



Functional Organization

This chapter provides a functional organization for the following groups:

- [SVC Command Suite](#)
- [SPVC Command Suite](#)
- [PNNI Command Suite](#)
- [Shelf Operation Commands](#)

Each table lists the command, complete name of the command, and the page number.

SVC Command Suite

This section lists the commands that apply to the switched virtual circuits (SVCs). The SVC commands allow you to add, delete, configure, display status, and specify statistics.

The SVC commands consist of the suite shown in [Table 2-1](#).

Table 2-1 SVC Commands Summary

Command	Description	Page
Port Management Commands		
addnport	Add a UNI or NNI port.	3-18
cnfcdvtdft	Change CDVT default.	3-67
cnfconsegep	Configure connection segment endpoint.	3-76
cnfintfvsvd	Configure a virtual source/virtual destination on a PNNI port.	3-91
cnfmbsdft	Configure maximum burst size (MBS) default.	3-95
cnfoamsegep	Configure OAM segment endpoint.	3-107
cnfnpportacc	Configure PNNI port access.	3-139
cnfnpportcac	Configure CAC policy parameters for a port.	3-140
cnfnpportcc	Configure call control parameters for a port.	3-142
cnfnpportrange	Configure PNNI port range.	3-148
cnfnpportsig	Configure PNNI port signaling.	3-150
delconsegep	Remove a segment endpoint on a connection.	3-200
delpnport	Delete PNNI port.	3-206

Table 2-1 SVC Commands Summary (continued)

Command	Description	Page
dnnpport	Down PNNI port.	3-219
dspcdvtdft	Display CDVT default.	3-240
dspconsegep	Display connection segment endpoint.	3-251
dspmbsdft	Display MBS default.	3-294
dspoamsegep	Display OAM segment endpoint.	3-304
dspnpport	Display PNNI port.	3-382
dspnpportcac	Display PNNI port CAC.	3-384
dspnpportcc	Display PNNI port call control (CC).	3-385
dspnpportrange	Display PNNI port range.	3-389
dspnpportsysaddr	Display PNNI port resource.	3-396
dspnpports	Display PNNI ports.	3-391
dspnpportsig	Display PNNI port signaling.	3-395
tstpndelay	Test PNNI delay.	3-498
upnpport	Up PNNI port.	3-500
ILMI Commands		
addfltset	Add ATM filter set.	3-12
addprfx	Add prefix.	3-21
cnfaddrreg	Configure address registration.	3-59
cnfautocnf	Configure auto configuration.	3-64
cnfilmienable	Configure ILMI enable.	3-86
cnfilmiproto	Configure ILMI protocol.	3-87
delprfx	Delete prefix.	3-209
dspilmiaddr	Display ILMI address.	3-274
dspnpilmi	Display PNNI ILMI.	3-322
dspprfx	Display prefix.	3-404
Call Control Commands		
addaddr	Add address.	3-5
addserialif	Add serial interface.	3-22
clrconstats	Clear connection statistics.	3-36
clrpathtracebuffer	Clear a specified path trace buffer.	3-45
clrpathtracebuffers	Clear path trace buffers.	3-46
clrpcon	Clear UNI or NNI connection.	3-47
clrpconstats	Clear UNI or NNI connection statistics.	3-48
cnfe164 justify	Configure E.164 justification.	3-82
cnffltset	Configure filter set.	3-84
cnfpnctlvc	Configure PNNI control VC.	3-109

Table 2-1 SVC Commands Summary (continued)

Command	Description	Page
cnfnpportacc	Configure PNNI port access.	3-139
cnfnpportloscallrel	Configure PNNI port LOS call release.	3-144
conntrace	Connection trace.	3-190
deladdr	Delete address.	3-195
delfltset	Delete filter set.	3-202
delpnportacc	Delete PNNI port access.	3-207
dspaddr	Display address.	3-223
dspatmaddr	Display ATM address.	3-227
dspfltset	Display filter set.	3-271
dspathtracebuffer	Display path trace buffer.	3-305
dspathtracebuffers	Display path trace buffers.	3-306
dspathtraceie	Display path trace.	3-307
dspathtracenode	Display path trace node.	3-308
dspathtraceport	Display path trace port.	3-309
dspncon	Display PNNI connection.	3-312
dspncon	Display PNNI connections.	3-314
dspnconstats	Display PNNI connection statistics.	3-318
dspnctlvc	Display PNNI control VC.	3-320
dspnportloscallrel	Display PNNI port LOS call release.	3-387
dspsvcparm	Display SVC nodal parameter.	3-435
pathtraceie	Path trace information element (IE).	3-460
pathtracenode	Path trace node.	3-461
pathtraceport	Path trace port.	3-462
Signaling Commands		
clrsgstats	Clear signal statistics.	3-51
clrsscopstats	Clear SSCOP statistics.	3-54
cnfenhiisp	Configure enhanced IISP.	3-83
cnffltset	Configure frame discard on AAL5.	3-84
cnfsig	Configure signaling.	3-165
cnfsscop	Configure SSCOP.	3-176
disablesscop	Disable SSCOP.	3-217
dspenhiisp	Display enhanced IISP.	3-262
dspsig	Display signaling.	3-423
dspsigdiag	Display signaling parameters.	3-424
dspsigstats	Display signaling statistics.	3-425
dspsscop	Display SSCOP.	3-431

Table 2-1 SVC Commands Summary (continued)

Command	Description	Page
dspsscopsstats	Display SSCOP statistics.	3-433
SNTP Commands		
clrntpstats	Clear SNTP statistics.	3-52
cnfsntp	Configure SNTP.	3-172
dbgsntp	Debug SNTP.	3-194
deltrapmgr	Delete SNTP remote server.	3-215
dpsntp	Display SNTP.	3-427
dpsntpstats	Display SNTP statistics.	3-428
Congestion Commands		
cnfintfcongth	Configure interface level congestion threshold.	3-89
cnfnodalcongth	Configure nodal congestion threshold.	3-101
dspintfcongctr	Display interface level congestion counter.	3-275
dspintfcongflags	Display interface congestion manager flags.	3-276
dspintfcongth	Display interface congestion threshold.	3-277
dspnodalcongctr	Display nodal level congestion counter.	3-298
dspnodalcongflags	Display nodal congestion flags.	3-299
dspnodalcongth	Display nodal congestion threshold.	3-301

SPVC Command Suite

This section lists the commands that apply to the semi-permanent virtual circuits (SPVCs). The SPVC commands allow you to add, delete, configure, display status, and specify statistics. The following are the functions used for SPVC:

- Adding a connection.
- Modifying an existing connection.
- Deleting a connection.
- Displaying one connection or all connections.
- Downing and upping a connection in the course of maintenance or troubleshooting.

SPVC commands consist of the suite shown in [Table 2-2](#).

Table 2-2 SPVC Commands Summary

Command	Description	Page
Connection Provisioning Commands		
addcon	Add connection.	3-8
clrspvcnonpers	Clear SPVC non persistent endpoint.	3-53
cnfabrtparmdft	Configure default ABR traffic parameters.	3-56
cnfcon	Configure connection.	3-71

Table 2-2 SPVC Commands Summary (continued)

Command	Description	Page
cnfpri-routing	Configure priority routing.	3-105
cnfrtparm	Configure reroute retry parameters.	3-158
cnfspvcprfx	Configure SPVC prefix.	3-174
cnfsvcoverride	Configure SVC override.	3-180
cnfrftolerance	Configure traffic conformance tolerance.	3-182
delcon	Delete connection.	3-199
dncon	Down connection.	3-218
dspabrtparmdft	Display ABR traffic parameter defaults.	3-222
dsppri-routing	Display priority routing.	3-405
dspvceif	Display permanent virtual connection (PVC) interface.	3-407
dsprrtparm	Display global reroute retry parameters.	3-412
dspspvcprfx	Display SPVC prefix.	3-430
dspsvcoverride	Display SVC override.	3-436
dsprftolerance	Display traffic conformance tolerance.	3-440
pvcifconfig	PVC interface configuration.	3-465
upcon	Up connection.	3-499
Connection Diagnostics Command		
dspabrtparmdft	Display default ABR traffic parameters.	3-222
Connection Debug Commands		
dspcon	Display connection.	3-243
dspconinfo	Display connection information.	3-247
dspcons	Display connections.	3-249
dsprrtparm	Display reroute retry parameters.	3-412
rrtcon	Reroute connection.	3-475
tstconseg	Test continuity segment.	3-494
tstdelay	Test delay.	3-496
Route Optimization Commands		
addpref	Add preferred route.	3-19
cnfconpref	Configure connection preferred route.	3-74
cnfrteopt	Configure route optimization.	3-160
cnfrteoptthld	Configure route optimization threshold.	3-163
cnfrtparm	Configure reroute parameters.	3-158
delpref	Delete preferred route.	3-208
dsppref	Display preferred route.	3-398
dspprefs	Display preferred routes.	3-399
dsprteoptcnf	Display route optimization configuration.	3-413

Table 2-2 SPVC Commands Summary (continued)

Command	Description	Page
dsprteoptstat	Display route optimization status.	3-415
modpref	Modify preferred route.	3-456
optrte	Optimize route.	3-458
Troubleshooting Commands		
abortofflinediag	Abort offline diagnostics.	3-3
clrdiagerr	Clear diagnostic error.	3-37
clrdiagstat	Clear diagnostic statistics.	3-38
cnfdiag	Configure diagnostics.	3-78
cnfdiagall	Configure diagnostics all.	3-80
dspdiagcnf	Display diagnostics configuration.	3-256
dspdiagerr	Display diagnostics error.	3-257
dspdiagstat	Display diagnostics statistics.	3-258
dspdiagstatus	Display diagnostics status.	3-259
dspdisk	Display disk.	3-260
forcednative	Force card native.	3-444
stackdump	Stack dump.	3-483

PNNI Command Suite

This section lists the private network-to-network interface (PNNI) commands specific to node addressing and routing. The PNNI commands allow you to add, delete, configure, display status, and create statistics for PNNI nodes.

The following are the functions used for PNNI:

- Configuring:
 - Link selection
 - Node addresses and identifiers
 - Packet size
 - PNNI interface
 - PNNI timers
 - RCC variables
 - Routing policies
 - Scope map table
 - PNNI summary address
- Deleting:
 - A logical node
 - A PNNI summary address

- Displaying:
 - Debug information
 - Learned nodes
 - Link information
 - Neighbor addresses
 - Node addresses and identifiers
 - Packet information
 - Paths
 - Reachable addresses
 - Routing policy
 - System address tables
 - Timers

PNNI Addressing

The PNNI addresses and identifiers contain fields that are common to each other and should match each other. If you change a field in one item, Cisco Systems advises you to change the corresponding field in the other item. For example, if you change the ATM address, you should change corresponding fields in the PNNI summary address and node identifier.

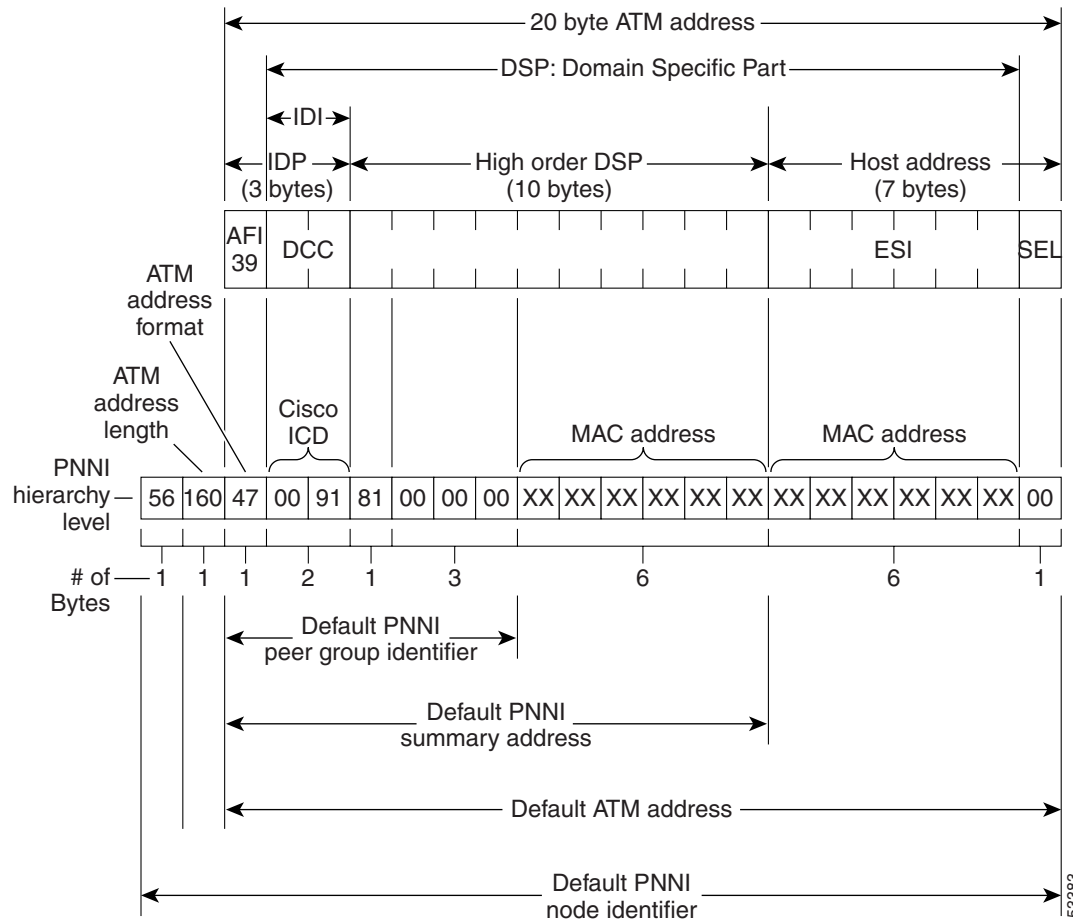
**Note**

The peer group identifier does not share in this recommendation.

The name and graphic represent each address and identifier as well as the common information that appears in [Figure 2-1](#). The central and lower parts show the breadth of each item. Applicable command descriptions point out where you should modify common fields. The following fields also go into the construction of the ATM addresses and PNNI-related identifiers:

- The Initial Domain Identifier (IDI) identifies the domain.
- The Initial Domain Part (IDP) identifies the country.
- The Authority and Format Identifier (AFI) identifies the address format and who provided it.
- The Data Country Code (DCC) identifies the country.

Figure 2-1 Cisco Factory-shipped Node-Addressing Defaults Mapping into Both NSAP and DCC Address Formats



PNNI commands consist of the suite shown in [Table 2-3](#).

Table 2-3 PNNI Commands Summary

Command	Description	Page
Node Commands		
addpnni-node	Add PNNI node.	3-15
addpnni-summary-addr	Add PNNI summary address.	3-17
cnfpnni-election	Configure PNNI election.	3-112
cnfpnni-intf	Configure PNNI interface.	3-114
cnfpnni-link-selection	Configure PNNI link selection.	3-117
cnfpnni-mtu	Configure PNNI maximum transmission unit (MTU).	3-119
cnfpnni-node	Configure PNNI node.	3-120
cnfpnni-pktrace	Configure PNNI packet trace.	3-125
cnfpnni-routing-policy	Configure PNNI routing policy.	3-127

Table 2-3 PNNI Commands Summary (continued)

Command	Description	Page
cnfpnni-scope-map	Configure PNNI scope map.	3-131
cnfpnni-svcc-rcc-timer	Configure PNNI SVCC-based RCC timer.	3-133
cnfpnni-timer	Configure PNNI timer.	3-135
delpnni-node	Delete PNNI node.	3-204
delpnni-summary-addr	Delete PNNI summary address.	3-205
dsppnni-election	Display PNNI election.	3-328
dsppnni-intf	Display PNNI interface.	3-334
dsppnni-link	Display PNNI link.	3-337
dsppnni-node-list	Display PNNI node list.	3-346
dsppnni-pkttrace	Display PNNI packet trace.	3-353
dsppnni-summary-addr	Display PNNI summary address.	3-374
dsppnni-svcc-rcc	Display PNNI SVCC-based RCC.	3-376
dsppnni-svcc-rcc-timer	Display PNNI SVCC-based RCC timer.	3-378
dsppnni-timer	Display PNNI timer.	3-380
PNNI Display Commands		
dsppnni-bn-path	Display PNNI border node path.	3-324
dsppnni-bypass	Display PNNI bypass.	3-326
dsppnni-idb	Display PNNI internal topology database.	3-330
dsppnni-inducing-uplink	Display PNNI inducing uplink.	3-332
dsppnni-link-selection	Display PNNI link selection.	3-339
dsppnni-mtu	Display PNNI maximum transmission unit (MTU).	3-340
dsppnni-neighbor	Display PNNI neighbor.	3-341
dsppnni-node	Display PNNI node.	3-343
dsppnni-node-list	Display PNNI node list.	3-346
dsppnni-path	Display PNNI path.	3-351
dsppnni-ptse	Display PNNI topology state element (PTSE).	3-354
dsppnni-reachable-addr	Display PNNI reachable address.	3-363
dsppnni-routing-policy	Display PNNI routing policy.	3-366
dsppnni-scope-map	Display PNNI scope map.	3-370
dsppnni-spoke	Display PNNI default spoke.	3-372
dsppsysaddr	Display PNNI system address.	3-396

Shelf Operation Commands

This section lists the shelf operation commands along with some commands that belong to other logical entities running on the switch, for example, PNNI. The shelf operation commands allow you to add, delete, configure, display status, and create statistics for node-level features.

The following are the functions used for shelf operation:

- Node-level parameters used for node name, date, time, time zone, and so forth.
- Firmware downloading.
- Network synchronization.
- SNMP configuration.
- User account creation (and associated password).
- IP connectivity to support user-control of the switch.
- Saving and restoring node configuration information.

Shelf operation commands consist of the suite shown in [Table 2-4](#).

Table 2-4 Shelf Operation Commands Summary

Command	Description	Page
User Commands		
adduser	Add user.	3-24
aesa_ping	ATM end system address ping.	3-25
bye	Bye.	3-29
cc	Change card.	3-30
cd	Change directory.	3-31
clrcnf	Clear configuration.	3-35
clrlmitrace	Clear LMI trace.	3-42
clrscrn	Clear screen.	3-50
cmdhistory	Command history.	3-55
cnflmitrace	Configure LMI trace.	3-93
cnfpasswd	Configure password.	3-104
cnfuser	Configure user.	3-187
conntrace	Connection trace.	3-190
copy	Copy.	3-192
cp	Copy.	3-193
delete	Delete.	3-201
dellmiloop	Delete LMI loop.	3-203
deluser	Delete user.	3-216
dspusers	Display users.	3-441
exit	Exit.	3-443
help	Help.	3-445
history	Command history.	3-446
logout	Logout.	3-453
ls	List.	3-454
ping	Ping.	3-464

Table 2-4 Shelf Operation Commands Summary (continued)

Command	Description	Page
pwd	Present working directory.	3-467
rename	Rename.	3-469
shellcon	Shell connection.	3-481
timeout	Timeout.	3-493
users	Users.	3-502
who	Who.	3-503
whoami	Whoami.	3-504
Shelf Commands		
abortallsaves	Abort all saves.	3-2
abortrev	Abort revision.	3-4
addtrapmgr	Add trap manager.	3-23
bootChange	Specifies the boot IP address and gateway address of a PXM card.	3-27
clidbxlevel	Command line interface level.	3-32
clrloginmsg	Clear login message.	3-44
cnfcbclk	Configure cellbus clock.	3-65
cnfcmdabbr	Configure command abbreviation.	3-69
cnfloginmsg	Configure login message.	3-94
cnfndparms	Configure node parameters.	3-98
cnfpasswd	Configure password.	3-104
cnfpasswdreset	Configure password reset.	3-154
cnfserialif	Configure serial interface.	3-164
cnfsigdiag	Configure signaling diagnostic.	3-167
cnfsnmp	Configure SNMP.	3-170
commitrev	Commit revision.	3-189
delsesn	Delete session.	3-211
delsigdiag	Delete signaling diagnostic.	3-213
deltrapmgr	Delete trap manager.	3-215
dspbkpl	Display backplane.	3-229
dspcbclk	Display cellbus clock.	3-230
dspcd	Display card.	3-231
dspcderrs	Display card errors.	3-235
dspdisk	Display disk.	3-260
dspcds	Display cards.	3-236
dspcmdabbr	Display command abbreviation.	3-242
dspconstats	Display connection statistics.	3-252
dspdate	Display date.	3-253

Table 2-4 Shelf Operation Commands Summary (continued)

Command	Description	Page
dspdbinfo	Display database information.	3-254
dsperrs	Display errors.	3-269
dspipconntask	Display IP connectivity task.	3-278
dspipifcache	Display IP interface cache translation.	3-281
dsploginmsg	Display login message.	3-292
dspndparms	Display node parameters.	3-296
dspingatmaddr	Display ping ATM address.	3-310
dsppswdreset	Display password reset.	3-406
dsprevs	Display revisions.	3-410
dspprfhist	Display the percentage of activity of tasks.	3-401
dspesn	Display session.	3-422
dspsnmp	Display SNMP.	3-426
dsptrapip	Display trap IP.	3-438
dsptrapmgr	Display trap manager.	3-439
dspversion	Display version.	3-442
loadrev	Load revision.	3-452
resetcd	Reset card.	3-470
resetsys	Reset system.	3-471
routeShow	Route show.	3-473
routestatShow	Routing statistics show.	3-474
runrev	Run revision.	3-476
setrev	Set revision.	3-480
sesntimeout	Session timeout.	3-479
svcifconfig	Switched virtual circuit (SVC) interface configuration.	3-485
telnet	Telnet.	3-491
remove	Delete.	3-468
Node Level Commands		
addapsln	Add automatic protection system (APS) line.	3-7
addlmiloop	Add LMI loop.	3-14
clrallenf	Clear all configurations.	3-33
clrbcnt	Clear bit-error count.	3-34
clrerr	Clear error.	3-39
clrerrhist	Clear error history.	3-40
clrlmistats	Clear local management interface statistics.	3-41
clrlog	Clear log.	3-43
	Note Run this command on the BPX and SES.	

Table 2-4 Shelf Operation Commands Summary (continued)

Command	Description	Page
clrqsdefault	Clear quality of service default.	3-49
cnfainihopcount	Configure ATM inter-network interface (AINI) hop count.	3-60
cnfapsln	Configure APS line.	3-62
cnfdate	Configure date.	3-77
cnfintvsvd	Configure interface VS/VD.	3-91
cnfname	Configure name.	3-97
cnfnodalfd	Configure nodal frame discard.	3-103
cnfpnportncci	Configure port network call correlation identifier.	3-146
cnfqsdefault	Configure quality of service default.	3-155
cnfserialif	Configure serial interface.	3-164
cnfstatsmgr	Configure statistics manager.	3-179
cnftime	Configure time.	3-183
cnftmzn	Configure time zone.	3-184
cnftmzngmt	Configure time zone management.	3-185
cnftrapip	Configure trap IP.	3-186
deladdr	Delete.	3-195
deladdr	Delete ATM address.	3-195
deladdrs	Delete ATM addresses.	3-197
delapsln	Delete APS line.	3-198
dellmiloop	Delete LMI loopback.	3-203
delserialif	Delete serial interface.	3-210
dspainihopcount	Display AINI hop count.	3-224
dspapscfg	Display APS configuration.	3-225
dspapsln	Display APS line.	3-226
dspbecnt	Display APS bit-error count.	3-228
dspcdalms	Display card alarms.	3-233
dspcderrs	Display card errors.	3-235
dspcdstatus	Display card status.	3-238
dspclkinfo	Display clock information.	3-241
dspdate	Display date.	3-253
dspenvalms	Display environmental alarms.	3-263
dsperr	Display error.	3-265
dsperrhist	Display error history.	3-267
dspif	Display interface.	3-273
dspipif	Display IP interface.	3-279
dsplmilink	Display LMI links.	3-282

Table 2-4 Shelf Operation Commands Summary (continued)

Command	Description	Page
dsplmiloop	Display LMI loopback.	3-283
dsplmistats	Display LMI statistics.	3-284
dsplmitrace	Display LMI trace.	3-285
dspln	Display line.	3-287
dsplog	Display log.	3-288
dsplogs	Display logs.	3-293
dspmbstdft	Display maximum burst size (MBS) default.	3-294
dspnallgrpaddr	Display all group addresses.	3-311
dspngrpmbrs	Display group members.	3-321
dspnportidmaps	Display PNNI port ID maps.	3-386
dspnportncci	Display PNNI port network call correlation identifier.	3-388
dspnportsrc	Display PNNI port resource.	3-390
dspndalms	Display node alarms.	3-295
dspndstatus	Display node status.	3-297
dspnodalfd	Display nodal frame discard.	3-303
dspqosdefault	Display quality of service default.	3-408
dspsem	Display semaphore.	3-416
dspsems	Display semaphores.	3-417
dspserialif	Display serial interface.	3-421
dpsnmp	Display slot alarms.	3-426
dspspvcaddr	Display SPVC address.	3-429
dspstatsmgr	Display statistics manager.	3-434
dspswalms	Display switch alarms.	3-437
ifShow	Interface show.	3-447
ipifconfig	IP interface configuration.	3-449
memShow	Memory map show.	3-455
restoreallcnf	Restore all configuration.	3-472
saveallcnf	Save all configuration.	3-477
showsyserr	Show system error.	3-482
switchapsln	Switch APS line.	3-487
syserr	System error.	3-490
Redundancy Commands		
dspred	Display redundancy.	3-409
switchcc	Switch core card. Note Run the switchcc command on the BPX and SES.	3-488
switchredcd	Switch redundant card.	3-489