer>	Sets the version of IGMP that you want to configure on this interface. For IGMP to function correctly, all routers on a LAN must use the same version. • integer is an integer value with a value of 1, 2 or 3. The default value is 2 (IGMPv2).

config vlan ip igmp access-control

This command configure multicast access control for a selected VLAN.

Copyright © 2007, Nortel Networks

Syntax

config vlan <id> ip igmp accesss-control <name>

where

<vid> is a VLAN ID from 1 to 4000.
<name> is the IP prefix name. It can be 1 to 64 characters.

Parameters

This command includes the following parameters:

config vlan <vid> ip igmp access-control <name> **followed by:**	
info	Displays the settings for the access-control parameter.
create <HostAddress> <HostMask> {deny-tx|deny-rx|deny-both|allow-only-tx|allow-only-rx|allow-only-both}	Creates an access control group entry for a specified VLAN. • **HostAddress** is the IP address of the host. • • **deny-tx|deny-rx|deny-both|allow-only-tx|allow-only-rx|allow-only-both** indicates the action you want for the specified VLAN. For example, if you specify deny-both, the VLAN denies both transmitted and received traffic.
delete <HostAddress> <HostMask>	Deletes the access control group entry for the specified VLAN. • **HostAddress** is the IP address of the host. • **HostMask** is the subnet mask used to determine the host or hosts covered by this configuration.
mode <HostAddress> <HostMask> {deny-tx|deny-rx|deny-both|allow-only-tx|allow-only-rx|allow-only-both}	Changes the access control group configuration. • **HostAddress** is the IP address of the host. • **HostMask** is the subnet mask used to determine the host or hosts covered by this configuration.

Copyright © 2007, Nortel Networks

config vlan <vid> ip igmp access-control <name> followed by:	
	• deny-tx | deny-rx | deny-both | allow-only-tx | allow-only-rx | allow-only-both indicates the action you want for the specified VLAN. For example, if you specify deny-both, the VLAN denies both transmitted and received traffic.

config vlan ip igmp fast-leave-members

This command configures Internet Group Management Protocol (IGMP) fast-leave members on a Virtual LAN (VLAN).

Syntax

config vlan <vid> ip igmp fast-leave-members

where

vid identifies the VLAN ID, which has a number range of 1 to 4000.

Parameters

This command includes the following parameters:

config vlan <vid> ip igmp fast-leave-members followed by:	
info	Displays information about the fast-leave members of the VLAN.
enable <ports>	Enables members to join a fast-leave group on a given port on the VLAN. • ports is the port or list of ports to be joined with the fast-leave group.
disable <ports>	Removes a given port from receiving a leave message from any member of any given group, and the normal IGMP behavior is skipped.

config vlan ip igmp snoop-querier

Use this command to enable or disable IGMP snoop querier on a specific VLAN.

Copyright © 2007, Nortel Networks

Syntax

config vlan <vid> ip igmp snoop-querier <enable|disable>

where

<vid> is the ID of the selected VLAN.
<enable|disable> enables or disables snoop querier on the selected VLAN.

config vlan ip igmp snoop-querier-addr

Use this command to configure the source address to be used in the query message.

Syntax

config vlan <vid> ip igmp snoop-querier-addr <ipaddr>

where

<vid> is the ID of the selected VLAN.
<ipaddr> is the source IP address used in the query message. This IP address must be in the IP subnet that IGMP hosts and to which the IGMP snoopers in the VLAN belong. When the IP address is 0.0.0.0, the snoop querier feature is inactive. The default value is 0.0.0.0.

config vlan ip igmp static-members

This command configures Internet Group Management Protocol (IGMP) static members on a Virtual LAN (VLAN).

Syntax

config vlan <vid> ip igmp static-members <GroupAddress>

where

vid identifies the VLAN ID, which has a number range of 1 to 4094.
GroupAddress is the multicast group IP address of the multicast stream.

Parameters

This command includes the following parameters:

config vlan <vid> ip igmp static-members <GroupAddress> **followed by:**	
info	Displays information about the static members of the VLAN.

Copyright © 2007, Nortel Networks

config vlan <vid> ip igmp static-members <GroupAddress> **followed by:**	
add <ports> <static|blocked>	Adds a static-member entry to the VLAN. • **ports** is the port or list of ports to redirect the multicast stream for this multicast group. • **static|blocked** sets the route to static or blocked.
create <ports> <static|blocked>	Creates a static-member entry to the VLAN. • **ports** is the port or list of ports to redirect the multicast stream for this multicast group. • **static|blocked** sets the route to static or blocked.
delete	Deletes a static-member entry to the VLAN.
remove <ports> <static|blocked>	Removes a port from the static-member entry to the VLAN. • **ports** is the port or list of ports to redirect the multicast stream for this multicast group. • **static|blocked** sets the route to static or blocked.

config vlan ip igmp stream-limit-members

This command configure multicast stream limitation on ports of a selected VLAN.

Syntax

config vlan <vid> ip igmp stream-limit-members

where

<vid> is a VLAN ID from 1 to 4000.

Copyright © 2007, Nortel Networks

Parameters

This command includes the following parameters.

config vlan <vid> ip igmp stream-limit-members **followed by:**	
info	Displays information about the stream limit members set on individual ports for this VLAN.
enable <ports> max-streams <value>	Enables stream limitation and sets the maximum number of allowed streams for the specified ports on this VLAN. The number of allowed streams cannot exceed the maximum number for the VLAN. The range is from 0 to 65535, and the default is 4.
disable <ports>	Disables stream limitation for the specified ports on this VLAN.
set <ports> max-streams <value>	Sets the maximum number of allowed streams for the specified ports on this VLAN. The range is from 0 to 65535, and the default is 4.

config vlan ip ospf

This command configures OSPF parameters for a specified VLAN.

Syntax

config vlan <vid> ip ospf

where

vid is a unique integer value in the range 1 to 4094 that identifies the VLAN you are configuring.

Parameters

This command includes the following parameters:

config vlan ip ospf **followed by:**	
info	Displays OSPF characteristics on the VLAN

Copyright © 2007, Nortel Networks

config vlan ip ospf **followed by:**	
advertise-when-down <enable|disable>	If enabled, the network on this interface is advertised as up, even if no ports in the VLAN are active. The default is disabled. ***Note:*** When you create a VLAN with no active ports and enable advertise-when-down, the route is not advertised until a port is active. Then the route is advertised even when the link is down. To disable advertising based on link status, disable this parameter.
area <ipaddr>	Sets the OSPF interface area ID for the VLAN.
authentication-key <string>	Sets the authentication key for the VLAN. • string is key of up to eight characters.
authentication-type <auth-type>	Sets the OSPF authentication type for the VLAN. • auth-type is none, simple password, or MD5 authentication. If simple, all OSPF updates the VLAN received must contain the authentication key specified by the area authentication-key command. If MD5, they must contain the MD5 key.
disable	Disables OSPF on the VLAN
enable	Enables OSPF on the VLAN.
hello-interval <seconds>	Sets the OSPF hello interval for the VLAN, the number of seconds between hello packets sent on this VLAN. • seconds is the range 1 to 65535. The default is 10.
dead-interval <seconds>	Sets the OSPF dead interval for the VLAN, the number of seconds the switch OSPF neighbors must wait before assuming that this OSPF router is down. • seconds is the range from 1 to 2147483647. This value must be at least four times the hello interval value. The default is 40.
interface-type <if-type>	Specifies the type of OSPF interface. • if-type is the OSPF interface type {broadcast | passive}

Copyright © 2007, Nortel Networks

config vlan ip ospf followed by:	
metric <cost>	Sets the OSPF metric for the VLAN. The switch advertises the metric in router link advertisements. • seconds is the range 0 to 65535. The default is 0.
priority <integer>	Sets the OSPF priority for the VLAN during the election process for the designated router. The VLAN with the highest priority number is the best candidate for the designated router. If the priority is 0, the VLAN cannot become either the designated router or a backup. The priority is used only during election of the designated router and backup designated router • integer is the range 0 to 255. The default is 1.

config vlan ip pim

This command configures PIM-SM on a VLAN.

Syntax

config vlan <vid> ip pim

where

<id> is a VLAN ID from 1 to 4000.

Parameters

This command includes the following parameters:

config vlan <vid> ip pim ‘followed by:	
info	Displays current PIM-SM configuration settings on the selected VLAN. See Config vlan ip pim info command output.

Copyright © 2007, Nortel Networks

config vlan <vid> ip pim 'followed by:	
create <active|passive>	Enables PIM-SM on a specific VLAN with a specific type. • active allows PIM-SM control traffic to be transmitted and received. • passive prevents PIM-SM control traffic from being transmitted or received, thereby reducing the load on a system. This feature is useful when a high number of PIM-SM interfaces exist and are connected to end users, not to other switches.
disable	Disables PIM-SM on the selected VLAN.
enable	Enables PIM-SM on the selected VLAN.
hellointerval <seconds>	Specifies how long to wait (in seconds) before the PIM-SM switch sends out the next hello message to neighboring switches. The default is 30 seconds.
interface-type <active|passive>	Specifies whether the selected interface is active or passive. See PIM passive interfaces for a description of active and passive interfaces. You can change the state of a PIM-SM interface after it is created. It can be changed only when PIM-SM is disabled on the specified interface
joinprune-interval <seconds>	Specifies how long to wait (in seconds) before the PIM-SM switch sends out the next join/prune message to its upstream neighbors. The default is 60 seconds.

config vlan ip pim candbsr

This command configures a candidate bootstrap router (C-BSR) on a VLAN.

Syntax

config vlan <vid> ip pim candbsr

where

<vid> is a VLAN ID from 1 to 4000.

Copyright © 2007, Nortel Networks

Parameters

This command includes the following parameters:

config vlan <vid> ip pim candbsr **followed by:**	
info	Displays the candidate BSR preference setting for this interface.
disable	Disables the Candidate BSR on this interface.
enable preference <value>	Enables the Candidate BSR on this interface and sets its preference value to become a BSR. The Candidate BSR with the highest BSR preference and address is referred to as the preferred BSR. The default is -1, which indicates that the current interface is not a Candidate BSR.

config vlan ip proxy

This command enables and disables a proxy Address Resolution Protocol (ARP) on a Virtual LAN (VLAN). A proxy ARP on a VLAN allows a router to answer a local ARP request for a remote destination.

Syntax

config vlan <vid> ip proxy

where

vid identifies the VLAN ID, which has a number range of 1 to 2000.

Parameters

This command includes the following parameters:

config vlan <vid> ip proxy **followed by:**	
info	Displays ARP proxy status on the VLAN.
disable	Disables proxy ARP on the VLAN.
enable	Enables proxy ARP on the VLAN, allowing a router to answer a local ARP request for a remote destination.

Copyright © 2007, Nortel Networks

config vlan ip rip

There are two sets of commands to configure RIP on a specific interface. The two sets contain some overlapping commands, and in these cases it does not matter which set you use to configure those parameters.

This command configures RIP parameters on a specific interface.

Syntax

config ip rip interface <ipaddr>

where

ipaddr indicates the IP address of the interface

config vlan <vid> ip rip

where

vid is the VLAN ID

Parameter

This command includes the following parameters:

config vlan <vid> ip rip **followed by:**	
advertise-when-down <enable|disable>	Configures whether or not the network on this interface will be advertised as up, even if the port is down. The default is disabled. ***Note:*** When you configure a VLAN without any link and enable advertise-when-down, it will not advertise the route until the port is active. Then the route will be advertised even when the link is down. To disable advertising based on link states, disable advertise-when-down.
auto-aggr <enable|disable>	Enables or disables automatic route aggregation on the interface. When enabled, the router switch automatically aggregates routes to their natural mask when they are advertised on an interface in a network of a different class. The default is disabled. Routes with different metrics can be aggregated. RIP uses the out metric associated with the first route found in the routing table that is to be aggregated.

Copyright © 2007, Nortel Networks

config vlan <vid> ip rip followed by:	
cost <cost>	Sets the RIP cost (metric) for this interface. • cost is an integer value with a range of 1 to 15. The default value is 1.
default-listen <enable|disable>	Configures whether or not the interface will listen for RIP updates for the default route learned through RIP. The default is disabled.
default-supply <enable|disable>	Configures whether or not the interface will send RIP advertisements for the default route, if one exists in the routing table. The default is disabled.
holddown <seconds>	Sets the RIP holddown timer for the interface. The value of the holddown timer is the length of time (in seconds) that RIP will continue to advertise a network after determining that it is unreachable. • seconds is an integer value with a range of 0 to 360. The default value is set by the global holddown parameter, which has a default of 120 seconds. The interface timer setting overrides the global parameter. However, if you subsequently reset the global parameter, the global setting then overrides the interface timer setting.
info	Shows RIP configuration for the interface.
in-policy <policy name>	Sets the RIP policy for inbound filtering on the interface. The in-policy determines which routes will be learned on the interface. • policy name is a string length {0..64}. To delete the policy from the interface configuration, enter an empty string.

Copyright © 2007, Nortel Networks

config vlan <vid> ip rip **followed by:**	
listen <enable|disable>	Configures whether or not the interface will listen for RIP routes. The default is enabled.
manualtrigger	Executes a manually triggered RIP update.
out-policy <policy name>	Sets the RIP policy for outbound filtering on the interface. The out-policy determines which routes will be advertised from the routing table on the interface. • **policy name** is a string length {0..64}. To delete the policy from the interface configuration, enter an empty string.
poison <enable|disable>	Sets whether or not RIP routes on the interface learned from a neighbor are advertised back to the neighbor. • If disabled, split horizon is invoked, and IP routes learned from an immediate neighbor are not advertised back to the neighbor. • If enabled, the RIP updates sent to a neighbor from which a route is learned are "poisoned" with a metric of 16. Therefore, the receiver neighbor ignores this route because the metric 16 indicates infinite hops in the network. The default is disabled.
supply <enable|disable>	Enables or disables the interface to supply RIP updates.

Copyright © 2007, Nortel Networks

config vlan <vid> ip rip followed by:	
timeout <seconds>	Sets the RIP timeout interval for the interface. • seconds is an integer value with a range of 15 to 259200. The default value is set indirectly by the global update time parameter. By default, the timeout timer is set at 6 times the update timer, in accordance with the RFC specification. With a default global update timer setting of 30 seconds, the default timeout interval is 180 seconds. Configure the timeout parameter on the interface only if you want to break the relationship with the update timer. For example, if you have set the global update parameter to a very short interval in order to minimize the problem of fast convergence, the associated default timeout may be too short. In this case, configure the timeout interval manually. The interface timer setting overrides the global parameter. However, if you subsequently reset the global parameter, the global setting then overrides the interface timer setting.
trigger <enable|disable>	Enables or disables automatic triggered updates for RIP on this interface. The default is disabled.

config vlan ip vrrp

This command configures VRRP on a VLAN.

Syntax

config vlan <vid> ip vrrp <vrid>

where

- vid is the VLAN ID in the range of 1 to 4094.
- vrid is the virtual router ID in the range of 1 to 255, a number that uniquely identifies a virtual router on a given VRRP router. The virtual router acts as the default router for one or more assigned addresse

Copyright © 2007, Nortel Networks

Parameters

This command includes the following parameters:

config vlan <vid> ip vrrp <vrid> followed by:	
info	Displays the current VLAN VRRP settings.
action <action_choice>	Sets the manual override of the holddown timer for the virtual router interface.
address<ippaddr>	Sets the IP address of the virtual router interface.
advert-int<seconds>	Sets the advertising interval (in seconds), the time interval between sending advertisement messages. • seconds is the range 1 to 255, and the default is 1.
backup-master <enable|disable>	Enables or disables the VRRP backup master for a VLAN. This option is only supported on SMLT ports.
<ippaddr>**critical-ip<ipaddr>**	Sets the critical IP address for VRRP. • ipaddr is the IP address of the interface on the local router configured so that a change in its state causes a role switch in the virtual router (for example, from master to backup in case the interface goes down).
critical-ip-enable <enable|disable>	Enables or disables the critical IP address option.
delete	Deletes the VRRP from the VLAN.
disable	Disables the VRRP on the VLAN.
enable	Enables VRRP on the VLAN.
holddown-timer <seconds>	Sets the time interval (in seconds) that a router is delayed when changing to master state.
priority <prio>	Sets the port VRRP priority value to be used by this VRRP router. • prio is between 1 and 254. The default is 100. You assign the value 255 to the router that owns the IP address associated with the virtual router.

config vlan ip vrrp

This command leads to the configuration of the VRRP instance.

Copyright © 2007, Nortel Networks

Syntax

```
config vlan <vlan_id> ip vrrp <vrrp_id>
```

Parameters

This command includes the following parameters:

config vlan ip vrrp followed by:	
<vlan_id>	Specifies the vlan.
<vrrp_id>	Specifies the vrrp.

config vlan ip vrrp action

The command preempts the action of the VRRP.

Syntax

```
config vlan <vlan_id> ip vrrp <vrrp_id> action <none/preempt>
```

Parameters

This command includes the following parameters:

config vlan ip vrrp action followed by:	
<vlan_id>	Specifies the vlan.
<vrrp_id>	Specifies the vrrp.
<none/preempt>	Specifies the action to be taken.

config vlan ip vrrp address

This command creates the VRRP interface on the VLAN interface.

Syntax

```
config vlan <vlan_id> ip vrrp <vrrp_id> address <virtual_ip
_address>
```

Parameters

This command includes the following parameters:

config vlan ip vrrp address followed by:	
<vlan_id>	Specifies the vlan.
<vrrp_id>	Specifies the vrrp.
<virtual_ip_address>	Specifies the virtual ip address.

Copyright © 2007, Nortel Networks

config vlan ip vrrp adver-int

This command sets the advertisement interval.

Syntax

```
config vlan <vlan_id> ip vrrp <vrrp_id> adver-int <seconds>
```

Parameters

This command includes the following parameters:

config vlan ip vrrp adver-int followed by:	
<vlan_id>	Specifies the vlan.
<vrrp_id>	Specifies the vrrp.
<seconds>	Sets the advertisement interval in seconds.

config vlan ip vrrp critical-ip

This command sets the critical ip address.

Syntax

```
config vlan <vlan_id> ip vrrp <vrrp_id> critical-ip
<critical_ip_address>
```

Parameters

This command includes the following parameters:

config vlan ip vrrp critical-ip followed by:	
<vlan_id>	Specifies the vlan.
<vrrp_id>	Specifies the vrrp.
<critical_ip_address>	Sets the critical ip address.

config vlan ip vrrp critical-ip-enable

This command enables or disables the critical ip feature in VRRP.

Syntax

```
config vlan <vlan_id> ip vrrp <vrrp_id> critical-ip-enable
<enable|disable>
```


Copyright © 2007, Nortel Networks

Parameters

This command includes the following parameters:

config vlan ip vrrp critical-ip-enable followed by:	
<vlan_id>	Specifies the vlan.
<vrrp_id>	Specifies the vrrp.
<enable|disable>	Enables or disables the critical ip feature in vrrp.

config vlan ip vrrp delete

This command deletes the VRRP interface on the VLAN interface.

Syntax

```
config vlan <vlan_id> ip vrrp <vrrp_id> delete
```

Parameters

This command includes the following parameters:

config vlan ip vrrp delete followed by:	
<vlan_id>	Specifies the vlan where the vrrp is to be deleted.
<vrrp_id>	Specifies the vrrp to be deleted.

config vlan ip vrrp holddown-timer

This command sets the hold-down timer.

Syntax

```
config vlan <vlan_id> ip vrrp <vrrp_id> holddown-timer
<seconds>
```

Parameters

This command includes the following parameters:

config vlan ip vrrp holddown-timer followed by:	
<vlan_id>	Specifies the vlan.
<vrrp_id>	Specifies the vrrp.
<seconds>	Sets the hold down timer in seconds.

config vlan ip vrrp priority

This command sets the priority.

Copyright © 2007, Nortel Networks

Syntax

```
config vlan <vlan_id> ip vrrp <vrrp_id> priority <priority>
```

Parameters

This command includes the following parameters:

config vlan ip vrrp priority followed by:	
<vlan_id>	Specifies the vlan.
<vrrp_id>	Specifies the vrrp.
<priority>	Sets the priority for the vlan ip vrrrp.

config vlan ip vrrp backup-master

This command enables or disables the backup-master feature.

Syntax

```
config vlan <vlan_id> ip vrrp <vrrp_id> backup-master
<enable|disable>
```

Parameters

This command includes the following parameters:

config vlan ip vrrp backup-master followed by:	
<vlan_id>	Specifies the vlan.
<vrrp_id>	Specifies the vrrp.
<enable|disable>	Enables or disables the backup-master feature.

config vlan ip vrrp enable

This command enables the VRRP on the interface.

Syntax

```
config vlan <vlan_id> ip vrrp <vrrp_id> enable
```

Parameters

This command includes the following parameters:

config vlan ip vrrp enable followed by:	
<vlan_id>	Specifies the vlan to be enabled.
<vrrp_id>	Specifies the vrrp to be enabled.

Copyright © 2007, Nortel Networks

config vlan ip vrrp disable

This command disables the VRRP on the interface.

Syntax

config vlan <vlan_id> ip vrrp <vrrp_id> disable

Parameters

This command includes the following parameters:

config vlan ip vrrp disable **followed by:**	
<vlan_id>	Specifies the vlan to be disabled.
<vrrp_id>	Specifies the vrrp to be disabled.

config vlan nlb-mode

This command configures network load balancing support on a specific command.

Syntax

config vlan <vid> nlb-mode <disable|igmp-mcast|multicast|unicast>

where

<vid> is the VLAN ID from 1 to 4000.
<disable|igmp-mcast|multicast|unicast> specifies the mode of the NLBS feature. NLBS must be in the disable mode, which is the default mode, before you can choose one of the other three modes.

config vlan nsna color

This command specifies the nsna color and filter.

Syntax

config vlan <vlan_id> nsna color <red|yellow|green|voip|none> [filter <filter-name>[yellow-subnet <subnet-id>]]

Parameters

This command includes the following parameters:

config vlan nsna color **followed by:**	
<vlan_id>	Specifies the VLAN.
<red|yellow|green|voip|none>	Specifies the NSNA color.
<filter-name>	Specifies the filter.
<subnet-id>	Specifies the yellow-subnet.

Copyright © 2007, Nortel Networks

config vlan nsna info

This command displays information related to the NSNA VLANs.

Syntax

config vlan <vid> nsna info

where

<vid> is the VLAN ID in the range 1 to 4000.

config vlan ports

This command adds or removes ports to an existing Virtual LAN (VLAN).

Syntax

config vlan <vid> ports

where

vid identifies the VLAN ID, which has a number range of 1 to 4000.

Parameters

This command includes the following parameters:

config vlan <vid> ports **followed by:**	
info	Displays member status of the ports in a VLAN.
add <ports> [member <value>]	Adds one or more ports to an existing VLAN. • **ports** is the portlist form {*slot/port*[-*slot/port*][, ...]}. Optional parameter: • **member <value>** is the port member type. It can be a portmember (always a member), **static** (sometimes a member), or **notallowed** (never a member).
remove <ports> [member <value>]	Removes ports from a VLAN, but does not delete the VLAN. • **ports** is the portlist form {*slot/port*[-*slot/port*][, ...]}. Optional parameter:

Copyright © 2007, Nortel Networks

config vlan <vid> ports **followed by:**	
	• **member <value>** is the port member type: **portmember** (always a member), **static** (always a member), or **notallowed** (never a member).

config vlan static-mcastmac

This command configures Layer 2 multicast Media Access Control (MAC) filtering.

Syntax

config vlan <vid> static-mcastmac

where

vid identifies the VLAN ID, which has a number range of 1 to 4000.

Parameters

This command includes the following parameters:

config vlan <vid> static-mcastmac **followed by:**	
info	Displays current settings.
add mac <value> [port <value>] [mlt <value>]	Adds VLAN static multicast MAC entries, where: • **mac <value>** is the MAC address. Optional parameters: • **port <value>** is the port to receive the multicast flooding. • **mlt <value>** is the MultiLink Trunking ID.

Copyright © 2007, Nortel Networks

config vlan <vid> static-mcastmac **followed by:**	
add-mlt <mid> mac <value>	Adds MLT to VLAN static multicast MAC entries. • **mid** is the MultiLink Trunking ID. • **mac value>** is the MAC address.
add-ports <ports> mac <value>	Adds ports to VLAN static multicast MAC entries. • **ports** is the portlist form {*slot/port*[-*slot/port*][, ...]}. • **mac <value>** is the MAC address.
delete mac <value>	Deletes VLAN static multicast MAC entries. • **mac <value>** is the MAC address.
delete-mlt <mid> mac <value>	Deletes MLT-to-VLAN static multicast MAC entries. • **mid** is the MultiLink Trunking ID. • **mac <value>** is the MAC address.
delete-ports <ports> mac <value>	Deletes ports from VLAN static multicast MAC entries. • **ports** is the portlist form **{slot/port[-slot/port][, ...]}**. • **mac <value>** is the MAC address.

config web-server

This command enables, disables and manages the Web server.

Syntax

config web-server

Copyright © 2007, Nortel Networks

Parameters

This command includes the following parameters:

config web-server **followed by:**	
info	Indicates whether Web access is enabled or disabled on the switch and displays the current Web user name and password setting.
def-display-rows <integer>	Sets the number of rows displayed per page. • **integer** is 10 to 100.
disable	Disables the Ethernet Routing Switch 8300 Web interface.
enable	Enables the Ethernet Routing Switch 8300 Web interface.
html-source-dir help-tftp <file>	Specifies the file location and name for the Web server HTML Help file. The string length is 0 to 256. • **file** specifies the path and file name of the HTML source.
http-port <integer>	Specifies the http port of the Web server. • **integer** is a value from 1 to 49151.
password <ro> <username> <passwd>	Sets passwords for access to the Web interface. • **username** is the user's login name, up to 20 characters long. • **passwd** is the password associated with the login name, up to 20 characters long.

Copyright © 2007, Nortel Networks

Copyright © 2007, Nortel Networks

Chapter 3
show commands

This chapter describes all Ethernet Routing Switch 8300 show commands and their parameters.

Show command
"config diag ping-snoop info" (page 280)
"config info" (page 280)
"monitor mlt stats interface utilization" (page 280)
"show bootconfig" (page 280)
"show cli" (page 281)
"show config" (page 282)
"show date" (page 282)
"show diag mirror-by-port" (page 282)
"show diag ping-snoop" (page 283)
"show filter acg" (page 283)
"show filter acl ace" (page 283)
"show filter acl debug" (page 283)
"show filter acl ethernet" (page 284)
"show filter acl info" (page 284)
"show filter acl ip" (page 284)
"show filter acl port" (page 285)
"show filter acl protocol" (page 285)
"show filter acl statistics" (page 285)
"show filter act ethernet" (page 285)
"show filter act ip" (page 286)
"show ip" (page 286)
"show ip arp" (page 286)

Copyright © 2007, Nortel Networks

Show command
"show ip circuitless info" (page 287)
"show ip dhcp-relay fwd-path" (page 287)
"show ip dhcp-relay counters" (page 287)
"show ip forwarding" (page 287)
"show ip igmp" (page 287)
(need to recreate link to 'show ip igmp access)
(need to recreate link to 'show ip igmp snoop')
"show ip igmp stream-limit-interface" (page 288)
"show ip igmp stream-limit-port" (page 288)
"show ip interface" (page 289)
"show ip mroute static-source-group" (page 289)
"show ip ospf" (page 289)
"show ip ospf accept" (page 289)
"show ip ospf accept info" (page 294)
"show ip ospf area" (page 289)
"show ip ospf ase" (page 290)
"show ip ospf info" (page 291)
"show ip ospf authentication interface" (page 290)
"show ip ospf default-metric" (page 291)
"show ip ospf host-route" (page 291)
"show ip ospf ifstats" (page 291)
"show ip ospf info" (page 291)
"show ip ospf int-auth" (page 292)
"show ip ospf int-timers" (page 292)
"show ip ospf interface" (page 292)
"show ip ospf lsdb" (page 292)
"show ip ospf neighbors interface" (page 293)
"show ip ospf redistribute" (page 294)
"show ip ospf redistribute info" (page 294)
"show ip ospf stats" (page 294)
"show ip ospf timer interface" (page 294)
"show ip pim active-rp" (page 295)
"show ip pim bsr" (page 295)
"show ip pim candidate-rp" (page 295)

Copyright © 2007, Nortel Networks

Show command
"show ip pim info" (page 295)
"show ip pim interface" (page 295)
"show ip pim mode" (page 296)
"show ip pim mroute" (page 296)
"show ip pim neighbor" (page 296)
"show ip pim rp-set" (page 296)
"show ip pim static-rp" (page 296)
"show ip pim virtual-neighbor" (page 296)
"show ip prefix-list" (page 296)
"show ip route-discovery" (page 297)
"show ip route info" (page 297)
"show ip route-policy info" (page 297)
"show ip route preference info" (page 297)
"show ip static-route info" (page 297)
"show ip tcp" (page 298)
"show ip udpfwd interface info" (page 298)
"show ip udpfwd portfwd" (page 298)
"show ip udpfwd portfwdlist" (page 298)
"show ip udpfwd protocol info" (page 299)
"show ip vrrp info" (page 299)
"show ip vrrp global-settings" (page 299)
"show ip vrrp stats" (page 299)
"show license" (page 299)
"show lldp" (page 299)
"show lldp stats" (page 301)
"show lldp tx-stats" (page 301)
"show lldp rx-stats" (page 301)
"show lldp local-sys-data" (page 301)
"show lldp local-sys-data dot1" (page 301)
"show lldp local-sys-data dot3" (page 301)
"show lldp local-sys-data med" (page 302)
"show lldp local-sys-data detail" (page 302)
"show lldp mgmt-sys-data" (page 302)
"show lldp neighbor" (page 302)

Copyright © 2007, Nortel Networks

Show command
"show lldp neighbor dot1" (page 303)
"show lldp neighbor dot3" (page 303)
"show lldp neighbor med capabilities" (page 304)
"show lldp neighbor med network-policy" (page 304)
"show lldp neighbor med location" (page 304)
"show lldp neighbor med extended-power" (page 304)
"show lldp neighbor med inventory" (page 304)
"show lldp neighbor detail" (page 304)
"show lldp neighbor-mgmt-addr" (page 304)
"config lldp info" (page 305)
"config ethernet lldp info" (page 305)
"show vlan info vrrp extended" (page 322)
"show vlan info vrrp main" (page 322)
"show mlt" (page 306)
"show mlt error" (page 306)
"show mlt error collision" (page 307)
"show mlt error main" (page 307)
"show mlt info" (page 307)
"show mlt ist info" (page 307)
"show mlt stats" (page 308)
"show mlt ist stat" (page 308)
"show mlt smlt info" (page 308)
"show poe card info" (page 309)
"show poe port stats" (page 309)
"show poe port info" (page 309)
"show poe port power-measurement" (page 310)
"show poe sys info" (page 310)
"show port info lldp" (page 310)
"show ports error" (page 310)
"show ports info" (page 310)
"show ports info interface" (page 312)
"show ports info slpp" (page 312)
"show ports info smlt" (page 312)
"show nsna client" (page 308)

Copyright © 2007, Nortel Networks

Show command
"show nsna info" (page 308)
"show nsna interface" (page 308)
"show nsna nsnas" (page 309)
"show nsna phone-signature" (page 309)
"show nsna vlan" (page 309)
"show ports stats" (page 312)
"show ports stats dhcp-relay" (page 312)
"show ports stats interface" (page 313)
"show qos egress-stats" (page 313)
"show qos egress-counter-set" (page 313)
"show qos info" (page 314)
"show qos map 802.1p-to-class-map" (page 314)
"show qos map 802.1p-to-drop-precedence-map" (page 314)
"show qos map 802.1p-to-dscp-map" (page 314)
"show qos map class-to-802.1p-map" (page 314)
"show qos map class-to-802.1p-policed-map" (page 314)
"show qos map dscp-to-cos-policed-map" (page 315)
"show qos policy" (page 315)
"show qos policy-stats" (page 315)
"show radius" (page 315)
"show rmon" (page 316)
"show slot" (page 316)
"show slpp" (page 317)
"show smlt info" (page 317)
"show stg info" (page 317)
"show sys" (page 318)
"show sys access-policy info" (page 319)
"show sys syslog general-info" (page 319)
"show sys syslog host info" (page 319)
"show tech" (page 319) oh are
"show test" (page 320)
"show trace" (page 320)
"show vlan info" (page 321)

Copyright © 2007, Nortel Networks

Show command
"show vlan info nlb-mode" (page 322)
"show vlan info pim" (page 322)
"show vlan info vrrp extended" (page 322)
"show vlan info vrrp main" (page 322)
"show web-server" (page 323)

config diag ping-snoop info

This command shows the ports to which ping-snoop was added.

Syntax

```
config diag ping-snoop info
```

config info

Use this command to show the auto recover delay.

Syntax

```
config info
```

monitor mlt stats interface utilization

This command displays link aggregation interface utilization statistics.

Syntax

```
monitor mlt stats interface utilization [<mid>]
```

show bootconfig

This command displays the current configuration of the Boot Monitor CLI while you are in the Run-Time CLI.

Syntax

```
show bootconfig
```

Parameters

This command includes the following options:

show bootconfig **followed by:**	
bootp	Displays bootp configuration.
choice	Displays the boot choice information.

Copyright © 2007, Nortel Networks

show bootconfig **followed by:**	
cli	Displays the Boot Monitor CLI information.
config [verbose]	Displays the Boot Monitor configuration settings. **verbose** includes all possible information. If you omit **verbose**, only the nondefault settings are displayed.
flags	Displays the flag settings for the switch.
host	Displays the remote host login information.
info	Displays information about the switch boot image.
master	Displays the delay setting and the chassis slot where the Master CPU resides.
net	Displays information about the network ports.
sio	Displays information about the serial ports.
tz	Displays information about the switch time zone settings.

show cli

This command displays information about the switch CLI configuration.

Syntax

show cli

Copyright © 2007, Nortel Networks

Parameters

This command include the following options:

show cli **followed by:**	
info	Displays the CLI configuration
who	Displays a list of users who are logged in to the switch.
password	Displays the CLI access, login, and password combinations.

show config

This command displays the current switch configuration.

Syntax

show config

Parameters

This command includes the following options:

show config **followed by:**	
[verbose]	Displays the current switch configuration, including software (versions), performance, ports (such as type, status), routes, memory, interface, and log and trace files. With this command, you can see current configuration and default values. Without **verbose**, not all of the default values are displayed.
[module <value>]	Specifies the command group for which you are requesting configuration settings.

show date

This command displays the current date settings for the switch.

Syntax

show date

show diag mirror-by-port

This command displays information about mirrored ports on the switch.

Syntax

show diag mirror-by-port

Copyright © 2007, Nortel Networks

show diag ping-snoop

This command shows if the ping snoop filter was created.

Syntax

```
show diag ping-snoop
```

show filter acg

Use this command to display the list of Access Control Groups (ACGs) configured on the switch.

Syntax

```
show filter acg [ <acg-id> ]
```

where

<acg-id> is a unique identifier (from 1 to 1024) for this ACG entry.

show filter acl ace

Use this command to display the current Access Control List (ACL) and related Access Control Entity (ACE) actions.

Syntax

```
show filter acl [ <acl-id> ] ace [ <ace-id> ]
```

where

- **<acl-id>** is a unique identifier (from 1 to 512) for this ACL entry.
- **<ace-id>** is a unique identifier (from 1 to 256) for this ACE entry.

show filter acl action

Use this command to display the list of Access Control Lists (ACLs) and their related Access Control Entity (ACE) actions.

Syntax

```
show filter acl action [ <acl-id> ] [ <ace-id> ]
```

where

- **<acl-id>** is a unique identifier (from 1 to 512) for this ACL entry.
- **<ace-id>** is a unique identifier (from 1 to 256) for this ACE entry.

show filter acl debug

Use this command to display information that may help you debug your switch.

Copyright © 2007, Nortel Networks

Syntax

show filter acl debug [<acl-id>] [<ace-id>]

where

- **<acl-id>** is a unique identifier (from 1 to 512) for this ACL entry.
- **<ace-id>** is a unique identifier (from 1 to 256) for this ACE entry.

show filter acl ethernet

Use this command to display information about the Ethernet Access Control Entities (ACEs).

Syntax

show filter acl ethernet [<acl-id>] [<ace-id>]

where

- **<acl-id>** is a unique identifier (from 1 to 512) for this ACL entry.
- **<ace-id>** is a unique identifier (from 1 to 256) for this ACE entry.

show filter acl info

Use this command to display Access Control List (ACL) information.

Syntax

show filter acl info [<acl-id>]

where

<acl-id> is a unique identifier (from 1 to 512) for this ACL entry.

show filter acl ip

Use this command to display information about the IP Ethernet Access Control Entities (ACEs).

Syntax

show filter acl ip [<acl-id>] [<ace-id>]

where

- **<acl-id>** is a unique identifier (from 1 to 512) for this ACL entry.
- **<ace-id>** is a unique identifier (from 1 to 256) for this ACE entry.

Copyright © 2007, Nortel Networks

show filter acl port

Use this command to display information about the Quality of Service (QoS) ports.

Syntax

show filter acl port [<acl-id>] [<ace-id>]

where

- **<acl-id>** is a unique identifier (from 1 to 512) for this ACL entry.
- **<ace-id>** is a unique identifier (from 1 to 256) for this ACE entry.

show filter acl protocol

Use this command to display information about the Access Control List (ACL) protocols.

Syntax

show filter acl port [<acl-id>] [<ace-id>]

where

- **<acl-id>** is a unique identifier (from 1 to 512) for this ACL entry.
- **<ace-id>** is a unique identifier (from 1 to 256) for this ACE entry.

show filter acl statistics

Use this command to display the Access Control Entity (ACE) statistics.

Syntax

show filter acl statistics [<acl-id>] [<ace-id>]

where

- **<acl-id>** is a unique identifier (from 1 to 512) for this ACL entry.
- **<ace-id>** is a unique identifier (from 1 to 256) for this ACE entry.

show filter act ethernet

Use this command to display information about the Ethernet Access Control Templates (ACTs).

Syntax

show filter act ethernet [<acl-id>] [<acl-type>]

where

Copyright © 2007, Nortel Networks

- **<acl-id>** is a unique identifier (from 1 to 512) for this ACL entry.
- **<acl-type>** specifies the type of ACL: IP or non-IP.

show filter act ip

Use this command to display information about the IP Access Control Templates (ACTs).

Syntax

show filter act ip [<acl-id>] [<acl-type>]

where

- **<acl-id>** is a unique identifier (from 1 to 512) for this ACL entry.
- **<acl-type>** specifies the type of ACL: IP or non-IP.

show ip

This command displays general IP routing information, such as the status of IP routing on the switch and the configured community lists.

Syntax

show ip

Parameters

This command includes the following options:

show ip **followed by:**	
forwarding	Displays the status of IP forwarding (routing) on the switch.
interface	Displays the IP interfaces on the switch.

show ip arp

This command displays the Address Resolution Protocol (ARP) table.

Syntax

show ip arp

Copyright © 2007, Nortel Networks

Parameters

This command includes the following options:

show ip arp **followed by:**	
info [<ip address>] [-s <value>]	Displays the ARP table. • **ip address** is the specific net IP address for the table. • **-s value** is the specific subnet in the format (a.b.c.d/x|a.b.c.d/x.x.x.x|default).

show ip circuitless info

This command displays information about all CLIP interfaces configured on the switch.

Syntax

show ip circuitless info

show ip dhcp-relay fwd-path

This command displays the forward path of the ip -dhcp-relay.

Syntax

show ip dhcp-relay fwd-path

show ip dhcp-relay counters

This command displays the counters for the ip dhcp-relay.

Syntax

show ip dhcp-relay counters

show ip forwarding

This command displays the status of IP forwarding (routing) on the switch.

Syntax

show ip forwarding

show ip igmp

This command displays information about the Internet Group Management Protocol (IGMP).

Syntax

show ip igmp

Copyright © 2007, Nortel Networks

Parameters

This command includes the following options:

show ip igmp **followed by:**	
access	Displays information about the IGMP multicast access list groups.
cache	Displays information about the IGMP cache.
group [count]	Displays information about the IGMP group. **count** has a range of 1 to 1536.
interface [<vid>]	Displays information about the interfaces on which IGMP is enabled.
mrdisc [<vid>]	Displays ports discovered by the IGMP Multicast router discovery (MRDISC) protocol.
mrdisc-neighbors [<vid>]	Displays neighbors discovered by the IGMP Multicast router discovery (MRDDISC) protocol.
router-alert	Displays the status of the IGMP router alert.
sender [count]	Displays information about the IGMP senders. **Count** has a range of 1–2000.
snoop-trace [src<value>] [grp <value>]	Displays the IP IGMP snoop trace parameters.
snoop [<vid>]	Displays the status of the IGMP snoop.
static	Displays information about the static and blocked ports for the IGMP-enabled interfaces.

show ip igmp stream-limit-interface

This command displays information about the interfaces where multicast stream limitation is enabled.

Syntax

show ip igmp stream-limit-interface

show ip igmp stream-limit-port

This command displays multicast stream limitation information for ports on a selected interface.

Copyright © 2007, Nortel Networks

Syntax

show ip igmp stream-limit-port

show ip interface

This command displays the IP interfaces on the switch.

Syntax

show ip interface

show ip mroute static-source-group

This command displays information about the static source groups on the current interface.

Syntax

show ip mroute static-source-group [<GroupAddress>]

where

<GroupAddress> is the group IP address.

show ip ospf

This command displays information about the OSPF general configuration on the ERS 8300. Use the following command in User EXEC, Privileged EXEC or Global Config mode:

Syntax

show ip ospf

show ip ospf accept

This command displays information about the OSPF router acceptance parameter configuration on the ERS 8300. Use the following command in User EXEC, Privileged EXEC or Global Config mode:

Syntax

show ip ospf accept

show ip ospf area

This command displays information about the OSPF area configuration on the ERS 8300. Use the following command in User EXEC, Privileged EXEC or Global Config mode:

Syntax

show ip ospf area

Copyright © 2007, Nortel Networks

Parameters

This command includes the following parameters:

show ip ospf area **followed by:**	
<cr>	Display ospf area information. <cr> is carriage return.
<ippaddr>	Display ospf area information with area ID. <ippaddr> is area ID.
area-range	Display ospf area range information
area-range<ippaddr>	Display ospf area range information with area ID. <ippaddr> is the area ID.

show ip ospf ase

This command displays information about the OSPF external lsas configuration on the ERS 8300. Use the following command in User EXEC, Privileged EXEC or Global Config mode:

Syntax

show ip ospf ase

Parameters

This command includes the following parameters:

show ip ospf ase **followed by:**	
<cr>	Display ospf external lsas information. <cr> is carriage return.
metric-type <1-2>	Display ospf external lsas metric-type information. <1-2> is metric type 1 or type 2.

show ip ospf authentication interface

This command displays information about the OSPF interface authentication configuration on the ERS 8300. Use the following command in User EXEC, Privileged EXEC or Global Config mode:

Syntax

show ip ospf authentication interface

Copyright © 2007, Nortel Networks

Parameters

This command includes the following parameters:

show ip ospf authentication interface followed by:	
<cr>	Display ospf authentication on interface. <cr> is carriage return.
vlan	Display ospf authentication on vlan interface.
vlan<1-4094>	Display ospf authentication on particular vlan interface. <1-4094> is the vlan ID.

show ip ospf default-metric

This command displays information about the OSPF default-metric configuration on the ERS 8300. Use the following command in User EXEC, Privileged EXEC or Global Config mode:

Syntax

show ip ospf default-metric

show ip ospf host-route

This command displays information about the OSPF host-route configuration on the ERS 8300. Use the following command in User EXEC, Privileged EXEC or Global Config mode:

Syntax

show ip ospf host-route

show ip ospf ifstats

This command displays information about the OSPF interface statistics on the ERS 8300. Use the following command in User EXEC, Privileged EXEC or Global Config mode:

Syntax

show ip ospf ifstats [detail|mismatch|<ippaddr>]

where

- detail shows more detail information
- mismatch shows mismatch information
- <ippaddr> is interface ip address

show ip ospf info

This command displays the current OSPF settings for the switch.

Copyright © 2007, Nortel Networks

Syntax

show ip ospf info

show ip ospf int-auth

This command displays information about the OSPF authentication configuration on the ERS 8300. Use the following command in User EXEC, Privileged EXEC or Global Config mode:

Syntax

show ip ospf int-auth

show ip ospf int-timers

This command displays information about the OSPF timers configuration on the ERS 8300. Use the following command in User EXEC, Privileged EXEC or Global Config mode:

Syntax

show ip ospf int-timers

show ip ospf interface

This command displays information about the OSPF interface configuration on the ERS 8300. Use the following command in User EXEC, Privileged EXEC or Global Config mode:

Syntax

show ip ospf interface

Parameters

This command includes the following parameters:

show ip ospf interface followed by:	
<cr>	Display ospf interface information. <cr> is carriage return.
vlan	Display ospf vlan interface information.
vlan<1-4094>	Display ospf information on particular vlan interface. <1-4094> is the vlan ID.

show ip ospf lsdb

This command display information about the OSPF isdb configuration on the ERS 8300. Use the following command in User EXEC, Privileged EXEC or Global Config mode:

Copyright © 2007, Nortel Networks

Syntax

show ip ospf lsdb

Parameters

This command includes the following parameters:

show up ospf Isdb followed by:	
<cr>	Display ospf lsdb info information. <cr> is carriage return.
adv-rtr<ippaddr>	Display ospf lsdb information on particular advertisement router. <ippaddr> is the router ID.
adv-rtr<ippaddr>detail	Display ospf detail lsdb information on particular advertisement router. <ippaddr> is the router ID.
area<ippaddr>	Display ospf lsdb information on particular area. <ippaddr> is the area ID>
detail	Display ospf detail lsdb information.
Isa-type<0-7>	Display particular type of ospf lsdb information. <0-7> is for type 1 to type 7.
Isid<ippaddr>	Display ospf lsdb information with a particular lsid. <ippaddr> is Isa ID.

show ip ospf neighbors interface

This command display information about OSPF neighbors on the ERS 8300. Use the following command in User EXEC, Privileged EXEC or Global Config mode:

Syntax

show ip ospf neighbours interface

Parameters

This command includes the following parameters:

show ip ospf neighbors interface followed by:	
<cr>	Display all ospf neighbours. <cr> is carriage return.
vlan	Display all ospf neighbours on a vlan interface.
vlan<1-4094>	Display all ospf neighbours on a particular vlan interface. <1-4094> is the vlan ID.

Copyright © 2007, Nortel Networks

show ip ospf accept info

This command displays information about the all configured OSPF entries.

Syntax

```
show ip ospf accept info
```

show ip ospf redistribute

This command displays information about the OSPF redistribute configuration on the ERS 8300. Use the following command in User EXEC, Privileged EXEC or Global Config mode:

Syntax

```
show ip ospf redistribute
```

show ip ospf redistribute info

This command displays information about the OSPF redistribution configuration for each route source that is static, direct, and RIP.

Syntax

```
show ip ospf redistribute info
```

show ip ospf stats

This command displays information about the OSPF statistics on the ERS 8300. Use the following command in User EXEC, Privileged EXEC or Global Config mode:

Syntax

```
show ip ospf stats
```

show ip ospf timer interface

This command displays information about OSPF interface timers on the ERS 8300. Use the following command in User EXEC, Privileged EXEC or Global Config mode:

Syntax

```
show ip ospf timer interface
```


Copyright © 2007, Nortel Networks

Parameters

This command includes the following parameters:

show ip ospf timer interface followed by:	
<cr>	Display ospf timers information on an interface. <cr> is carriage return.
vlan	Display ospf timers information on a vlan interface.
vlan<1-4094>	Display ospf timers information on a particular vlan interface. <1-4094> is the vlan ID.

show ip pim active-rp

This command displays information about the active rendezvous point (RP) for a selected group

Syntax

show ip pim active-rp <grp>

where

<grp> is the IP address of the active RP for a selected group.

show ip pim bsr

This command displays information about the bootstrap router (BSR) for this PIM-SM domain.

Syntax

show ip pim bsr

show ip pim candidate-rp

This command displays information about a candidate rendezvous point (C-RP).

Syntax

show ip pim candidate-rp

show ip pim info

This command displays the global status of PIM-SM on the switch.

Syntax

show ip pim info

show ip pim interface

This command displays information about the PIM-SM set-up on the switch.

Copyright © 2007, Nortel Networks

Syntax

```
show ip pim interface
```

show ip pim mode

This command displays the current PIM mode.

Syntax

```
show ip pim mode
```

show ip pim mroute

This command displays information from the route table.

Syntax

```
show ip pim mroute [src <value>][grp <value>]
```

where

src <value> is the IP address of the source group.
grp <value> is the IP address of the multicast group.

show ip pim neighbor

This command displays information about the neighboring routers configured with PIM-SM.

Syntax

```
show ip pim neighbor
```

show ip pim rp-set

This command displays information about the rendezvous points (RP) for a selected PIM-SM domain.

Syntax

```
show ip pim rp-set
```

show ip pim static-rp

This command displays the static rendezvous point (RP) table.

Syntax

```
show ip pim static-rp
```

show ip pim virtual-neighbor

This command displays the PIM-SM virtual neighbor.

Syntax

```
show ip pim virtual-neighbor
```

show ip prefix-list

This command displays the prefix list of networks used by route policies to define an action.

Copyright © 2007, Nortel Networks

Syntax

```
show ip prefix-list
```

show ip route-discovery

This command shows whether or not route discovery is enabled on the device.

Syntax

```
show ip route-discovery
```

show ip route info

This command displays the existing IP route table for the switch or for a specific net or subnet.

Syntax

```
show ip route info [ip <value> ] [-s <value> ]
[alternative]
```

where

- **ip <value>** is the specific net (1.2. = 1.2.0.0) {a.b.c.d}.
- **-s <value>** is the specific subnet {a.b.c.d/x | a.b.c.d/x.x.x.x | default}.
- **alternative** displays alternative routes.

show ip route-policy info

This command displays information about the route policies configured on the switch.

Syntax

```
show ip route-policy info
```

show ip route preference info

This command displays information about IP route preferences.

Syntax

```
show ip route preference info
```

show ip static-route info

This command displays the existing IP static routes for the switch or for a specific net or subnet.

Syntax

```
show ip static-route info [ <ip address> ] [-s <value> ]
```

where

Copyright © 2007, Nortel Networks

- **ip address** is the specific net (1.2. = 1.2.0.0) {a.b.c.d}.
- **-s <value>** is the specific subnet {a.b.c.d/x | a.b.c.d/x.x.x.x | default}.

show ip tcp

This command displays information about Transmission Control Protocol (TCP) global properties, TCP global statistics, and the TCP connection table.

Syntax

show ip tcp

Parameters

This command includes the following options:

show ip tcp **followed by:**	
properties-global	Displays information about TCP global properties, including the RTO minimum and maximum values, and the maximum number of connections.
statistics-global	Displays information about TCP statistics, including the number of active and passive opens.
info-connections	Displays information about the TCP connection table, including the port number and address of the local and remote ports, and the status (for example, listen or established) of each port.

show ip udpfwd interface info

This command displays information about the established UDP forwarding protocols.

Syntax

show ip udpfwd interface info [<ipaddr>]

where

ipaddr specifies the IP address of the interface to view.

show ip udpfwd portfwd

This command displays information about the established UDP forwarding protocols.

Syntax

show ip udpfwd portfwd

show ip udpfwd portfwdlist

This command displays information about the established UDP forwarding protocols.

Copyright © 2007, Nortel Networks

Syntax

show ip udpfwd portfwdlist info [<fwdlistid>]

where

fwdlistid specifies a particular list policy ID to view

show ip udpfwd protocol info

This command displays information about the established UDP forwarding protocols.

Syntax

show ip udpfwd protocol info

show ip vrrp info

This command shows the current state of VRRP.

Syntax

show ip vrrp info [vrid <value>] [ip <value>]

where

- vrid <value> is a unique integer value that represents the virtual router ID in the range 1 to 255. The virtual router acts as the default router for one or more assigned addresses.
- ip <value> is the IP address of the VLAN.

show ip vrrp global-settings

This command shows the vrrp global information.

Syntax

show ip vrrp global-settings

show ip vrrp stats

This command shows the current statistic info of VRRP.

Syntax

show ip vrrp stats [vrid <value>] [ip <value>]

show license

Use this command to display the current license.

Syntax

show license

show lldp

This command displays the LLDP parameters for the local system.

Copyright © 2007, Nortel Networks

Syntax

```
show lldp interface [FastEthernet | GigabitEthernet]
<portlist> [mgmt-sys] [stats] [pdu-tlv-size][local-sys-data
{dot1 | dot3 | med | detail}]{[rx-stats] [FastEthernet |
GigabitEthernet] [<portlist>]}{[tx-stats ] [FastEthernet |
GigabitEthernet][<portlist>]}[tx-tlv {dot1 | dot3 | med |
[FastEthernet | GigabitEthernet]<portlist>]
```

Parameters

This command includes the following parameters:

show lldp **followed by:**	
interface [FastEthernet | GigabitEthernet] <portlist>	Displays LLDP port parameters.
mgmt-sys	Displays the local management system data.
stats	Displays the LLDP table statistics for the remote system.
pdu-tlv-size	Displays the different TLV sizes and the number of TLVs in an LLDPDU.
local-sys-data {dot1 | dot3 | med |detail}	Displays the organizationally-specific TLV properties on the local switch: • dot1: displays the 802.1 TLV properties • dot3: displays the 802.3 TLV properties • med: displays the MED TLV properties • detail: displays all organizationally specific TLV properties To display the properties of the optional management TLVs, include only the local-sys-data parameter in the command.
[rx-stats][FastEthernet | GigabitEthernet] <portlist>	Displays the LLDP receive statistics for ports on the local system.
[tx-stats][FastEthernet | GigabitEthernet] <portlist>	Displays the LLDP transmit statistics for ports on the local system
tx-tlv {dot1 | dot3 | med | [FastEthernet | GigabitEthernet]	Displays which TLVs are transmitted from the local switch in LLDPDUs: • dot1: displays status for 802.1 TLVs • dot3: displays status for 802.3 TLVs • med: displays status for MED TLVs

Copyright © 2007, Nortel Networks

show lldp followed by:	
	• [FastEthernet | GigabitEthernet] [<portlist>] displays the status for management TLVs for specific ports. To display the transmission status of the optional management TLVs for all ports, include only the tx-tlv parameter in the command.

show lldp stats

This command displays the lldp statistics of the remote table.

Syntax

```
show lldp stats
```

show lldp tx-stats

This command displays the lldp transmission statistics per port.

Syntax

```
show lldp tx-stats [<portlist>]
```

show lldp rx-stats

This command displays the lldp receiver statistics per port.

Syntax

```
show lldp rx-stats [<portlist>]
```

show lldp local-sys-data

This command displays the local system information.

Syntax

```
show lldp local-sys-data
```

show lldp local-sys-data dot1

This command displays the local system information corresponding to dot1 tlv's.

Syntax

```
show lldp local-sys-data dot1
```

show lldp local-sys-data dot3

This command displays the local system information corresponding to dot3 tlv's.

Copyright © 2007, Nortel Networks

Syntax

```
show lldp local-sys-data dot3
```

show lldp local-sys-data med

This command displays the local system information corresponding to MED tlv's.

Syntax

```
show lldp local-sys-data med
```

show lldp local-sys-data detail

This command displays the local system information in detail.

Syntax

```
show lldp local-sys-data detail
```

show lldp mgmt-sys-data

This command displays the lldp management system information.

Syntax

```
show lldp mgmt-sys-data
```

show lldp neighbor

This command displays the lldp neighbors learnt on a network element.

Syntax

```
show lldp [neighbor [FastEthernet | GigabitEthernet]<portlist
>][neighbor {dot1 [vlan-names | protocol-id] } | [dot3] |{med
[capabilities] [network-policy] [location] [extended-power]
|[FastEthernet | GigabitEthernet]<portlist>}{ [neighbor-mgmt-
addr] [FastEthernet | GigabitEthernet]<portlist>}
```

Parameters

This command includes the following parameters:

show lldp neighbor **followed by:**	
neighbor [FastEthernet | GigabitEthernet]<portlist>]	Displays learned LLDP neighbors by port.

Copyright © 2007, Nortel Networks

show lldp neighbor followed by:	
neighbor { dot1 [vlan-names | protocol-id] } | [dot3] | { med [capabilities] [network-policy] [location] [extended-power] } | { [FastEthernet | GigabitEthernet]<portlist>}	Displays the neighbor TLVs: • dot1: displays 802.1 TLVs: — vlan-names: VLAN Name TLV — protocol-id: Protocol Identity TLV • dot3: displays 802.3 TLVs • med: displays MED TLVs:— capabilities: Capabilities TLV — network-policy: Network Policy Discovery TLV — location: Location Identification TLV — extended-power: Extended Power-via-MDI TLV • [FastEthernet | GigabitEthernet] <portlist>: displays neighbor TLVs for the specified port
neighbor-mgmt-addr] [FastEthernet | GigabitEthernet]<portlist>	Displays the LLDP neighbor management address.

show lldp neighbor dot1

This command displays the lldp neighbors learnt on network element based on dot1 tlv information.

Syntax

```
show lldp neighbor dot1 [vlan-names] [protocol-id]
```

Parameters

This command includes the following parameters:

show lldp neighbor dot1 followed by:	
<vlan-names>	Displays the vlan names.
[protocol-id]	Displays the protocol ID.

show lldp neighbor dot3

This command displays the lldp neighbors learnt on network element based on dot3 tlv information.

Syntax

```
show lldp neighbor dot3
```


Copyright © 2007, Nortel Networks

show lldp neighbor med capabilities

This command displays the lldp neighbors learnt on network element based on MED capabilities tlv information.

Syntax

```
show lldp neighbor med capabilities
```

show lldp neighbor med network-policy

This command displays the lldp neighbors learnt on network element based on MED network-policy tlv.

Syntax

```
show lldp neighbor med network-policy
```

show lldp neighbor med location

This command displays the lldp neighbors learnt on network element based on MED location tlv information.

Syntax

```
show lldp neighbor med location
```

show lldp neighbor med extended-power

This command displays the lldp neighbors learnt on network element based on MED extended-power tlv information.

Syntax

```
show lldp neighbor med extended-power
```

show lldp neighbor med inventory

This command displays the lldp neighbors learnt on the network element based on MED inventory tlv information.

Syntax

```
show lldp neighbor med inventory
```

show lldp neighbor detail

This command displays the lldp neighbors learnt on the network element in detail.

Syntax

```
show lldp neighbor detail
```

show lldp neighbor-mgmt-addr

This command displays the lldp neighbor management address information learnt on the network element.

Syntax

```
show lldp neighbor-mgmt-addr [<portlist>]
```


Copyright © 2007, Nortel Networks

config lldp info

This command displays the global LLDP configuration.

Syntax

```
config lldp info
```

config ethernet lldp info

This command displays the lldp configuration per port.

Syntax

```
config ethernet <portlist> lldp info
```

show log

This command displays log information for the switch.

Syntax

```
show log
```

Parameters

This command includes the following options:

show log **followed by:**	
file [tail]	Displays the specified log file. • **tail** displays the log file in reverse order, with the most recent information first.
level	Displays the level of information being entered in the log. The level ranges from information (INFO), where all messages are entered, to FATAL, where only fatal errors are recorded. The manufacturing (MFG) level is for manufacturing purposes only and not available for customer use.
name-of-file <value>	Displays the name of the log file.
category <value>	Displays the category of the log file.
severity <value>	Displays the level of severity.

Copyright © 2007, Nortel Networks

show log followed by:	
CPU <value>	Displays the CPU number.
save-to-file <value>	Displays the file where log information is saved.

show mlt

This command displays general information about MultiLink Trunking (MLT).

Syntax

show mlt

Parameters

This command includes the following options:

show mlt followed by:	
info [<mid>]	Displays the index value, IP address, and the port members for all configured MLTs or for the specified MLT. • mid is the MLT ID. The valid values are 1 to 31.
stats [<mid>]	Displays the number of incoming and outgoing packets for all configured MLTs or for the specified MLT. • mid is the MLT ID. The valid values are 1 to 31.

show mlt error

This command displays MultiLink Trunking (MLT) errors.

Syntax

show mlt error

Copyright © 2007, Nortel Networks

Parameters

This command includes the following options:

show mlt error **followed by:**	
collision [<mid>]	Displays the number and type of Ethernet collision errors for all configured MLTs or for the specified MLT. • **mid** is the MLT ID. The valid values are 1–32.
main [<mid>]	Displays basic information about the number of different types of Ethernet errors for all configured MLTs or for the specified MLT. • **mid** is the MLT ID. The valid values are 1–32.

show mlt error collision

This command displays information about collision errors.

Syntax

show mlt error collision [<mid>]

show mlt error main

This command displays information about the types of Ethernet errors sent and received by a specific link aggregation group or all link aggregation groups.

Syntax

show mlt error main [<mid>]

show mlt info

This command displays information about all link aggregation groups.

Syntax

show mlt info

show mlt ist info

This command displays the status of interswitch trunking for the switch or for the specified multilink trunk ID.

Copyright © 2007, Nortel Networks

Syntax

```
show mlt ist info
```

show mlt stats

This command monitors link aggregation interface statistics.

Syntax

```
show mlt stats [<mid>]
```

show mlt ist stat

This command troubleshoots SMLT IST problems.

Syntax

```
show mlt ist stat
```

show mlt smlt info

This command checks whether the SMLT port is operating.

Syntax

```
show mlt smlt info
```

show nsna client

Use this command to display the table of Nortel clients currently connected to the switch.

Syntax

```
show nsna client [ports <value>] [mac <value>]
```

where

`ports <value>` is the slot/port number entered as {slot/port[-slot/port][,...]}.

`mac <value>` is the MAC address of the host.

show nsna info

Use this command to display information related specifically to NSNA as it is currently configured.

Syntax

```
show nsna info
```

show nsna interface

Use this command to display the table of Nortel SNA interface information.

Syntax

```
show nsna interface [<ports>]
```


Copyright © 2007, Nortel Networks

where

<ports> uses the convention {slot/port[–slot/port][,...]}.

show nsna nsnas

This command displays the table of information related to the NSNAS 4050.

Syntax

show nsna nsnas [<ipaddr>]

where

<ipaddr> is the pVIP address for the NSNAS 4050.

show nsna phone-signature

Use this command to display the table of NSNA phone signatures.

Syntax

show nsna phone-signature [<string>]

where

<string> is the phone signature string in the range of 1 to 64 characters.

show nsna vlan

This command displays the table of NSNA VLAN information.

Syntax

show nsna vlan <vid>

where

<vid> is the VLAN ID in the range 1 to 4000.

show poe card info

This command displays power over ethernet card information.

Syntax

show poe card info [<slots>]

show poe port stats

This command displays power over ethernet port statistics.

Syntax

show poe port stats <ports>

show poe port info

This command displays power over ethernet port information.

Copyright © 2007, Nortel Networks

Syntax

```
show poe port info [<ports>]
```

show poe port power-measurement

This command displays power over ethernet port power measurements.

Syntax

```
show poe port power-measurement <ports>
```

show poe sys info

This command displays power over ethernet system information.

Syntax

```
show poe sys info
```

show port info lldp

This command shows the LLDP port information.

Syntax

```
show port info lldp <portlist>
```

show ports error

This command displays port errors.

Syntax

```
show ports error
```

Parameters

This command includes the following options:

show ports error **followed by:**	
collision [<ports>]	Displays the number and type of Ethernet collision errors for the specified port or all ports.
extended [<ports>]	Displays additional information about Ethernet errors for the specified port or for all ports.
main [<ports>]	Displays basic information about the number of different types of Ethernet errors for the specified port or for all ports.

Note: **ports** specify the ports in the portlist form {**slot/port[-slot/port**][, ...]}.

show ports info

This command displays information about the ports on the switch.

Copyright © 2007, Nortel Networks

Syntax

```
show ports info
```

Parameters

This command includes the following options:

show ports info **followed by:**	
all [<ports>] [by <value>]	Displays general information for the specified port, ports or all ports. • **by <value>** displays group information by ID number or by each feature {default|ID}.
config [<ports>]	Displays general configuration information for the specified port, ports or all ports.
interface [<ports>]	Displays information about the physical interface for the specified port, ports or all ports.
ip [<ports>]	Displays routing (IP) information for the specified port, ports or all ports.
name [<ports>]	Displays general information, including the name or names of the specified port, ports or all ports.
rate-limit [<ports>]	Displays the rate limit in packets per second for the specified port, ports or all ports.
unknown-mac-discard [<ports>]	Displays unknown-mac-discard information for the specified port, ports or all ports.
vlans [<ports>]	Displays virtual LAN information for the specified port, ports or all ports.
filter [<ports>]	Displays filter information for the specified port, ports or all ports.
qos [<ports>]	Displays qos information for the specified port, ports or all ports.
route-discovery [<ports>]	Displays routing information for the specified port, ports or all ports.
rate-limit [<ports>]	Displays rate limit information for the specified port, ports or all ports.
tx-queue [<ports>]	Displays traffic queue information for the specified port, ports or all ports.

Note: **ports** specify the ports in the portlist form {**slot/port[-slot/port**][, ...]}.

Copyright © 2007, Nortel Networks

show ports info interface

This command displays the MTU of each port interface.

Syntax

```
show ports info interface [<port>]
```

show ports info slpp

This command displays SLPP port information.

Syntax

```
show ports info slpp [port <value>]
```

where

port <value> is the port list.

show ports info smlt

This command displays all ports currently configured for single port split multilink trunk.

Syntax

```
show ports info smlt [vlan <value>] [port <value>]
```

where

- vlan <value> is the VLAN ID
- port <value> is the port ID or list of port IDs

show ports stats

This command displays statistics for the specified port, ports, or all ports.

Syntax

```
show ports stats
```

Parameters

This command includes the following options:

show ports stats **followed by:**	
routing [<ports>]	Displays routing information about the specified port, ports or all ports.
stg [<ports>]	Displays statistics counters for spanning tree groups on the specified port, ports or all ports.

show ports stats dhcp-relay

This command displays the statistics for the ip dhcp relay.

Copyright © 2007, Nortel Networks

Syntax

show ports stats dhcp-relay [<ports>]

show ports stats interface

Note: **ports** specify the ports in the portlist form {**slot/port[-slot/port**][, ...]}.

This command displays basic and extended information about the specified port, ports or all ports.

Syntax

show ports stats interface

Parameters

This command includes the following options:

show ports stats interface **followed by:**	
main [<ports>]	Displays basic interface information about the specified port, ports or all ports.
extended [<ports>]	Displays additional port interface information about the specified port, ports or all ports.

Note: **ports** specify the ports in the portlist form {**slot/port[-slot/port**]

[, ...]}.

show qos egress-stats

Use this command to display information about the QoS egress counter set.

Syntax

show qos egress-stats [<counter_set_id>]

where

<counter_set_id> is a value in the range from 1 to 40.

show qos egress-counter-set

Use this command to display information about the QoS egress counter set.

Syntax

show qos egress-counter-set [<counter_set_id>]

where

<counter_set_id> is a value in the range from 1 to 40.

Copyright © 2007, Nortel Networks

show qos info

Use this command to display the status of the MAC QoS-level override setting.

Syntax

```
show qos info
```

show qos map 802.1p-to-class-map

Use this command to display how the switch maps 802.1p user priority to traffic class levels.

Syntax

```
show qos map 8021-to-class-map
```

show qos map 802.1p-to-drop-precedence-map

Use this command to display how the switch maps 802.1p bits to drop precedence.

Syntax

```
show qos map 8021-to-drop-precedence-map
```

show qos map 802.1p-to-dscp-map

Use this command to display the status of the 802.1p dscp to map setting.

Syntax

```
show qos map 8021p-to-dscp-map
```

show qos map class-to-802.1p-map

Use this command to display how the switch maps traffic class levels to an 802.1p user priority.

Syntax

```
show qos map class-to-8021p-map
```

show qos map class-to-802.1p-policed-map

Use this command to display how the switch maps traffic class levels to an 802.1p user priority based on the conformance level.

Syntax

```
show qos map class-to-8021p-policed-map [<conformance-level>]
```

where

<conformance-level> is the outcome of policing and indicates the behavior of a traffic flow.

Copyright © 2007, Nortel Networks

show qos map dscp-to-cos-policed-map

Use this command to display how the switch maps DSCP to layer 2 Class of Service (CoS) based on the conformance level.

Syntax

show qos map dscp-to-cos-policed-map [<conformance-level>]

where

<conformance-level> is the outcome of policing and indicates the behavior of a traffic flow.

show qos policy

Use this command to display information about the QoS policies.

Syntax

show qos policy [<policy-id>]

where

<policy-id> specifies the QoS policy ID number.

show qos policy-stats

Use this command to display the QoS policy statistics.

Syntax

show qos policy-stats [<policy-id>]

where

<policy-id> specifies the QoS policy ID number. The range is 1 to 128.

show radius

This command displays various Remote Access Dial-in User Services (RADIUS) settings.

Syntax

show radius

Copyright © 2007, Nortel Networks

Parameters

This command includes the following options:

show radius **followed by:**	
info	Displays the global status of RADIUS information.
server config	Displays current RADIUS server configurations.
server stat	Displays statistics for the current RADIUS servers.

show rmon

This command displays various Remote Monitoring (RMON) settings.

Syntax

show rmon

Parameters

This command includes the following options:

show rmon **followed by:**	
info	Displays the status of RMON on the switch.
alarm	Displays the RMON alarm table.
ether-stats	Displays the RMON Ethernet statistics table.
event	Displays the RMON event table.
history-control	Displays the RMON history control table.
log	Displays the RMON log table.

show slot

This command displays the administrative status of the module.

Copyright © 2007, Nortel Networks

Syntax

show slot <slot number>

where

slot number is the slot number in the chassis, which has a range of 1 to 10.

Note: Slots are numbered from top to bottom in the Ethernet Routing Switch 8300.

show slpp

This command displays Simple Loop Prevention Protocol (SLPP) information.

Syntax

show slpp

show smlt info

This command displays split multilink trunk status for the switch or for a specific SMLT ID.

Syntax

show smlt info <mid>

where

- <mid> is the MLT ID

show stg info

This command displays Spanning Tree Group (STG) configuration and status information.

Syntax

show stg info

Parameters

This command includes the following options:

show stg info **followed by:**	
config [<sid>]	Displays the spanning tree group configuration for the switch or for the specified spanning tree group. • **sid** is a spanning tree group ID from 1 to 64 characters.

Copyright © 2007, Nortel Networks

show stg info followed by:	
status [<sid>]	Displays the spanning tree group status for the specified spanning tree group or all STGs. • **sid** is a spanning tree group ID from 1 to 25 characters.

show sys

This command displays the status, performance, and module configuration of the switch, and the version of software running on the switch.

Syntax

show sys

Parameters

This command includes the following options:

show sys followed by:	
info [card] [asic] [mda]	Displays system status and technical information about the switch hardware components. • **card** displays information about all the installed modules. • **asic** displays information about the ASICS installed on each module. • **mda** displays information about installed MDAs.
eapol	Displays the global Extensible Authorization Protocol (EAP) configuration.
link-flap-detect general-info	Displays the link-flap-detect settings.
mcast-software-forwarding	Displays the mcast software forwarding status.

Copyright © 2007, Nortel Networks

show sys followed by:	
msg-control	Displays the system message control function status (enabled or disabled).
perf	Displays system performance information, such as CPU utilization, switch fabric utilization, NVRAM size, and NVRAM used. The information is updated once per second, so it is no more than one second from real time.
sw	Displays the version of software running on the switch, the last update of that software, and the Boot Config Table. The Boot Config Table lists the current system settings and flags.
topology	Displays the topology table. This table shows the information that is being sent to Optivity network management software for creating network displays.

show sys access-policy info

This command displays the global access policy settings. If you specify a policy name, the settings for the policy are displayed.

Syntax

show sys access-policy info [<polname>]

where

polname is the name of the policy.

show sys syslog general-info

This command displays system log information for the entire system.

Syntax

show sys syslog general-info

show sys syslog host info

This command displays system log information for the specified host.

Syntax

show sys syslog host <id> info

where

id identifies the host.

show tech

This command displays technical information about system status and outputs several pages of information about the hardware, software, and operation of the switch. The information available from the **show tech**

Copyright © 2007, Nortel Networks

command includes general information about the system (such as location), hardware (chassis, power supplies, fans, and modules), system errors, boot configuration, software versions, memory, port information (locking status, configurations, names, interface status), and log and trace files.

Syntax

show tech

show test

This command displays test information for the switch.

Syntax

show test

Parameters

This command includes the following options:

show test **followed by:**	
loopback <ports>	Displays the results of the latest loopback test for the switch or for the specified port or ports.

show trace

This command displays trace information for the switch.

Syntax

show trace

Parameters

This command includes the following options:

show trace **followed by:**	
file [tail]	Displays the trace message file when tracing is enabled. • **tail** allows you to view the log file in reverse order, with the most recent information first.
level <modid> <level>	Displays the current software module ID numbers and the corresponding trace levels. • **modid** is the identifier for the software module you are tracing.

Copyright © 2007, Nortel Networks

show trace followed by:	
	• level is a number that specifies the amount of detail in the trace message file (1 to 4, from least detail to most) or disables trace activity (0).

show vlan info

This command displays protocol, configuration and parameter information for a specified or all Virtual LANs (VLANs).

Syntax

```
show vlan info
```

Parameter

This command includes the following options:

show vlan info followed by:	
advance [<vid>]	Displays additional parameters for the specified VLAN or all VLANs.
all [<vid>] [by<value>]	Displays all general information about the VLANs on the switch or a specified VLAN. • by <value> groups the information by ID number or by each feature.
arp [<vid>]	Displays the address resolution protocol configurations for all VLANs on the switch or for the specified VLAN.
autolearn-mac	Displays bridging autolearn mac address information for all VLANs on the switch or for the specified VLAN.
basic [<vid>]	Displays the basic configurations for all VLANs or the specified VLAN.
fdb-entry <vid>	Displays forwarding database information for the specified VLAN
fdb-filter <vid>	Displays the forwarding database filters for the specified VLAN.
fdb-static <vid>	Displays the static forwarding database status, the VLAN Media Access Control (MAC) address, and the Quality of Service (QoS) level for the specified VLAN.

Copyright © 2007, Nortel Networks

show vlan info followed by:	
igmp [<vid>]	Displays information about the internet group management protocol operation in the switch.
ip [<vid>]	Displays the routing (IP) configuration for all VLANs on the switch or for the specified VLAN.
manual-edit-mac	Displays bridging manual edit mac address information for all VLANs on the switch or for the specified VLAN.
ports [<vid>]]	Displays the port member status for all VLANs on the switch or for the specified VLAN. A port can be an active member, a static member, or a not-allowed member.
static-mcastmac [<vid>]	Displays the Layer 2 multicast media access control filters.

Note: **vid** refers to the VLAN ID, which has a value from 1 to 4000.

show vlan info nlb-mode

This command displays the current NLBS mode on a selected VLAN.

Syntax

show vlan info nlb-mode

show vlan info pim

This command displays information about the PIM-SM interface setup for VLANs.

Syntax

show vlan info pim

show vlan info vrrp extended

This command displays the extended VRRP configuration for all VLANs on the switch or for the specified VLAN.

Syntax

show vlan info vrrp extended [<vid>]

where

- vid is the VLAN ID in the range of 1 to 4094.

show vlan info vrrp main

This command shows brief VRRP information for a vlan.

Syntax

show vlan info vrrp main [<vid>]

Copyright © 2007, Nortel Networks

show web-server

This command displays whether or not Web access is enabled, as well as password and access information.

Syntax

```
show web-server
```


Copyright © 2007, Nortel Networks

Index

A

access policy precedence 231
activity check interval 157
alternative routes 134
ARP commands
    IP 134
ARP table, adding static entry 135
ARP table, displaying 286
auto-negotiate command (Run-Time CLI) 94
autoboot flag 70
autonegotiation
    on a CPU port 74
    on a network port 94

B

backup CPU, activating 236
banner, login 80
Boot Monitor
    configuration, displaying 281
    prompt 69
Boot Monitor CLI
    changing 69
boot sequence, changing 68
bootconfig choice commands 68
box-level prompt 235

C

choice command 37
choice commands
    Run-Time CLI 66, 67, 68, 84
CLI login banner 80
collision errors, MLT 307
command
    reentering 43
config bootconfig commands
    choice 68
config ip ospf redistribute command 153
config ip rip command 165
config ip rip interface command 167, 260
config mlt add 109, 191, 191, 193, 194
configuration
    displaying
        Boot Monitor 281
    saving 48
configuration file
    debugging 71
conventions, text 30
counters, resetting 236
CPU
    master 281
    standby, accessing 45

D

daylight saving time, setting 71, 77
daylight-saving-time flag 71
debug-config flag 71
debugmode flag 71
disabling forwarding 137
duplex mode, setting 95, 95

E

errors, collision 307, 310
Ethernet collision errors 307, 310
Ethernet errors 307

Copyright © 2007, Nortel Networks

F

factorydefaults flag 71
flag settings, displaying 281
FTP, enabling 71
ftpd flag 71

G

global config ip commands 134

I

Id field, static link aggregation group 109, 191, 192, 193, 195
idle timeout 70, 80
IGMP CLI commands
    show ip igmp interface 298, 298
IGMP snoop commands 140
IP forwarding, disabling 137

L

link up/down trap 95
linktrap command 95
lock command 95
logging flag 71
login banner 80

M

master CPU
    displaying location 281
message of the day 82
monitor mlt command
    link aggregation interface utilization 280

N

name, port 95

P

password commands 82
password prompt 79
performance, system 319
PIM-SM
    activity check interval 157
port
    locking 95, 235
    name, assigning 95
    speed, setting 96
port locking, enabling 235
port locking, setting 95
portlock feature 95
precedence, access policy 231
priority, access policy 231
prompt
    Boot Monitor 69
    box-level 235
    password 79
    root-level 235

R

reboot confirmation message, suppressing 38
reboot flag 71
reentering commands 43
remote login
    number allowed, setting 69, 79
rlogind flag 71
root-level prompt 235

S

security
    port locking 95
show ip forwarding command 287
show ip interface command 289
show ip prefix-list command 297
show ip route preference info command 297
show ip route-discovery command 297
show ip route-policy info command 297
show mlt commands
    error collision 307, 307
    error main 307
    stats 308
source command 53
speed command 96
static entry in ARP table 135
static routes, IP, displaying 297
system performance, verifying 319

T

technical information, viewing 319
Telnet sessions

Copyright © 2007, Nortel Networks

Boot Monitor 70
ending 38
number allowed 80
telnetd flag 72
text conventions 30
tftpd flag 72
time to live, setting 134
time zone
offset, setting 78
timeout
idle 70, 80
timer, watchdog 72
topology table 235, 319
trace-logging flag 72

V

verify-config flag 72

W

watchdog timer 72
wdt flag 72

Copyright © 2007, Nortel Networks

Nortel Ethernet Routing Switch 8300

Command Reference — CLI

Copyright © 2007, Nortel Networks
All Rights Reserved.

Publication: NN46200-513
Document status: Standard
Document version: 03.01
Document date: 27 August 2007

To provide feedback or report a problem in this document, go to www.nortel.com/documentfeedback

Sourced in Canada and the United States of America.

The information in this document is subject to change without notice. Nortel Networks reserves the right to make changes in design or components as progress in engineering or manufacturing may warrant.

*Nortel, Nortel Networks, the Nortel logo and the Globemark are trademarks of Nortel Networks.

