

Index

Numerics

- 802.1x See port authentication
- 802.2, Ethernet encapsulation 9-8

A

- aal5VccGroup group, ATM MIB C-39
- aal5VccSarTimeOuts MIB object C-39
- AARP. See AppleTalk Address Resolution Protocol (AARP)
- ACC. See Asynchronous Call Control (ACC)
- access control, encryption 41-6
- access mode, MIB object 55-8
- accounting
 - firewall 46-53
 - RADIUS 19-6
- actions, IPsec policies 48-15
- ACTIVATE ACC CALL command 19-16
- ACTIVATE FLASH COMPACTION command 6-9
- ACTIVATE IPSEC CONVERTOLDSA command 48-47
- ACTIVATE ISDN CALL command 11-61
- ACTIVATE L2TP CALL command 20-18
- ACTIVATE MIOX CIRCUIT command 13-39
- ACTIVATE PORTAUTH PORT REAUTHENTICATE command 43-21
- ACTIVATE PPP command 15-49
- ACTIVATE Q931 ASPID command 11-62 to 11-63
- ACTIVATE SCRIPT command 58-7
- ACTIVATE TRIGGER command 59-6
- activating
 - asynchronous calls 19-8, 19-16
- adaptive learning 8-16
- add 52-17
- ADD ACC CALL command 19-17
- ADD ACC DOMAINNAME command 19-20
- ADD ACC SCRIPT command 19-21
- ADD ALIAS command 2-12, 6-10, 6-13, 6-22
- ADD APPLE CIRCUIT command 35-22
- ADD APPLE DLCI command 35-23
- ADD APPLE PACKETFILTER command 35-24
- ADD APPLE PORT command 35-16, 35-26
- ADD APPLE ROUTE command 35-16, 35-28
- ADD APPLE ROUTEFILTER command 35-29
- ADD APPLE ZONE command 35-30
- ADD APPLE ZONEFILTER command 35-31
- ADD BGP AGGREGATE command 27-47, 56-15 to 56-16
- ADD BGP CONFEDERATIONPEER command 27-49
- ADD BGP IMPORT command 27-50
- ADD BGP NETWORK command 27-51
- ADD BGP PEER command 27-52
- ADD BOOTP RELAY command 23-10
- ADD BRIDGE FILTER command 16-25
- ADD BRIDGE GROUP command 16-28
- ADD BRIDGE PORT command 16-29
- ADD BRIDGE STATION command 16-33
- ADD CLNS ADJACENCY command 34-12
- ADD CLNS AREA command 34-13
- ADD CLNS CIRCUIT command 34-14
- ADD CLNS RA command 34-16
- ADD DECNET EXCLUSION command 37-14
- ADD DECNET INCLUSION command 37-15
- ADD DECNET INTERFACE command 37-16
- ADD DECNET LPN command 37-17
- ADD DHCP POLICY command 23-13
- ADD DHCP RANGE command 23-19
- ADD DVMRP INTERFACE command 24-43
- ADD FIREWALL POLICY APPRULE command 46-66
- ADD FIREWALL POLICY DYNAMIC command 46-68
- ADD FIREWALL POLICY INTERFACE command 46-72
- ADD FIREWALL POLICY LIST command 46-76
- ADD FIREWALL POLICY NAT command 46-77
- ADD FIREWALL POLICY PROXY command 46-80, 46-82
- ADD FIREWALL POLICY RULE command 46-82
- ADD FIREWALL POLICY SPAMSOURCES command 46-96
- ADD FRAMERELAY DLC command 14-27
- ADD FRAMERELAY LI 14-28
- ADD GRE command 30-12
- ADD IGMP FILTER command 24-44
- ADD IGMP Snooping ROUTERADDRESS command 24-45
- ADD IP ARP command 22-66
- ADD IP ASPATHLIST command 28-41
- ADD IP COMMUNITYLIST command 28-43
- ADD IP FILTER command 22-70
- ADD IP HELPER command 22-78
- ADD IP HOST command 22-79
- ADD IP INTERFACE command 22-80, 30-4
- ADD IP NAT command 22-87
- ADD IP RIP command 25-7
- ADD IP ROUTE command 22-90



ADD IP ROUTE FILTER command 28-47
 ADD IP ROUTE TEMPLATE command 22-93
 ADD IP ROUTEMAP command 28-50
 ADD IP SA command 22-221, 28-50
 ADD IP TRUSTED command 25-11
 ADD IPV6 FILTER command 31-37
 ADD IPV6 HOST command 31-42
 ADD IPV6 INTERFACE command 31-43
 ADD IPV6 RIP command 31-48
 ADD IPV6 ROUTE command 31-49
 ADD IPV6 TUNNEL command 31-51
 ADD IPX CIRCUIT command 36-31
 ADD IPX EXCLUSION command 36-35
 ADD IPX INCLUSION command 36-36
 ADD IPX RIP command 36-37
 ADD IPX ROUTE command 36-38
 ADD IPX SAP command 36-39
 ADD IPX SERVICE command 36-40
 ADD ISDN CALL command 11-64
 ADD ISDN CLILIST command 11-70
 ADD ISDN DOMAINNAME command 11-70
 ADD L2TP CALL command 20-19
 ADD L2TP IP command 20-22
 ADD L2TP USER command 20-24, 20-30
 ADD LAPD command 11-111
 ADD LAPD TEI command 11-71
 ADD LAPD XSPID command 11-71
 ADD LAPD XTEI command 11-72
 ADD LOADBALANCER RESOURCE command 51-21
 ADD LOADBALANCER RESPOOL command 51-23
 ADD LOADBALANCER VIRTUALBALANCER command 51-24
 ADD LOADBALANCER VIRTUALBALANCER HTTPERROR-CODE command 51-27
 ADD LOG OUTPUT command 60-13
 ADD LOG RECEIVE command 60-17
 ADD MIOX CIRCUIT command 13-41
 ADD NTP PEER command 57-8
 ADD OSPF AREA command 26-28
 ADD OSPF HOST command 26-30
 ADD OSPF INTERFACE command 26-31
 ADD OSPF NEIGHBOUR command 26-36
 ADD OSPF RANGE command 26-37
 ADD OSPF STUB command 26-40
 ADD OSPF SUMMARYADDRESS command 26-41
 ADD PERM command 62-6
 ADD PIM BSRCANDIDATE command 24-47
 ADD PIM INTERFACE command 24-48
 ADD PIM RPCANDIDATE command 24-50
 ADD PIM6 BSRCANDIDATE command 33-23
 ADD PIM6 INTERFACE command 33-24
 ADD PIM6 RPCANDIDATE command 33-25
 ADD PING POLL command 54-9
 ADD PKI CERTIFICATE command 49-16
 ADD PKI CRL command 49-18
 ADD PKI LDAPREPOSITORY command 49-19
 ADD PPP ACSERVICE command 15-54
 ADD PPP command 15-50
 ADD RADIUS SERVER command 41-30
 ADD SA MEMBER command 48-48
 ADD SCRIPT command 58-8
 ADD SNMP COMMUNITY command 55-25

ADD SNMP GROUP command 55-27
 ADD SNMP TARGETADDR command 55-28
 ADD SNMP TARGETPARAMS command 55-29
 ADD SNMP USER command 55-30
 ADD SSH USER command 44-10
 ADD STT command 17-5
 ADD TACACS SERVER command 41-31
 ADD TDM command 12-8
 ADD TPAD command 18-17
 ADD TRIGGER command 59-7
 ADD USER command 41-33
 ADD USER RSO command 41-36
 ADD VLAN BRIDGE command 16-34
 ADD VRRP IP command 53-12
 ADD VRRP MONITOREDINTERFACE command 53-13
 ADD WANLB HEALTHCHECK command 52-16
 ADD WANLB RESOURCE command 52-17
 ADD WANLB RESource command 52-17 to 52-19
 ADD X25C DTEADDRESS command 13-43
 ADD X25C HUNTGROUP command 13-44
 ADD X25C ROUTE command 13-45
 ADD X25T CPAR command 13-46

adding

- access lists, firewall 46-13 to 46-14, 46-76, 46-82
- aliases 2-12, 6-10, 6-13, 6-22
- Certificate Revocation Lists 49-18
- domain name 11-44, 11-70, 19-10, 19-20
- firewall rules 46-82
- Frame Relay DLCs 14-27
- Frame Relay logical interfaces 14-28
- interfaces to firewall 46-6, 46-72
- members to Security Associations 48-48
- NAT translations, firewall 46-24, 46-26 to 46-27, 46-77
- NTP peer 57-8
- permanent assignments 62-6
- physical links to PPP interfaces 15-50
- PKI certificates 49-16
- PKI LDAP Repositories 49-19
- ports to TPAD 18-6, 18-17
- route templates 22-93
- synchronous tunnel 17-5

address pools, IP 22-52

- creating 22-96
- destroying 22-108
- displaying 22-211

Address Resolution Protocol (ARP) 22-13

- adding entries 22-13, 22-66
- changing entries 22-142
- deleting entries 22-96
- displaying entries 22-56, 22-181
- Frame Relay 14-18
- modifying entries 22-142
- proxy 22-17
- setting entries 22-142

address translation group, MIB-II MIB C-29

addresses

- DECnet 37-3
 - area 37-3, 37-24
 - MAC 37-3, 37-24
 - node 37-3, 37-24
 - setting 37-3, 37-24
- Ethernet multicast 9-9, 9-67 to 9-68



- Frame Relay DLCIs 14-6, 14-27, 14-32, 14-35, 14-41, 14-46, 14-50, 14-62
- Internet Protocol (IP) 22-5
 - address pools 22-52, 22-96, 22-108, 22-211
 - classes 22-7
 - format 22-7
 - source 22-5
 - subnet 22-9
- IP, for asynchronous ports 19-4
- IPX
 - MAC 36-4
 - network 36-4
 - station 36-4
- multicast 9-9, 9-67 to 9-68
- setting DECnet 37-3, 37-24
- subnet 22-9
- X.25 DTE 13-7, 13-12, 13-43, 13-56, 13-92
- Addressing 47-5
- addressing, LAPD 11-28
- addressing interfaces, OSPF 26-10, 26-22, 26-31, 26-43, 26-50, 26-53, 26-57, 26-66
- adjacency, OSPF 26-5 to 26-6
- administrator name
 - displaying 4-51
 - setting 4-29
- Adopt VRRP IP address 53-7
- ADSL Line MIB C-40
- adslAtucCurrStatus MIB object C-40
- adslAtucIntervallnits MIB object C-40
- adslAtucPerfCurr15MinInits MIB object C-40
- adslAtucPerfCurr1DayInits MIB object C-40
- adslAtucPerfInits MIB object C-40
- adslAtucPerfPrev1DayInits MIB object C-40
- adslAturAtucPhysPerfIntervalGroup group, ADSL Line MIB C-40
- AdslAturAtucPhysPerfRawCounterGroup group, ADSL Line MIB C-40
- adslAturAturPhysPerfIntervalGroup group, ADSL Line MIB C-41
- adslAturAturPhysPerfRawCounterGroup group, ADSL Line MIB C-41
- adslAturCurrAtn MIB object C-40
- adslAturCurrSnrMgn MIB object C-40
- adslAturCurrStatus MIB object C-40
- adslAturIntervallprs MIB object C-41
- adslAturLineGroup group, ADSL Line MIB C-40
- adslAturPerfCurr15MinLprs MIB object C-41
- adslAturPerfCurr1DayLprs MIB object C-41
- adslAturPerfLprs MIB object C-41
- adslAturPerfPrev1DayLprs MIB object C-41
- adslAturPhysicalGroup group, ADSL Line MIB C-40
- adslLineMib MIB object C-40
- Advanced Encryption Standard (AES) 42-6
- affinity table
 - definition 51-4
- ageing timer 8-16
 - setting 8-36
 - switch
 - disabling 8-28
 - enabling 8-31
- aggregation, PPP links 15-37
- aging timer, bridging 16-41
- aging, OSPF 26-5, 26-91, 26-93
- Alarm group, RMON MIB C-46 to C-47
- aliases
 - adding 2-12, 6-10, 6-13, 6-22
 - deleting 2-13
 - displaying 2-15 to 2-16, 6-28
- alliedTelesis MIB object C-4
- Always On/Dynamic ISDN (AODI) 11-45 to 11-48
 - components 11-45
 - configuration example 11-46
- AODI. *See* Always On/Dynamic ISDN (AODI)
- AppleTalk 35-1 to 35-65
 - AARP. *See* AppleTalk: AppleTalk Address Resolution Protocol (AARP) 35-6
 - adding
 - circuits 35-11, 35-22, 35-26
 - DLCI 35-23, 35-26
 - interfaces 35-11
 - ports 35-11, 35-22 to 35-23, 35-26
 - routes 35-16, 35-28
 - zones 35-11, 35-30
 - Address Mapping Table (AMT) 35-6
 - displaying 35-12, 35-49
 - address translation 35-6
 - AppleTalk Address Resolution Protocol (AARP) 35-6
 - AARP Probe packet 35-6
 - AARP Request packet 35-6
 - AARP Response packet 35-6
 - displaying cache 35-12
 - dynamic address assignment 35-6
 - architecture 35-3
 - circuits
 - adding 35-11, 35-22, 35-26
 - debugging 35-17
 - deleting 35-11, 35-32, 35-34
 - displaying 35-11, 35-50
 - commands
 - ADD APPLE CIRCUIT 35-22
 - ADD APPLE DLCI 35-23
 - ADD APPLE PORT 35-16, 35-26
 - ADD APPLE ROUTE 35-16, 35-28
 - ADD APPLE ZONE 35-30
 - DELETE APPLE CIRCUIT 35-32
 - DELETE APPLE DLCI 35-33
 - DELETE APPLE PORT 35-34
 - DELETE APPLE ROUTE 35-16, 35-35
 - DELETE APPLE ZONE 35-36
 - DISABLE APPLE 35-37
 - DISABLE APPLE DEBUG 35-38
 - ENABLE APPLE 35-38
 - ENABLE APPLE DEBUG 35-38
 - PURGE APPLE 35-39
 - RESET APPLE 35-39
 - SET APPLE PORT 35-16, 35-42
 - SET APPLE ROUTECONVERT 35-44
 - SET APPLE ZONE 35-46
 - SHOW APPLE 35-48
 - SHOW APPLE AARP 35-49



- SHOW APPLE CIRCUIT *35-50*
- SHOW APPLE COUNTER *35-51*
- SHOW APPLE DLCI *35-57*
- SHOW APPLE PORT *35-60*
- SHOW APPLE ROUTE *35-16, 35-62*
- SHOW APPLE ZONE *35-64*
- configuration example *35-17*
- counters
 - displaying *35-51*
- Datagram Delivery Protocol (DDP) *35-7*
- datagrams *35-7*
- DDP or packet filtering *35-13*
- DDP. See AppleTalk: Datagram Delivery Protocol (DDP)
- debugging *35-17, 35-38*
- deleting
 - circuits *35-11, 35-32, 35-34*
 - DLCI *35-33 to 35-34*
 - interfaces *35-11*
 - ports *35-11, 35-32 to 35-34*
 - routes *35-16, 35-35*
 - zones *35-11, 35-36*
- dial-on-demand *35-16, 35-26, 35-42*
- disabling debugging *35-38*
- disabling routing *35-12, 35-37*
- displaying
 - AARP cache *35-12, 35-49*
 - circuits *35-11, 35-50*
 - counters *35-51*
 - DLCI *35-57*
 - MIB *35-51*
 - ports *35-11, 35-60*
 - RTMP routing table *35-12, 35-62*
 - status *35-12, 35-48*
 - zones *35-11, 35-64*
- DLCI
 - adding *35-23, 35-26*
 - deleting *35-33 to 35-34*
 - displaying *35-57*
- dynamic address assignment *35-6 to 35-7*
- dynamic ID assignment
 - EtherTalk *35-5*
 - LocalTalk *35-4*
 - TokenTalk *35-5*
- ELAP. See AppleTalk: EtherTalk Link Access Protocol (ELAP)
- enabling debugging *35-38*
- enabling routing *35-12, 35-38*
- entity name *35-9*
- EtherTalk *35-5*
 - dynamic ID assignment *35-5*
- EtherTalk Link Access Protocol (ELAP) *35-5*
- hop count *35-8*
- interface
 - adding *35-11*
 - deleting *35-11*
- internet *35-4*
- internet socket address *35-7*
- LLAP. See AppleTalk: LocalTalk Link Access Protocol (LLAP)
- LocalTalk *35-4*
 - dynamic ID assignment *35-4*
 - LLAP Acknowledge control packet *35-4*
 - LLAP Enquiry control packet *35-4*
 - node ID *35-4*
- LocalTalk Link Access Protocol (LLAP) *35-4*
- MIB
 - displaying *35-51*
- modifying
 - ports *35-42*
 - zones *35-46*
- Name Binding Protocol (NBP) *35-9*
 - NBP Broadcast Request packet *35-10*
 - NBP Forward Request packet *35-10*
 - NBP Lookup packet *35-10*
 - NBP Lookup Reply packet *35-10*
- name information socket (NIS) *35-9*
- name lookup *35-10*
- names table *35-9*
- NBP Broadcast Request *35-10*
- NBP Forward Request *35-10*
- NBP Lookup packet *35-10*
- NBP Lookup Reply packet *35-10*
- NBP. See AppleTalk: Name Binding Protocol (NBP)
- network *35-4*
- network number *35-6 to 35-7*
- network-visible entity (NVE) *35-7*
- NIS. See AppleTalk: name information socket (NIS)
- node *35-4*
- node ID *35-4 to 35-6*
- node ID classes *35-4*
- notify neighbour, RTMP *35-9*
- NVE. See AppleTalk: network-visible entity (NVE)
- ping *35-17*
- port *35-8*
 - adding *35-11, 35-22 to 35-23, 35-26*
 - deleting *35-11, 35-32 to 35-34*
 - displaying *35-11, 35-60*
 - modifying *35-42*
- protocol address *35-6*
 - assignment *35-5*
- protocols *35-3*
- purging configuration *35-39*
- resetting *35-39*
- routes
 - adding *35-16, 35-28*
 - deleting *35-16, 35-35*
- Routing Table Maintenance Protocol (RTMP) *35-7 to 35-8*
 - displaying *35-12, 35-62*
 - notify neighbour *35-9*
 - RTMP Data packet *35-8*
 - validity timer *35-8*
- RTMP or Routing Update filtering *35-14*
- RTMP. See AppleTalk: Routing Table Maintenance Protocol (RTMP)
- seed router *35-9, 35-11, 35-26, 35-34, 35-42*
- socket *35-7*
- socket number *35-7*



- calls, purging 19-26
- CHAP authentication 19-5
- commands
 - ACTIVATE ACC CALL 19-16
 - ADD ACC CALL 19-17
 - ADD ACC DOMAINNAME 19-20
 - ADD ACC SCRIPT 19-21
 - DEACTIVATE ACC CALL 19-22
 - DELETE ACC CALL 19-23
 - DELETE ACC DOMAINNAME 19-23
 - DELETE ACC SCRIPT 19-24
 - DISABLE ACC CALL 19-24
 - DISABLE ACC CALL DEBUG 19-25
 - ENABLE ACC CALL 19-25
 - ENABLE ACC CALL DEBUG 19-26
 - PURGE ACC 19-26
 - PURGE ACC SCRIPT 19-27
 - SET ACC CALL 19-28
 - SET ACC CALL PORT 19-31
 - SET ACC SCRIPT 19-32
 - SHOW ACC 19-34
 - SHOW ACC CALL 19-35
 - SHOW ACC DOMAINNAME 19-38
 - SHOW ACC SCRIPT 19-38
- configuration examples 19-10
- configuring ports 19-3
- creating call definitions 19-2, 19-17
- creating modem scripts 19-21
- CSLIP encapsulation 9-16, 19-4
- deactivating calls 19-8, 19-22
- deleting call definitions 19-3, 19-23
- deleting domain name 19-10, 19-23
- deleting modem scripts 19-7, 19-24, 19-27
- dial-in IPX 19-13
- disabling call debugging 19-25
- disabling call definitions 19-3, 19-24
- displaying call definitions 19-3, 19-35
- displaying domain name 19-10, 19-38
- displaying modem scripts 19-7, 19-34, 19-38
- domain name 15-27, 19-4, 19-10, 22-52
 - adding 19-10, 19-20
 - deleting 19-10, 19-23
 - displaying 19-10, 19-38
- enabling call debugging 19-26
- enabling call definitions 19-3, 19-25
- encapsulation, CSLIP 9-16, 19-4
- encapsulation, PPP 9-16, 19-4
- encapsulation, SLIP 9-16, 19-4
- example configurations 19-10
- incoming calls 19-2
- IP address, asynchronous ports 19-4, 19-12
- login name 19-4
 - authenticating with CHAP 19-5
 - authenticating with PAP 19-5
- modem scripts 19-6, 19-21, 19-24, 19-27, 19-32, 19-34, 19-38
 - deleting 19-7
 - displaying 19-7
 - modifying 19-7
- modifying call definitions 19-3, 19-28, 19-31
- modifying modem scripts 19-7, 19-32
- MTU, asynchronous ports 19-4
- outgoing calls 19-2
- PAP authentication 19-5
- password 19-4
 - authenticating with CHAP 19-5
 - authenticating with PAP 19-5
- ports, adding 19-3, 19-17
- ports, configuring 19-3
- PPP encapsulation 9-16, 19-4
- purging call definitions 19-26
- RADIUS accounting 19-6
- RADIUS authentication 19-5
- SLIP encapsulation 9-16, 19-4
- Asynchronous Control Character Map (ACCM) Option, LCP 15-6
- asynchronous port security 41-12
- asynchronous ports 9-15
 - adding to asynchronous calls 19-3, 19-17
 - as network interfaces 19-2
 - authenticating calls 19-5
 - CHAP 19-5
 - PAP 19-5
 - configuring 19-3
 - CSLIP encapsulation 9-16, 19-4
 - encapsulation 9-16
 - encapsulation, CSLIP 9-16, 19-4
 - encapsulation, PPP 9-16, 19-4
 - encapsulation, SLIP 9-16, 19-4
 - IP address 19-4
 - logging in 19-4
 - maximum transmission unit 19-4
 - PPP encapsulation 9-16, 19-4
 - SLIP encapsulation 9-16, 19-4
- at-8624PoE MIB object C-8
- at-8624T2M MIB object C-8
- at-8624XL-80 MIB object C-7
- at-8648-2SP MIB object C-8
- at-8724MLB MIB object C-8
- at-8724XL MIB object C-7
- at-8724XLDC MIB object C-7
- at-8724XL-DC-NEBS MIB object C-8
- at-8748XL MIB object C-7
- at-8748XL-80 MIB object C-7
- at-8748XLDC MIB object C-7
- at-8824 MIB object C-7
- at-8824-DC MIB object C-7
- at-8848 MIB object C-7
- at-8848-DC MIB object C-7
- at-8948EX MIB object C-7
- at-8948i MIB object C-8
- at-8948i-N MIB object C-8
- at-9812T MIB object C-7
- at-9812T-DC MIB object C-7
- at-9812TF MIB object C-7
- at-9816GB MIB object C-7
- at-9816GB-DC MIB object C-7
- at-9816GF MIB object C-7
- at-9924SP MIB object C-8
- at-9924SPi MIB object C-8
- at-9924SPsi MIB object C-8
- at-9924T MIB object C-8
- at-9924T-4SP MIB object C-8
- at-9924TEMC MIB object C-8



- at-9924Ti MIB object C-8
- at-9924Ts MIB object C-8
- at-9924Tsi MIB object C-8
- at-9924Tsi-N MIB object C-8
- atAgents MIB object C-9
- at-AR410Router MIB object C-5
- at-AR410v2Router MIB object C-5
- at-AR410v3Router MIB object C-5
- at-AR415SRouter MIB object C-6
- at-AR415SRouterDC MIB object C-6
- at-AR420Router MIB object C-6
- at-AR440Router MIB object C-6
- at-AR441Router MIB object C-6
- at-AR442Router MIB object C-6
- at-AR443Router MIB object C-6
- at-AR444Router MIB object C-6
- at-AR450DualRouter MIB object C-5
- at-AR450Router MIB object C-5
- at-AR550Router MIB object C-6
- at-AR550SRouterDP MIB object C-6
- at-AR551Router MIB object C-6
- at-AR552Router MIB object C-6
- at-AR570Router MIB object C-6
- at-AR725Router MIB object C-5
- at-AR725RouterDC MIB object C-5
- at-AR740RouterDC MIB object C-5
- at-AR745Router MIB object C-5
- at-AR745RouterDC MIB object C-5
- at-AR770Router MIB object C-6
- atContactDetails MIB object C-16
- atIfIndex MIB object C-30
- ATM MIB C-39
- atmlInterfaceConfGroup2 group, ATM MIB C-39
- atmlInterfacellmiVci MIB object C-39
- atmlInterfacellmiVpi MIB object C-39
- atmlInterfaceMaxActiveVciBits MIB object C-39
- atmlInterfaceMaxActiveVpiBits MIB object C-39
- atmlInterfaceMaxVccs MIB object C-39
- atmlInterfaceMaxVpcs MIB object C-39
- atmlInterfaceMyNeighborIfName MIB object C-39
- atmlInterfaceMyNeighborIpAddress MIB object C-39
- atmlInterfaceSubscrAddress MIB object C-39
- atmMib MIB object C-39
- atmTrafficDescrGroup2 group, ATM MIB C-39
- atmVccTerminationGroup2 group, ATM MIB C-39
- atNetAddress MIB object C-30
- atPhysAddress MIB object C-30
- at-Rapier16fMT MIB object C-6
- at-Rapier16fMTi MIB object C-6
- at-Rapier16fSC MIB object C-6
- at-Rapier16fSCi MIB object C-7
- at-rapier16fVF MIB object C-6
- at-Rapier24 MIB object C-6
- at-Rapier24i MIB object C-7
- at-Rapier24i-DC-NEBS MIB object C-8
- at-Rapier48 MIB object C-6
- at-Rapier48i MIB object C-7
- at-Rapier48w MIB object C-8
- at-Rapier8fMT MIB object C-6
- at-Rapier8fMTi MIB object C-6
- at-Rapier8fSC MIB object C-6
- at-Rapier8fSCi MIB object C-6
- at-Rapier8t8fMT MIB object C-6
- at-Rapier8t8fMTi MIB object C-6
- at-Rapier8t8fSC MIB object C-6
- at-Rapier8t8fSCi MIB object C-6
- at-RapierG6 MIB object C-6
- at-RapierG6LX MIB object C-6
- at-RapierG6MT MIB object C-6
- at-RapierG6SX MIB object C-6
- atrDot1xAuthConfigTable MIB object C-27
- atrDot1xAuthenticated trap message C-27
- atrDot1xAuthGuestVlan MIB object C-26
- atrDot1xAuthLastAuthReason MIB object C-26
- atrDot1xAuthMibReset MIB object C-26
- atrDot1xAuthPostAuthVlan MIB object C-26
- atrDot1xAuthPreAuthVlan MIB object C-26
- atrDot1xAuthSecureVlan MIB object C-26
- atrDot1xAuthStatsTable MIB object C-27
- atrDot1xAuthTrap MIB object C-26
- atrDot1xAuthVlanAssignment MIB object C-26
- atrDot1xFailedAuth trap message C-27
- atrDot1xPaePortNumber MIB object C-27
- atrDot1xPaePortSuppMacAddress MIB object C-27
- atrDot1xPaePortTable MIB object C-27
- atrDot1xUnAuthenticated trap message C-27
- atrMacBasedAuthAuthenticated trap message C-27
- atrMacBasedAuthConfigTable MIB object C-27
- atrMacBasedAuthFailedAuth trap message C-27
- atrMacBasedAuthPaePortTable MIB object C-27
- atrMacBasedAuthUnAuthenticated trap message C-27
- atRouter MIB object C-9
- atRouter sub-tree, Allied Telesis Enterprise MIB C-9
- atrPaeMib MIB object C-26
- at-Switchblade4AC MIB object C-7
- at-Switchblade4DC MIB object C-7
- at-Switchblade8AC MIB object C-7
- at-Switchblade8DC MIB object C-7
- Authentication
 - asynchronous calls 19-5
 - CHAP 19-5
 - PAP 19-5
- authentication
 - Dynamic Host Configuration Protocol for IPv6 (DHCP6) 32-6, 32-11, 32-17, 32-23
 - OSPF 26-3, 26-28, 26-42, 26-63
 - RADIUS 19-5
 - SNMPv1 and v2 55-17
 - using RADIUS servers 41-9, 41-15, 41-30, 41-37, 41-63
 - using TACACS servers 41-9, 41-18, 41-31, 41-38, 41-68
 - using User Authentication Database 41-9 to 41-10, 41-33, 41-39, 41-43, 41-48, 41-50 to 41-52, 41-59, 41-73
- Authentication Header (AH) protocol 48-4
- Authentication Protocol Option, LCP 15-6
- authentication protocols, PPP 15-22 to 15-27
- authentication, IPsec 48-9
- auto-bauding 9-21
- automatic weight 52-7



autonegotiation

duplex 7-8, 8-4

port speed 7-8, 8-4

autonomous systems 26-3

setting AS number 27-106

B

backbone, OSPF 26-24, 26-28, 26-42, 26-63

backup, leased line 15-41

BACP. See Bandwidth Allocation Control Protocol

Bandwidth Allocation Control Protocol (BACP) 15-10

Bandwidth Allocation Protocol (BAP) 15-10

bandwidth limiting 9-11, 9-46

bandwidth on demand, PPP 15-13, 15-43, 15-45

BAP. See Bandwidth Allocation Protocol

base hardware serial number

displaying 4-54

Basic Rate Access

configuring 11-16

Basic Rate Access, ISDN 11-4 to 11-7

bbrNvs MIB object C-16

bgp MIB object C-56

BGP Peer table, Border Gateway Protocol version 4 (BGP-4) MIB C-56

BGP Received Path Attribute table, Border Gateway Protocol version 4 (BGP-4) MIB C-56

BGP-4 Received Path Attribute table, Border Gateway Protocol version 4 (BGP-4) MIB C-56

bgp4PathAttrTable MIB object C-56

bgpBackwardTransition trap message C-56

bgpEstablished trap message C-56

bgpIdentifier MIB object C-56

bgpLocalAs MIB object C-56

bgpPeerTable MIB object C-56

bgpRcvdPathAttrTable MIB object C-56

bgpVersion MIB object C-56

bidirectional calls, asynchronous 19-8

boards MIB object C-9

boot script

commands not allowed in 50-12

booting the router 4-9, 5-37

BOOTP relay agent 23-4 to 23-5

bootstrap router, PIM Sparse Mode 24-12

adding PIM BSR candidate, IPv4 24-15, 24-47, 33-8

adding PIM BSR candidate, IPv6 33-23

deleting PIM BSR candidate, IPv4 24-15, 24-55, 33-8

deleting PIM BSR candidate, IPv6 33-26

setting PIM BSR candidate parameters, IPv6 33-37

setting PIM BSR candidate preference, IPv4 24-81

Border Gateway Protocol version 4 (BGP-4)

commands

ADD BGP AGGREGATE 27-47, 56-15 to 56-16

ADD BGP CONFEDERATIONPEER 27-49

ADD BGP IMPORT 27-50

ADD BGP NETWORK 27-51

ADD BGP PEER 27-52

DELETE BGP AGGREGATE 27-67

DELETE BGP CONFEDERATIONPEER 27-68

DELETE BGP IMPORT 27-68

DELETE BGP NETWORK 27-69

DELETE BGP PEER 27-69

DISABLE BGP DEBUG 27-74

DISABLE BGP PEER 27-75

ENABLE BGP DEBUG 27-79

ENABLE BGP PEER 27-81

RESET BGP PEER 27-82

SET BGP 27-84

SET BGP AGGREGATE 27-87

SET BGP IMPORT 27-91

SET BGP PEER 27-93

SHOW BGP 27-107

SHOW BGP AGGREGATE 27-109

SHOW BGP CONFEDERATION 27-110

SHOW BGP IMPORT 27-120

SHOW BGP NETWORK 27-124

SHOW BGP PEER 27-125

SHOW BGP ROUTE 27-132

Border Gateway Protocol version 4 (BGP-4) MIB C-56

BRI group, Allied Telesis Enterprise MIB C-20

bri MIB object C-20

BRI physical layer 11-16

briChanTable MIB object C-20

Bridge MIB C-37

bridgeRouter MIB object C-5

bridging 16-1 to 16-70

adding

filters 16-25

groups 16-28

ports 16-29

stations 16-33

aging timer 16-41

blocking 16-6

bridge ID 16-15

Bridge Protocol Data Unit (BPDU) 16-16

commands

ADD BRIDGE FILTER 16-25

ADD BRIDGE GROUP 16-28

ADD BRIDGE PORT 16-29

ADD BRIDGE STATION 16-33

DELETE BRIDGE FILTER 16-35

DELETE BRIDGE GROUP 16-35

DELETE BRIDGE PORT 16-36

DELETE BRIDGE PROTOCOL 16-36

DELETE BRIDGE STATION 16-37

DISABLE BRIDGE 16-38

DISABLE BRIDGE LEARNING 16-38

DISABLE BRIDGE SPANNING 16-39

ENABLE BRIDGE 16-39

ENABLE BRIDGE LEARNING 16-39

ENABLE BRIDGE SPANNING 16-40

PURGE BRIDGE 16-40

RESET BRIDGE 16-41

SET BRIDGE AGEINGTIMER 16-41

SET BRIDGE FILTER 16-42

SET BRIDGE GROUP 16-44

SET BRIDGE PORT 16-45

SET BRIDGE PROTOCOL 16-46

SET BRIDGE SPANNING 16-47

SHOW BRIDGE 16-49

SHOW BRIDGE COUNTERS 16-52



- SHOW BRIDGE GROUP 16-61
 - SHOW BRIDGE PORT 16-63
 - SHOW BRIDGE PROTOCOL 16-66
 - SHOW BRIDGE SPANNING 16-67
 - SHOW BRIDGE STATION 16-69
 - configuration 16-17 to 16-25
 - displaying 16-49
 - counters, displaying 16-52
 - deleting
 - filters 16-35
 - groups 16-35
 - ports 16-36
 - protocols 16-36
 - stations 16-37
 - designated bridge 16-15
 - disabled 16-6
 - disabling 16-38
 - learning 16-38
 - spanning tree 16-39
 - displaying
 - configuration 16-49
 - counters 16-52
 - groups 16-61
 - ports 16-63
 - protocols 16-66
 - spanning tree protocol 16-67
 - stations 16-69
 - electing root and designated bridge 16-16
 - enabling 16-39
 - learning 16-39
 - spanning tree 16-40
 - filtering 16-4, 16-13 to 16-14
 - filters
 - adding 16-25
 - deleting 16-35
 - modifying 16-42
 - forwarding 16-6
 - forwarding priority 16-46, 16-66
 - forwarding process 16-13
 - functions 16-8
 - groups
 - adding 16-28
 - deleting 16-35
 - displaying 16-61
 - modifying 16-44
 - learning 16-6, 16-38 to 16-39
 - learning process 16-12
 - listening 16-6
 - modifying
 - filters 16-42
 - groups 16-44
 - ports 16-45
 - protocols 16-46
 - spanning tree protocol 16-47
 - on demand 16-6
 - ports
 - adding 16-29
 - deleting 16-36
 - displaying 16-63
 - modifying 16-45
 - priority 16-46, 16-66
 - process 16-4 to 16-13
 - protocols
 - deleting 16-36
 - displaying 16-66
 - displaying priority 16-66
 - modifying 16-46
 - setting priority 16-46
 - purging configuration 16-40
 - resetting 16-41
 - root bridge 16-15
 - root path cost 16-15
 - spanning tree protocol 16-15 to 16-16, 16-39 to 16-40
 - displaying configuration 16-67
 - modifying 16-47
 - stations
 - adding 16-33
 - deleting 16-37
 - displaying 16-69
 - store and forward 16-4
 - support 16-4
 - brIntTable MIB object C-20
 - Broadband MAU Basic Group, MAU MIB C-35 to C-36
 - Broadband MAU Basic MIB table, MAU MIB C-35
 - broadcast
 - NTP entity 57-2
 - broadcast forwarding 22-44 to 22-47
 - to a broadcast address 22-46
 - to a unicast address 22-45
 - broadcast packet limiting 8-6
 - broadMauBasicTable object C-35
 - BSR. See bootstrap router
- ## C
- CA. See Certificate Authority (CA)
 - cached sessions 45-4
 - call
 - definition, asynchronous 19-2, 19-17
 - call control
 - asynchronous 19-2
 - call control, ISDN 11-39
 - call logging, ISDN 11-43
 - calls
 - activating, asynchronous 19-8, 19-16
 - authenticating, asynchronous 19-5
 - authenticating, with CHAP 19-5
 - authenticating, with PAP 19-5
 - bidirectional, asynchronous 19-8
 - CHAP authentication 19-5
 - configuring, asynchronous 19-10
 - creating, asynchronous 19-2, 19-17
 - deactivating, asynchronous 19-8, 19-22
 - debugging, asynchronous 19-25 to 19-26
 - debugging, disabling 19-25
 - debugging, enabling 19-26
 - definition, asynchronous 19-2 to 19-3
 - definition, creating 19-2, 19-17
 - definition, deleting 19-3, 19-23
 - definition, disabling 19-3, 19-24
 - definition, displaying 19-3, 19-35



- definition, enabling *19-3, 19-25*
- definition, modifying *19-3, 19-28, 19-31*
- definition, purging *19-26*
- deleting, asynchronous *19-3, 19-23*
- disabling, asynchronous *19-3, 19-24*
- displaying, asynchronous *19-3, 19-34 to 19-35*
- enabling, asynchronous *19-3, 19-25*
- encapsulation *9-16, 19-4*
- encapsulation, CSLIP *9-16, 19-4*
- encapsulation, SLIP *9-16, 19-4*
- incoming, asynchronous *19-2*
- modifying, asynchronous *19-3, 19-28, 19-31*
- outgoing, asynchronous *19-2*
- PAP authentication *19-5*
- purging, asynchronous *19-26*
- cc MIB object *C-19*
- ccActiveCallTable MIB object *C-19*
- ccAttachmentTable MIB object *C-19*
- ccBchannelTable MIB object *C-19*
- ccCallLogTable MIB object *C-19*
- ccCliListTable MIB object *C-19*
- ccDetailsTable MIB object *C-19*
- centreCOM-AR120Router MIB object *C-5*
- centreCOM-AR130SRouter MIB object *C-5*
- centreCOM-AR130URouter MIB object *C-5*
- centreCOM-AR140SRouter MIB object *C-5*
- centreCOM-AR140URouter MIB object *C-5*
- centreCOM-AR160Router MIB object *C-5*
- centreCOM-AR300 MIB object *C-5*
- centreCOM-AR300L MIB object *C-5*
- centreCOM-AR300LU MIB object *C-5*
- centreCOM-AR300U MIB object *C-5*
- centreCOM-AR310 MIB object *C-5*
- centreCOM-AR310U MIB object *C-5*
- centreCOM-AR320Router MIB object *C-5*
- centreCOM-AR330 MIB object *C-5*
- centreCOM-AR350 MIB object *C-5*
- centreCOM-AR370 MIB object *C-5*
- centreCOM-AR370U MIB object *C-5*
- centreCOM-AR390 MIB object *C-5*
- centreCOM-AR395 MIB object *C-5*
- centreCOM-AR720 MIB object *C-5*
- centreCOM-AR740Router MIB object *C-5*
- Certificate Authority (CA) *49-5*
 - root *49-6, 49-8*
- Certificate Management Protocol (CMP) *49-9*
- Certificate Revocation List (CRL) *49-9*
 - CRL Database *49-9*
- certificates *45-4, 49-3*
 - Certificate Database *49-7*
 - chains *49-6*
 - deleting *49-23*
 - destroying requests *49-24*
 - requesting *49-9, 49-21*
 - updating keypairs *49-10*
 - validating *49-6, 49-8*
 - X.509 *49-3*
- Challenge Handshake Authentication Protocol (CHAP) *19-5*
- Challenge-Handshake Authentication Protocol (CHAP) *15-23 to 15-25*
- changing
 - synchronous tunnel *17-7*
- CHAP. See Challenge-Handshake Authentication Protocol (CHAP)
- ChapterTitle
 - WAN Load Balancing *52-1*
- chip68020Cpu MIB object *C-15*
- chip68302Cpu MIB object *C-15*
- chip68340Cpu MIB object *C-15*
- chip68360Cpu MIB object *C-15*
- chip860TCpu MIB object *C-15*
- chipFlash1mb MIB object *C-16*
- chipFlash2mb MIB object *C-16*
- chipFlash3mb MIB object *C-16*
- chipFlash4mb MIB object *C-16*
- chipFlash6mb MIB object *C-16*
- chipFlash8mb MIB object *C-16*
- chipPem MIB object *C-16*
- chipRam12mb MIB object *C-15*
- chipRam16mb MIB object *C-15*
- chipRam1mb MIB object *C-15*
- chipRam20mb MIB object *C-15*
- chipRam2mb MIB object *C-15*
- chipRam32mb MIB object *C-15*
- chipRam3mb MIB object *C-15*
- chipRam4mb MIB object *C-15*
- chipRam6mb MIB object *C-15*
- chipRam8mb MIB object *C-15*
- chipRtc1 MIB object *C-15*
- chipRtc2 MIB object *C-15*
- chipRtc3 MIB object *C-15*
- chipRtc4 MIB object *C-15*
- chips MIB object *C-15*
- cipher *45-4*
- cipher suite
 - definition *45-4*
- cipher text *42-4*
- circuit
 - Frame Relay *14-3, 14-27, 14-32, 14-35 to 14-36, 14-41 to 14-42, 14-46, 14-50, 14-62*
- circuits
 - adding
 - IPX *36-31*
 - deleting
 - IPX *36-42*
 - disabling
 - IPX *36-48*
 - displaying
 - IPX *36-63*
 - enabling
 - IPX *36-49*
 - IPX *36-5*
 - adding *36-31*
 - deleting *36-42*
 - disabling *36-48*
 - displaying *36-63*
 - enabling *36-49*
 - setting *36-51*
 - setting
 - IPX *36-51*



- Classifier Module
 - commands
 - DESTROY CLASSIFIER 38-15
- CLEAR FLASH TOTALLY command 6-11
- client
 - NTP entity 57-2, 57-4
- clock
 - displaying 4-55
 - setting 4-32
- clocks, synchronous lines 9-11
- clocks. See Network Time Protocol (NTP)
- CMOT group, MIB-II MIB C-29
- combined notation 55-6
- command
 - editing 2-4
 - history 2-4
 - prompt 2-4
- command reference 51-21
- CommandName
 - RESET WANLB RESource 52-26
 - SHow WANLB SEssions 52-42
- Commands
 - ADD WANLB RESOURCE 52-17
 - disable upnp 47-12
 - disable upnp action 47-13
 - disable upnp l4port 47-14
 - enable upnp 47-14
 - enable upnp action 47-15
 - enable upnp l4port 47-16
 - show upnp 47-17
 - show upnp counter 47-18
 - show upnp interface 47-20
 - show upnp interface subscriptions 47-23
- commands 5-58
 - ACTIVATE ACC CALL 19-16
 - ACTIVATE FLASH COMPACTION 6-9
 - ACTIVATE IPSEC CONVERTOLDSA 48-47
 - ACTIVATE ISDN CALL 11-61, 11-149
 - ACTIVATE L2TP CALL 20-18
 - ACTIVATE MIOX CIRCUIT 13-39
 - ACTIVATE PORTAUTH PORT REAUTHENTICATE 43-21
 - ACTIVATE PPP 15-49
 - ACTIVATE Q931 ASPID 11-62 to 11-63
 - ACTIVATE SCRIPT 58-7
 - ACTIVATE TRIGGER 59-6
 - ADD ACC CALL 19-17
 - ADD ACC DOMAINNAME 19-20
 - ADD ACC SCRIPT 19-21
 - ADD ALIAS 2-12, 6-10, 6-13, 6-22
 - ADD APPLE CIRCUIT 35-22
 - ADD APPLE DLCI 35-23
 - ADD APPLE PORT 35-16, 35-26
 - ADD APPLE ROUTE 35-16, 35-28
 - ADD APPLE ZONE 35-30
 - ADD BGP AGGREGATE 27-47, 56-15 to 56-16
 - ADD BGP CONFEDERATIONPEER 27-49
 - ADD BGP IMPORT 27-50
 - ADD BGP NETWORK 27-51
 - ADD BGP PEER 27-52
 - ADD BOOTP RELAY 23-10
 - ADD BRIDGE FILTER 16-25
 - ADD BRIDGE GROUP 16-28
 - ADD BRIDGE PORT 16-29
 - ADD BRIDGE STATION 16-33
 - ADD CLNS ADJACENCY 34-12
 - ADD CLNS AREA 34-13
 - ADD CLNS CIRCUIT 34-14
 - ADD CLNS RA 34-16
 - ADD DECNET EXCLUSION 37-14
 - ADD DECNET INCLUSION 37-15
 - ADD DECNET INTERFACE 37-16
 - ADD DECNET LPN 37-17
 - ADD DHCP POLICY 23-13
 - ADD DHCP RANGE 23-19
 - ADD DVMRP INTERFACE 24-43
 - ADD FIREWALL POLICY APPRULE 46-66
 - ADD FIREWALL POLICY DYNAMIC 46-68
 - ADD FIREWALL POLICY INTERFACE 46-72
 - ADD FIREWALL POLICY LIST 46-76
 - ADD FIREWALL POLICY NAT 46-77
 - ADD FIREWALL POLICY PROXY 46-82
 - ADD FIREWALL POLICY RULE 46-82
 - ADD FIREWALL POLICY SPAMSOURCES 46-96
 - ADD FIREWALL PROXY 46-80
 - ADD FRAMERELAY DLC 14-27
 - ADD FRAMERELAY LI 14-28
 - ADD GRE 30-12
 - ADD IGMP FILTER 24-44
 - ADD IGMPSPNOOPING ROUTERADDRESS 24-45
 - ADD IP ARP 22-66
 - ADD IP FILTER 22-70
 - ADD IP HELPER 22-78, 22-99
 - ADD IP HOST 22-79
 - ADD IP INTERFACE 22-80, 30-4
 - ADD IP LOCAL 22-86
 - ADD IP NAT 22-87
 - ADD IP RIP 25-7
 - ADD IP ROUTE 22-90
 - ADD IP ROUTE FILTER 28-47
 - ADD IP ROUTE TEMPLATE 22-93
 - ADD IP SA 22-221, 28-50
 - ADD IP TRUSTED 25-11
 - ADD IPV6 FILTER 31-37
 - ADD IPV6 HOST 31-42
 - ADD IPV6 INTERFACE 31-43
 - ADD IPV6 RIP 31-48
 - ADD IPV6 ROUTE 31-49
 - ADD IPV6 TUNNEL 31-51
 - ADD IPX CIRCUIT 36-31
 - ADD IPX EXCLUSION 36-35
 - ADD IPX INCLUSION 36-36
 - ADD IPX RIP 36-37
 - ADD IPX ROUTE 36-38
 - ADD IPX SAP 36-39
 - ADD IPX SERVICE 36-40
 - ADD ISDN CALL 11-64
 - ADD ISDN CLILIST 11-70
 - ADD ISDN DOMAINNAME 11-70
 - ADD L2TP CALL 20-19
 - ADD L2TP IP 20-22



ADD L2TP USER 20-24, 20-30
 ADD LAPD 11-111
 ADD LAPD TEI 11-71
 ADD LAPD XSPID 11-71
 ADD LAPD XTEI 11-72
 ADD LOADBALANCER RESOURCE 51-21
 ADD LOADBALANCER RESPOOL 51-23
 ADD LOADBALANCER VIRTUALBALANCER 51-24
 ADD LOADBALANCER VIRTUALBALANCER HTTPERROR-
 CODE 51-27
 ADD LOG OUTPUT 60-13
 ADD LOG RECEIVE 60-17
 ADD MIOX CIRCUIT 13-41
 ADD NTP PEER 57-8
 ADD OSPF AREA 26-28
 ADD OSPF HOST 26-30
 ADD OSPF INTERFACE 26-31
 ADD OSPF NEIGHBOUR 26-36
 ADD OSPF RANGE 26-37
 ADD OSPF STUB 26-40
 ADD OSPF SUMMARYADDRESS 26-41
 ADD PERM 62-6
 ADD PIM BSRCANDIDATE 24-47
 ADD PIM INTERFACE 24-48
 ADD PIM RPCANDIDATE 24-50
 ADD PIM6 BSRCANDIDATE 33-23
 ADD PIM6 INTERFACE 33-24
 ADD PIM6 RPCANDIDATE 33-25
 ADD PING POLL 54-9
 ADD PKI CERTIFICATE 49-16
 ADD PKI CRL 49-18
 ADD PKI LDAPREPOSITORY 49-19
 ADD PPP 15-50
 ADD RADIUS SERVER 41-30
 ADD SA MEMBER command 48-48
 ADD SCRIPT 58-8
 ADD SNMP COMMUNITY 55-25
 ADD SNMP GROUP 55-27
 ADD SNMP TARGETADDR 55-28
 ADD SNMP TARGETPARAMS 55-29
 ADD SNMP USER 55-30
 ADD SSH USER 44-10
 ADD STT 17-5
 ADD TACACS SERVER 41-31
 ADD TDM 12-8
 ADD TPAD 18-17
 ADD TRIGGER 59-7
 ADD USER 41-33
 ADD USER RSO 41-36
 ADD VLAN BRIDGE 16-34
 ADD VRRP IP 53-12
 ADD VRRP MONITOREDINTERFACE 53-13
 ADD WANLB HEALTHCHECK 52-16
 ADD WANLB RESource 52-17
 ADD X25C DTEADDRESS 13-43
 ADD X25C HUNTGROUP 13-44
 ADD X25C ROUTE 13-45
 ADD X25T CPAR 13-46
 CLEAR FLASH TOTALLY 6-11
 CONNECT 61-16
 CONNECT ASYN 9-25
 CONNECT PORT 9-25
 CREATE CONFIG 5-22
 CREATE DHCP POLICY 23-20
 CREATE DHCP RANGE 23-21, 23-47
 CREATE ENCO KEY 42-19
 CREATE FIREWALL POLICY 46-98
 CREATE FIREWALL POLICY DYNAMIC 46-99
 CREATE FRAMERELAY 14-29
 CREATE H323 29-25
 CREATE H323 ENTRY 29-27
 CREATE IGMP FILTER 24-52
 CREATE IP POOL 22-96
 CREATE IPSEC BUNDLESPECIFICATION 48-49
 CREATE IPSEC POLICY 48-51
 CREATE IPSEC SASPECIFICATION 48-59
 CREATE IPV6 INTERFACE 31-52
 CREATE ISAKMP POLICY 48-62
 CREATE LAPB 13-47
 CREATE LOG OUTPUT 60-19
 CREATE PKI ENROLLMENTREQUEST 49-21
 CREATE PKI KEYUPDATEREQUEST 49-22
 CREATE PPP 15-54
 CREATE PPP TEMPLATE 15-63
 CREATE RSVP PROXY 40-9
 CREATE SA 48-70
 CREATE SERVICE 61-17
 CREATE SIP 29-28
 CREATE SNMP COMMUNITY 55-33, 55-35 to 55-36
 CREATE STAR 50-13
 CREATE TDM 12-9
 CREATE TPAD 18-18
 CREATE TRIGGER 59-8
 CREATE VRRP 53-14
 CREATE X25C 13-49
 CREATE X25C HUNTGROUP 13-51
 CREATE X25T 13-52
 DEACTIVATE ACC CALL 19-22
 DEACTIVATE ISDN CALL 11-73
 DEACTIVATE L2TP CALL 20-28
 DEACTIVATE MIOX CIRCUIT 13-54
 DEACTIVATE SCRIPT 58-9
 DECnet 37-13
 DELETE ACC CALL 19-23
 DELETE ACC DOMAINNAME 19-23
 DELETE ACC SCRIPT 19-24
 DELETE ALIAS 2-13
 DELETE APPLE CIRCUIT 35-32
 DELETE APPLE DLCI 35-33
 DELETE APPLE PORT 35-34
 DELETE APPLE ROUTE 35-16, 35-35
 DELETE APPLE ZONE 35-36
 DELETE BGP AGGREGATE 27-67
 DELETE BGP CONFEDERATIONPEER 27-68
 DELETE BGP IMPORT 27-68
 DELETE BGP NETWORK 27-69
 DELETE BGP PEER 27-69
 DELETE BOOTP RELAY 23-22
 DELETE BRIDGE FILTER 16-35
 DELETE BRIDGE GROUP 16-35



DELETE BRIDGE PORT 16-36
 DELETE BRIDGE PROTOCOL 16-36
 DELETE BRIDGE STATION 16-37
 DELETE CLNS ADJACENCY 34-17
 DELETE CLNS AREA 34-18
 DELETE CLNS CIRCUIT 34-18
 DELETE CLNS RA 34-19
 DELETE DECNET EXCLUSION 37-18
 DELETE DECNET INCLUSION 37-19
 DELETE DECNET INTERFACE 37-20
 DELETE DECNET LPN 37-21
 DELETE DHCP POLICY 23-24
 DELETE DHCP RANGE 23-28
 DELETE DVMRP INTERFACE 24-53
 DELETE FILE 6-14
 DELETE FIREWALL POLICY APPRULE 46-100
 DELETE FIREWALL POLICY DYNAMIC 46-101
 DELETE FIREWALL POLICY INTERFACE 46-103
 DELETE FIREWALL POLICY LIST 46-105
 DELETE FIREWALL POLICY NAT 46-106
 DELETE FIREWALL POLICY RULE 46-109
 DELETE FIREWALL SESSION 46-111
 DELETE FRAMERELAY DLC 14-32
 DELETE FRAMERELAY LI 14-32
 DELETE GRE 30-4, 30-15
 DELETE IGMP FILTER 24-54
 DELETE IGMP Snooping RouterAddress 24-54
 DELETE INSTALL 5-23
 DELETE IP ARP 22-96
 DELETE IP FILTER 22-98
 DELETE IP HOST 22-100
 DELETE IP INTERFACE 22-101
 DELETE IP LOCAL 22-102
 DELETE IP NAT 22-103
 DELETE IP RIP 25-12
 DELETE IP ROUTE 22-105
 DELETE IP ROUTE FILTER 28-59
 DELETE IP ROUTE TEMPLATE 22-106
 DELETE IP SA 22-107
 DELETE IP TRUSTED 25-13
 DELETE IPV6 FILTER 31-53
 DELETE IPV6 HOST 31-54
 DELETE IPV6 INTERFACE 31-54
 DELETE IPV6 RIP 31-57
 DELETE IPV6 ROUTE 31-58
 DELETE IPV6 TUNNEL 31-59
 DELETE IPX CIRCUIT 36-42
 DELETE IPX EXCLUSION 36-43
 DELETE IPX INCLUSION 36-44
 DELETE IPX RIP 36-45
 DELETE IPX ROUTE 36-45
 DELETE IPX SAP 36-46
 DELETE IPX SERVICE 36-47
 DELETE ISDN CALL 11-73
 DELETE ISDN CLILIST 11-74
 DELETE ISDN DOMAINNAME 11-74
 DELETE L2TP CALL 20-28
 DELETE L2TP IP 20-29
 DELETE L2TP USER 20-31
 DELETE LAPD TEI 11-75
 DELETE LAPD XSPID 11-76
 DELETE LAPD XTEI 11-77
 DELETE LOADBALANCER RESOURCE 51-28
 DELETE LOADBALANCER RESPOOL 51-29
 DELETE LOADBALANCER VIRTUALBALANCER 51-30
 DELETE LOADBALANCER VIRTUALBALANCER
 HTTPERRORCODE 51-31
 DELETE LOG OUTPUT 60-23
 DELETE LOG RECEIVE 60-23
 DELETE MAIL 4-15
 DELETE MIOX CIRCUIT 13-55
 DELETE NTP PEER 57-8
 DELETE OSPF AREA 26-42
 DELETE OSPF HOST 26-42
 DELETE OSPF INTERFACE 26-43
 DELETE OSPF NEIGHBOUR 26-45
 DELETE OSPF RANGE 26-45
 DELETE OSPF STUB 26-47
 DELETE OSPF SUMMARYADDRESS 26-48
 DELETE PERM 62-7
 DELETE PIM BSRCANDIDATE 24-55
 DELETE PIM INTERFACE 24-56
 DELETE PIM RPCANDIDATE 24-57
 DELETE PIM6 BSRCANDIDATE 33-26
 DELETE PIM6 INTERFACE 33-26
 DELETE PIM6 RPCANDIDATE 33-27
 DELETE PING POLL 54-11
 DELETE PKI CERTIFICATE 49-23
 DELETE PKI CRL 49-23
 DELETE PKI LDAPREPOSITORY 49-24
 DELETE PPP 15-70
 DELETE RADIUS SERVER 41-37
 DELETE SA MEMBER 48-71
 DELETE SCRIPT 58-10
 DELETE SNMP COMMUNITY 55-35
 DELETE SNMP GROUP 55-36
 DELETE SNMP TARGETADDR 55-36
 DELETE SNMP TARGETPARAMS 55-37
 DELETE SNMP USER 55-37
 DELETE SNMP VIEW 55-38
 DELETE SSH USER 44-12
 DELETE STT 17-6
 DELETE TACACS SERVER 41-38
 DELETE TCP 22-108
 DELETE TDM 12-10
 DELETE TPAD 18-21
 DELETE TRIGGER 59-15
 DELETE USER 41-39
 DELETE USER RSO 41-40
 DELETE VLAN BRIDGE 16-38
 DELETE VLAN PORT 8-27
 DELETE VRRP IP 53-17
 DELETE VRRP MONITOREDINTERFACE 53-18
 DELETE WANLB Resource 52-18 to 52-19
 DELETE X25C DTEADDRESS 13-56
 DELETE X25C HUNTGROUP 13-57
 DELETE X25C ROUTE 13-58
 DELETE X25T CPAR 13-58
 DESTROY CLASSIFIER 38-15
 DESTROY DHCP POLICY 23-29



DESTROY DHCP RANGE 23-29
 DESTROY ENCO KEY 42-21
 DESTROY FIREWALL POLICY 46-112
 DESTROY FIREWALL POLICY DYNAMIC 46-112
 DESTROY FRAMERELAY 14-33
 DESTROY H323 29-30
 DESTROY H323 ENTRY 29-31
 DESTROY IGMP FILTER 24-58
 DESTROY IP POOL 22-108
 DESTROY IPSEC BUNDLESPECIFICATION 48-71
 DESTROY IPSEC POLICY 48-72
 DESTROY IPSEC SASPECIFICATION 48-73
 DESTROY IPV6 INTERFACE 31-60
 DESTROY ISAKMP POLICY 48-73
 DESTROY LAPB 13-59
 DESTROY LOG OUTPUT 60-24
 DESTROY PKI ENROLLMENTREQUEST 49-24
 DESTROY PKI KEYUPDATEREQUEST 49-25
 DESTROY PPP 15-71
 DESTROY PPP TEMPLATE 15-72
 DESTROY RSVP PROXY 40-12
 DESTROY SA 48-74
 DESTROY SERVICE 61-18
 DESTROY SIP 29-32
 DESTROY SNMP COMMUNITY 55-39
 DESTROY STAR 50-14
 DESTROY TDM 12-11
 DESTROY TPAD 18-21
 DESTROY TRIGGER 59-15
 DESTROY VLAN 8-28
 DESTROY VRRP 53-19
 DESTROY X25C 13-59
 DESTROY X25C HUNTGROUP 13-60
 DESTROY X25T 13-60
 DISABLE ACC CALL 19-24
 DISABLE ACC CALL DEBUG 19-25
 DISABLE APPLE 35-37
 DISABLE APPLE DEBUG 35-38
 DISABLE ASYN 9-27
 DISABLE BGP DEBUG 27-74
 DISABLE BGP PEER 27-75
 DISABLE BOOTP RELAY 23-30
 DISABLE BRI CTEST 11-77
 DISABLE BRI DEBUG 11-78
 DISABLE BRI TEST 11-78
 DISABLE BRIDGE 16-38
 DISABLE BRIDGE LEARNING 16-38
 DISABLE BRIDGE SPANNING 16-39
 DISABLE CLNS CIRCUIT 34-20
 DISABLE CLNS DEBUG 34-20
 DISABLE DECNET 37-21
 DISABLE DVMRP 24-58
 DISABLE DVMRP DEBUG 24-59
 DISABLE ENCO COMPSTATISTICS 42-22
 DISABLE ENCO DEBUGGING 42-22
 DISABLE FEATURE 5-24
 DISABLE FIREWALL 46-113
 DISABLE FIREWALL NOTIFY 46-114
 DISABLE FIREWALL POLICY 46-115
 DISABLE FIREWALL POLICY IDENTPROXY 46-120
 DISABLE FRAMERELAY 14-33
 DISABLE FRAMERELAY CONGESTIONCONTROL 14-34
 DISABLE FRAMERELAY DEBUG 14-34
 DISABLE FRAMERELAY DLC 14-35
 DISABLE FRAMERELAY DLC DEBUG 14-36
 DISABLE FRAMERELAY LI DEBUG 14-37, 14-44
 DISABLE FRAMERELAY SLOWSTART 14-38
 DISABLE GRE 30-16
 DISABLE GUI 5-25
 DISABLE HTTP DEBUG 5-25
 DISABLE HTTP SERVER 5-25
 DISABLE IGMP SNOOPING 24-60
 DISABLE INTERFACE 9-29
 DISABLE INTERFACE DEBUG 9-28
 DISABLE IP 22-109
 DISABLE IP DEBUG 22-110
 DISABLE IP DNSRELAY 22-111
 DISABLE IP ECHOREPLY 22-111
 DISABLE IP FOFILTER 22-112
 DISABLE IP FORWARDING 22-113
 DISABLE IP HELPER 22-113
 DISABLE IP IGMP 24-60
 DISABLE IP IGMP INTERFACE 24-62
 DISABLE IP INTERFACE 22-115
 DISABLE IP NAT 22-117
 DISABLE IP REMOTEASSIGN 22-118
 DISABLE IP ROUTE 22-118
 DISABLE IP SRCROUTE 22-119
 DISABLE IPSEC 48-74
 DISABLE IPSEC OLDSA 48-75
 DISABLE IPSEC POLICY DEBUGGING 48-76
 DISABLE IPV6 31-60
 DISABLE IPV6 ADV 31-61
 DISABLE IPV6 DEBUG 31-61
 DISABLE IPV6 MLD 33-27
 DISABLE IPV6 MLD DEBUG 33-28
 DISABLE IPV6 MLD INTERFACE 33-28
 DISABLE IPV6 RIP 31-62
 DISABLE IPX 36-47
 DISABLE IPX CIRCUIT 36-48
 DISABLE ISAKMP 48-78
 DISABLE ISAKMP DEBUGGING 48-79
 DISABLE ISDN CALL 11-79
 DISABLE ISDN LOG 11-80
 DISABLE L2TP 20-32
 DISABLE L2TP DEBUG 20-33
 DISABLE L2TP SERVER 20-34
 DISABLE LOADBALANCER 51-31
 DISABLE LOADBALANCER DEBUG 51-32
 DISABLE LOADBALANCER HEALTHPINGS 51-32
 DISABLE LOADBALANCER REDUNDANCY 51-33
 DISABLE LOADBALANCER RESOURCE 51-34
 DISABLE LOADBALANCER VIRTUALBALANCER 51-35
 DISABLE LOG 60-24
 DISABLE LOG GENERATION 60-24
 DISABLE LOG OUTPUT 60-25
 DISABLE LOG RECEPTION 60-25
 DISABLE MAIL DEBUG 4-17
 DISABLE MIOX CIRCUIT 13-61
 DISABLE NTP 57-9



- DISABLE OSPF 26-48
- DISABLE OSPF DEBUG 26-49
- DISABLE OSPF INTERFACE 26-50
- DISABLE OSPF LOG 26-50
- DISABLE PIM 24-62
- DISABLE PIM DEBUG 24-63
- DISABLE PIM6 33-29
- DISABLE PIM6 DEBUG 33-29
- DISABLE PING POLL 54-12
- DISABLE PING POLL DEBUG 54-12
- DISABLE PKI DEBUG 49-25
- DISABLE PORT 9-27
- DISABLE PORTAUTH 43-22
- DISABLE PORTAUTH DEBUG PORT 43-23
- DISABLE PORTAUTH PORT 43-24
- DISABLE PPP 15-73
- DISABLE PPP DEBUG 15-73
- DISABLE PPP TEMPLATE DEBUG 15-75
- DISABLE PRI CTEST 11-81
- DISABLE PRI DEBUG 11-81
- DISABLE PRI TEST 11-81
- DISABLE Q931 DEBUG 11-82
- DISABLE RELEASE 5-26
- DISABLE RSVP 40-12
- DISABLE RSVP DEBUG 40-13
- DISABLE RSVP INTERFACE 40-14
- DISABLE RSVP PROXY 40-15
- DISABLE SA DEBUGGING 48-80
- DISABLE SNMP 55-39
- DISABLE SNMP AUTHENTICATE_TRAP 55-39
- DISABLE SNMP COMMUNITY 55-40
- DISABLE SSH SERVER 44-13, 44-18
- DISABLE SSH USER 44-14
- DISABLE SSL DEBUG 45-10
- DISABLE STAR DEBUGGING 50-15
- DISABLE SWITCH AGEINGTIMER 8-28
- DISABLE SWITCH DEBUG 8-29
- DISABLE SWITCH LEARNING 8-29
- DISABLE SYN 9-30
- DISABLE SYN DEBUG 9-30
- DISABLE SYSTEM SECURITY_MODE 41-41
- DISABLE TELNET SERVER 22-120
- DISABLE TEST INTERFACE 63-10
- DISABLE TPAD 18-22
- DISABLE TPAD DEBUG 18-22
- DISABLE TRIGGER 59-16
- DISABLE USER 41-43
- DISABLE USER RSO 41-43
- DISABLE VLAN DEBUG 8-30
- DISABLE VOIP 29-32
- DISABLE VOIP DEBUG 29-33
- DISABLE VRRP 53-19
- DISABLE VRRP DEBUG 53-20
- DISABLE X25C DEBUG 13-61
- DISCONNECT 61-20
- DUMP 4-19
- EDIT 6-16, 58-3
- ENABLE ACC CALL 19-25
- ENABLE ACC CALL DEBUG 19-26
- ENABLE APPLE 35-38
- ENABLE APPLE DEBUG 35-38
- ENABLE BGP DEBUG 27-79
- ENABLE BGP PEER 27-81
- ENABLE BOOTP RELAY 23-32
- ENABLE BRI CTEST 11-84
- ENABLE BRI DEBUG 11-85
- ENABLE BRI TEST 11-86
- ENABLE BRIDGE 16-39
- ENABLE BRIDGE LEARNING 16-39
- ENABLE BRIDGE SPANNING 16-40
- ENABLE CLNS 34-21
- ENABLE CLNS CIRCUIT 34-22
- ENABLE CLNS DEBUG 34-23
- ENABLE DECNET 37-22
- ENABLE DVMRP 24-64
- ENABLE DVMRP DEBUG 24-65
- ENABLE ENCO COMPSTATISTICS 42-22
- ENABLE ENCO DEBUGGING 42-23
- ENABLE FEATURE 5-27
- ENABLE FIREWALL 46-123
- ENABLE FIREWALL NOTIFY 46-124
- ENABLE FIREWALL POLICY 46-125, 46-127
- ENABLE FIREWALL POLICY IDENTPROXY 46-129
- ENABLE FRAMERELAY 14-38
- ENABLE FRAMERELAY CONGESTIONCONTROL 14-39
- ENABLE FRAMERELAY DEBUG 14-40
- ENABLE FRAMERELAY DLC 14-41
- ENABLE FRAMERELAY DLC DEBUG 14-42
- ENABLE FRAMERELAY SLOWSTART 14-44
- ENABLE GRE 30-16
- ENABLE GUI 3-21
- ENABLE HTTP DEBUG 5-28, 44-13 to 44-14, 44-17
- ENABLE HTTP SERVER 5-28
- ENABLE IGMP Snooping 24-66
- ENABLE INTERFACE DEBUG 9-31
- ENABLE INTERFACE LINKTRAP 9-32
- ENABLE IP 22-122
- ENABLE IP DEBUG 22-123
- ENABLE IP DNSRELAY 22-124
- ENABLE IP ECHOREPLY 22-124
- ENABLE IP FOFILTER 22-125
- ENABLE IP FORWARDING 22-126
- ENABLE IP HELPER 22-126
- ENABLE IP IGMP 24-66
- ENABLE IP IGMP INTERFACE 24-68
- ENABLE IP INTERFACE 22-128
- ENABLE IP NAT 22-130
- ENABLE IP REMOTEASSIGN 22-131
- ENABLE IP ROUTE 22-131
- ENABLE IP SRCROUTE 22-119 to 22-120, 22-132 to 22-133
- ENABLE IPSEC 48-80
- ENABLE IPSEC OLDSA 48-81
- ENABLE IPSEC POLICY DEBUGGING 48-82
- ENABLE IPV6 31-62
- ENABLE IPV6 ADV 31-63
- ENABLE IPV6 DEBUG 31-64
- ENABLE IPV6 MLD 33-30
- ENABLE IPV6 MLD DEBUG 33-30
- ENABLE IPV6 MLD INTERFACE 33-31



ENABLE IPV6 RIP 31-64
 ENABLE IPX 36-48
 ENABLE IPX CIRCUIT 36-49
 ENABLE ISAKMP 48-84
 ENABLE ISAKMP DEBUGGING 48-86
 ENABLE ISDN CALL 11-88
 ENABLE ISDN LOG 11-88
 ENABLE L2TP 20-34
 ENABLE L2TP DEBUG 20-35
 ENABLE L2TP SERVER 20-39
 ENABLE LOADBALANCER 51-36
 ENABLE LOADBALANCER DEBUG 51-36
 ENABLE LOADBALANCER HEALTHPINGS 51-37
 ENABLE LOADBALANCER REDUNDANCY 51-38
 ENABLE LOADBALANCER RESOURCE 51-39
 ENABLE LOADBALANCER VIRTUALBALANCER 51-39
 ENABLE LOG 60-26
 ENABLE LOG GENERATION 60-26
 ENABLE LOG OUTPUT 60-27
 ENABLE LOG RECEPTION 60-27
 ENABLE MAIL DEBUG 4-21
 ENABLE MIOX CIRCUIT 13-62
 ENABLE NTP 57-9
 ENABLE OSPF 26-51
 ENABLE OSPF DEBUG 26-51
 ENABLE OSPF INTERFACE 26-53
 ENABLE OSPF LOG 26-54
 ENABLE PIM 24-63, 24-68 to 24-69
 ENABLE PIM DEBUG 24-69
 ENABLE PIM6 33-32
 ENABLE PIM6 DEBUG 33-32
 ENABLE PING POLL 54-13
 ENABLE PING POLL DEBUG 54-13
 ENABLE PKI DEBUG 49-26
 ENABLE PORT 9-33
 ENABLE PORTAUTH 43-25
 ENABLE PORTAUTH DEBUG PORT 43-26
 ENABLE PPP 15-76
 ENABLE PPP DEBUG 15-77
 ENABLE PPP TEMPLATE DEBUG 15-80
 ENABLE PRI CTEST 11-89
 ENABLE PRI DEBUG 11-90
 ENABLE PRI TEST 11-91
 ENABLE Q931 ASPID 11-92
 ENABLE Q931 DEBUG 11-93
 ENABLE RELEASE 5-30
 ENABLE RSVP 40-15
 ENABLE RSVP DEBUG 40-16
 ENABLE RSVP INTERFACE 40-17
 ENABLE RSVP PROXY 40-18
 ENABLE SA DEBUGGING 48-87
 ENABLE SNMP 55-40
 ENABLE SNMP AUTHENTICATE_TRAP 55-41
 ENABLE SNMP COMMUNITY 55-41
 ENABLE SSH SERVER 44-15
 ENABLE SSH USER 44-16
 ENABLE SSL DEBUG 45-10
 ENABLE STAR DEBUGGING 50-15
 ENABLE STAR MKTTRANSFER 50-16
 ENABLE SWITCH AGEINGTIMER 8-31
 ENABLE SWITCH DEBUG 8-32
 ENABLE SWITCH LEARNING 8-33
 ENABLE SWITCH PORT 8-33
 ENABLE SYN 9-33
 ENABLE SYN DEBUG 9-33
 ENABLE SYSTEM SECURITY_MODE 41-46
 ENABLE TELNET SERVER 22-133
 ENABLE TEST INTERFACE 63-11
 ENABLE TPAD 18-23
 ENABLE TPAD DEBUG 18-23
 ENABLE TRIGGER 59-17
 ENABLE USER 41-48
 ENABLE USER RSO 41-49
 ENABLE VLAN DEBUG 8-34
 ENABLE VOIP 29-33
 ENABLE VOIP DEBUG 29-34
 ENABLE VRRP 53-20
 ENABLE VRRP DEBUG 53-21
 ENABLE X25C DEBUG 13-62
 FINGER 22-134
 FLUSH LOG OUTPUT 60-28
 Frame Relay 14-26
 HELP 2-13
 interfaces 14-26
 Internet Protocol (IP) 22-65 to 22-235, 25-7
 LOAD 5-31, 58-3 to 58-4
 LOGIN 41-50
 LOGOFF 41-51
 MAIL 4-22
 MODIFY 4-24
 not allowed in boot script 50-12
 permanent assignments 62-5
 PING 22-135
 Point-to-Point Protocol (PPP) 14-26, 15-48
 PURGE ACC 19-26
 PURGE ACC SCRIPT 19-27
 PURGE APPLE 35-39
 PURGE ASYN 9-34
 PURGE BOOTP RELAY 23-34
 PURGE BRIDGE 16-40
 PURGE CLNS 34-24
 PURGE DECNET 37-22
 PURGE DVMRP 24-70
 PURGE GRE 30-17
 PURGE IP 22-137
 PURGE IPSEC 48-87
 PURGE IPX 36-49
 PURGE LOG 60-28
 PURGE NTP 57-9
 PURGE OSPF 26-55
 PURGE PIM 24-70
 PURGE PIM6 33-33
 PURGE PKI 49-27
 PURGE PORT 9-28, 9-31
 PURGE PORTAUTH PORT 43-33
 PURGE PPP 15-81
 PURGE SNMP 55-42
 PURGE TDM 12-11
 PURGE TRIGGER 59-17
 PURGE USER 41-51



- RECONNECT 61-22
- RENAME 6-21
- RESET APPLE 35-39
- RESET BGP PEER 27-82
- RESET BRI 11-98
- RESET BRI COUNTERS 11-98
- RESET BRIDGE 16-41
- RESET CLNS 34-24
- RESET CPU UTILISATION 4-25
- RESET DECNET 37-23
- RESET DVMRP INTERFACE 24-71
- RESET ENCO COUNTERS 42-24
- RESET ETH 9-36
- RESET ETH COUNTERS 9-37
- Reset Eth Counters 9-37
- RESET FRAMERELAY 14-45
- RESET FRAMERELAY DLC 14-46
- RESET GRE 30-18
- RESET HTTP SERVER 5-36
- RESET INTERFACE COUNTER 9-37
- RESET IP 22-138
- RESET IP INTERFACE 22-139
- RESET IPSEC COUNTERS 48-88
- RESET IPSEC POLICY COUNTERS 48-89
- RESET IPSEC SA COUNTERS 48-90
- RESET IPX 36-50
- RESET ISAKMP COUNTERS 48-91
- RESET LAPB 13-63
- RESET LOADBALANCER 51-40
- RESET LOADER 5-36
- RESET NTP 57-10
- RESET OSPF 26-55
- RESET OSPF COUNTER 26-56
- RESET OSPF INTERFACE 26-57
- RESET OSPF SPF 26-58
- RESET PERM 62-7
- RESET PIM INTERFACE 24-72
- RESET PIM6 INTERFACE 33-33
- RESET PING POLL 54-14
- RESET PORT 9-34
- RESET PORT COUNTERS 9-35
- RESET PORT HISTORY 9-36
- RESET PORTAUTH PORT MULTIMIB 43-35
- RESET PPP 15-82
- RESET PRI 11-99
- RESET PRI COUNTERS 11-100
- RESET Q931 11-101
- RESET RSVP PROXY 40-19
- RESET STT 17-6
- RESET SWITCH 8-34
- RESET SYN 9-38
- RESET SYN COUNTERS 9-39
- RESET TEST INTERFACE 63-12
- RESET TPAD 18-24
- RESET USER 41-52
- RESET VOIP 29-35
- RESET X25T 13-63
- RESTART 5-37
- SET ACC CALL 19-28
- SET ACC CALL PORT 19-31
- SET ACC SCRIPT 19-32
- SET APPLE PORT 35-16, 35-42
- SET APPLE ROUTECONVERT 35-44
- SET APPLE ZONE 35-46
- SET ASYN 9-40
- SET BGP 27-84
- SET BGP AGGREGATE 27-87
- SET BGP IMPORT 27-91
- SET BGP PEER 27-93
- SET BOOTP MAXHOPS 23-35
- SET BRI 11-102
- SET BRIDGE AGEINGTIMER 16-41
- SET BRIDGE FILTER 16-42
- SET BRIDGE GROUP 16-44
- SET BRIDGE PORT 16-45
- SET BRIDGE PROTOCOL 16-46
- SET BRIDGE SPANNING 16-47
- SET CLNS 34-25
- SET CLNS CIRCUIT 34-27
- SET CLNS RA 34-29
- SET CONFIG 5-38
- SET DECNET 37-24
- SET DECNET INTERFACE 37-27
- SET DHCP POLICY 23-41
- SET DVMRP INTERFACE 24-73
- SET ENCO DHPADDING 42-25
- SET ENCO DHPRIORITY 42-25
- SET ENCO KEY 42-26
- SET ENCO SW 42-27
- SET ETH MAXBANDWIDTH 9-46
- SET ETH SPEED 9-47
- SET FIREWALL POLICY 46-138, 46-140
- SET FIREWALL POLICY ATTACK 46-140
- SET FIREWALL POLICY DOMAIN 46-149
- SET FIREWALL POLICY RULE 46-144
- SET FRAMERELAY 14-47
- SET FRAMERELAY DLC 14-50
- SET GRE 30-19
- SET H323 29-36
- SET H323 ENTRY 29-37
- SET H323 GATEWAY 29-38
- SET HELP 2-15
- SET HTTP SERVER 5-39
- SET IGMP FILTER 24-74
- SET IGMPSPNOOPING FASTLEAVE 24-75
- SET IGMPSPNOOPING ROUTERMODE 24-76
- SET INSTALL 5-40
- SET INTERFACE MTU 9-48
- SET INTERFACE TRAPLIMIT 9-49
- SET IP ARP 22-142
- SET IP ARP TIMEOUT 22-143 to 22-144
- SET IP AUTONOMOUS 27-106
- SET IP DNSRELAY 22-149
- SET IP FILTER 22-150
- SET IP HOST 22-154
- SET IP IGMP 24-77
- SET IP IGMP INTERFACE 24-78
- SET IP INTERFACE 22-155, 30-4 to 30-5
- SET IP LOCAL 22-160
- SET IP NAMESERVER 22-162



SET IP NAT MAXFRAGMENT 22-163
 SET IP RIP 25-14
 SET IP RIPTIMER 25-18
 SET IP ROUTE 22-164
 SET IP ROUTE FILTER 28-63
 SET IP ROUTE TEMPLATE 22-168
 SET IP SECONDARYNAMESERVER 22-170
 SET IPSEC BUNDLESPECIFICATION 48-93
 SET IPSEC POLICY 48-94
 SET IPSEC SASPECIFICATION 48-102
 SET IPSEC UDPPORT 48-104
 SET IPV6 FILTER 31-66
 SET IPV6 INTERFACE 31-69
 SET IPV6 MLD 33-34
 SET IPV6 MLD INTERFACE 33-35
 SET IPV6 MTU 31-70
 SET IPX CIRCUIT 36-51
 SET IPX GRIP|GSAP 36-54
 SET IPX RIP 36-55
 SET IPX SAP 36-56
 SET ISAKMP POLICY 48-105
 SET ISDN CALL 11-104
 SET ISDN DOMAINNAME 11-110
 SET ISDN LOG 11-110
 SET L2TP CALL 20-40
 SET L2TP CHECKSUM 20-43
 SET L2TP FILTER 20-43
 SET L2TP PASSWORD 20-44
 SET L2TP USER 20-45
 SET LAPB 13-64
 SET LOADBALANCER 51-41
 SET LOADBALANCER REDUNDANCY 51-42
 SET LOADBALANCER RESOURCE 51-44
 SET LOADBALANCER RESPOOL 51-45
 SET LOADBALANCER VIRTUALBALANCER 51-46
 SET LOADER 5-42
 SET LOG OUTPUT 60-29
 SET LOG RECEIVE 60-35
 SET LOG UTCOFFSET 60-36
 SET MAIL 4-26
 SET MANAGER PORT 41-53
 SET MIOX 13-65
 SET MIOX CIRCUIT 13-66
 SET NTP UTCOFFSET 57-10
 SET OSPF 26-59
 SET OSPF AREA 26-63
 SET OSPF HOST 26-65
 SET OSPF INTERFACE 26-66
 SET OSPF NEIGHBOUR 26-70
 SET OSPF RANGE 26-71
 SET OSPF STUB 26-74
 SET OSPF SUMMARYADDRESS 26-75
 SET PASSWORD 41-54 to 41-55
 SET PERM 62-8
 SET PIM 24-79
 SET PIM BSRCANDIDATE 24-81
 SET PIM INTERFACE 24-82
 SET PIM RPCANDIDATE 24-84
 SET PIM6 33-36
 SET PIM6 BSRCANDIDATE 33-37
 SET PIM6 INTERFACE 33-38
 SET PIM6 RPCANDIDATE 33-39
 SET PING 22-171
 SET PING POLL 54-15
 SET PKI 49-28
 SET PKI CERTIFICATE 49-29
 SET PKI CRL 49-30
 SET PKI LDAPREPOSITORY 49-31
 SET PORT 9-40
 SET PORTAUTH PORT 43-36
 SET PORTAUTH PORT SUPPLICANTMAC 43-42
 SET PORTAUTH USERNAME 43-45
 SET PPP 15-83
 SET PPP TEMPLATE 15-90
 SET PRI 11-113
 SET Q931 11-117
 SET RSVP INTERFACE 40-20
 SET RSVP PROXY 40-21
 SET SA 48-113
 SET SCRIPT 58-12
 SET SERVICE 61-23
 SET SIP 29-39
 SET SIP GATEWAY 29-41
 SET SNMP COMMUNITY 55-42, 55-52
 SET SNMP ENGINEID 55-43
 SET SNMP GROUP 55-44
 SET SNMP LOCAL 55-45
 SET SNMP TARGETADDR 55-46
 SET SNMP TARGETPARAMS command 55-47
 SET SNMP USER 55-48
 SET SSH USER 44-20
 SET SSL 45-11
 SET STAR 50-17
 SET STT 17-7
 SET SWITCH AGEINGTIMER 8-36
 SET SWITCH QOS 8-40
 SET SYN 9-50
 SET SYSTEM CONTACT 4-29
 SET SYSTEM LOCATION 4-30
 SET SYSTEM NAME 4-31
 SET SYSTEM TERRITORY 11-21, 11-32, 11-49, 11-51, 11-120
 SET TELNET 61-25
 SET TIME 4-32
 SET TPAD 18-25
 SET TRACE 22-174
 SET TRIGGER 59-18
 SET TTY 61-26
 SET USER 41-59
 SET VLAN PORT 8-41
 SET VOIP 29-42
 SET VOIP BOOTCODE 29-43
 SET VOIP FILE 29-45
 SET VOIP PHONE 29-46
 SET VOIP PUBLIC INTERFACE 29-53
 SET VRRP 53-22
 SET X25C 13-68
 SET X25C HUNTGROUP 13-70
 SET X25T 13-72
 SET X25T CPAR 13-74



SHOW ACC 19-34
 SHOW ACC CALL 19-35
 SHOW ACC DOMAINNAME 19-38
 SHOW ACC SCRIPT 19-38
 SHOW ALIAS 2-15 to 2-16, 6-28
 SHOW APPLE 35-48
 SHOW APPLE AARP 35-49
 SHOW APPLE CIRCUIT 35-50
 SHOW APPLE COUNTER 35-51
 SHOW APPLE DLCI 35-57
 SHOW APPLE PORT 35-60
 SHOW APPLE ROUTE 35-16, 35-62
 SHOW APPLE ZONE 35-64
 SHOW BGP 27-107
 SHOW BGP AGGREGATE 27-109
 SHOW BGP CONFEDERATION 27-110
 SHOW BGP IMPORT 27-120
 SHOW BGP NETWORK 27-124
 SHOW BGP PEER 27-125
 SHOW BGP ROUTE 27-132
 SHOW BOOTP RELAY 23-48
 SHOW BRI CONFIGURATION 11-121
 SHOW BRI COUNTERS 11-123
 SHOW BRI CTEST 11-130
 SHOW BRI DEBUG 11-131
 SHOW BRI STATE 11-132
 SHOW BRI TEST 11-136
 SHOW BRIDGE 16-49
 SHOW BRIDGE COUNTERS 16-52
 SHOW BRIDGE GROUP 16-61
 SHOW BRIDGE PORT 16-63
 SHOW BRIDGE PROTOCOL 16-66
 SHOW BRIDGE SPANNING 16-67
 SHOW BRIDGE STATION 16-69
 SHOW BUFFER 4-34
 SHOW CLNS 34-30
 SHOW CLNS ADJACENCY 34-31
 SHOW CLNS AREA 34-33
 SHOW CLNS CIRCUIT 34-44
 SHOW CLNS CIRCUIT COUNTERS 34-37
 SHOW CLNS COUNTERS 34-39
 SHOW CLNS DETAIL 34-41
 SHOW CLNS RA 34-44
 SHOW CLNS ROUTE 34-45
 SHOW CONFIG 5-46
 SHOW CPU 4-38
 SHOW DEBUG 4-40
 SHOW DECNET 37-28
 SHOW DECNET COUNTER 37-29
 SHOW DECNET EXCLUSION 37-31
 SHOW DECNET INCLUSIONS 37-32
 SHOW DECNET INTERFACE 37-33
 SHOW DECNET LPN 37-34
 SHOW DECNET ROUTE 37-35
 SHOW DHCP 23-51
 SHOW DHCP CLIENT 23-53
 SHOW DHCP POLICY 23-55
 SHOW DHCP RANGE 23-57
 SHOW DVMRP 24-85
 SHOW DVMRP COUNTERS 24-86
 SHOW DVMRP DEBUG 24-87
 SHOW DVMRP FORWARDING 24-88
 SHOW DVMRP INTERFACE 24-89
 SHOW DVMRP NEIGHBOUR 24-90
 SHOW DVMRP ROUTE 24-91
 SHOW ENCO CHANNEL 42-30
 SHOW ENCO COUNTERS 42-36
 SHOW ENCO KEY 42-53 to 42-54
 SHOW ETH CONFIGURATION 9-61
 SHOW ETH COUNTERS 9-62
 SHOW ETH MACADDRESS 9-67
 SHOW ETH RECEIVE 9-68
 SHOW ETH STATE 9-69
 SHOW EXCEPTION 4-47
 SHOW FEATURE 5-48
 SHOW FFILE 6-23, 6-25
 SHOW FIREWALL 46-153
 SHOW FIREWALL ACCOUNTING 46-156
 SHOW FIREWALL ARP 46-158
 SHOW FIREWALL EVENT 46-160
 SHOW FIREWALL POLICY SESSION 46-190
 SHOW FLASH 6-29
 SHOW FLASH PHYSICAL 6-31
 SHOW FRAMERELAY 14-52
 SHOW FRAMERELAY DLC 14-62
 SHOW FRAMERELAY LI 14-70
 SHOW GRE 30-22 to 30-24
 SHOW H323 29-54
 SHOW H323 ENTRY 29-55
 SHOW H323 GATEWAY 29-56
 SHOW HTTP CLIENT 5-50
 SHOW HTTP DEBUG 5-51
 SHOW HTTP SERVER 5-52
 SHOW HTTP SESSION 5-53
 SHOW IGMP FILTER 24-92
 SHOW IGMP SNOOPING 24-94
 SHOW IGMP SNOOPING COUNTER 24-96
 SHOW IGMP SNOOPING ROUTERADDRESS 24-98
 SHOW INSTALL 5-54
 SHOW INTERFACE 9-72
 SHOW IP 22-176
 SHOW IP ARP 22-181
 SHOW IP DEBUG 22-192
 SHOW IP FILTER 22-196
 SHOW IP HELPER 22-198
 SHOW IP HOST 22-200
 SHOW IP IGMP 24-99
 SHOW IP IGMP COUNTER 24-102
 SHOW IP INTERFACE 22-202
 SHOW IP POOL 22-211
 SHOW IP RIP 25-19
 SHOW IP RIP COUNTER 25-21
 SHOW IP RIPTIMER 25-24
 SHOW IP ROUTE 22-213
 SHOW IP ROUTE FILTER 28-76
 SHOW IP ROUTE MULTICAST 22-217
 SHOW IP ROUTE TEMPLATE 22-219
 SHOW IP TRUSTED 25-25
 SHOW IP UDP 22-222
 SHOW IPSEC 48-114



SHOW IPSEC BUNDLESPECIFICATION 48-115
 SHOW IPSEC COUNTERS 48-118
 SHOW IPSEC POLICY 48-134, 48-138
 SHOW IPSEC SA 48-143
 SHOW IPSEC SASPECIFICATION 48-151
 SHOW IPV6 31-75
 SHOW IPV6 COUNTER 31-77
 SHOW IPV6 FILTER 31-81
 SHOW IPV6 HOST 31-83
 SHOW IPV6 INTERFACE 31-84
 SHOW IPV6 MLD 33-40
 SHOW IPV6 MLD CONFIG 33-42
 SHOW IPV6 MLD COUNTERS 33-43
 SHOW IPV6 MLD DEBUG 33-44
 SHOW IPV6 MULTICAST 31-86
 SHOW IPV6 ND 31-87
 SHOW IPV6 RIP 31-90
 SHOW IPV6 ROUTE 31-92
 SHOW IPV6 TUNNEL 31-95
 SHOW IPX 36-57
 SHOW IPX CACHE 36-59
 SHOW IPX CALLLOG 36-60
 SHOW IPX CIRCUIT 36-63
 SHOW IPX COUNTER 36-65
 SHOW IPX EXCLUSION 36-69
 SHOW IPX INCLUSION 36-70
 SHOW IPX RIP 36-71
 SHOW IPX ROUTE 36-72
 SHOW IPX SAP 36-73
 SHOW IPX SERVICE 36-75
 SHOW IPX SPX SPOOF 36-76
 SHOW ISAKMP 48-153
 SHOW ISAKMP COUNTERS 48-155
 SHOW ISAKMP EXCHANGE 48-185
 SHOW ISAKMP POLICY 48-192
 SHOW ISAKMP SA 48-197
 SHOW ISDN CALL 11-139
 SHOW ISDN CLILIST 11-143
 SHOW ISDN DOMAINNAME 11-144
 SHOW ISDN LOG 11-145
 SHOW L2TP 20-48
 SHOW L2TP CALL 20-50
 SHOW L2TP IP 20-55
 SHOW L2TP TUNNEL 20-56, 20-59
 SHOW L2TP USER 20-67
 SHOW LAPB 13-75
 SHOW LAPD 11-147
 SHOW LAPD COUNT 11-150
 SHOW LAPD STATE 11-151
 SHOW LOADBALANCER 51-48
 SHOW LOADBALANCER AFFINITY 51-50
 SHOW LOADBALANCER CONNECTIONS 51-52
 SHOW LOADBALANCER REDUNDANCY 51-53
 SHOW LOADBALANCER RESOURCE 51-56
 SHOW LOADBALANCER RESPOOL 51-59
 SHOW LOADBALANCER VIRTUALBALANCER 51-61
 SHOW LOG 60-37 to 60-38
 SHOW LOG COUNTERS 60-43
 SHOW LOG OUTPUT 60-45, 60-47
 SHOW LOG QUEUE 60-49, 60-52
 SHOW LOG RECEIVE 60-50
 SHOW LOG STATUS 60-52
 Logging Facility 60-52
 SHOW MAIL 4-48
 SHOW MANAGER PORT 41-62
 SHOW MIOX 13-80
 SHOW MIOX CIRCUIT 13-83
 SHOW MIOX COUNT 13-81
 SHOW NTP 57-11
 SHOW OSPF 26-76
 SHOW OSPF AREA 26-79
 SHOW OSPF DEBUG 26-82
 SHOW OSPF HOST 26-83
 SHOW OSPF INTERFACE 26-85
 SHOW OSPF LSA 26-90
 SHOW OSPF NEIGHBOURS 26-96
 SHOW OSPF RANGE 26-98
 SHOW OSPF ROUTE 26-101
 SHOW OSPF STUB 26-103
 SHOW OSPF SUMMARYADDRESS 26-104
 SHOW PATCH 5-60
 SHOW PERM 62-9
 SHOW PIM 24-105
 SHOW PIM BSRCANDIDATE 24-106
 SHOW PIM COUNTERS 24-108
 SHOW PIM DEBUG 24-111
 SHOW PIM INTERFACE 24-112
 SHOW PIM NEIGHBOUR 24-114
 SHOW PIM ROUTE 24-115
 SHOW PIM RPCANDIDATE 24-121
 SHOW PIM RPSET 24-122
 SHOW PIM STATEREFRESH 24-124
 SHOW PIM TIMER 24-125
 SHOW PIM6 BSRCANDIDATE 33-46
 SHOW PIM6 CONFIG 33-47
 SHOW PIM6 COUNTERS 33-48
 SHOW PIM6 DEBUG 33-51
 SHOW PIM6 INTERFACE 33-52
 SHOW PIM6 NEIGHBOUR 33-54
 SHOW PIM6 ROUTE 33-55
 SHOW PIM6 RPCANDIDATE 33-60
 SHOW PIM6 RPSET 33-61
 SHOW PIM6 STATEREFRESH 33-63
 SHOW PIM6 TIMER 33-64
 SHOW PING 22-224
 SHOW PING POLL 54-17
 SHOW PKI 49-33
 SHOW PKI CERTIFICATE 49-40
 SHOW PKI CRL 49-43
 SHOW PKI ENROLLMENTREQUEST 49-46
 SHOW PKI KEYUPDATEREQUEST 49-48
 SHOW PKI LDAPREPOSITORY 49-50
 SHOW PORTAUTH 43-47
 SHOW PORTAUTH PORT 43-52
 SHOW PORTAUTH PORT MULTISUPPLICANT 43-58
 SHOW PORTAUTH TIMER 43-63
 SHOW PPP 15-98
 SHOW PPP CONFIG 15-99
 SHOW PPP COUNT 15-105
 SHOW PPP DEBUG 15-118



- SHOW PPP IDLETIMER 15-119
- SHOW PPP LIMITS 15-120
- SHOW PPP MULTILINK 15-121
- SHOW PPP NAMESERVER 15-123
- SHOW PPP TEMPLATE 15-124
- SHOW PPP TXSTATUS 15-130
- SHOW PPP UTILISATION 15-132
- SHOW PRI CONFIGURATION 11-152
- SHOW PRI COUNTERS 11-153
- SHOW PRI CTEST 11-163
- SHOW PRI DEBUG 11-164
- SHOW PRI STATE 11-165
- SHOW PRI TEST 11-171
- SHOW Q931 11-173
- SHOW Q931 SPID 11-176
- SHOW RADIUS 41-63
- SHOW RELEASE 5-61
- SHOW RSVP 40-23
- SHOW RSVP COUNTER 40-24
- SHOW RSVP INTERFACE 40-27
- SHOW RSVP PATH 40-28
- SHOW RSVP PROXY 40-29
- SHOW RSVP PROXY COUNTER 40-31
- SHOW RSVP RESV 40-32
- SHOW SA 48-202
- SHOW SA COUNTER 48-205
- SHOW SA USER 48-211
- SHOW SCRIPT 58-14
- SHOW SERVICE 61-27
- SHOW SESSION 61-28
- SHOW SIP 29-57
- SHOW SIP GATEWAY 29-58
- SHOW SNMP 55-49, 55-52
- SHOW SNMP COMMUNITY 55-52
- SHOW SNMP GROUP 55-53
- SHOW SNMP TARGETADDR 55-54
- SHOW SNMP TARGETPARAMS 55-55
- SHOW SNMP USER 55-56
- SHOW SNMP VIEW 55-57
- SHOW SSH 44-21
- SHOW SSH SESSIONS 44-30
- SHOW SSH USER 44-33
- SHOW SSL 45-12
- SHOW SSL COUNTERS 45-14
- SHOW SSL SESSIONS 45-22
- SHOW STAR 50-19, 50-21, 50-26 to 50-27
- SHOW STARTUP 4-49
- SHOW STT 17-8
- SHOW SWITCH 8-42
- SHOW SWITCH COUNTER 8-44
- SHOW SWITCH DEBUG 8-43
- SHOW SWITCH PORT 8-47
- SHOW SWITCH QOS 8-53
- SHOW SYN 9-78
- SHOW SYN COUNTERS 9-80
- SHOW SYSTEM 4-51
- SHOW SYSTEM SERIALNUMBER 4-54
- SHOW TACACS SERVER 41-68
- SHOW TCP 22-226
- SHOW TDM 12-12
- SHOW TEST 63-13
- SHOW TIME 4-55
- SHOW TPAD 18-28
- SHOW TPAD COUNTERS 18-33
- SHOW TPAD PORTS 18-31
- SHOW TRACE 22-231
- SHOW TRIGGER 59-24
- SHOW TTY 61-30
- SHOW USER 41-73
- SHOW USER RSO 41-78
- SHOW VLAN 8-54
- SHOW VLAN DEBUG 8-56
- SHOW VOIP 29-59
- SHOW VOIP COUNTER ENGINE 29-61
- SHOW VOIP LOAD 29-65
- SHOW VOIP PHONE 29-67
- SHOW VRRP 53-25
- SHOW X25C 13-87
- SHOW X25C COUNTER 13-89
- SHOW X25C DTEADDRESS 13-92
- SHOW X25C HUNTGROU 13-93
- SHOW X25C PATH 13-94
- SHOW X25C ROUTE 13-95
- SHOW X25C STATE 13-96
- SHOW X25T 13-98
- SHOW X25T CPAR 13-103
- Simple Network Management Protocol (SNMP)
 - 55-25 to 55-58
- SSH 44-35
- STOP PING 22-233
- STOP TRACE 22-233
- Switch 8-25, 38-3
- synchronous lines 14-26
- TELNET 61-34
- terminal server 61-15, 61-25
- TRACE 22-234
- UPLOAD 5-62
- WAIT 58-11, 58-15
- X.25 13-38
- common D channel signalling, ISDN 11-30
- COMMUNITY command 55-35
- community, SNMP 55-11
- compacting FLASH memory 6-7
- Compressed Serial Line Internet Protocol (CSLIP) 9-16, 19-4
 - See also Van Jacobson's header compression
 - encapsulation, asynchronous ports 9-16, 19-4
- Compression 48-5
- compression 42-2
 - commands
 - DELETE USER RSO 41-40
 - DISABLE USER RSO 41-43
 - ENABLE USER RSO 41-49
 - SHOW USER RSO 41-78
 - Compression Control Protocol (CCP) 42-16
 - header 42-4
 - history 42-2
 - Lempel-Ziv algorithm 42-2
 - link 42-3
 - lossless 42-2
 - lossy 42-2

- A B C D E F G H I J K L M N O P Q R S T U V W X Y Z**
- over Frame Relay 14-15
 - disabling debugging 14-35 to 14-36
 - enabling debugging 14-41 to 14-42
 - payload 42-3
 - Point-to-Point Protocol (PPP) 15-40
 - Predictor 42-11
 - compression. See Compression and Encryption Services; Link Compression and Encryption; IP Security (IPsec)
 - Compression and Encryption Services 42-1 to 42-55
 - See also Link Compression and Encryption; IP Security (IPsec)
 - See also IP Security (IPsec)
 - authentication 42-8
 - HMAC 42-8
 - MD5 42-8
 - SHA 42-8
 - channels
 - ENCO 42-30
 - checksum 42-4
 - Cipher Block Chaining (CBC) encryption algorithm 42-5
 - Cipher Feedback (CFB) encryption algorithm 42-5
 - cipher text 42-4
 - commands
 - CREATE ENCO KEY 42-19
 - DESTROY ENCO KEY 42-21
 - DISABLE ENCO COMPSTATISTICS 42-22
 - DISABLE ENCO DEBUGGING 42-22
 - ENABLE ENCO COMPSTATISTICS 42-22
 - ENABLE ENCO DEBUGGING 42-23
 - RESET ENCO COUNTERS 42-24
 - SET ENCO DHPADDING 42-25
 - SET ENCO DHPRIORITY 42-25
 - SET ENCO KEY 42-26
 - SET ENCO SW 42-27
 - SHOW ENCO CHANNEL 42-30
 - SHOW ENCO COUNTERS 42-36
 - SHOW ENCO KEY 42-53 to 42-54
 - compression
 - Predictor 42-27
 - software 42-11, 42-27
 - speed 42-27
 - STAC LZS 42-27
 - statistics 42-22
 - counters
 - displaying 42-36
 - resetting 42-24
 - creating
 - encryption keys 42-19
 - data authentication 42-8
 - data compression 42-2 to 42-4
 - data encryption 42-4 to 42-7
 - debugging
 - disabling ENCO 42-22
 - enabling ENCO 42-23
 - decommissioning 42-15
 - Diffie-Hellman key exchange algorithm 42-9
 - disabling
 - debugging 42-22
 - displaying
 - ENCO counters 42-36
 - displaying counters 42-36
 - Electronic Code Book (ECB) encryption algorithm 42-5
 - enabling
 - debugging 42-23
 - ENCO channels 42-30
 - ENCO services ?? to 42-14, 42-30
 - encryption
 - Cipher Block Chaining (CBC) 42-5
 - Cipher Feedback (CFB) 42-5
 - cipher text 42-4
 - creating keys 42-19
 - decommissioning 42-15
 - Electronic Code Book (ECB) 42-5
 - link 42-7
 - network 42-7
 - Output Feedback (OFB) 42-5
 - payload 42-7
 - plain text 42-4
 - Triple DES 42-5
 - Triple DES inner CBC mode 42-6
 - Triple DES outer CBC mode 42-6
 - hardware support 42-9
 - HMAC authentication algorithm 42-8
 - key creation and storage 42-19
 - key exchange
 - algorithms 42-9
 - link encryption 42-7
 - MD5 authentication algorithm 42-8
 - network encryption 42-7
 - Output Feedback (CFB) encryption algorithm 42-5
 - payload encryption 42-7, 42-16
 - plain text 42-4
 - Predictor compression 42-27
 - resetting
 - ENCO counters 42-24
 - resetting counters 42-24
 - services ?? to 42-14, 42-30
 - SHA authentication algorithm 42-8
 - software compression 42-11, 42-27
 - speed, software compression 42-27
 - STAC LZS compression 42-27
 - statistics, compression 42-22
 - Triple DES encryption 42-5
 - Triple DES inner CBC mode encryption algorithm 42-6
 - Triple DES outer CBC mode encryption algorithm 42-6
 - user modules (ENCO)
 - VPNNet 42-16
 - VPNNet 42-16
 - Compression and Encryption Services (ENCO) 42-10
 - access control 42-15
 - authentication
 - services 42-12
 - compression 42-11
 - encryption 42-12
 - key formats 42-13
 - formats, encryption keys 42-13
 - Frame Relay 42-17
 - key creation and storage 42-13
 - key exchange
 - services 42-12



- key formats, encryption 42-13
- PPP 42-16
- Predictor compression 42-11
- Secure Shell 42-16
- security 42-15
- services
 - authentication 42-12
 - key creation and storage 42-13
 - key exchange 42-12
- STAC LZS compression 42-11
- user modules
 - Frame Relay 42-17
 - IP 42-16
 - PPP 42-16
 - Secure Shell 42-16
 - X.25 42-17
- X.25 42-17
- Compression protocol, IPsec 48-5
- compression statistics 42-22
- compression, IPsec 48-5
- compression, stateful 48-5
- compression, stateless 48-5
- cone NAT 46-25
- configFile MIB object C-21
- configFileExist MIB object C-21
- configFileExistTrap trap message C-21
- configuration
 - asynchronous ports 9-16
 - DECnet 37-28
 - displaying dynamic 5-46
 - Ethernet 9-37
 - examples
 - finger client 22-41
 - Frame Relay 14-19
 - Internet Protocol (IP) 22-41, 22-54, 25-5
 - permanent assignments 62-4
 - finger client 22-41
 - Frame Relay 14-16, 14-52
 - examples 14-19
 - Internet Protocol (IP) 22-41, 22-54, 25-5
 - examples 22-54, 25-5
 - IPX 36-17
 - OSPF 26-20, 26-76
 - saving dynamic 5-22
 - setting default 5-38
- Configuration example 47-9
- configuration example 45-7, 51-18
 - configure the firewall policy for the load balancer's interfaces 51-19
 - configure the load balancer 51-20
 - create interfaces for the load balancer 51-18
- configuration examples
 - AODI 11-46
 - asynchronous call control (ACC) 19-10
 - asynchronous services 61-10
 - DECnet 37-9
 - DHCP 23-7
 - DHCP for IPv6 32-7
 - DVMRP 24-29
 - firewall 46-53
 - GRE 30-5
 - IGMP 24-29, 24-35
 - IPsec 48-31
 - IPv4 Multicasting 24-29, 24-35
 - IPv6 Multicasting 33-13
 - Layer Two Tunnelling Protocol (L2TP) 20-12
 - Logging Facility 60-10
 - mail subsystem 4-11
 - Multicast Listener Discovery (MLD) 33-13
 - PKI 49-11 to 49-15
 - enrollment with CMP 49-14
 - manual enrollment 49-11
 - Point-to-Point Protocol (PPP) 15-34
 - Protocol Independent Multicasting (PIM), IPv4 24-35
 - Protocol Independent Multicasting (PIM), IPv6 33-13
 - Secure Shell 44-6
 - services 61-10
 - SNMP 55-24
 - switching 8-20
 - terminal server 61-10
 - Time Division Multiplexing (TDM) 12-5
 - TPAD 18-10 to 18-13
 - configuring X.25 18-10
 - creating TPAD instances 18-12
 - VLAN 8-20
- configuring
 - asynchronous ports 19-3
 - Basic Rate Access, ISDN 11-16
 - DHCP 23-7
 - ISDN 11-49
 - NTP 57-4
 - permanent assignments 62-3
 - Primary Rate Access, ISDN 11-21
- configuring WAN load balancing 52-11
- Conformance group, DS1/E1/DS2/E2 Interface Types MIB C-51
- Conformance group, SHDSL MIB C-43
- congestion control
 - Frame Relay networks 14-14, 14-34, 14-39
- congestion control scheme
 - Frame Relay networks 14-12
- congestion detection
 - Frame Relay networks 14-10
- CONNECT ASYN command 9-25
- CONNECT command 61-16
- CONNECT PORT command 9-25
- contact name
 - displaying 4-51
 - setting 4-29
- Control 47-5
- Control points 47-4
- control protocols, Point-to-Point Protocol 15-4 to 15-6
- control structures, in scripts 58-5, 58-11
- conventions, file naming 6-2, 6-5
- converting old SAs to IPsec 48-20, 48-47
- cookie
 - name 51-7
 - Set Cookie header 51-7
 - value
 - definition 51-7



- coprocessor engine
 - commands
 - DELETE USER RSO 41-40
 - DISABLE USER RSO 41-43
 - ENABLE USER RSO 41-49
 - SHOW USER RSO 41-78
- costs, DECnet 37-6
- counters
 - DECnet 37-6, 37-29
 - displaying
 - ENCO 42-36
 - IPsec 48-118
 - ISAKMP 48-155
 - Security Association 48-205
 - switch 8-44
 - displaying PPP activity 15-30
 - displaying TPAD 18-6, 18-33
 - ENCO
 - displaying 42-36
 - resetting 42-24
 - ETH 9-37, 9-62
 - Ethernet 9-37
 - Frame Relay 14-15, 14-52
 - Frame Relay DLC 14-62
 - Frame Relay logical interface 14-70
 - IPsec
 - displaying 48-118
 - resetting 48-88
 - IPsec policy
 - resetting 48-89
 - IPsec SA
 - resetting 48-90
 - IPX 36-16, 36-65
 - ISAKMP
 - displaying 48-155
 - resetting 48-91
 - OSPF 26-56
 - Point-to-Point Protocol (PPP) 15-30
 - resetting
 - ENCO 42-24
 - IPsec 48-88
 - IPsec policy 48-89
 - IPsec SA 48-90
 - ISAKMP 48-91
 - resetting PPP activity 15-30, 15-82
 - Security Association
 - displaying 48-205
 - switch 8-44
 - synchronous interfaces 9-39, 9-80
 - X.25 DCE 13-13, 13-89
- cpu MIB object C-16
- CPU utilisation 4-8, 4-38
 - resetting 4-25
- CREATE CONFIG command 5-22
- CREATE DHCP POLICY command 23-20
- CREATE DHCP RANGE command 23-21, 23-47
- CREATE ENCO KEY command 42-19
- CREATE FIREWALL POLICY command 46-98
- CREATE FIREWALL POLICY DYNAMIC command 46-99
- CREATE FRAMERELAY command 14-29
- CREATE H323 command 29-25
- CREATE H323 ENTRY command 29-27
- CREATE IGMP FILTER command 24-52
- CREATE IP POOL command 22-96
- CREATE IPSEC BUNDLESPECIFICATION command 48-49
- CREATE IPSEC POLICY command 48-51
- CREATE IPSEC SASPECIFICATION command 48-59
- CREATE IPV6 INTERFACE command 31-52
- CREATE ISAKMP POLICY command 48-62
- CREATE LAPB command 13-47
- CREATE LOG OUTPUT command 60-19
- CREATE PKI ENROLLMENTREQUEST command 49-21
- CREATE PKI KEYUPDATEREQUEST command 49-22
- CREATE PPP command 15-54
- CREATE PPP TEMPLATE command 15-63
- CREATE RSVP PROXY command 40-9
- CREATE SA command 48-70
- CREATE SERVICE command 61-17
- CREATE SIP command 29-28
- CREATE SNMP COMMUNITY command 55-33
- CREATE STAR command 50-13
- CREATE TDM command 12-9
- CREATE TPAD command 18-18
- CREATE TRIGGER command 59-8
- CREATE VRRP command 53-14
- CREATE X25C command 13-49
- CREATE X25C HUNTGROU command 13-51
- CREATE X25T command 13-52
- createConfigFile MIB object C-21
- creating
 - asynchronous calls 19-2, 19-17
 - call definitions, asynchronous 19-2, 19-17
 - encryption keys 42-19
 - files 6-4
 - Frame Relay
 - interfaces 14-29
 - IP address pools 22-96
 - IPsec bundle specifications 48-49
 - IPsec policies 48-51
 - IPsec SA specifications 48-59
 - ISAKMP policies 48-22, 48-62
 - master key table 50-8
 - network keys 50-7
 - PKI enrollment requests 49-21
 - PKI Key Update requests 49-22
 - PPP interfaces 15-54
 - PPP templates 15-63
 - RSVP proxy agent 40-7, 40-9
 - Security Associations 48-70
 - star entities 50-7
 - templates 15-63
 - TPAD instances 18-5, 18-18
- CRL. See Certificate Revocation List (CRL)
- CSLIP. See Compressed Serial Line Internet Protocol (CSLIP)
- currentConfigFile MIB object C-21

**D**

- data authentication. See Compression and Encryption Services
- Data Communication Equipment (DCE) 13-3
- Data Encryption Standard (DES) 42-5
- Data Link Connection Management Interface group, Frame Relay DTE MIB C-48
- Data Link Connection Management Interface table, Frame Relay DTE MIB C-48
- data over voice 11-48
- Data Terminal Equipment (DTE) 13-3
- datagrams, AppleTalk 35-7
- date
 - displaying 4-55
 - setting 4-32
- DDP. See AppleTalk: Datagram Delivery Protocol (DDP)
- DEACTIVATE ACC CALL command 19-22
- DEACTIVATE ISDN CALL command 11-73
- DEACTIVATE L2TP CALL command 20-28
- DEACTIVATE MIOX CIRCUIT command 13-54
- DEACTIVATE SCRIPT command 58-9
- deactivating
 - asynchronous calls 19-8, 19-22
- debug
 - switch
 - disabling 8-29
 - displaying 8-43
 - enabling 8-32
 - VLAN
 - disabling 8-30
 - displaying 8-56
 - enabling 8-34
- debugging 4-10
 - asynchronous calls 19-25 to 19-26
 - calls, asynchronous 19-25 to 19-26
 - disabling
 - ENCO 42-22
 - enabling
 - ENCO 42-23
 - ENCO
 - disabling 42-22
 - enabling 42-23
 - firewall 46-46
 - Frame Relay 14-52
 - Frame Relay DLCs 14-36, 14-42
 - Frame Relay interfaces 14-34, 14-40
 - Frame Relay logical interfaces 14-37, 14-44
 - mail 4-21
 - OSPF 26-49, 26-51
 - PPP interfaces 15-73, 15-77
 - PPP links 15-31, 15-118
 - PPP templates 15-75, 15-80
 - priority-based routing 9-28, 9-31
 - router 4-40
 - synchronous interfaces 9-30, 9-33
 - templates 15-75, 15-80
 - X.25 DCE interfaces 13-13, 13-61 to 13-62
- debugging, AppleTalk 35-17
- debugging, Internet Protocol (IP) 22-39 to 22-40, 22-110, 22-123, 22-192
- debugging, IPX 36-15
- DECnet 37-1 to 37-35
 - adding
 - exclusions 37-5, 37-14
 - inclusions 37-5, 37-15
 - interfaces 37-16
 - low priority nodes 37-17
 - address 37-3, 37-24
 - area 37-2
 - area routing nodes 37-2, 37-24
 - broadcast timer 37-6, 37-24, 37-28
 - commands 37-13
 - ADD DECNET EXCLUSION 37-14
 - ADD DECNET INCLUSION 37-15
 - ADD DECNET INTERFACE 37-16
 - ADD DECNET LPN 37-17
 - DELETE DECNET EXCLUSION 37-18
 - DELETE DECNET INCLUSION 37-19
 - DELETE DECNET INTERFACE 37-20
 - DELETE DECNET LPN 37-21
 - DISABLE DECNET 37-21
 - ENABLE DECNET 37-22
 - PURGE DECNET 37-22
 - RESET DECNET 37-23
 - SET DECNET 37-24
 - SET DECNET INTERFACE 37-27
 - SHOW DECNET 37-28
 - SHOW DECNET COUNTER 37-29
 - SHOW DECNET EXCLUSION 37-31
 - SHOW DECNET INCLUSION 37-32
 - SHOW DECNET INTERFACE 37-33
 - SHOW DECNET LPN 37-34
 - SHOW DECNET ROUTE 37-35
 - configuration 37-28
 - configuration examples 37-9
 - costs 37-6
 - counters 37-6, 37-29
 - default router 37-4
 - deleting
 - exclusions 37-5, 37-18
 - inclusions 37-5, 37-19
 - interfaces 37-20
 - low priority nodes 37-21
 - disable module 37-21
 - displaying
 - counters 37-29
 - exclusions 37-5, 37-31
 - filters 37-5, 37-31 to 37-32
 - inclusions 37-5, 37-32
 - interfaces 37-33
 - low priority nodes 37-34
 - routes 37-35
 - timers 37-28
 - enable module 37-22
 - end nodes 37-2
 - example configurations 37-9
 - exclusion filters 37-5, 37-14, 37-18, 37-31
 - filters 37-5, 37-14 to 37-15, 37-18 to 37-19, 37-31 to 37-32
 - Hello timer 37-6, 37-24, 37-28



- inclusion filters *37-5, 37-15, 37-19, 37-32*
- interface
 - adding *37-16*
 - changing *37-27*
 - deleting *37-20*
 - displaying *37-33*
 - modifying *37-27*
 - setting *37-27*
- low priority nodes *37-17, 37-21*
 - displaying *37-34*
- LPN *37-17, 37-21, 37-34*
- MAC address *37-3, 37-24*
- MIB *37-6, 37-29*
- modifying interfaces *37-27*
- node *37-2*
- node address *37-3, 37-24*
- priority *37-4, 37-24*
- purge configuration database *37-22*
- reinitialise module *37-23*
- reset module *37-23*
- router type *37-2, 37-24*
- routes *37-5, 37-35*
- routing *37-5*
- routing nodes *37-2, 37-24*
- routing timer *37-6, 37-24, 37-28*
- timers *37-6, 37-24, 37-28*
- Type 1 routing nodes *37-2, 37-24*
- Type 2 routing nodes *37-2, 37-24*
- decommissioning, encryption hardware *42-15*
- default configuration, setting *5-38*
- default router (DECnet) *37-4*
- delete *52-18 to 52-19*
- DELETE ACC CALL command *19-23*
- DELETE ACC DOMAINNAME command *19-23*
- DELETE ACC SCRIPT command *19-24*
- DELETE ALIAS command *2-13*
- DELETE APPLE CIRCUIT command *35-32*
- DELETE APPLE DLCI command *35-33*
- DELETE APPLE PACKETFILTER command *35-34*
- DELETE APPLE PORT command *35-34*
- DELETE APPLE ROUTE command *35-16, 35-35*
- DELETE APPLE ROUTEFILTER command *35-35*
- DELETE APPLE ZONE command *35-36*
- DELETE APPLE ZONEFILTER command *35-37*
- DELETE BGP AGGREGATE command *27-67*
- DELETE BGP CONFEDERATIONPEER command *27-68*
- DELETE BGP IMPORT command *27-68*
- DELETE BGP NETWORK command *27-69*
- DELETE BGP PEER command *27-69*
- DELETE BOOTP RELAY command *23-22*
- DELETE BRIDGE FILTER command *16-35*
- DELETE BRIDGE GROUP command *16-35*
- DELETE BRIDGE PORT command *16-36*
- DELETE BRIDGE PROTOCOL command *16-36*
- DELETE BRIDGE STATION command *16-37*
- DELETE CLNS ADJACENCY command *34-17*
- DELETE CLNS AREA command *34-18*
- DELETE CLNS CIRCUIT command *34-18*
- DELETE CLNS RA command *34-19*
- DELETE DECNET EXCLUSION *37-18*
- DELETE DECNET INCLUSION command *37-19*
- DELETE DECNET INTERFACE command *37-20*
- DELETE DECNET LPN command *37-21*
- DELETE DHCP POLICY command *23-24*
- DELETE DHCP RANGE command *23-28*
- DELETE DVMRP INTERFACE command *24-53*
- DELETE FILE command *6-14*
- DELETE FIREWALL POLICY APPRULE command *46-100*
- DELETE FIREWALL POLICY DYNAMIC command *46-101*
- DELETE FIREWALL POLICY INTERFACE command *46-103*
- DELETE FIREWALL POLICY LIST command *46-105*
- DELETE FIREWALL POLICY NAT command *46-106*
- DELETE FIREWALL POLICY RULE command *46-109*
- DELETE FIREWALL SESSION command *46-111*
- DELETE FRAMERELAY DLC command *14-32*
- DELETE FRAMERELAY LI *14-32*
- DELETE GRE command *30-4, 30-15*
- DELETE IGMP FILTER command *24-54*
- DELETE IGMPSPNOOPING ROUTERADDRESS command *24-54*
- DELETE INSTALL command *5-23*
- DELETE IP ARP command *22-96*
- DELETE IP ASPATHLIST command *28-57*
- DELETE IP COMMUNITYLIST command *28-58*
- DELETE IP FILTER command *22-98*
- DELETE IP HELPER command *22-99*
- DELETE IP HOST command *22-100*
- DELETE IP INTERFACE command *22-101*
- DELETE IP NAT command *22-103*
- DELETE IP RIP command *25-12*
- DELETE IP ROUTE command *22-105*
- DELETE IP ROUTE FILTER command *28-59*
- DELETE IP ROUTE TEMPLATE command *22-106*
- DELETE IP ROUTEMAP *28-60*
- DELETE IP SA command *22-107*
- DELETE IP TRUSTED command *25-13*
- DELETE IPV6 FILTER command *31-53*
- DELETE IPV6 HOST command *31-54*
- DELETE IPV6 INTERFACE command *31-54*
- DELETE IPV6 RIP command *31-57*
- DELETE IPV6 ROUTE command *31-58*
- DELETE IPV6 TUNNEL command *31-59*
- DELETE IPX CIRCUIT command *36-42*
- DELETE IPX EXCLUSION command *36-43*
- DELETE IPX INCLUSION command *36-44*
- DELETE IPX RIP command *36-45*
- DELETE IPX ROUTE command *36-45*
- DELETE IPX SAP command *36-46*
- DELETE IPX SERVICE command *36-47*
- DELETE ISDN CALL command *11-73*
- DELETE ISDN CLILIST command *11-74*
- DELETE ISDN DOMAINNAME command *11-74*
- DELETE L2TP CALL command *20-28*
- DELETE L2TP IP command *20-29*
- DELETE L2TP USER command *20-31*
- DELETE LAPD TEI command *11-75*
- DELETE LAPD XSPID command *11-76*
- DELETE LAPD XTEI command *11-77*
- DELETE LOADBALANCER RESOURCE command *51-28*
- DELETE LOADBALANCER RESPOOL command *51-29*



- DELETE LOADBALANCER VIRTUALBALANCER command 51-30
- DELETE LOADBALANCER VIRTUALBALANCER HTTPERROR-CODE command 51-31
- DELETE LOG OUTPUT command 60-23
- DELETE LOG RECEIVE command 60-23
- DELETE MAIL command 4-15
- DELETE MIOX CIRCUIT command 13-55
- DELETE NTP PEER command 57-8
- DELETE OSPF AREA command 26-42
- DELETE OSPF HOST command 26-42
- DELETE OSPF INTERFACE command 26-43
- DELETE OSPF NEIGHBOUR command 26-45
- DELETE OSPF RANGE command 26-45
- DELETE OSPF STUB command 26-47
- DELETE OSPF SUMMARYADDRESS command 26-48
- DELETE PERM command 62-7
- DELETE PIM BSRCANDIDATE command 24-55
- DELETE PIM INTERFACE command 24-56
- DELETE PIM RPCANDIDATE command 24-57
- DELETE PIM6 BSRCANDIDATE command 33-26
- DELETE PIM6 INTERFACE command 33-26
- DELETE PIM6 RPCANDIDATE command 33-27
- DELETE PING POLL command 54-11
- DELETE PKI CERTIFICATE command 49-23
- DELETE PKI CRL command 49-23
- DELETE PKI LDAPREPOSITORY command 49-24
- DELETE PPP ACSERVICE command 15-71
- DELETE PPP command 15-70
- DELETE RADIUS SERVER command 41-37
- DELETE SA MEMBER command 48-71
- DELETE SCRIPT command 58-10
- DELETE SNMP COMMUNITY command 55-35
- DELETE SNMP GROUP command 55-36
- DELETE SNMP TARGETADDR command 55-36
- DELETE SNMP TARGETPARAMS command 55-37
- DELETE SNMP USER command 55-37
- DELETE SNMP VIEW command 55-38
- DELETE SSH USER command 44-12
- DELETE STT command 17-6
- DELETE TACACS SERVER command 41-38
- DELETE TCP command 22-108
- DELETE TDM command 12-10
- DELETE TPAD command 18-21
- DELETE TRIGGER command 59-15
- DELETE USER command 41-39
- DELETE USER RSO command 41-40
- DELETE VLAN BRIDGE command 16-38
- DELETE VLAN PORT command 8-27
- DELETE VRRP IP command 53-17
- DELETE VRRP MONITOREDINTERFACE command 53-18
- DELETE WANLB Resource command 52-18 to 52-19
- DELETE X25C DTEADDRESS command 13-56
- DELETE X25C HUNTGROUP command 13-57
- DELETE X25C ROUTE command 13-58
- DELETE X25T CPAR command 13-58
- deleting
 - access lists, firewall 46-109
 - aliases 2-13
 - asynchronous calls 19-3, 19-23
 - call definitions, asynchronous 19-3, 19-23
 - domain name 11-44, 11-74, 19-10, 19-23
 - files 6-14
 - firewall rules 46-109
 - FLASH files 6-14
 - Frame Relay
 - DLCs 14-32
 - logical interfaces 14-32
 - install information 5-23
 - interfaces from firewall 46-6, 46-103
 - mail messages 4-10, 4-15
 - members from Security Associations 48-71
 - NAT translations, firewall 46-106
 - NTP peer 57-8
 - permanent assignments 62-7
 - physical links from PPP interfaces 15-70
 - PKI Certificates 49-23
 - PKI LDAP repositories 49-24
 - ports from TPAD 18-6, 18-21
 - PPP interfaces 15-71
 - route templates 22-106
 - synchronous tunnel 17-6
- deprecated status 55-8
- Description 47-5
- descriptor 55-6
- descriptor, MIB object 55-6
- designated bridge 16-15
- designated router, OSPF 26-5, 26-7, 26-32 to 26-33, 26-36, 26-45, 26-68, 26-70, 26-85
- designated router, PIM Sparse Mode 24-11
 - setting PIM DR priority, IPv4 24-82
 - setting PIM DR priority, IPv6 33-24, 33-38
- destination lookup failure packet limiting 8-6
- DESTROY CLASSIFIER command 38-15
- DESTROY DHCP POLICY command 23-29
- DESTROY DHCP RANGE command 23-29
- DESTROY ENCO KEY command 42-21
- DESTROY FIREWALL POLICY command 46-112
- DESTROY FIREWALL POLICY DYNAMIC command 46-112
- DESTROY FRAMERELAY command 14-33
- DESTROY H323 command 29-30
- DESTROY H323 ENTRY command 29-31
- DESTROY IGMP FILTER command 24-58
- DESTROY IP POOL command 22-108
- DESTROY IPSEC BUNDLESPECIFICATION command 48-71
- DESTROY IPSEC POLICY command 48-72
- DESTROY IPSEC SASPECIFICATION command 48-73
- DESTROY IPV6 INTERFACE command 31-60
- DESTROY ISAKMP POLICY command 48-73
- DESTROY LAPB command 13-59
- DESTROY LOG OUTPUT command 60-24
- DESTROY PKI ENROLLMENTREQUEST command 49-24
- DESTROY PKI KEYUPDATEREQUEST command 49-25
- DESTROY PPP command 15-71
- DESTROY PPP TEMPLATE command 15-72
- DESTROY RSVP PROXY command 40-12
- DESTROY SA command 48-74
- DESTROY SERVICE command 61-18
- DESTROY SIP command 29-32
- DESTROY SNMP COMMUNITY command 55-39



- DESTROY STAR command 50-14
- DESTROY TDM command 12-11
- DESTROY TPAD command 18-21
- DESTROY TRIGGER command 59-15
- DESTROY VLAN command 8-28
- DESTROY VRRP command 53-19
- DESTROY X25C command 13-59
- DESTROY X25C HUNTGROU command 13-60
- DESTROY X25T command 13-60
- destroying
 - Frame Relay
 - interfaces 14-33
 - IP address pools 22-108
 - IPsec policies 48-72
 - IPsec SA specifications 48-73
 - ISAKMP policies 48-22, 48-73
 - PKI Enrollment Requests 49-24
 - PPP interfaces 15-71
 - PPP templates 15-72
 - RSVP proxy agent 40-8, 40-12
 - Security Associations 48-74
 - templates 15-72
 - TPAD instances 18-5, 18-21
- Devices 47-3
- DHCP client 22-19, 22-81, 22-111, 22-124, 22-157
- DHCP group, Allied Telesis Enterprise MIB C-22
- dhcp MIB object C-22
- DHCP Unique Identifier 32-3
- DHCP. See Dynamic Host Configuration Protocol (DHCP)
- DHCP6. See Dynamic Host Configuration Protocol for IPv6 (DHCP6)
- dhcpRangeExhaustedGateway MIB object C-22
- dhcpRangeExhaustedInterface MIB object C-22
- dhcpRangeTable MIB object C-22
- dhcpTrapVariable MIB object C-22
- dial-on-demand, PPP 15-11, 15-38
- Diffie-Hellman key exchange algorithm 42-9, 42-12
- digital certificates. See certificates
- digital signatures 49-2
- directory of files 6-4
- disable 52-19
 - DECnet 37-21
 - OSPF 26-48
- DISABLE ACC CALL command 19-24
- DISABLE ACC CALL DEBUG command 19-25
- DISABLE APPLE command 35-37
- DISABLE APPLE DEBUG command 35-38
- DISABLE ASYN command 9-27
- DISABLE BGP DEBUG command 27-74
- DISABLE BGP PEER command 27-75
- DISABLE BOOTP RELAY command 23-30
- DISABLE BRI CTEST command 11-77
- DISABLE BRI DEBUG command 11-78
- DISABLE BRI TEST command 11-78
- DISABLE BRIDGE command 16-38
- DISABLE BRIDGE LEARNING command 16-38
- DISABLE BRIDGE SPANNING command 16-39
- DISABLE CLNS CIRCUIT command 34-20
- DISABLE CLNS DEBUG command 34-20
- DISABLE DECNET command 37-21
- DISABLE DVMRP command 24-58
- DISABLE DVMRP DEBUG command 24-59
- DISABLE ENCO COMPSTATISTICS command 42-22
- DISABLE ENCO DEBUGGING command 42-22
- DISABLE FEATURE command 5-24
- DISABLE FIREWALL command 46-113
- DISABLE FIREWALL NOTIFY command 46-114
- DISABLE FIREWALL POLICY command 46-115
- DISABLE FIREWALL POLICY IDENTPROXY command 46-120
- DISABLE FRAMERELAY command 14-33
- DISABLE FRAMERELAY CONGESTIONCONTROL 14-34
- DISABLE FRAMERELAY DEBUG command 14-34
- DISABLE FRAMERELAY DLC command 14-35
- DISABLE FRAMERELAY DLC DEBUG command 14-36
- DISABLE FRAMERELAY LI DEBUG command 14-37, 14-44
- DISABLE FRAMERELAY SLOWSTART command 14-38
- DISABLE GRE command 30-16
- DISABLE GUI command 5-25
- DISABLE HTTP DEBUG command 5-25
- DISABLE HTTP SERVER command 5-25
- DISABLE IGMP SNOOPING command 24-60
- DISABLE INTERFACE command 9-29
- DISABLE INTERFACE DEBUG command 9-28
- DISABLE IP command 22-109
- DISABLE IP DEBUG command 22-110
- DISABLE IP DNSRELAY command 22-111
- DISABLE IP ECHOREPLY command 22-111
- DISABLE IP FOFILTER command 22-112
- DISABLE IP FORWARDING command 22-113
- DISABLE IP HELPER command 22-113
- DISABLE IP IGMP command 24-60
- DISABLE IP IGMP INTERFACE command 24-62
- DISABLE IP INTERFACE command 22-115
- DISABLE IP NAT command 22-117
- DISABLE IP REMOTEASSIGN command 22-118
- DISABLE IP ROUTE command 22-118
- DISABLE IP SRCROUTE command 22-119
- DISABLE IPSEC command 48-74
- DISABLE IPSEC OLDSA command 48-75
- DISABLE IPSEC POLICY DEBUGGING command 48-76
- DISABLE IPV6 ADV command 31-61
- DISABLE IPV6 command 31-60
- DISABLE IPV6 DEBUG command 31-61
- DISABLE IPV6 MLD command 33-27
- DISABLE IPV6 MLD DEBUG command 33-28
- DISABLE IPV6 MLD INTERFACE command 33-28
- DISABLE IPV6 RIP command 31-62
- DISABLE IPX CIRCUIT command 36-48
- DISABLE IPX command 36-47
- DISABLE ISAKMP command 48-78
- DISABLE ISAKMP DEBUGGING command 48-79
- DISABLE ISDN CALL command 11-79
- DISABLE ISDN LOG command 11-80
- DISABLE L2TP command 20-32
- DISABLE L2TP DEBUG command 20-33
- DISABLE L2TP SERVER command 20-34
- DISABLE LOADBALANCER command 51-31
- DISABLE LOADBALANCER DEBUG command 51-32
- DISABLE LOADBALANCER HEALTHPINGS command 51-32



- DISABLE LOADBALANCER REDUNDANCY command 51-33
- DISABLE LOADBALANCER RESOURCE command 51-34
- DISABLE LOADBALANCER VIRTUALBALANCER command 51-35
- DISABLE LOG command 60-24
- DISABLE LOG GENERATION command 60-24
- DISABLE LOG OUTPUT command 60-25
- DISABLE LOG RECEPTION command 60-25
- DISABLE MAIL DEBUG command 4-17
- DISABLE MIOX CIRCUIT command 13-61
- DISABLE NTP command 57-9
- DISABLE OSPF command 26-48
- DISABLE OSPF DEBUG command 26-49
- DISABLE OSPF INTERFACE command 26-50
- DISABLE OSPF LOG command 26-50
- DISABLE PIM command 24-62
- DISABLE PIM DEBUG command 24-63
- DISABLE PIM6 command 33-29
- DISABLE PIM6 DEBUG command 33-29
- DISABLE PING POLL command 54-12
- DISABLE PING POLL DEBUG command 54-12
- DISABLE PKI DEBUG command 49-25
- DISABLE PORT command 9-27
- DISABLE PORTAUTH command 43-22
- DISABLE PORTAUTH DEBUG PORT command 43-23
- DISABLE PORTAUTH PORT command 43-24
- DISABLE PPP ACCESSCONCENTRATOR command 15-73
- DISABLE PPP command 15-73
- DISABLE PPP DEBUG command 15-73
- DISABLE PPP TEMPLATE DEBUG command 15-75
- DISABLE PRI CTEST command 11-80
- DISABLE PRI DEBUG command 11-81
- DISABLE PRI TEST command 11-81
- DISABLE Q931 DEBUG command 11-82
- DISABLE RELEASE command 5-26
- DISABLE RSVP command 40-12
- DISABLE RSVP DEBUG command 40-13
- DISABLE RSVP INTERFACE command 40-14
- DISABLE RSVP PROXY command 40-15
- DISABLE SA DEBUGGING command 48-80
- DISABLE SNMP AUTHENTICATE_TRAP command 55-39
- DISABLE SNMP command 55-39
- DISABLE SNMP COMMUNITY command 55-40
- DISABLE SSH SERVER command 44-13, 44-18
- DISABLE SSH USER command 44-14
- DISABLE SSL DEBUG command 45-10
- DISABLE STAR DEBUGGING command 50-15
- DISABLE SWITCH AGEINGTIMER command 8-28
- DISABLE SWITCH DEBUG command 8-29
- DISABLE SWITCH LEARNING command 8-29
- DISABLE SYN command 9-30
- DISABLE SYN DEBUG command 9-30
- DISABLE SYSTEM SECURITY_MODE command 41-41
- DISABLE TELNET SERVER command 22-120
- DISABLE TEST INTERFACE command 63-10
- DISABLE TPAD command 18-22
- DISABLE TPAD DEBUG command 18-22
- DISABLE TRIGGER command 59-16
- disable upnp 47-12
- disable upnp action 47-13
- disable upnp l4port 47-14
- DISABLE USER command 41-43
- DISABLE USER RSO command 41-43
- DISABLE VLAN DEBUG command 8-30
- DISABLE VOIP command 29-32
- DISABLE VOIP DEBUG command 29-33
- DISABLE VRRP command 53-19
- DISABLE VRRP DEBUG command 53-20
- DISABLE WANLB 52-19
- DISABLE X25C DEBUG command 13-61
- disabling
 - asynchronous calls 19-3, 19-24
 - bridge learning 16-38
 - bridging 16-38
 - call definitions, asynchronous 19-3, 19-24
 - debugging
 - ENCO 42-22
 - debugging, PPP interfaces 15-73
 - debugging, PPP templates 15-75
 - ENCO debugging 42-22
 - firewall 46-6, 46-113
 - firewall accounting 46-53, 46-115
 - firewall debugging 46-46, 46-115
 - Frame Relay
 - DLC debugging 14-36
 - DLCs 14-9, 14-35
 - interfaces 14-8, 14-33
 - hardware tests 63-10
 - interfaces, PPP 15-73
 - IPsec 48-74
 - IPsec policy debugging 48-76
 - IPX 36-47
 - ISAKMP 48-21, 48-78
 - ISAKMP debugging 48-79
 - logging firewall events 46-48, 46-115
 - mail debugging 4-17
 - notifications of firewall events 46-45, 46-114
 - NTP 57-9
 - old SAs 48-75
 - PPP interfaces 15-73
 - debugging 15-73
 - PPP templates
 - debugging 15-75
 - RSVP 40-5, 40-12
 - RSVP debugging 40-6, 40-13, 40-15
 - RSVP interfaces 40-6, 40-14
 - RSVP proxies 40-8
 - RSVP proxy agent 40-7, 40-15
 - Security Association debugging 48-80
 - security mode 41-41
 - software releases 5-26
 - spanning tree 16-39
 - special feature licences 5-24
 - tests 63-10
 - TPAD debugging 18-6, 18-22
 - TPAD instances 18-6, 18-22
 - X25C debugging 13-13, 13-61
- disabling GUI 5-25
- DISCONNECT command 61-20
- Discovery 47-5



displaying

- activity counters on PPP interfaces 15-30
- aliases 2-15 to 2-16, 6-28
- asynchronous calls 19-3, 19-34 to 19-35
- bridge
 - configuration 16-49
 - counters 16-52
 - groups 16-61
 - ports 16-63
 - protocols 16-66
 - spanning tree 16-67
- call definitions, asynchronous 19-3, 19-35
- clock 4-55
- configuration, PPP 15-99
- counters
 - ENCO 42-36
 - counters, PPP 15-105
 - counters, TPAD 18-6, 18-33
- date 4-55
- debugging, PPP 15-118
- directory of FLASH files 6-7
- domain name 11-44, 11-144, 19-10, 19-38
- dynamic configuration 5-46
- dynamic interfaces 19-9
- files 6-25
- firewall accounting 46-53, 46-156
- firewall events 46-45, 46-160
- firewall policies 46-7
- firewall status 46-6, 46-153
- FLASH files 6-23, 6-25
- Frame Relay
 - DLCs 14-62
- Frame Relay logical interfaces 14-70
- hardware test results 63-13
- install information 5-54
- interfaces table, MIB-II 9-23, 9-72
- interfaces, dynamic 19-9
- interfaces, PPP 15-98
- IP address pools 22-211
- IPsec bundle specifications 48-115
- IPsec policies 48-134, 48-138
- IPsec SA specifications 48-151
- IPsec SAs 48-143
- ISAKMP exchanges 48-24, 48-185
- ISAKMP policies 48-22, 48-192
- ISAKMP SAs 48-25, 48-197
- ISAKMP status 48-21, 48-153
- mail 4-10
- mail status 4-48
- members of Security Associations 48-202
- memory contents 4-19
- multilink information, PPP 15-121
- nameservers, PPP 15-123
- NTP configuration 57-11
- permanent assignments 62-9
- ports, TPAD 18-6, 18-31
- PPP configuration 15-99
- PPP counters 15-105
- PPP debugging 15-118
- PPP interfaces 15-98

- PPP multilink information 15-121
- PPP nameservers 15-123
- PPP templates 15-124
- PPP timers 15-119
- PPP transmission queue 15-130
- QOS 8-53
- route templates 22-219
- RSVP counters 40-6, 40-24
- RSVP interfaces 40-6, 40-27
- RSVP Path messages 40-6, 40-28
- RSVP proxies 40-8, 40-29
- RSVP proxy agent counters 40-8, 40-31
- RSVP Resv messages 40-6, 40-32
- Security Association counters 48-205
- Security Association users 48-211
- semipermanent manager port 41-62
- software releases 5-61
- special feature licences 5-48
- switch configuration 8-42
- switch debug 8-43
- switch ports 8-47
- synchronous tunnel 17-8
- system clock 4-55
- system date 4-55
- system information 4-55
- system time 4-55
- templates 15-124
- test results 63-13
- time 4-55
- timers, PPP 15-119
- TPAD counters 18-6, 18-33
- TPAD instances 18-6, 18-28
- transmission queue, PPP 15-130
- VLAN debug 8-56
- VLANs 8-54
- X.25
 - DCE interface configuration 13-87
 - X.25 DCE counters 13-13, 13-89
 - X.25 DCE state 13-96
- Distance Vector Multicast Routing Protocol (DVMRP)
 - adding interfaces 24-43
 - commands
 - ADD DVMRP INTERFACE 24-43
 - DELETE DVMRP INTERFACE 24-53
 - DISABLE DVMRP 24-58
 - DISABLE DVMRP DEBUG 24-59
 - ENABLE DVMRP 24-64
 - ENABLE DVMRP DEBUG 24-65
 - PURGE DVMRP 24-70
 - RESET DVMRP INTERFACE 24-71
 - SET DVMRP INTERFACE 24-73
 - SHOW DVMRP 24-85
 - SHOW DVMRP COUNTERS 24-86
 - SHOW DVMRP DEBUG 24-87
 - SHOW DVMRP FORWARDING 24-88
 - SHOW DVMRP INTERFACE 24-89
 - SHOW DVMRP NEIGHBOUR 24-90
 - SHOW DVMRP ROUTE 24-91
 - deleting interfaces 24-53
 - disabling 24-58



- disabling debug 24-59
- displaying 24-85
- enabling 24-64
- enabling debug 24-65
- interoperability with PIM 24-5
- introduction 24-5
- resetting interfaces 24-71
- setting interfaces 24-73
- DLC, Frame Relay 14-3
 - adding 14-27
 - deleting 14-32
 - disabling 14-9, 14-35
 - debugging 14-36
 - displaying 14-62
 - enabling 14-9, 14-41
 - debugging 14-42
 - modifying 14-50
 - resetting 14-9, 14-46
- DLCI, Frame Relay 14-6
- DNS relay agent 22-111, 22-124, 22-149
- domain name
 - adding 11-44, 11-70, 19-10, 19-20
 - deleting 11-44, 11-74, 19-10, 19-23
 - displaying 11-44, 11-144, 19-10, 19-38
 - modifying 11-110
 - used with Asynchronous Call Control (ACC) 15-27, 19-4, 19-10, 22-52
 - used with ISDN calls 11-44
- dot1dBase group, Bridge MIB C-37
- dot1dBaseNumPorts MIB object C-38
- dot1dBridge MIB object C-37
- dot1dSr group, Bridge MIB C-37
- dot1dStatic group, Bridge MIB C-37
- dot1dStp group, Bridge MIB C-37
- dot1dTp group, Bridge MIB C-37
- dot1xAuthAdminControlledDirections MIB object C-45
- dot1xAuthConfigTable MIB object C-45
- dot1xAuthDiagTable MIB object C-45
- dot1xAuthKeyTxEnabled MIB object C-45
- dot1xAuthSessionStatsTable MIB object C-45
- dot1xAuthStatsTable MIB object C-45
- dot1xPaePortTable MIB object C-45
- dot1xSuppConfigTable MIB object C-45
- dot1xSuppStatsTable MIB object C-45
- dot3 MIB object C-34
- dot3BroadMauBasicGroup MIB object C-35 to C-36
- dot3IfMauAutoNegGroup MIB object C-35 to C-36
- dot3IfMauBasicGroup MIB object C-35 to C-36
- dot3MauType MIB object C-35 to C-36
- dot3RpMauBasicGroup MIB object C-35 to C-36
- Dotted notation 55-6
- DOV. See data over voice
- downloading
 - files 5-36, 5-42, 5-58, 5-62, 6-4
- DS1 Far End group, DS1/E1/DS2/E2 Interface Types MIB C-50 to C-51
- DS1 Fractional table, DS1/E1/DS2/E2 Interface Types MIB C-50 to C-51
- ds1 MIB object C-50
- DS1 Near End group, DS1/E1/DS2/E2 Interface Types MIB C-50 to C-51
- DS1 Trap group, DS1/E1/DS2/E2 Interface Types MIB C-51
- DS1, E1, DS2 and E2 Interface Types MIB C-50
- DS3 group, Allied Telesis Enterprise MIB C-26
- ds3module MIB object C-26
- ds3TrapTable MIB object C-26
- dsx1ChanMappingTable MIB object C-51
- dsx1ConfigTable MIB object C-51
- DUID 32-3
- dump
 - memory 4-19
- DUMP command 4-19
- duplex mode, autonegotiation 7-8, 8-4
- DVMRP. See Distance Vector Multicast Routing Protocol (DVMRP)
- dynamic configuration
 - displaying 5-46
 - saving 5-22
- Dynamic Host Configuration Protocol (DHCP)
 - adding
 - policy options 23-13
 - ranges 23-19
 - address allocation 23-3
 - automatic 23-3
 - dynamic 23-3
 - static 23-4
 - automatic address allocation 23-3
 - BOOTP 23-2 to 23-3
 - clients 23-53
 - commands
 - ADD DHCP POLICY 23-13
 - ADD DHCP RANGE 23-19
 - CREATE DHCP POLICY 23-20
 - CREATE DHCP RANGE 23-21, 23-47
 - DELETE DHCP POLICY 23-24
 - DELETE DHCP RANGE 23-28
 - DESTROY DHCP POLICY 23-29
 - DESTROY DHCP RANGE 23-29
 - SET DHCP POLICY 23-41
 - SHOW DHCP 23-51
 - SHOW DHCP CLIENT 23-53
 - SHOW DHCP POLICY 23-55
 - SHOW DHCP RANGE 23-57
 - configuring 23-7
 - creating
 - policies 23-20
 - ranges 23-21, 23-47
 - deleting
 - policy options 23-24
 - ranges 23-28
 - destroying
 - policies 23-29
 - ranges 23-29
 - displaying
 - clients 23-53
 - policies 23-55
 - ranges 23-57
 - status 23-51
 - dynamic address allocation 23-3
 - example configuration 23-7



- lease time for IP addresses 23-3
- modifying policy options 23-41
- policies
 - adding options 23-13
 - creating 23-20
 - deleting options 23-24
 - destroying 23-29
 - displaying 23-55
 - modifying options 23-41
- policy 23-3
- range 23-3
- ranges
 - adding 23-19
 - creating 23-21, 23-47
 - deleting 23-28
 - destroying 23-29
 - displaying 23-57
- reuse IP addresses 23-3
- server 23-2
- static address allocation 23-4
- status 23-51

Dynamic Host Configuration Protocol for IPv6 (DHCP6)

- 32-1
- address assignment 32-4, 32-7
- authentication 32-6, 32-11, 32-17, 32-23
- clients 32-5, 32-38
- configuring clients 32-5
- configuring servers 32-4
- counters 32-30
- debugging 32-20 to 32-21, 32-30
- diagnostics 32-21, 32-30
- disabling servers 32-20
- displaying status 32-26
- DUID 32-3
- enabling servers 32-21
- example configurations 32-7
- IAID 32-3
- interfaces 32-4, 32-10, 32-17, 32-33
- policies 32-4, 32-12, 32-15, 32-18 to 32-19, 32-24, 32-36
- prefix delegation 32-4, 32-8
- ranges 32-4, 32-14, 32-16, 32-19 to 32-20, 32-37
- Rapid Commit 32-6, 32-21 to 32-22
- reserved addresses 32-3
- servers 32-4, 32-28
- status 32-26

dynamic interfaces

- displaying 19-9
- firewall 46-16
 - adding 46-16, 46-68
 - creating 46-16, 46-99
 - deleting 46-16, 46-101
 - destroying 46-16, 46-112
- IP 19-9, 19-12
- PPP 19-9

E

- e1 MIB object C-50
- E1 Primary Rate Access, ISDN 11-8
- E1/T1. See Time Division Multiplexing (TDM)
- EDIT command 6-16, 58-3
- editing
 - files 6-4, 6-16
- editor 6-5, 6-16
- EGP group, MIB-II MIB C-29
- egpNeighEventTrigger MIB object C-30
- egress rules 8-18
- ELAP. See AppleTalk: EtherTalk Link Access Protocol (ELAP)
- Email
 - Protecting the system 46-33
- enable
 - DECnet 37-22
 - Frame Relay
 - DLC 14-9
 - interface 14-8, 14-38
 - Frame Relay DLC 14-41
 - OSPF 26-48, 26-51
- ENABLE ACC CALL command 19-25
- ENABLE ACC CALL DEBUG command 19-26
- ENABLE APPLE command 35-38
- ENABLE APPLE DEBUG command 35-38
- ENABLE BGP DEBUG command 27-79
- ENABLE BGP PEER command 27-81
- ENABLE BOOTP RELAY command 23-32
- ENABLE BRI CTEST command 11-84
- ENABLE BRI DEBUG command 11-85
- ENABLE BRI TEST command 11-86
- ENABLE BRIDGE command 16-39
- ENABLE BRIDGE LEARNING command 16-39
- ENABLE BRIDGE SPANNING command 16-40
- ENABLE CLNS CIRCUIT command 34-22
- ENABLE CLNS command 34-21
- ENABLE CLNS DEBUG command 34-23
- ENABLE DECNET command 37-22
- ENABLE DVMRP command 24-64
- ENABLE DVMRP DEBUG command 24-65
- ENABLE ENCO COMPSTATISTICS command 42-22
- ENABLE ENCO DEBUGGING command 42-23
- ENABLE FEATURE command 5-27
- ENABLE FIREWALL command 46-123
- ENABLE FIREWALL NOTIFY command 46-124
- ENABLE FIREWALL POLICY command 46-125, 46-127
- ENABLE FIREWALL POLICY IDENTPROXY command 46-129
- ENABLE FRAMERELAY command 14-38
- ENABLE FRAMERELAY CONGESTIONCONTROL 14-39
- ENABLE FRAMERELAY DEBUG command 14-40
- ENABLE FRAMERELAY DLC command 14-41
- ENABLE FRAMERELAY DLC DEBUG command 14-42
- ENABLE FRAMERELAY SLOWSTART command 14-44
- ENABLE GRE command 30-16
- ENABLE GUI command 3-21
- ENABLE HTTP DEBUG command 5-28, 44-13 to 44-14, 44-17
- ENABLE HTTP SERVER command 5-28
- ENABLE IGMP Snooping command 24-66



- ENABLE INTERFACE DEBUG command 9-31
- ENABLE INTERFACE LINKTRAP command 9-32
- ENABLE IP command 22-122
- ENABLE IP DEBUG command 22-123
- ENABLE IP DNSRELAY command 22-124
- ENABLE IP ECHOREPLY command 22-124
- ENABLE IP FOFILTER command 22-125
- ENABLE IP FORWARDING command 22-126
- ENABLE IP HELPER command 22-126
- ENABLE IP IGMP command 24-66
- ENABLE IP IGMP INTERFACE command 24-68
- ENABLE IP INTERFACE command 22-128
- ENABLE IP NAT command 22-130
- ENABLE IP REMOTEASSIGN command 22-131
- ENABLE IP ROUTE command 22-131
- ENABLE IP SRCROUTE command 22-119 to 22-120, 22-132 to 22-133
- ENABLE IPSEC command 48-80
- ENABLE IPSEC OLDSA command 48-81
- ENABLE IPSEC POLICY DEBUGGING command 48-82
- ENABLE IPV6 ADV command 31-63
- ENABLE IPV6 command 31-62
- ENABLE IPV6 DEBUG command 31-64
- ENABLE IPV6 MLD command 33-30
- ENABLE IPV6 MLD DEBUG command 33-30
- ENABLE IPV6 MLD INTERFACE command 33-31
- ENABLE IPV6 RIP command 31-64
- ENABLE IPX CIRCUIT command 36-49
- ENABLE IPX command 36-48
- ENABLE ISAKMP command 48-84
- ENABLE ISAKMP DEBUGGING command 48-86
- ENABLE ISDN CALL command 11-88
- ENABLE ISDN LOG command 11-88
- ENABLE L2TP command 20-34
- ENABLE L2TP DEBUG command 20-35
- ENABLE L2TP SERVER command 20-39
- ENABLE LOADBALANCER command 51-36
- ENABLE LOADBALANCER DEBUG command 51-36
- ENABLE LOADBALANCER HEALTHPINGS command 51-37
- ENABLE LOADBALANCER REDUNDANCY command 51-38
- ENABLE LOADBALANCER RESOURCE command 51-39
- ENABLE LOADBALANCER VIRTUALBALANCER command 51-39
- ENABLE LOG command 60-26
- ENABLE LOG GENERATION command 60-26
- ENABLE LOG OUTPUT command 60-27
- ENABLE LOG RECEPTION command 60-27
- ENABLE MAIL DEBUG command 4-21
- ENABLE MIOX CIRCUIT command 13-62
- ENABLE NTP command 57-9
- ENABLE OSPF command 26-51
- ENABLE OSPF DEBUG command 26-51
- ENABLE OSPF INTERFACE command 26-53
- ENABLE OSPF LOG command 26-54
- ENABLE PIM command 24-63, 24-68 to 24-69
- ENABLE PIM DEBUG command 24-69
- ENABLE PIM6 command 33-32
- ENABLE PIM6 DEBUG command 33-32
- ENABLE PING POLL command 54-13
- ENABLE PING POLL DEBUG command 54-13
- ENABLE PKI DEBUG command 49-26
- ENABLE PORT command 9-33
- ENABLE PORTAUTH command 43-25
- ENABLE PORTAUTH DEBUG PORT command 43-26
- ENABLE PPP ACCESSCONCENTRATOR command 15-77
- ENABLE PPP command 15-76
- ENABLE PPP DEBUG command 15-77
- ENABLE PPP TEMPLATE DEBUG command 15-80
- ENABLE PRI CTEST command 11-89
- ENABLE PRI DEBUG command 11-90
- ENABLE PRI TEST command 11-91
- ENABLE Q931 ASPID command 11-92
- ENABLE Q931 DEBUG command 11-93
- ENABLE RELEASE command 5-30
- ENABLE RSVP command 40-15
- ENABLE RSVP DEBUG command 40-16
- ENABLE RSVP INTERFACE command 40-17
- ENABLE RSVP PROXY command 40-18
- ENABLE SA DEBUGGING command 48-87
- ENABLE SNMP AUTHENTICATE_TRAP command 55-41
- ENABLE SNMP command 55-40
- ENABLE SNMP COMMUNITY command 55-41
- ENABLE SSH SERVER command 44-15
- ENABLE SSH USER command 44-16
- ENABLE SSL DEBUG command 45-10
- ENABLE STAR DEBUGGING command 50-15
- ENABLE STAR MKTTRANSFER command 50-16
- ENABLE SWITCH AGEINGTIMER command 8-31
- ENABLE SWITCH DEBUG command 8-32
- ENABLE SWITCH LEARNING command 8-33
- ENABLE SWITCH PORT command 8-33
- ENABLE SYN command 9-33
- ENABLE SYN DEBUG command 9-33
- ENABLE SYSTEM SECURITY_MODE command 41-46
- ENABLE TELNET SERVER command 22-133
- ENABLE TEST INTERFACE command 63-11
- ENABLE TPAD command 18-23
- ENABLE TPAD DEBUG command 18-23
- ENABLE TRIGGER command 59-17
- enable upnp 47-14
- enable upnp action 47-15
- enable upnp l4port 47-16
- ENABLE USER command 41-48
- ENABLE USER RSO command 41-49
- ENABLE VLAN DEBUG command 8-34
- ENABLE VOIP command 29-33
- ENABLE VOIP DEBUG command 29-34
- ENABLE VRRP command 53-20
- ENABLE VRRP DEBUG command 53-21
- ENABLE X25C DEBUG command 13-62
- enabling
 - asynchronous calls 19-3, 19-25
 - bridge learning 16-39
 - bridging 16-39
 - call definitions, asynchronous 19-3, 19-25
 - debugging
 - ENCO 42-23
 - debugging, PPP interfaces 15-77
 - debugging, PPP templates 15-80
 - ENCO debugging 42-23



- firewall 46-6, 46-123
- firewall accounting 46-53, 46-125, 46-127
- firewall debugging 46-46, 46-125, 46-127
- Frame Relay
 - DLC debugging 14-42
- graphical user interface 3-18
- hardware tests 63-11
- interfaces, PPP 15-76
- IPsec 48-80
- IPsec policy debugging 48-82
- IPX 36-48
- ISAKMP 48-21, 48-84
- ISAKMP debugging 48-86
- logging firewall events 46-48, 46-125, 46-127
- mail debugging 4-21
- notifications of firewall events 46-45, 46-124
- NTP 57-9
- old SAs 48-81
- PPP interfaces 15-76
 - debugging 15-77
- PPP templates
 - debugging 15-80
- RSVP 40-5, 40-15
- RSVP debugging 40-6, 40-16, 40-18
- RSVP interfaces 40-6, 40-17
- RSVP proxies 40-8
- RSVP proxy agent 40-7, 40-18
- Security Association debugging 48-87
- security mode 41-46
- software releases 5-30
- spanning tree 16-40
- special feature licences 5-27
- tests 63-11
- TPAD debugging 18-6, 18-23
- TPAD instances 18-6, 18-23
- X25C debugging 13-13, 13-62
- enabling GUI 3-21
- ENAT. See Network Address Translation (NAT)
- Encapsulating Security Payload (ESP) protocol 48-4
- encapsulation
 - 802.2 9-8
 - asynchronous PPP 9-16, 19-4
 - cisco 14-5
 - CSLIP 9-16, 19-4
 - Ethernet 9-7
 - GRE 30-2
 - PPP 15-3
 - prompting for 19-4
 - RFC 1490 14-4
 - SLIP 9-16, 19-4
 - SNAP 9-8
 - synchronous lines 9-12, 14-4
- encapsulation, L2TP 20-3
- encapsulations
 - X.25 13-8
- ENCO. See Compression and Encryption Services
- encryption 42-4
 - access control 41-6
 - adding
 - Remote Security Officer 41-36
 - Advanced Encryption Standard (AES) 42-6
 - asymmetrical 42-6
 - asymmetrical and symmetrical 45-2
 - commands
 - DELETE USER RSO 41-40
 - DISABLE USER RSO 41-43
 - ENABLE USER RSO 41-49
 - SHOW USER RSO 41-78
 - commands not allowed in boot script 50-12
 - Data Encryption Standard (DES) 42-5
 - definition 45-2
 - deleting
 - Remote Security Officer 41-40
 - disabling
 - Remote Security Officer 41-43
 - displaying
 - Remote Security Officer 41-78
 - enabling
 - Remote Security Officer 41-49
 - Network iQ VPNet 22-43
 - over Frame Relay 14-15
 - disabling debugging 14-35 to 14-36
 - enabling debugging 14-41 to 14-42
 - Point-to-Point Protocol (PPP) 15-40
 - Remote Security Officer 41-6
 - adding 41-36
 - deleting 41-40
 - disabling 41-43
 - displaying 41-78
 - enabling 41-49
 - security associations 22-43
 - symmetrical 42-5
 - Triple DES (3DES) 42-5
- encryption. See Compression and Encryption Services; Link Compression and Encryption; IP Security (IPsec)
- End Entity 49-5
- end node (DECnet) 37-2
- Endpoint Discriminator Option 15-6
- Endpoint Discriminator Option, LCP 15-6
- entering commands 2-4
- enterprise MIB C-4
- envMon MIB object C-16
- Error table, Frame Relay DTE MIB C-49
- Ethernet 9-6
 - commands
 - RESET ETH 9-36
 - RESET ETH COUNTERS 9-37
 - SET ETH SPEED 9-47
 - SHOW ETH CONFIGURATION 9-61
 - SHOW ETH COUNTERS 9-62
 - SHOW ETH MACADDRESS 9-67
 - SHOW ETH RECEIVE 9-68
 - SHOW ETH STATE 9-69
 - configuration 9-37, 9-61
 - counters 9-37, 9-62
 - encapsulation 9-7
 - interface on router 9-6
 - MIB 9-62
 - multicast addresses 9-9, 9-67 to 9-68
 - reset 9-36



Ethernet group, Allied Telesis Enterprise MIB C-18

Ethernet interface

- bandwidth limiting 9-11, 9-46

ethernet MIB object C-18

Ethernet-like Collision Statistics group, Ethernet-like Interface Types MIB C-34

Ethernet-like Interface Types MIB C-34

Ethernet-like Statistics group, Ethernet-like Interface Types MIB C-34

EtherTalk 35-5

ethIntTable MIB object C-18

Event group, RMON MIB C-47

event logging 4-6

- See also Logging Facility

Eventing 47-5

events

- firewall 46-45, 46-114, 46-124

events, firewall

- displaying 46-45, 46-160

events, Point-to-Point Protocol (PPP) 15-5

example configuration

- synchronous tunnelling 17-3

example configurations

- AODI 11-46
- asynchronous call control (ACC) 19-10
- asynchronous services 61-10
- DECnet 37-9
- DHCP 23-7
- DHCP for IPv6 32-7
- firewall 46-53
- GRE 30-5
- IPsec 48-31
- Logging Facility 60-10
- PKI 49-11 to 49-15
 - enrollment with CMP 49-14
 - manual enrollment 49-11
- Point-to-Point Protocol (PPP) 15-34
- services 61-10
- SNMP 55-24
- switching 8-20
- terminal server 61-10
- Time Division Multiplexing (TDM) 12-5
- VLAN 8-20

examples

- finger client 22-41
- Frame Relay configuration 14-19
- Internet Protocol (IP) 22-41
- Internet Protocol (IP) configuration 22-54, 25-5
- IPX configuration 36-17
- Layer Two Tunnelling Protocol (L2TP) 20-12
- mail subsystem 4-11
- OSPF configuration 26-20
- permanent assignments 62-4
- Secure Shell 44-6
- TPAD 18-10 to 18-13
 - configuring X.25 18-10
 - creatingTPAD instances 18-12

exceptions 4-9, 4-47

exchanges, ISAKMP 48-24

- displaying 48-24, 48-185

exclusion filters

- DECnet 37-5, 37-14, 37-18, 37-31
- Internet Protocol (IP) 22-70, 22-98, 22-150, 22-196
- IPX 36-8 to 36-9, 36-35, 36-43, 36-69

expansion options

- testing 63-1

external routes, OSPF 26-3

F

fanAndPs MIB object C-16

fatal errors 4-9, 4-47

fault diagnosis 4-6

File group, Allied Telesis Enterprise MIB C-22

file MIB object C-22

file naming conventions 6-2

- using wildcards 6-5

file subsystem

- creating files 6-4
- deleting files 6-14
- displaying directory 6-4
- displaying files 6-25
- downloading files 5-36, 5-42, 5-58, 5-62, 6-4
- editing files 6-4, 6-16
- file types 6-2
- naming conventions 6-2
- renaming files 6-21
- wildcards 6-5

file types 6-2

fileNumbers MIB object C-22

files

- creating 6-4
- deleting 6-14
- displaying 6-25
- downloading 5-36, 5-42, 5-58, 5-62, 6-4
- editing 6-4, 6-16
- renaming 6-21

fileTable MIB object C-22

Filter group, RMON MIB C-46

filtering

- Layer 2 8-17

filtering, bridge 16-4, 16-14

filtering, IGMP 24-25

filters

- DECnet
 - exclusion 37-5, 37-14, 37-18, 37-31
 - inclusion 37-5, 37-15, 37-19, 37-32
- exclusion
 - DECnet 37-5, 37-14, 37-18, 37-31
 - Internet Protocol (IP) 22-70, 22-98, 22-150, 22-196
 - IPX 36-8 to 36-9, 36-35, 36-43, 36-69

fragment offset

- Internet Protocol (IP) 22-112, 22-125

inclusion

- DECnet 37-5, 37-15, 37-19, 37-32
- Internet Protocol (IP) 22-70, 22-98, 22-150, 22-196
- IPX 36-8 to 36-9, 36-36, 36-44, 36-70

Internet Protocol (IP) 22-112, 22-125

- exclusion 22-70, 22-98, 22-150, 22-196
- fragment offset 22-112, 22-125
- inclusion 22-70, 22-98, 22-150, 22-196
- routing information 28-47, 28-59, 28-63, 28-76



- IPX
 - exclusion 36-8 to 36-9, 36-35, 36-43, 36-69
 - inclusion 36-8 to 36-9, 36-36, 36-44, 36-70
 - RIP 36-10, 36-37, 36-45, 36-54 to 36-55, 36-71
 - SAP 36-11, 36-39, 36-46, 36-54, 36-56, 36-73
- RIP 36-54
 - IPX 36-37, 36-45, 36-55, 36-71
- RIP (IPX) 36-10
- routing information
 - Internet Protocol (IP) 22-25, 28-47, 28-59, 28-63, 28-76
- SAP 36-54
- SAP (IPX) 36-11, 36-39, 36-46, 36-56, 36-73
- traffic
 - Internet Protocol (IP) 22-36
- finger client 22-41, 22-134
- FINGER command 22-134
- Firewall 46-1
 - access lists
 - adding 46-13 to 46-14, 46-76, 46-82
 - deleting 46-109
 - accounting 46-53
 - disabling 46-53, 46-115
 - displaying 46-53, 46-156
 - enabling 46-53, 46-125, 46-127
 - adding
 - access lists 46-13 to 46-14, 46-76, 46-82
 - interfaces 46-6, 46-72
 - NAT translations 46-24, 46-26 to 46-27, 46-77
 - RADIUS servers 46-15, 46-82
 - rules 46-82
 - application gateway 46-4
 - commands 46-63
 - ADD FIREWALL POLICY APPRULE 46-66
 - ADD FIREWALL POLICY DYNAMIC 46-68
 - ADD FIREWALL POLICY INTERFACE 46-72
 - ADD FIREWALL POLICY LIST 46-76
 - ADD FIREWALL POLICY NAT 46-77
 - ADD FIREWALL POLICY PROXY 46-80, 46-82
 - ADD FIREWALL POLICY RULE 46-82
 - ADD FIREWALL POLICY SPAMSOURCE 46-96
 - CREATE FIREWALL POLICY 46-98
 - CREATE FIREWALL POLICY DYNAMIC 46-99
 - DELETE FIREWALL POLICY APPRULE 46-100
 - DELETE FIREWALL POLICY DYNAMIC 46-101
 - DELETE FIREWALL POLICY INTERFACE 46-103
 - DELETE FIREWALL POLICY LIST 46-105
 - DELETE FIREWALL POLICY NAT 46-106
 - DELETE FIREWALL POLICY RULE 46-109
 - DELETE FIREWALL SESSION 46-111
 - DESTROY FIREWALL POLICY 46-112
 - DESTROY FIREWALL POLICY DYNAMIC 46-112
 - DISABLE FIREWALL 46-113
 - DISABLE FIREWALL NOTIFY 46-114
 - DISABLE FIREWALL POLICY 46-115
 - DISABLE FIREWALL POLICY IDENTPROXY 46-120
 - ENABLE FIREWALL 46-123
 - ENABLE FIREWALL NOTIFY 46-124
 - ENABLE FIREWALL POLICY 46-125, 46-127
 - ENABLE FIREWALL POLICY IDENTPROXY 46-129
 - SET FIREWALL POLICY 46-138, 46-140
 - SET FIREWALL POLICY ATTACK 46-140
 - SET FIREWALL POLICY DOMAIN 46-149
 - SET FIREWALL POLICY RULE 46-144
 - SHOW FIREWALL 46-153
 - SHOW FIREWALL ACCOUNTING 46-156
 - SHOW FIREWALL ARP 46-158
 - SHOW FIREWALL EVENT 46-160
 - SHOW FIREWALL POLICY SESSION 46-190
 - configuration examples 46-53
 - creating policies 46-6, 46-98
 - debugging 46-46
 - disabling 46-46, 46-115
 - enabling 46-46, 46-125, 46-127
 - deleting
 - access lists 46-109
 - interfaces 46-6, 46-103
 - NAT translations 46-106
 - rules 46-109
 - destroying policies 46-6, 46-112
 - disabling 46-6, 46-113
 - accounting 46-53, 46-115
 - debugging 46-46, 46-115
 - event logging 46-48, 46-115
 - ICMP forwarding 46-7, 46-115
 - IP options 46-7, 46-115
 - notifications of events 46-45, 46-114
 - ping 46-7, 46-115
 - displaying
 - accounting 46-53, 46-156
 - events 46-45, 46-160
 - policies 46-7
 - status 46-6, 46-153
 - dynamic interfaces 46-16
 - adding 46-16, 46-68
 - creating 46-16, 46-99
 - deleting 46-16, 46-101
 - destroying 46-16, 46-112
 - dynamic packet filtering 46-4
 - enabling 46-6, 46-123
 - accounting 46-53, 46-125, 46-127
 - debugging 46-46, 46-125, 46-127
 - event logging 46-48, 46-125, 46-127
 - ICMP forwarding 46-7, 46-125, 46-127
 - IP options 46-7, 46-125, 46-127
 - notifications of events 46-45, 46-124
 - ping 46-7, 46-125, 46-127
 - events
 - displaying 46-45, 46-160
 - logging 46-47
 - notifying 46-45, 46-114, 46-124
 - triggers 46-46
 - example configurations 46-53
 - feature summary 46-5
 - HTTP Proxy 46-34
 - ICMP forwarding
 - disabling 46-7, 46-115
 - enabling 46-7, 46-125, 46-127
 - Interaction between SMTP Proxy and Firewall Rules 46-33



- interaction with load balancer 51-9
- IP options
 - disabling 46-7, 46-115
 - enabling 46-7, 46-125, 46-127
- logging events 46-47
 - disabling 46-48, 46-115
 - enabling 46-48, 46-125, 46-127
- modifying
 - rules 46-144
- monitoring 46-45, 46-49
- NAT 46-20
 - adding translations 46-24, 46-26 to 46-27, 46-77
 - deleting translations 46-106
- notifications 46-45
 - disabling 46-45, 46-114
 - enabling 46-45, 46-124
- Packet Fragment Handling 46-19
- ping
 - disabling 46-7, 46-115
 - enabling 46-7, 46-125, 46-127
- policies 46-6
 - adding interfaces 46-6, 46-72
 - creating 46-6, 46-98
 - deleting interfaces 46-6, 46-103
 - destroying 46-6, 46-112
 - displaying 46-7
- Protecting the email system 46-33
- RADIUS servers 46-14
 - adding 46-15, 46-82
- rules 46-7
 - adding 46-82
 - deleting 46-109
 - modifying 46-144
- security policies 46-6
- security policy 46-6
- SMTP Proxy 46-33
- stateful inspection 46-4
- triggering on events 46-46
- Xbox Live 46-25, 46-95
- Firewall and UPnP 47-6
- Firewall and WAN Load Balancer operation 52-9
- Firewall group, Allied Telesis Enterprise MIB C-23
- firewall MIB object C-23
- firewall operation (WAN load balancing) 52-9
- Firewall Packet Fragment Handling 46-19
- firewall policy
 - load balancer traffic flow 46-6, 51-10
 - proxies 51-9
- firewallAttackTrap trap message C-23
- firewallSessionStatistics MIB object C-23
- firewallTrapMessage MIB object C-23
- FLASH File System (FFS)
 - displaying files 6-23
- FLASH files 6-7
 - deleting 6-14
 - displaying 6-23, 6-25
 - displaying directory 6-7
 - downloading 5-36, 5-42, 5-58, 5-62
 - editing 6-16
 - renaming 6-21
- Flash group, Allied Telesis Enterprise MIB C-18
- FLASH memory 6-6
 - compacting 6-7
 - displaying 6-6, 6-29, 6-31
- flash MIB object C-18
- flashCheckFailure MIB object C-18
- flashCloseFailure MIB object C-18
- flashCompactFailure MIB object C-18
- flashCompleteFailure MIB object C-18
- flashCreateFailure MIB object C-18
- flashDeleteFailure MIB object C-18
- flashEraseFailure MIB object C-18
- flashFailureTrap trap message C-18
- flashGetFailure MIB object C-18
- flashOpenFailure MIB object C-18
- flashPutFailure MIB object C-18
- flashReadFailure MIB object C-18
- flashVerifyFailure MIB object C-18
- flashWriteFailure MIB object C-18
- flooding 8-17
- FLUSH LOG OUTPUT command 60-28
- format of file names 6-2, 6-5
- format, SNMP messages 55-9 to 55-10, 55-13
- Forwarding Database 8-16 to 8-17
 - ageing timer
 - setting 8-36
 - disabling 8-29
 - enabling 8-33
- forwarding process 8-17
- forwarding process, bridging 16-13
- fragment offset filter
 - Internet Protocol (IP) 22-112, 22-125
- Frame Relay 14-1 to 14-73
 - adding
 - DLCs 14-27
 - logical interfaces 14-28
 - Address Resolution Protocol (ARP) 14-18
 - addresses 14-6, 14-27, 14-32, 14-35, 14-41, 14-46, 14-50, 14-62
 - circuit 14-3, 14-32, 14-35 to 14-36, 14-41 to 14-42, 14-46
 - commands
 - ADD FRAMERELAY DLC 14-27
 - ADD FRAMERELAY LI 14-28
 - CREATE FRAMERELAY 14-29
 - DELETE FRAMERELAY DLC 14-32
 - DELETE FRAMERELAY LI 14-32
 - DESTROY FRAMERELAY 14-33
 - DISABLE FRAMERELAY 14-33
 - DISABLE FRAMERELAY CONGESTIONCONTROL 14-34
 - DISABLE FRAMERELAY DEBUG 14-34
 - DISABLE FRAMERELAY DLC 14-35
 - DISABLE FRAMERELAY DLC DEBUG 14-36
 - DISABLE FRAMERELAY LI DEBUG 14-37, 14-44
 - DISABLE FRAMERELAY SLOWSTART 14-38
 - ENABLE FRAMERELAY 14-38
 - ENABLE FRAMERELAY CONGESTIONCONTROL 14-39
 - ENABLE FRAMERELAY DEBUG 14-40



- ENABLE FRAMERELAY DLC *14-41*
- ENABLE FRAMERELAY DLC DEBUG *14-42*
- ENABLE FRAMERELAY SLOWSTART *14-44*
- RESET FRAMERELAY *14-45*
- RESET FRAMERELAY DLC *14-46*
- SET FRAMERELAY *14-47*
- SET FRAMERELAY DLC *14-50*
- SHOW FRAMERELAY *14-52*
- SHOW FRAMERELAY DLC *14-62*
- SHOW FRAMERELAY LI *14-70*
- compression *14-15*
 - disabling debugging *14-35 to 14-36*
 - enabling debugging *14-41 to 14-42*
- configuration *14-16, 14-52*
 - examples *14-19*
- congestion control *14-14*
 - disabling *14-34*
 - enabling *14-39*
- congestion control scheme *14-12*
- congestion detection *14-10*
- counters *14-15, 14-52*
- counters, DLC *14-62*
- counters, logical interface *14-70*
- create
 - interface *14-29*
- debugging *14-35, 14-41, 14-52*
 - DLCs *14-36, 14-42*
 - interfaces *14-34, 14-40*
 - logical interfaces *14-37, 14-44*
- debugging DLCs
 - disabling *14-36*
 - enabling *14-42*
- debugging interfaces
 - disabling *14-34*
 - enabling *14-40*
- debugging logical interfaces
 - disabling *14-37, 14-44*
- deleting
 - DLCs *14-32*
 - logical interfaces *14-32*
- destroying
 - interfaces *14-33*
- disable
 - DLC *14-9*
 - interface *14-8, 14-33*
- disable DLC *14-35*
- disabling
 - congestion control *14-34*
 - DLC debugging *14-36*
 - interface debugging *14-34*
 - logical interface debugging *14-37, 14-44*
 - slowstart *14-38*
- displaying
 - logical interfaces *14-70*
- displaying configuration *14-52*
- displaying counters *14-15, 14-52, 14-62, 14-70*
- displaying DLC *14-62*
- displaying DLCIs *14-52*
- displaying DLCs *14-62*
- DLC *14-3, 14-27, 14-32, 14-35, 14-41, 14-46, 14-50, 14-62*
 - disable *14-9*
 - enable *14-9*
 - reset *14-9*
- DLCI *14-6, 14-52*
- DLCs
 - debugging *14-36, 14-42*
- enable
 - DLC *14-9*
 - interface *14-8, 14-38*
- enable DLC *14-41*
- enabling
 - congestion control *14-39*
 - DLC debugging *14-42*
 - interface debugging *14-40*
 - slow-start *14-44*
- encapsulation
 - cisco *14-5*
 - RFC 1490 *14-4*
- encryption *14-15*
 - disabling debugging *14-35 to 14-36*
 - enabling debugging *14-41 to 14-42*
- examples *14-19*
- interface
 - create *14-29*
 - debugging *14-34, 14-40*
 - destroy *14-33*
 - disable *14-8, 14-33*
 - enable *14-8, 14-38*
 - reset *14-8, 14-45*
- Inverse ARP *14-18*
- LMI
 - dialogue *14-7, 14-29, 14-47*
- logical interfaces *14-8, 14-17, 14-28, 14-32, 14-70*
 - adding *14-28*
 - debugging *14-37, 14-44*
 - deleting *14-32*
 - displaying *14-70*
- MIB *14-14 to 14-15, 14-52, 14-62*
- modify DLC *14-50*
- reset
 - DLC *14-9*
 - interface *14-8, 14-45*
- reset DLC *14-46*
- routing modules *14-17*
- slow-start mechanism *14-9*
 - enabling *14-44*
- slowstart mechanism *14-14*
 - disabling *14-38*
- static ARPs *14-18*
- support for *14-14*
- Frame Relay MIB *C-48*
- frame storage *8-17*
- frame-relay MIB object *C-48*
- framework, for network management *55-3*
- frCircuitCommittedBurst MIB object *C-49*
- frCircuitExcessBurst MIB object *C-49*
- frCircuitState MIB object *C-49*
- frCircuitThroughput MIB object *C-49*
- frDLCIStatusChange MIB object *C-49*



frDlcmiAddress MIB object C-49
 frDlcmiAddressLen MIB object C-49
 frDlcmiErrorThreshold MIB object C-49
 frDlcmiFullEnquiryInterval MIB object C-49
 frDlcmiMaxSupportedVCs MIB object C-49
 frDlcmiMonitoredEvents MIB object C-49
 frDlcmiMulticast MIB object C-49
 frDlcmiPollingInterval MIB object C-49
 frDlcmiState MIB object C-49
 frTrapState MIB object C-49
 Fully Qualified Interface Names 9-5

G

g703at2mb MIB object C-50
 Generic Receive Address table, Interface Extensions MIB C-31 to C-32
 Generic Routing Encapsulation (GRE) 30-1 to 30-24
 adding entities 30-12
 commands
 ADD GRE 30-12
 ADD IP INTERFACE 30-4
 DELETE GRE 30-4, 30-15
 DISABLE GRE 30-16
 ENABLE GRE 30-16
 PURGE GRE 30-17
 RESET GRE 30-18
 SET GRE 30-19
 SET IP INTERFACE 30-4 to 30-5
 SHOW GRE 30-22 to 30-24
 configuration 30-5
 configuring multi-point GRE 30-7
 configuring point-to-point GRE 30-5
 deleting entities 30-15
 delivery protocol 30-2
 disabling 30-5, 30-16
 disabling interfaces 30-4
 displaying entities 30-22 to 30-24
 enabling 30-5, 30-16
 entities 30-3, 30-12, 30-15, 30-19, 30-22 to 30-24
 examples 30-5
 interfaces 30-4
 IP over IP 30-3
 modifying entities 30-19
 multi-point 30-4
 example configuration 30-7
 patterns 30-3
 payload packet 30-2
 point-to-point 30-4
 example configuration 30-5
 private IP networks 30-2
 public IP networks 30-2
 purging 30-17
 reserved IP address ranges 30-2
 resetting 30-18
 supported encapsulations 30-3
 get-bulk-request PDU 55-9
 get-next PDU 55-9
 get-request PDU 55-9
 get-response PDU 55-9
 Graphical User Interface
 disabling 5-25
 enabling 3-21

GRE. See Generic Routing Encapsulation (GRE)
 GROUP command 55-36
 Groups, MIB
 aal5VccGroup C-39
 address translation C-29
 adslAturAtucPhysPerfIntervalGroup C-40
 AdslAturAtucPhysPerfRawCounterGroup C-40
 adslAturAturPhysPerfIntervalGroup C-41
 adslAturAturPhysPerfRawCounterGroup C-41
 adslAturLineGroup C-40
 adslAturPhysicalGroup C-40
 Alarm C-46 to C-47
 arInterfaces C-17
 atmInterfaceConfGroup2 C-39
 atmTrafficDescrGroup2 C-39
 atmVccTerminationGroup2 C-39
 BRI C-20
 Broadband MAU Basic C-35 to C-36
 CMOT C-29
 Conformance C-43, C-51
 Data Link Connection Management Interface C-48
 DHCP C-22
 dot1dBase C-37
 dot1dSr C-37
 dot1dStatic C-37
 dot1dStp C-37
 dot1dTp C-37
 DS1 Far End C-50 to C-51
 DS1 Near End C-50 to C-51
 DS1 Trap C-51
 DS3 C-26
 EGP C-29
 Ethernet C-18
 Ethernet-like Collision Statistics C-34
 Ethernet-like Statistics C-34
 Event C-47
 File C-22
 Filter C-46
 Firewall C-23
 Flash C-18
 History C-46 to C-47
 Host C-46
 Host Resources Device C-52 to C-53
 Host Resources Installed Software C-52 to C-53
 Host Resources Running Software C-52 to C-53
 Host Resources Running Software Performance C-52 to C-53
 Host Resources Storage C-52 to C-53
 Host Resources System C-52 to C-53
 HostTopN C-46
 ICMP C-29
 Install C-21
 Interface MAU Autonegotiation C-35 to C-36
 Interface MAU Basic C-35 to C-36
 interfaces C-29, C-38
 IP C-29, C-33
 ISDN Call Control C-19
 Load Balancer C-26
 Loader C-20
 Maintenance C-43
 Matrix C-46
 Modules C-18



- Notifications C-43
- Objects C-9
- OSI C-24
- Packet Capture C-47
- PAE Authenticator C-45
- PAE Supplicant C-45
- PAE System C-44 to C-45
- PIM4 C-25
- Ping C-22
- Port Authentication C-26
- PRI C-20
- Repeater MAU Basic C-35 to C-36
- Segment Endpoint C-42
- Segment Endpoint 15-Minute Interval Status/Performance C-43
- Segment Endpoint 1-Day Interval Status/Performance C-43
- Segment Endpoint Alarm Configuration Profile C-43
- Segment Endpoint Current Status/Performance C-43
- SNMP C-30
- Software QoS C-27
- Span Configuration C-42
- Span Configuration Profile C-43
- Span Status C-42
- Statistics C-46 to C-47
- Switch C-23
- sysinfo C-16
- system C-29, C-38
- TCP C-29
- Transmission C-30, C-34, C-42, C-48, C-50
- traps C-16
- Trigger C-21
- TTY C-19
- UDP C-29
- Unit Inventory C-42
- GUI
 - disable 5-25
 - enable 3-21
- H**
- handshake
 - definition 45-4
- hardware
 - testing 63-1
- hdsI2ShdsIEndpointAlarmConfProfile MIB object C-43
- hdsI2ShdsIMaintLoopbackConfig MIB object C-43
- hdsI2ShdsIMaintLoopbackTimeout MIB object C-43
- hdsI2ShdsIMaintPowerBackOff MIB object C-43
- hdsI2ShdsIMaintSoftRestart MIB object C-43
- hdsI2ShdsIMIB MIB object C-42
- hdsI2ShdsISpanConfAlarmProfile MIB object C-43
- hdsI2ShdsISpanConfNumRepeaters MIB object C-43
- hdsI2ShdsISpanConfProfile MIB object C-43
- header compression 42-4
- header, Internet Protocol (IP) 22-5
- health checks 51-13
 - fail-over load balancer 51-13
 - load balancer process 51-13
 - resource 51-13
- Healthchecks (WAN load balancing) 52-8
- heartbeats
 - UDP 48-19
- Hello message
 - PIM Sparse Mode 24-12
- Hello packets, OSPF 26-5, 26-31, 26-43, 26-50, 26-53, 26-57, 26-66
- help
 - displaying 1-4, 2-9, 2-13
 - setting system help file 2-15
- HELP command 2-13
- History group, RMON MIB C-46 to C-47
- history, command recall 2-4
- homepage
 - setting HTTP server 5-39
- hop count
 - AppleTalk 35-8
- host
 - adding Internet Protocol (IP) 22-79
 - adding OSPF 26-30
 - changing Internet Protocol (IP) 22-154
 - deleting Internet Protocol (IP) 22-100
 - deleting OSPF 26-42
 - displaying Internet Protocol (IP) 22-200
 - displaying OSPF 26-83
 - modifying Internet Protocol (IP) 22-154
 - modifying OSPF 26-65
 - setting Internet Protocol (IP) 22-154
- Host group, RMON MIB C-46
- host MIB object C-52
- Host Resources Device group, Host Resources MIB C-52 to C-53
- Host Resources Installed Software group, Host Resources MIB C-52 to C-53
- Host Resources MIB C-52
- Host Resources Running Software group, Host Resources MIB C-52 to C-53
- Host Resources Running Software Performance group, Host Resources MIB C-52 to C-53
- Host Resources Storage group, Host Resources MIB C-52 to C-53
- Host Resources System group, Host Resources MIB C-52 to C-53
- hostId MIB object C-16
- HostTopN group, RMON MIB C-46
- hrDeviceDiskStorage MIB object C-53
- hrDeviceEntry MIB object C-53
- hrDeviceID MIB object C-9, C-53
- hrDeviceType MIB object C-53
- hrDiskStorageTable MIB object C-53
- hrFSTable MIB object C-53
- hrNetworkTable MIB object C-53
- hrPrinterTable MIB object C-53
- hrStorageAllocationUnits MIB object C-53
- hrSWRunTable MIB object C-52
- hrSystemDate MIB object C-53
- hrSystemInitialLoadDevice MIB object C-53
- hrSystemInitialLoadParameters MIB object C-53
- hrSystemMaxProcesses MIB object C-53
- hrSystemNumUsers MIB object C-53
- hrSystemProcesses MIB object C-53



- HTTP Proxy
 - Firewall 46-34
- HTTP server 5-9
 - disabling 5-25
 - disabling debugging 5-25
 - displaying client status 5-50
 - displaying debugging status 5-51
 - displaying session information 5-53
 - displaying status 5-52
 - enabling 5-28
 - enabling and disabling the GUI 3-18
 - enabling debugging 5-28, 44-13 to 44-14, 44-17
 - resetting 5-36
 - setting homepage 5-39
- HTTP virtual balancer 51-7
 - cookies 51-7
 - SSL enabled 51-9
- Hunt Groups 13-16
- I**
- IAID 32-3
- ICMP group, MIB-II MIB C-29
- identifier, instance 55-7
- identifier, MIB object 55-6
 - combined notation 55-6
 - dotted notation 55-6
 - textual notation 55-6
- Identity associations 32-3
- IEEE 802.2, Ethernet encapsulation 9-8
- ieee8021paeMIB MIB object C-44
- if..then..else..endif, in scripts 58-5, 58-11
- ifaceAsyn MIB object C-15
- ifaceBri MIB object C-15
- ifaceEth MIB object C-15
- ifaceGBIC MIB object C-15
- ifacePots MIB object C-15
- ifacePri MIB object C-15
- ifaceSyn MIB object C-15
- ifAdminStatus MIB object C-30
- ifEntry MIB object C-48
- ifExtnsRcvAddrTable MIB object C-31
- ifExtnsTable MIB object C-31
- ifIndex MIB object C-18 to C-20, C-35
- ifJackTable MIB object C-35
- ifMauAutoNegAdminStatus MIB object C-36
- ifMauAutoNegCapAdvertised MIB object C-36
- ifMauAutoNegRestart MIB object C-36
- ifMauAutoNegTable object C-35
- ifMauDefaultType MIB object C-36
- ifMauIfIndex MIB object C-35
- ifMauStatus MIB object C-36
- ifMauTable object C-35
- ifMIB MIB object C-31
- ifName MIB object C-16
- ifNumber MIB object C-31 to C-32
- ifPromiscuousMode MIB object C-32
- ifRcvAddressAddress MIB object C-32
- ifRcvAddressStatus MIB object C-32
- ifRcvAddressTable MIB object C-31 to C-32
- ifRcvAddressType MIB object C-32
- ifSpecific MIB object C-34
- ifStackStatus MIB object C-32
- ifStackTable MIB object C-31 to C-32
- ifTable MIB object C-31 to C-32, C-42
- ifTableLastChange MIB object C-31
- ifTestTable MIB object C-31 to C-32
- IfType MIB object C-48
- ifType MIB object C-34, C-42, C-50
- ifTypes MIB object C-15
- ifXTable MIB object C-31 to C-32
- IGMP. See Internet Group Management Protocol (IGMP)
- IGMP filtering 24-25
- IGMP proxy 24-20
- IGMP snooping 24-22, 24-94, 24-96
 - disabling 24-60
 - enabling 24-66
- IGMP throttling 24-27
- IGMP. See Internet Group Management Protocol
- igmpGeneralQueryNotReceivedEvent trap message C-16
- inclusion filters
 - DECnet 37-5, 37-15, 37-19, 37-32
 - Internet Protocol (IP) 22-70, 22-98, 22-150, 22-196
 - IPX 36-8 to 36-9, 36-36, 36-44, 36-70
- incoming calls
 - asynchronous 19-2
 - authenticating 19-5
 - authenticating, with CHAP 19-5
 - authenticating, with PAP 19-5
 - deactivating 19-8, 19-22
- ingress filtering 8-15
- ingress rules 8-15
- Install group, Allied Telesis Enterprise MIB C-21
- install information 5-13
 - deleting 5-23
 - displaying 5-54
 - setting 5-40
- install MIB object C-21
- installHistoryTable MIB object C-21
- installTable MIB object C-21
- instance 7-4, 9-4
- instance identifier, MIB object 55-7
- instance, MIB object 55-7
- Integrated Services Digital Network (ISDN) 11-1
 - adding domain name 11-44, 11-70
 - addressing, LAPD 11-28
 - AODI 11-45 to 11-48
 - components 11-45
 - configuration example 11-46
 - automatic switch detection 11-38
 - auto-SPIDs 11-34, 11-62 to 11-63, 11-92
 - Basic Rate Access 11-4 to 11-7
 - configuring 11-16
 - BRI physical layer 11-16, 11-77 to 11-78, 11-84 to 11-86, 11-98, 11-102, 11-121, 11-123, 11-130 to 11-132, 11-136
 - call control 11-39, 11-61, 11-64, 11-70, 11-73 to 11-74, 11-79, 11-88, 11-104, 11-139, 11-143, 11-149
 - call logging 11-43, 11-80, 11-88, 11-110, 11-145



commands

- ACTIVATE ISDN CALL *11-61, 11-149*
- ACTIVATE Q931 ASPID *11-62 to 11-63*
- ADD ISDN CALL *11-64*
- ADD ISDN CLILIST *11-70*
- ADD ISDN DOMAINNAME *11-70*
- ADD LAPD *11-111*
- ADD LAPD TEI *11-71*
- ADD LAPD XSPID *11-71*
- ADD LAPD XTEI *11-72*
- DEACTIVATE ISDN CALL *11-73*
- DELETE ISDN CALL *11-73*
- DELETE ISDN CLILIST *11-74*
- DELETE ISDN DOMAINNAME *11-74*
- DELETE LAPD TEI *11-75*
- DELETE LAPD XSPID *11-76*
- DELETE LAPD XTEI *11-77*
- DISABLE BRI CTEST *11-77*
- DISABLE BRI DEBUG *11-78*
- DISABLE BRI TEST *11-78*
- DISABLE ISDN CALL *11-79*
- DISABLE ISDN LOG *11-80*
- DISABLE PRI CTEST *11-80*
- DISABLE PRI DEBUG *11-81*
- DISABLE PRI TEST *11-81*
- DISABLE Q931 DEBUG *11-82*
- ENABLE BRI CTEST *11-84*
- ENABLE BRI DEBUG *11-85*
- ENABLE BRI TEST *11-86*
- ENABLE ISDN CALL *11-88*
- ENABLE ISDN LOG *11-88*
- ENABLE PRI CTEST *11-89*
- ENABLE PRI DEBUG *11-90*
- ENABLE PRI TEST *11-91*
- ENABLE Q931 ASPID *11-92*
- ENABLE Q931 DEBUG *11-93*
- RESET BRI *11-98*
- RESET BRI COUNTERS *11-98*
- RESET PRI *11-99*
- RESET PRI COUNTERS *11-100*
- RESET Q931 *11-101*
- SET BRI *11-102*
- SET ISDN CALL *11-104*
- SET ISDN DOMAINNAME *11-110*
- SET ISDN LOG *11-110*
- SET PRI *11-113*
- SET Q931 *11-117*
- SHOW BRI CONFIGURATION *11-121*
- SHOW BRI COUNTERS *11-123*
- SHOW BRI CTEST *11-130*
- SHOW BRI DEBUG *11-131*
- SHOW BRI STATE *11-132*
- SHOW BRI TEST *11-136*
- SHOW ISDN CALL *11-139*
- SHOW ISDN CLILIST *11-143*
- SHOW ISDN DOMAINNAME *11-144*
- SHOW ISDN LOG *11-145*
- SHOW LAPD *11-147*
- SHOW LAPD COUNT *11-150*
- SHOW LAPD STATE *11-151*
- SHOW PRI CONFIGURATION *11-152*
- SHOW PRI COUNTERS *11-153*
- SHOW PRI CTEST *11-163*
- SHOW PRI DEBUG *11-164*
- SHOW PRI STATE *11-165*
- SHOW PRI TEST *11-171*
- SHOW Q931 *11-173*
- SHOW Q931 SPID *11-176*
- common D channel signalling *11-30*
- configuring *11-49*
 - Basic Rate Access *11-16*
 - Primary Rate Access *11-21*
- counters *11-98, 11-100, 11-123, 11-150, 11-153*
- data over voice *11-48*
- debugging
 - SPIDs *11-35*
- deleting domain name *11-44, 11-74*
- displaying domain name *11-44, 11-144*
- domain name *11-44*
 - adding *11-44, 11-70*
 - deleting *11-44, 11-74*
 - displaying *11-44, 11-144*
 - modifying *11-110*
- interfaces, slotted *11-44*
- LAPD *11-26, 11-71, 11-75, 11-111, 11-147, 11-151*
- LAPD addressing *11-28*
- modifying domain name *11-110*
- non-associated signalling *11-30*
- packet mode *11-27, 11-71 to 11-72, 11-76 to 11-77*
- PRI physical layer *11-20, 11-80 to 11-81, 11-89 to 11-91, 11-99, 11-113, 11-152 to 11-153, 11-163 to 11-165, 11-171*
- Primary Rate Access *11-8 to 11-14*
 - configuring *11-21*
 - E1 *11-8*
 - T1 *11-10*
- profile *11-32*
- profiles *11-33 to 11-39, 11-176*
- Q.931 *11-32, 11-82, 11-93, 11-101, 11-117, 11-173*
- S/T interfaces *11-5*
- service provider profiles *11-33 to 11-39, 11-176*
- slotted interfaces *11-44*
- SPIDs *11-33 to 11-39, 11-176*
 - automatic selection *11-34, 11-62 to 11-63, 11-92*
 - debugging *11-35*
- support *11-14*
- switch detection *11-38*
- territory *11-21, 11-32, 11-49, 11-51*
- U interfaces *11-7*
- X.25 over LAPD *11-27, 11-71 to 11-72, 11-76 to 11-77*
- Interaction
 - Between SMTP Proxy and Firewall Rules *46-33*
- Interface Extensions table, Interface Extensions MIB *C-31 to C-32*
- Interface Jack Table, MAU MIB *C-35*
- Interface MAU Autonegotiation Group, MAU MIB *C-35 to C-36*
- Interface MAU Autonegotiation MIB table, MAU MIB *C-35*
- Interface MAU Basic Group, MAU MIB *C-35 to C-36*
- Interface MAU MIB table, MAU MIB *C-35*



- Interface Stack table, Interface Extensions MIB
 - C-31 to C-32*
- Interface Test table, Interface Extensions MIB *C-31 to C-32*
- Interfaces *9-4 to 9-50*
 - commands
 - SET ETH MAXBANDWIDTH *9-46*
 - Fully Qualified Interface Names *9-5*
 - link up/down traps *9-23, 9-29, 9-32, 9-49*
 - managing with SNMP *9-24*
- interfaces
 - adding
 - DECnet *37-16*
 - Internet Protocol (IP) *22-80*
 - IPX *36-6*
 - OSPF *26-31*
 - PPP physical links *15-50*
 - addressless
 - OSPF *26-10, 26-22, 26-31, 26-43, 26-50, 26-53, 26-57, 26-66*
 - asynchronous ports *9-15*
 - changing
 - Internet Protocol (IP) *22-160*
 - commands
 - CONNECT ASYN *9-25*
 - DISABLE ASYN *9-27*
 - DISABLE INTERFACE *9-29*
 - ENABLE INTERFACE LINKTRAP *9-32*
 - SET ETH SPEED *9-47*
 - SET INTERFACE MTU *9-48*
 - SET INTERFACE TRAPLIMIT *9-49*
 - SHOW ETH STATE *9-69*
 - SHOW INTERFACE *9-72*
 - configuration
 - asynchronous ports *9-15*
 - Ethernet *9-37*
 - Frame Relay *14-16*
 - synchronous lines *9-11*
 - creating
 - PPP *15-54*
 - debugging synchronous *9-30, 9-33*
 - DECnet
 - adding *37-16*
 - deleting *37-20*
 - displaying *37-33*
 - modifying *37-27*
 - defined *9-3*
 - deleting
 - DECnet *37-20*
 - Internet Protocol (IP) *22-101*
 - OSPF *26-43*
 - PPP physical links *15-70*
 - destroying
 - PPP *15-71*
 - disabling
 - Internet Protocol (IP) *22-115*
 - OSPF *26-50*
 - PPP *15-73*
 - disabling synchronous *9-30*
 - displaying
 - DECnet *37-33*
 - dynamic *19-9*
 - Internet Protocol (IP) *22-202*
 - IPX *36-6*
 - OSPF *26-85*
 - PPP *15-98*
 - displaying MIB *9-23, 9-72*
 - displaying synchronous *9-78*
 - displaying synchronous counters *9-80*
 - dynamic IP *19-9, 19-12*
 - dynamic PPP *19-9*
 - enabling
 - Internet Protocol (IP) *22-128*
 - OSPF *26-53*
 - PPP *15-76*
 - enabling synchronous *9-33*
 - Ethernet *9-37*
 - instance *7-4, 9-4*
 - Internet Protocol (IP)
 - adding *22-80*
 - changing *22-160*
 - deleting *22-101*
 - disabling *22-115*
 - displaying *22-202*
 - dynamic *19-9, 19-12*
 - enabling *22-128*
 - modifying *22-155, 22-160*
 - resetting *22-139*
 - setting *22-160*
 - IPX *36-5*
 - adding *36-6*
 - displaying *36-6*
 - modem control signals *9-12, 9-50, 9-78*
 - modifying
 - DECnet *37-27*
 - Internet Protocol (IP) *22-155, 22-160*
 - OSPF *26-66*
 - PPP *15-83*
 - modifying synchronous *9-50*
 - naming *7-4, 9-4*
 - OSPF *26-7, 26-31, 26-43, 26-50, 26-53, 26-57, 26-66*
 - adding *26-31*
 - addressless *26-10, 26-22, 26-31, 26-43, 26-50, 26-53, 26-57, 26-66*
 - deleting *26-43*
 - disabling *26-50*
 - displaying *26-85*
 - enabling *26-53*
 - modifying *26-66*
 - resetting *26-57*
 - Point-to-Point Protocol (PPP)
 - dynamic *19-9*
 - PPP
 - adding physical links *15-50*
 - creating *15-54*
 - deleting physical links *15-70*
 - destroying *15-71*
 - disabling *15-73*
 - displaying *15-98*



- enabling 15-76
- modifying 15-83
- purging 15-81
- resetting 15-82
- purging
 - PPP 15-81
- resetting
 - Internet Protocol (IP) 22-139
 - OSPF 26-57
 - PPP 15-82
- resetting synchronous 9-38
- resetting synchronous counters 9-39
- setting
 - Internet Protocol (IP) 22-160
- synchronous lines 9-11
- testing 63-1
- types 7-4, 9-4
- Interfaces Group MIB C-31
- Interfaces group, MIB-II C-38
- interfaces group, MIB-II C-29, C-38
- Interfaces table, Interface Extensions MIB C-31 to C-32
- Internet 22-5
- Internet Control Message Protocol (ICMP) 22-19
- Internet Group Management Protocol (IGMP) 33-11
 - adding
 - filters 24-44
 - commands
 - ADD IGMP FILTER 24-44
 - ADD IGMP Snooping Router Address 24-45
 - CREATE IGMP FILTER 24-52
 - DELETE IGMP FILTER 24-54
 - DELETE IGMP Snooping Router Address 24-54
 - DESTROY IGMP FILTER 24-58
 - DISABLE IGMP Snooping 24-60
 - DISABLE IP IGMP Interface 24-62
 - ENABLE IGMP Snooping 24-66
 - ENABLE IP IGMP 24-66
 - ENABLE IP IGMP Interface 24-68
 - SET IGMP FILTER 24-74
 - SET IGMP Snooping Fast Leave 24-75
 - SET IGMP Snooping Router Mode 24-76
 - SET IP IGMP 24-77
 - SET IP IGMP Interface 24-78
 - SHOW IGMP FILTER 24-92
 - SHOW IGMP Snooping 24-94
 - SHOW IGMP Snooping Counter 24-96
 - SHOW IGMP Snooping Router Address 24-98
 - SHOW IP IGMP 24-99
 - SHOW IP IGMP Counter 24-102
 - creating
 - filters 24-52
 - deleting
 - filters 24-54
 - destroying
 - filters 24-58
 - disabling 24-60
 - disabling interfaces 24-62
 - displaying 24-99
 - filters 24-92
 - displaying counters 24-102
 - enabling 24-66
 - enabling interfaces 24-68
 - filtering 24-25
 - filters
 - adding 24-44
 - creating 24-52
 - deleting 24-54
 - destroying 24-58
 - displaying 24-92
 - modifying 24-74
 - introduction 24-18
 - modifying
 - filters 24-74
 - proxy 24-20
 - setting timers 24-77 to 24-78
 - snooping 24-22
 - throttling 24-27
- Internet Protocol (IP)
 - adding
 - ARP entries 22-13, 22-66
 - BOOTP relay destination 23-10
 - exclusion filters 22-70
 - filters 22-70
 - hosts 22-79
 - inclusion filters 22-70
 - interfaces 22-80
 - metric boosts 22-25
 - proxy ARPs 22-17
 - RIP addresses 25-2, 25-7
 - route templates 22-93
 - routes 22-21, 22-90, 25-7
 - routing filters 28-47
 - trusted routers 25-11
 - address assignment
 - remote 22-51, 22-118, 22-131
 - using DHCP 22-19, 22-111, 22-124
 - address classes 22-7
 - address format 22-7
 - address pools 22-52
 - creating 22-96
 - destroying 22-108
 - displaying 22-211
 - Address Resolution Protocol (ARP)
 - adding entries 22-13, 22-66
 - changing entries 22-142
 - deleting entries 22-96
 - displaying entries 22-181
 - modifying entries 22-142
 - proxy 22-17
 - setting entries 22-142
 - addresses 22-5, 22-7, 22-51, 22-118, 22-131
 - addresses, for asynchronous ports 19-4, 19-12
 - agent, SNMP
 - displaying 55-52
 - authentication, SNMPv1 and v2 55-17
 - autonomous system number 27-106
 - boosts 22-25
 - BOOTP relay agent 23-4, 23-10, 23-22, 23-30, 23-32, 23-48
 - broadcast forwarding 22-44 to 22-47, 22-78, 22-99, 22-113, 22-126, 22-198
 - to a broadcast address 22-46
 - to a unicast address 22-45



- changing
 - ARP entries 22-142
 - hosts 22-154
 - interfaces 22-160
 - RIP addresses 25-14
 - RIP timers 25-18
 - routes 22-164, 25-14
- commands 22-65, 25-7
 - ADD BOOTP RELAY 23-10
 - ADD IP ARP 22-66
 - ADD IP FILTER 22-70
 - ADD IP HELPER 22-78
 - ADD IP HOST 22-79
 - ADD IP INTERFACE 22-80
 - ADD IP NAT 22-87
 - ADD IP RIP 25-7
 - ADD IP ROUTE 22-90
 - ADD IP ROUTE FILTER 28-47
 - ADD IP ROUTE TEMPLATE 22-93
 - ADD IP SA 22-221, 28-50
 - ADD IP TRUSTED 25-11
 - CREATE IP POOL 22-96
 - DELETE BOOTP RELAY 23-22
 - DELETE IP ARP 22-96
 - DELETE IP FILTER 22-98
 - DELETE IP HELPER 22-99
 - DELETE IP HOST 22-100
 - DELETE IP INTERFACE 22-101
 - DELETE IP NAT 22-103
 - DELETE IP RIP 25-12
 - DELETE IP ROUTE 22-105
 - DELETE IP ROUTE FILTER 28-59
 - DELETE IP ROUTE TEMPLATE 22-106
 - DELETE IP SA 22-107
 - DELETE IP TRUSTED 25-13
 - DELETE TCP 22-108
 - DESTROY IP POOL 22-108
 - DISABLE BOOTP RELAY 23-30
 - DISABLE IP 22-109
 - DISABLE IP DEBUG 22-110
 - DISABLE IP DNSRELAY 22-111
 - DISABLE IP ECHOREPLY 22-111
 - DISABLE IP FOFILTER 22-112
 - DISABLE IP FORWARDING 22-113
 - DISABLE IP HELPER 22-113
 - DISABLE IP INTERFACE 22-115
 - DISABLE IP NAT 22-117
 - DISABLE IP REMOTEASSIGN 22-118
 - DISABLE IP ROUTE 22-118
 - DISABLE IP SRCROUTE 22-119
 - ENABLE BOOTP RELAY 23-32
 - ENABLE IP 22-122
 - ENABLE IP DEBUG 22-123
 - ENABLE IP DNSRELAY 22-124
 - ENABLE IP ECHOREPLY 22-124
 - ENABLE IP FOFILTER 22-125
 - ENABLE IP FORWARDING 22-126
 - ENABLE IP HELPER 22-126
 - ENABLE IP INTERFACE 22-128
 - ENABLE IP NAT 22-130
 - ENABLE IP REMOTEASSIGN 22-131
 - ENABLE IP ROUTE 22-131
 - ENABLE IP SRCROUTE 22-119 to 22-120, 22-132 to 22-133
 - FINGER 22-134
 - PING 22-135
 - PURGE BOOTP RELAY 23-34
 - PURGE IP 22-137
 - RESET IP 22-138
 - RESET IP INTERFACE 22-139
 - SET BOOTP MAXHOPS 23-35
 - SET IP ARP 22-142
 - SET IP ARP TIMEOUT 22-143 to 22-144
 - SET IP AUTONOMOUS 27-106
 - SET IP DNSRELAY 22-149
 - SET IP FILTER 22-150
 - SET IP HOST 22-154
 - SET IP INTERFACE 22-155
 - SET IP LOCAL 22-160
 - SET IP NAMESERVER 22-162
 - SET IP RIP 25-14
 - SET IP RIPTIMER 25-18
 - SET IP ROUTE 22-164
 - SET IP ROUTE FILTER 28-63
 - SET IP ROUTE TEMPLATE 22-168
 - SET IP SECONDARYNAMESERVER 22-170
 - SET PING 22-171
 - SET TRACE 22-174
 - SHOW BOOTP RELAY 23-48
 - SHOW IP 22-176
 - SHOW IP ARP 22-181
 - SHOW IP DEBUG 22-192
 - SHOW IP FILTER 22-196
 - SHOW IP HELPER 22-198
 - SHOW IP HOST 22-200
 - SHOW IP INTERFACE 22-202
 - SHOW IP POOL 22-211
 - SHOW IP RIP 25-19
 - SHOW IP RIP COUNTER 25-21
 - SHOW IP RIPTIMER 25-24
 - SHOW IP ROUTE 22-213
 - SHOW IP ROUTE FILTER 28-76
 - SHOW IP ROUTE MULTICAST 22-217
 - SHOW IP ROUTE TEMPLATE 22-219
 - SHOW IP TRUSTED 25-25
 - SHOW IP UDP 22-222
 - SHOW PING 22-224
 - SHOW SNMP 55-52
 - SHOW SNMP COMMUNITY 55-52
 - SHOW TCP 22-226
 - SHOW TRACE 22-231
 - STOP PING 22-233
 - STOP TRACE 22-233
 - TRACE 22-234
- communities, SNMP 55-16
 - displaying 55-52
- configuration 22-41, 22-54, 22-176, 25-5
 - examples 22-41, 22-54, 25-5
- connection vs. connectionless mode 22-5
- control functions 22-39



- counters 25-21
- creating
 - address pools 22-96
- debugging functions 22-39 to 22-40, 22-110, 22-123, 22-192
- definition 22-5
- deleting
 - ARP entries 22-96
 - BOOTP relay destination 23-22
 - exclusion filters 22-98
 - filters 22-98
 - hosts 22-100
 - inclusion filters 22-98, 22-150
 - interfaces 22-101
 - metric boosts 22-25
 - RIP addresses 25-12
 - route templates 22-106
 - routes 22-105, 25-12
 - routing filters 28-59
 - TCP sessions 22-108
 - trusted routers 25-13
- destination address 22-5
- destroying
 - address pools 22-108
- DHCP client 22-19, 22-81, 22-111, 22-124, 22-157
- disabling
 - BOOTP relay agent 23-30
 - fragment offset filter 22-112
 - interfaces 22-115
 - routes 22-118
- displaying
 - address pools 22-211
 - ARP entries 22-56, 22-181
 - BOOTP relay destination 23-48
 - configuration 22-176
 - counters 25-21
 - exclusion filters 22-196
 - hosts 22-200
 - inclusion filters 22-196
 - interfaces 22-202
 - metric boosts 22-25
 - proxy ARPs 22-17
 - RIP addresses 25-2, 25-19
 - RIP counters 25-21
 - RIP timers 25-24
 - route templates 22-219
 - routes 22-23, 22-56, 22-213
 - routing filters 28-76
 - TCP sessions 22-226
 - trusted routers 25-25
 - UDP sessions 22-222
- DNS relay agent 22-111, 22-124, 22-149
- dynamic ENAT 22-49
- dynamic interfaces 19-9, 19-12
- dynamic NAT 22-49
- echo reply
 - disabling 22-111
 - enabling 22-124
- enabling
 - BOOTP relay agent 23-32
 - fragment offset filter 22-125
 - interfaces 22-128
 - routes 22-131
- examples 22-54, 25-5
- exclusion filters 22-70, 22-98, 22-150, 22-196
- filters 22-25, 22-36, 22-70, 22-98, 22-112, 22-125, 22-150, 22-196
- finger client 22-41, 22-134
- fragment offset filter 22-112, 22-125
- gateway 22-62, 22-109, 22-113, 22-122, 22-126, 22-176
- header 22-5
- hosts 22-79, 22-100, 22-154, 22-200
- inclusion filters 22-70, 22-98, 22-150, 22-196
- interface ENAT 22-50
- interfaces
 - adding 22-80
 - changing 22-160
 - deleting 22-101
 - disabling 22-115
 - displaying 22-202
 - dynamic 19-9, 19-12
 - enabling 22-128
 - modifying 22-155, 22-160
 - resetting 22-139
 - setting 22-160
- Internet Control Message Protocol (ICMP) 22-19
- local interface 22-160
- maximum transmission unit, for asynchronous ports 19-4, 19-12
- metrics 22-25
- MIB 22-38, 55-1
- modifying
 - ARP entries 22-142
 - hosts 22-154
 - interfaces 22-155, 22-160
 - route templates 22-168
 - routes 22-164
 - routing filters 28-63
- multicasting 22-47
- multihoming 22-11
- name server 22-162, 22-170
- Network Address Translation 22-48 to 22-51, 22-87, 22-103, 22-117, 22-130, 22-206
- Open Shortest Path First (OSPF) 22-25
- ping function 22-40, 22-135, 22-171, 22-224, 22-233
- primary name server 22-162
- proxy ARPs 22-17
- purge configuration database 22-137
- reinitialise module 22-138
- remote address assignment 22-51, 22-118, 22-131
- resetting
 - interfaces 22-139
- restart module 22-138
- RIP timers
 - displaying 25-24
 - setting 25-18
- route templates 22-28
 - adding 22-93
 - deleting 22-106
 - displaying 22-219
 - modifying 22-168
- router type 22-62, 22-109, 22-113, 22-122, 22-126



- routes 22-20
 - adding 22-21, 22-90
 - changing 22-164
 - deleting 22-105
 - disabling 22-118
 - displaying 22-23, 22-213
 - enabling 22-131
 - modifying 22-164
 - setting 22-164
 - tracing 22-174, 22-231, 22-233 to 22-234
- routing 22-20
- routing filters 28-47
 - deleting 28-59
 - displaying 28-76
 - modifying 28-63
- routing information filters 22-25
- Routing Information Protocol (RIP) 22-24, 25-7, 25-12, 25-14, 25-18 to 25-19, 25-21, 25-24
- routing protocols
 - Open Shortest Path First (OSPF) 22-25
 - Routing Information Protocol (RIP) 22-24, 25-7, 25-12, 25-14, 25-18, 25-24
- routing table 22-21, 22-213
- secondary name server 22-170
- security associations 22-43, 22-107, 22-221, 28-50
- security associations. *See Also* encryption
- security options 22-43, 22-112, 22-125
- server 22-62, 22-109, 22-113, 22-122, 22-126, 22-176
- Server selection 22-36
- setting
 - ARP entries 22-142
 - displaying 22-196
 - exclusion filters 22-150
 - filters 22-150
 - hosts 22-154
 - interfaces 22-160
 - routes 22-164
- SNMP 22-38, 55-1
- SNMP agent
 - displaying 55-52
- SNMP authenticationv1 and v2 55-17
- SNMP communities 55-16
 - displaying 55-52
- source address 22-5
- static ENAT 22-50
- static NAT 22-49
- subnet 22-9
- subnet mask 22-9
- TCP sessions 22-108, 22-226
- Telnet server 22-62, 22-109, 22-113, 22-122, 22-126, 22-176
- timers
 - RIP 25-18, 25-24
- trace route 22-174, 22-231, 22-233 to 22-234
- traffic filters 22-36
- trusted routers 25-11, 25-13, 25-25
- UDP sessions 22-222
- Internet Protocol (IP). *See also* Generic Routing Encapsulation (GRE)
 - reserved IP address ranges 30-2
- Internet Protocol version 6 (IPv6) 31-13
 - addresses
 - adding to interfaces 31-14
 - associating with host names 31-15
 - slash notation 31-14
 - commands
 - ADD IPV6 FILTER 31-37
 - ADD IPV6 HOST 31-42
 - ADD IPV6 INTERFACE 31-43
 - ADD IPV6 RIP 31-48
 - ADD IPV6 ROUTE 31-49
 - ADD IPV6 TUNNEL 31-51
 - CREATE IPV6 INTERFACE 31-52
 - DELETE IPV6 FILTER 31-53
 - DELETE IPV6 HOST 31-54
 - DELETE IPV6 INTERFACE 31-54
 - DELETE IPV6 RIP 31-57
 - DELETE IPV6 ROUTE 31-58
 - DELETE IPV6 TUNNEL 31-59
 - DESTROY IPV6 INTERFACE 31-60
 - DISABLE IPV6 31-60
 - DISABLE IPV6 ADV 31-61
 - DISABLE IPV6 DEBUG 31-61
 - DISABLE IPV6 RIP 31-62
 - ENABLE IPV6 31-62
 - ENABLE IPV6 ADV 31-63
 - ENABLE IPV6 DEBUG 31-64
 - ENABLE IPV6 RIP 31-64
 - SET IPV6 FILTER 31-66
 - SET IPV6 INTERFACE 31-69
 - SET IPV6 MTU 31-70
 - SHOW IPV6 31-75
 - SHOW IPV6 COUNTER 31-77
 - SHOW IPV6 FILTER 31-81
 - SHOW IPV6 HOST 31-83
 - SHOW IPV6 INTERFACE 31-84
 - SHOW IPV6 MULTICAST 31-86
 - SHOW IPV6 ND 31-87
 - SHOW IPV6 RIP 31-90
 - SHOW IPV6 ROUTE 31-92
 - SHOW IPV6 TUNNEL 31-95
 - default routes 31-16
 - DHCP. *See* Dynamic Host Configuration Protocol for IPv6 (DHCP6)
 - disabling 31-13
 - enabling 31-13
 - extension headers 31-15
 - filtering 31-18
 - fragmentation 31-19
 - headers
 - extension 31-15
 - ICMPv6 31-20
 - integration with IPv4 31-22
 - interfaces 31-14
 - MTU 31-19
 - neighbour discovery 31-17
 - ping 31-20
 - prefix delegation 32-4
 - RIPv6 31-16



- routes
 - default 31-16
 - static 31-16
- routing 31-16 to 31-17
 - through IPv4 networks 31-22
- Stateless Address Autoconfiguration 31-14
- static routes 31-16
- TCP 31-19
- telnet 31-19
- trace route 31-20
- tunnelling 31-22
- UDP 31-16
- Internet-standard MIB 55-5
- Internet-standard Network Management Framework 55-3
- Introduction 15-3, 31-2, 32-2, 53-2
- Inverse ARP 14-18
- IP address 22-81, 22-157
 - from DHCP 22-19, 22-111, 22-124
- IP CIDR Route table, IP Forwarding Table MIB C-33
- IP flow (WAN Load Balancing) 52-2
- IP Forwarding Table MIB C-33
- IP Forwarding table, IP Forwarding Table MIB C-33
- IP group, MIB-II MIB C-29, C-33
- IP Multicasting
 - displaying route 22-217
 - static multicast forwarding 22-48
- IP Security (IPsec) 48-1, 48-31 to 48-212
 - See also Compression and Encryption Services; Link Compression and Encryption
 - actions 48-15
 - adding
 - members to Security Associations 48-48
 - authentication 48-9
 - IKE 48-11
 - Authentication Header (AH) 48-4
 - bundle specifications
 - creating 48-49
 - destroying 48-71
 - displaying 48-115
 - modifying 48-93
 - SAs 48-13, 48-16
 - bundle strings, SAs 48-13
 - bundles, SAs 48-5, 48-16
 - commands 48-47 to 48-212
 - ACTIVATE IPSEC CONVERTOLDSA 48-47
 - ADD SA MEMBER command 48-48
 - CREATE IPSEC BUNDLESPECIFICATION 48-49
 - CREATE IPSEC POLICY 48-51
 - CREATE IPSEC SASPECIFICATION 48-59
 - CREATE ISAKMP POLICY 48-62
 - CREATE SA 48-70
 - DELETE SA MEMBER 48-71
 - DESTROY IPSEC BUNDLESPECIFICATION 48-71
 - DESTROY IPSEC POLICY 48-72
 - DESTROY IPSEC SASPECIFICATION 48-73
 - DESTROY ISAKMP POLICY 48-73
 - DESTROY SA 48-74
 - DISABLE IPSEC 48-74
 - DISABLE IPSEC OLDSA 48-75
 - DISABLE IPSEC POLICY DEBUGGING 48-76
 - DISABLE ISAKMP 48-78
 - DISABLE ISAKMP DEBUGGING 48-79
 - DISABLE SA DEBUGGING 48-80
 - ENABLE IPSEC 48-80
 - ENABLE IPSEC OLDSA 48-81
 - ENABLE IPSEC POLICY DEBUGGING 48-82
 - ENABLE ISAKMP 48-84
 - ENABLE ISAKMP DEBUGGING 48-86
 - ENABLE SA DEBUGGING 48-87
 - PURGE IPSEC 48-87
 - RESET IPSEC COUNTERS 48-88
 - RESET IPSEC POLICY COUNTERS 48-89
 - RESET IPSEC SA COUNTERS 48-90
 - RESET ISAKMP COUNTERS 48-91
 - SET IPSEC BUNDLESPECIFICATION 48-93
 - SET IPSEC POLICY 48-94
 - SET IPSEC SASPECIFICATION 48-102
 - SET IPSEC UDPPORT 48-104
 - SET ISAKMP POLICY 48-105
 - SET SA 48-113
 - SHOW IPSEC 48-114
 - SHOW IPSEC BUNDLESPECIFICATION 48-115
 - SHOW IPSEC COUNTERS 48-118
 - SHOW IPSEC POLICY 48-134, 48-138
 - SHOW IPSEC SA 48-143
 - SHOW IPSEC SASPECIFICATION 48-151
 - SHOW ISAKMP 48-153
 - SHOW ISAKMP COUNTERS 48-155
 - SHOW ISAKMP EXCHANGE 48-185
 - SHOW ISAKMP POLICY 48-192
 - SHOW ISAKMP SA 48-197
 - SHOW SA 48-202
 - SHOW SA COUNTER 48-205
 - SHOW SA USER 48-211
 - compression 48-5
 - converting old SAs 48-20, 48-47
 - counters
 - displaying IPsec 48-118
 - displaying ISAKMP 48-155
 - displaying SA 48-205
 - resetting IPsec 48-88
 - resetting IPsec policy 48-89
 - resetting IPsec SA 48-90
 - resetting ISAKMP 48-91
 - creating
 - bundle specifications 48-49
 - IPsec policies 48-51
 - ISAKMP policies 48-22, 48-62
 - SA specifications 48-59
 - Security Associations 48-70
 - debugging
 - IPsec policies 48-76, 48-82
 - ISAKMP 48-79, 48-86
 - Security Associations 48-80, 48-87
 - deleting
 - members from Security Associations 48-71
 - destroying
 - bundle specifications 48-71
 - IPsec configurations 48-87
 - IPsec policies 48-72



- ISAKMP policies 48-22, 48-73
- SA specifications 48-73
- Security Associations 48-74
- disabling
 - IPsec 48-74
 - IPsec policy debugging 48-76
 - ISAKMP 48-21, 48-78
 - ISAKMP debugging 48-79
 - old SAs 48-75
 - Security Association debugging 48-80
- displaying
 - bundle specifications 48-115
 - IPsec counters 48-118
 - IPsec policies 48-134, 48-138
 - IPsec SAs 48-143
 - IPsec status 48-114
 - ISAKMP counters 48-155
 - ISAKMP exchanges 48-24, 48-185
 - ISAKMP policies 48-22, 48-192
 - ISAKMP SAs 48-25, 48-197
 - ISAKMP status 48-21, 48-153
 - members of Security Associations 48-202
 - SA specifications 48-151
 - Security Association counters 48-205
 - Security Association users 48-211
- enabling
 - IPsec 48-80
 - IPsec policy debugging 48-82
 - ISAKMP 48-21, 48-84
 - ISAKMP debugging 48-86
 - old SAs 48-81
 - Security Association debugging 48-87
- Encapsulating Security Payload (ESP) protocol 48-4
- ESP 48-4
- exchanges, ISAKMP 48-24
 - displaying 48-24, 48-185
- IKE 48-10
 - authentication 48-11
 - exchanges 48-10
 - key exchange 48-11
 - SA negotiation 48-11
- IPComp protocol 48-5
- IPsec
 - disabling 48-74
 - displaying status 48-114
 - enabling 48-80
 - purging 48-87
- IPsec configurations
 - destroying 48-87
- ISAKMP 48-6
 - counters 48-91, 48-155
 - debugging 48-79, 48-86
 - disabling 48-21, 48-78
 - displaying SAs 48-25
 - displaying status 48-21, 48-153
 - enabling 48-21, 48-84
 - exchanges 48-10, 48-24, 48-185
 - ISAKMP SA 48-10
 - messages 48-6
 - overview 48-6
 - policies 48-21 to 48-22, 48-62, 48-73, 48-192
 - SAs 48-25, 48-197
 - support 48-21
 - troubleshooting 48-45
 - key exchange 48-8, 48-11
 - key management 48-7, 48-16
 - manual 48-16
 - using ISAKMP 48-17
 - mode
 - tunnel 48-5
 - modes 48-4
 - modifying
 - bundle specifications 48-93
 - IPsec policies 48-94
 - SA specifications 48-102
 - Security Associations 48-113
 - OAKLEY Key Determination Protocol 48-11
 - old SAs 48-20, 48-30
 - converting 48-20, 48-47
 - disabling 48-75
 - enabling 48-20, 48-81
 - overview of IPsec 48-4
 - overview of ISAKMP/IKE 48-6
 - peers, defined 48-4
 - policies 48-14, 48-21
 - actions 48-15
 - creating 48-22, 48-51
 - debugging 48-76, 48-82
 - destroying 48-22, 48-72
 - displaying 48-22, 48-134, 48-138
 - ISAKMP 48-22, 48-62, 48-73, 48-192
 - modifying 48-94
 - selectors 48-14
 - proposals, SAs 48-13
 - purging
 - IPsec 48-87
 - resetting
 - IPsec counters 48-88
 - IPsec policy counters 48-89
 - IPsec SA counters 48-90
 - ISAKMP counters 48-91
 - RFCs 48-12
 - SA specifications
 - creating 48-59
 - destroying 48-73
 - displaying 48-151
 - modifying 48-102
 - Security Associations 48-5
 - adding members 48-48
 - bundle specifications 48-13, 48-49, 48-71, 48-93, 48-115
 - bundle strings 48-13
 - bundles 48-5, 48-16
 - counters 48-205
 - creating 48-70
 - debugging 48-80, 48-87
 - deleting members 48-71
 - destroying 48-74
 - displaying 48-143
 - displaying members 48-202



- ISAKMP 48-25
 - modifying 48-113
 - proposals 48-13
 - specifications 48-13, 48-59, 48-73, 48-102, 48-151
 - users 48-211
- Security Parameter Index (SPI) 48-5
- Security Policy Database (SPD) 48-13
- security protocols 48-4
- security services 48-4
- selectors 48-14
- support 48-12
- support for ISAKMP 48-21
- troubleshooting 48-44
- tunnel mode 48-5
- users
 - displaying SA 48-211
- ipCidrRouteNumber MIB object C-33
- ipCidrRouteTable MIB object C-33
- IPComp compression protocol 48-5
- ipForward MIB object C-33
- ipForwardNumber MIB object C-33
- ipForwardTable MIB object C-33
- ipNetToMediaIIndex MIB object C-30
- ipNetToMediaNetAddress MIB object C-30
- ipNetToMediaPhysAddress MIB object C-30
- ipNetToMediaType MIB object C-30
- ipRouteAge MIB object C-30
- ipRouteIIndex MIB object C-30
- ipRouteMask MIB object C-30
- ipRouteMetric1 MIB object C-30
- ipRouteMetric2 MIB object C-30
- ipRouteMetric3 MIB object C-30
- ipRouteMetric4 MIB object C-30
- ipRouteMetric5 MIB object C-30
- ipRouteNextHop MIB object C-30
- ipRouteType MIB object C-30
- IPsec
 - NAT 48-19
 - Network Address Translation 48-19
 - over UDP 48-19
 - permit policy 48-19
- IPsec over UDP 48-19
- IPsec. *See* IP Security (IPsec)
- IPv4 Multicasting 24-4
 - See also* Distance Vector Multicast Routing Protocol (DVMRP)
 - See also* Internet Group Management Protocol (IGMP)
 - See also* Protocol Independent Multicast (PIM)
 - Multicast Border Router 24-5
- IPv6
 - DHCP. *See* Dynamic Host Configuration Protocol for IPv6 (DHCP6)
- IPv6 Multicasting 33-3
 - See also* Multicast Listener Discovery (MLD)
 - See also* Protocol Independent Multicast (PIM)
 - configuration example 33-13
 - Multicast Border Router 33-4
- IPv6. *See* Internet Protocol version 6 (IPv6)
- IPX 36-1 to 36-77
 - adding
 - circuits 36-31
 - exclusions 36-35
 - filters 36-8 to 36-9, 36-35 to 36-37
 - inclusions 36-36
 - interfaces 36-6
 - RIP filters 36-37
 - routes 36-38
 - addresses 36-4
 - MAC 36-4
 - network 36-4
 - station 36-4
 - circuit
 - adding 36-31
 - deleting 36-42
 - disabling 36-48
 - displaying 36-63
 - enabling 36-49
 - setting 36-51
 - circuits 36-5
 - commands
 - ADD IPX CIRCUIT 36-31
 - ADD IPX EXCLUSION 36-35
 - ADD IPX INCLUSION 36-36
 - ADD IPX RIP 36-37
 - ADD IPX ROUTE 36-38
 - ADD IPX SERVICE 36-40
 - DELETE IPX CIRCUIT 36-42
 - DELETE IPX EXCLUSION 36-43
 - DELETE IPX INCLUSION 36-44
 - DELETE IPX RIP 36-45
 - DELETE IPX ROUTE 36-45
 - DELETE IPX SAP 36-46
 - DELETE IPX SERVICE 36-47
 - DISABLE IPX 36-47
 - DISABLE IPX CIRCUIT 36-48
 - ENABLE IPX 36-48
 - ENABLE IPX CIRCUIT 36-49
 - PURGE IPX 36-49
 - RESET IPX 36-50
 - SET IPX CIRCUIT 36-51
 - SET IPX GRIP|GSAP 36-54
 - SET IPX RIP 36-55
 - SET IPX SAP 36-56
 - SHOW IPX 36-57
 - SHOW IPX CACHE 36-59
 - SHOW IPX CALLLOG 36-60
 - SHOW IPX CIRCUIT 36-63
 - SHOW IPX COUNTER 36-65
 - SHOW IPX EXCLUSION 36-69
 - SHOW IPX INCLUSION 36-70
 - SHOW IPX RIP 36-71
 - SHOW IPX ROUTE 36-72
 - SHOW IPX SAP 36-73
 - SHOW IPX SERVICE 36-75
 - SHOW IPX SPXSPOOF 36-76
 - configuration 36-17, 36-57
 - examples 36-17
 - counters 36-16, 36-65



- debugging calls 36-60, 36-76
- debugging routes and circuits 36-15
- deleting
 - circuits 36-42
 - exclusions 36-43
 - filters 36-43 to 36-45, 36-55
 - inclusions 36-44
 - RIP filters 36-45
 - routes 36-45
- dial-in connections 19-13
- disabling 36-47
 - circuits 36-48
- displaying
 - circuits 36-63
 - configuration 36-57
 - counters 36-16, 36-65
 - exclusions 36-69
 - filters 36-69 to 36-71, 36-73
 - inclusions 36-70
 - interfaces 36-6
 - RIP filters 36-71
 - route cache 36-59
 - routes 36-72
 - services 36-7, 36-75
- enabling 36-48
 - circuits 36-49
- examples 36-17
- exclusion filters 36-8 to 36-9, 36-35, 36-43, 36-69
- filters 36-8 to 36-9, 36-35 to 36-37, 36-43 to 36-45, 36-55, 36-69 to 36-71, 36-73
- GetNearestServer request 36-8
- inclusion filters 36-8 to 36-9, 36-36, 36-44, 36-70
- interface
 - adding 36-6
 - displaying 36-6
- interfaces 36-5
- MAC address 36-4
- MIB 36-16, 36-65
- network address 36-4
- PING 36-15
- protocol 36-3
- purge configuration database 36-49
- reinitialise module 36-50
- reset module 36-50
- RIP 36-3, 36-5
- RIP filters 36-10, 36-37, 36-45, 36-54 to 36-55, 36-71
- routes 36-5, 36-38, 36-45, 36-59, 36-72
- routing 36-5
- Routing Information Protocol (RIP) 36-3, 36-5
- SAP filters 36-11, 36-39, 36-46, 36-54, 36-56, 36-73
- Service Advertisement Protocol (SAP) 36-7, 36-39, 36-46, 36-54, 36-56, 36-73
- Services 36-7, 36-75
- services 36-40, 36-47
- setting
 - circuits 36-51
 - RIP filters 36-55
- sockets 36-3
- SPX spoofing 36-13
- station address 36-4
- status 36-57

- ISAKMP 48-21
- ISAKMP policy 48-105
- ISAKMP/IKE. See IP Security (IPsec)
- ISDN Call Control group, Allied Telesis Enterprise MIB C-19
- ISDN. See Integrated Services Digital Network (ISDN)
- isisAreaAddrTable MIB object C-24
- isisCirc MIB object C-24
- isisCircClnsTable MIB object C-24
- isisCircIStable MIB object C-24
- isisCircTable MIB object C-24
- isisCLNPDest MIB object C-25
- isisESAdj MIB object C-25
- isisESAdjTable MIB object C-25
- isisISAdj MIB object C-24
- isisISAdjAreaAddrTable MIB object C-24
- isisISAdjIPAddrTable MIB object C-24
- isisISAdjProtSuppTable MIB object C-24
- isisISAdjTable MIB object C-24
- isisL1CLNPDestTable MIB object C-25
- isisL2CLNPDestTable MIB object C-25
- isisL2SummAddrTable MIB object C-24
- isisL3CLNPDestTable MIB object C-25
- isisManAreaAddrTable MIB object C-24
- isisRATable MIB object C-25
- isisReachAddr MIB object C-25
- isisSysProtSuppTable MIB object C-24
- isisSysTable MIB object C-24
- isisSystem MIB object C-24
- ISO NSAP addresses 34-2

K

- key exchange, IPsec 48-8
- key exchange. See Compression and Encryption Services
- key management, IPsec 48-7, 48-16
 - manual 48-16
 - using ISAKMP 48-17
- key management, link encryption 50-5 to 50-10
 - creating master keys 50-8
 - creating network keys 50-7
 - creating star entities 50-7
 - entering network keys 50-8
 - exchanging session keys 50-10
 - master router 50-6
 - network key 50-7
 - session keys 50-7
 - slave router 50-6
 - stand-by router 50-6, 50-10
 - transferring master keys 50-8
- keys
 - creating 42-19

L

- L2TP Access Concentrator. See Layer Two Tunnelling Protocol (L2TP)
- L2TP Network Server. See Layer Two Tunnelling Protocol (L2TP)
- L2TP. See Layer Two Tunnelling Protocol (L2TP)
- LAC. See Layer Two Tunnelling Protocol (L2TP)
- LAPB counters, displaying 13-75
- LAPB interface
 - destroying 13-59



LAPB interfaces

- creating 13-47
- displaying 13-75
- modifying 13-64
- resetting 13-63

LAPD, ISDN 11-26, 11-71, 11-75, 11-111, 11-147, 11-150 to 11-151

- addressing 11-28

Layer 2 Filtering 8-17

Layer 2 Switching 8-1, 8-15

- ageing timer 8-16

commands

- ADD VLAN BRIDGE 16-34
- DELETE VLAN BRIDGE 16-38
- DELETE VLAN PORT 8-27
- DESTROY VLAN 8-28
- DISABLE SWITCH AGEINGTIMER 8-28
- DISABLE SWITCH DEBUG 8-29
- DISABLE SWITCH LEARNING 8-29
- DISABLE VLAN DEBUG 8-30
- ENABLE SWITCH AGEINGTIMER 8-31
- ENABLE SWITCH DEBUG 8-32
- ENABLE SWITCH LEARNING 8-33
- ENABLE SWITCH PORT 8-33
- ENABLE VLAN DEBUG 8-34
- RESET SWITCH 8-34
- SET SWITCH AGEINGTIMER 8-36
- SET SWITCH QOS 8-40
- SET VLAN PORT 8-41
- SHOW SWITCH 8-42
- SHOW SWITCH COUNTER 8-44
- SHOW SWITCH DEBUG 8-43
- SHOW SWITCH PORT 8-47
- SHOW SWITCH QOS 8-53
- SHOW VLAN 8-54
- SHOW VLAN DEBUG 8-56

egress rules 8-18

ingress rules 8-15

Quality of Service (QOS) 8-17

switch learning 8-16

switch ports 8-4

triggers 8-18

VLAN tagging 8-18

Layer 3 Switching 8-1

Layer Two Tunnelling Protocol (L2TP) 20-1 to 20-68

activating calls 20-10, 20-18

adding

- calls 20-8, 20-19
- filters 20-43
- PPP templates 20-6, 20-22
- username mappings 20-24, 20-30

authentication 20-3

call id 20-3

calls

- activating 20-10, 20-18
- adding 20-8, 20-19
- deactivating 20-10, 20-28
- deleting 20-10, 20-28
- displaying 20-10, 20-50, 20-56, 20-59
- modifying 20-8, 20-40

checksum, UDP 20-43

commands

- ACTIVATE L2TP CALL 20-18
- ADD L2TP CALL 20-19
- ADD L2TP IP 20-22
- ADD L2TP USER 20-24, 20-30
- DEACTIVATE L2TP CALL 20-28
- DELETE L2TP CALL 20-28
- DELETE L2TP IP 20-29
- DELETE L2TP USER 20-31
- DISABLE L2TP 20-32
- DISABLE L2TP DEBUG 20-33
- DISABLE L2TP SERVER 20-34
- ENABLE L2TP 20-34
- ENABLE L2TP DEBUG 20-35
- ENABLE L2TP SERVER 20-39
- SET L2TP CALL 20-40
- SET L2TP CHECKSUM 20-43
- SET L2TP FILTER 20-43
- SET L2TP PASSWORD 20-44
- SET L2TP USER 20-45
- SHOW L2TP 20-48
- SHOW L2TP CALL 20-50
- SHOW L2TP IP 20-55
- SHOW L2TP TUNNEL 20-56, 20-59
- SHOW L2TP USER 20-67

configuration

- displaying 20-10, 20-48

configuration examples 20-12

- configure L2TP to tunnel PPPoE sessions 20-16
- configure L2TP tunnels 20-12
- simple dial-in system 20-14

counters

- displaying 20-48, 20-56, 20-59

deactivating calls 20-10, 20-28

debugging

- disabling 20-33
- enabling 20-35

deleting

- calls 20-10, 20-28
- PPP templates 20-8, 20-29
- username mappings 20-7, 20-31

dial-up connections 20-3

disabling

- debugging 20-33
- L2TP server 20-32, 20-34

displaying

- calls 20-10, 20-50, 20-56, 20-59
- configuration 20-10, 20-48
- counters 20-48, 20-56, 20-59
- PPP templates 20-7, 20-55
- tunnels 20-10, 20-56, 20-59
- username mappings 20-8, 20-67

enabling

- debugging 20-35
- L2TP server 20-34, 20-39

encapsulation 20-3

example configurations 20-12

- configure L2TP to tunnel PPPoE sessions 20-16
- configure L2TP tunnels 20-12
- simple dial-in system 20-14

filter, adding 20-43



- L2TP Access Concentrator (LAC) 20-3
 - disabling 20-34
 - enabling 20-39
- L2TP Network Server (LNS) 20-3
 - disabling 20-34
 - enabling 20-39
- LAC. See L2TP Access Concentrator
- LNS. See L2TP Network Server
- mapping usernames to actions 20-24, 20-30 to 20-31, 20-45, 20-67
- modifying
 - calls 20-8, 20-40
 - username mappings 20-45
- overview 20-3
- password 20-44
- PPP templates
 - associating with L2TP peers 20-6 to 20-8, 20-22, 20-29, 20-55
- support for 20-5
- templates
 - associating with L2TP peers 20-6 to 20-8, 20-22, 20-29, 20-55
- tunnels 20-3
 - displaying 20-10, 20-56, 20-59
- two-way connections 20-8
- UDP checksum 20-43
- username mappings
 - adding 20-24, 20-30
 - deleting 20-7, 20-31
 - displaying 20-8, 20-67
 - modifying 20-45
- lb MIB object C-26
- lbShowAffTable MIB object C-26
- lbShowConTable MIB object C-26
- lbShowGlobalTable MIB object C-26
- lbShowResPoolTable MIB object C-26
- lbShowResTable MIB object C-26
- lbShowVirtBalTable MIB object C-26
- LDAP. See Lightweight Directory Access Protocol (LDAP)
- Learning Process 8-16
- learning process, bridging 16-12
- leased line backup, PPP 15-11, 15-41
- Lempel-Ziv compression 42-2
- licenceTable MIB object C-21
- Lightweight Directory Access Protocol (LDAP) 49-5, 49-9
 - PKI repositories
 - adding 49-19
 - deleting 49-24
- limits, on PPP interfaces 15-29, 15-54, 15-63, 15-82 to 15-83, 15-90
- link compression 42-3
- Link Compression and Encryption 50-1 to 50-27
 - See also Compression and Encryption Services; IP Security (IPsec)
 - commands
 - CREATE STAR 50-13
 - DESTROY STAR 50-14
 - DISABLE STAR DEBUGGING 50-15
 - ENABLE STAR DEBUGGING 50-15
 - ENABLE STAR MKTTRANSFER 50-16
 - SET STAR 50-17
 - SHOW STAR 50-19, 50-21, 50-26 to 50-27
 - compression, link 50-3 to 50-5
 - creating
 - master keys 50-8
 - network keys 50-7
 - star entities 50-7, 50-13
 - debugging
 - disabling, star 50-15
 - enabling, star 50-15
 - destroying star entities 50-14
 - disabling star debugging 50-15
 - displaying star entities 50-19, 50-21, 50-26 to 50-27
 - enabling
 - master key transfer 50-16
 - star debugging 50-15
 - enabling star debugging 50-15
 - encryption, link 50-5 to 50-11
 - entering network keys 50-8
 - exchanging session keys 50-10
 - Frame Relay 50-4, 50-11
 - link compression 50-3 to 50-5
 - link encryption 50-5 to 50-11
 - master key transfer 50-16
 - master keys 50-8
 - modifying star entities 50-17
 - network key 50-7
 - network keys 50-7 to 50-8
 - overview 50-2
 - PPP 50-3, 50-11
 - session keys 50-7, 50-10
 - star debugging 50-15
 - star entities 50-7
 - creating 50-13
 - destroying 50-14
 - displaying 50-19, 50-21, 50-26 to 50-27
 - modifying 50-17
 - star key management 50-5 to 50-10
 - master router 50-6
 - slave router 50-6
 - stand-by router 50-6, 50-10
 - transferring master keys 50-8
 - user modules
 - Frame Relay 50-4, 50-11
 - PPP 50-3, 50-11
 - X.25 50-5
 - X.25 50-5
- link compression. See Link Compression and Encryption
- Link Control Protocol (LCP) 15-4 to 15-5, 15-30
 - options 15-6
 - Asynchronous Control Character Map (ACCM) 15-6
 - Authentication Protocol 15-6
 - Endpoint Discriminator 15-6
 - Link Discriminator 15-6
 - Link Quality Reporting (LQR) 15-6, 15-9
 - Magic Number 15-6
 - Maximum Receive Unit 15-6
 - Maximum Received Reconstructed Unit 15-6
 - Link Discriminator Option, LCP 15-6
 - link encryption 42-7
 - link encryption. See Link Compression and Encryption
 - link management, PPP 15-29, 15-54, 15-63, 15-82 to 15-83, 15-90
 - link quality management (LQM) 15-39



Link Quality Reporting (LQR) Option, LCP 15-6, 15-9

link state advertisements, OSPF 26-5, 26-90

link up/down traps 9-23, 9-29, 9-32, 9-49

LINKDOWN trigger 8-18

LINKUP trigger 8-18

LLAP. See AppleTalk: LocalTalk Link Access Protocol (LLAP)

IldpConfiguration MIB object C-58

IldpLocalSystemData MIB object C-58

IldpMIB MIB object C-58

IldpNotifications MIB object C-58

IldpRemoteSystemsData MIB object C-58

IldpStatistics MIB object C-58

LMI dialogue 14-7

LMI parameters 14-29, 14-47

LNS. See Layer Two Tunnelling Protocol (L2TP)

Load Balancer

commands

ADD LOADBALANCER RESOURCE 51-21

ADD LOADBALANCER RESPOOL 51-23

ADD LOADBALANCER VIRTUALBALANCER 51-24

ADD LOADBALANCER VIRTUALBALANCER HTTPER-
RORCODE 51-27

DELETE LOADBALANCER RESOURCE 51-28

DELETE LOADBALANCER RESPOOL 51-29

DELETE LOADBALANCER VIRTUALBALANCER 51-30

DELETE LOADBALANCER VIRTUALBALANCER HT-
TPERRORCODE 51-31

DISABLE LOADBALANCER 51-31

DISABLE LOADBALANCER DEBUG 51-32

DISABLE LOADBALANCER HEALTHPINGS 51-32

DISABLE LOADBALANCER REDUNDANCY 51-33

DISABLE LOADBALANCER RESOURCE 51-34

DISABLE LOADBALANCER VIRTUALBALANCER
51-35

ENABLE LOADBALANCER 51-36

ENABLE LOADBALANCER DEBUG 51-36

ENABLE LOADBALANCER HEALTHPINGS 51-37

ENABLE LOADBALANCER REDUNDANCY 51-38

ENABLE LOADBALANCER RESOURCE 51-39

ENABLE LOADBALANCER VIRTUALBALANCER 51-39

RESET LOADBALANCER 51-40

SET LOADBALANCER 51-41

SET LOADBALANCER REDUNDANCY 51-42

SET LOADBALANCER RESOURCE 51-44

SET LOADBALANCER RESPOOL 51-45

SET LOADBALANCER VIRTUALBALANCER 51-46

SHOW LOADBALANCER 51-48

SHOW LOADBALANCER AFFINITY 51-50

SHOW LOADBALANCER CONNECTIONS 51-52

SHOW LOADBALANCER REDUNDANCY 51-53

SHOW LOADBALANCER RESOURCE 51-56

SHOW LOADBALANCER RESPOOL 51-59

SHOW LOADBALANCER VIRTUALBALANCER 51-61

Load Balancer group, Allied Telesis Enterprise MIB C-26

Load Balancing

Server

Introduction 51-3

Overview 51-3

WAN

Introduction 52-2

Operating Principles 52-2

Load Balancing. See Server Load Balancing

LOAD command 5-31, 58-3 to 58-4

Loader group, Allied Telesis Enterprise MIB C-20

loader MIB object C-20

loadStatus MIB object C-20

loadTable MIB object C-20

LocalTalk. See also AppleTalk

location

displaying 4-51

setting 4-30

logging

firewall events 46-47

OSPF 26-50, 26-54

Logging Facility 60-1 to 60-52

adding log filters 60-8, 60-13

changing log filters 60-8, 60-29

changing output definitions 60-8, 60-29

changing reception of log messages 60-35

commands

ADD LOG OUTPUT 60-13

ADD LOG RECEIVE 60-17

CREATE LOG OUTPUT 60-19

DELETE LOG OUTPUT 60-23

DELETE LOG RECEIVE 60-23

DESTROY LOG OUTPUT 60-24

DISABLE LOG 60-24

DISABLE LOG GENERATION 60-24

DISABLE LOG OUTPUT 60-25

DISABLE LOG RECEPTION 60-25

ENABLE LOG 60-26

ENABLE LOG GENERATION 60-26

ENABLE LOG OUTPUT 60-27

ENABLE LOG RECEPTION 60-27

FLUSH LOG OUTPUT 60-28

PURGE LOG 60-28

SET LOG OUTPUT 60-29

SET LOG RECEIVE 60-35

SET LOG UTCOFFSET 60-36

SHOW LOG 60-37 to 60-38

SHOW LOG COUNTERS 60-43

SHOW LOG OUTPUT 60-45, 60-47

SHOW LOG QUEUE 60-49, 60-52

SHOW LOG RECEIVE 60-50

SHOW LOG STATUS 60-52

comparison operators 60-9, 60-29

configuration example 60-10

configuring 60-52

counters 60-43

creating output definitions 60-8, 60-19

deleting log filters 60-9

deleting output definitions 60-8, 60-23 to 60-24

destinations 60-4, 60-6, 60-19, 60-28 to 60-29, 60-47

disabling 60-24, 60-52

disabling generation of log messages 60-24

disabling output definitions 60-8, 60-25, 60-45

disabling reception of log messages 60-25

displaying counters 60-43

displaying log filters 60-45

displaying log messages 60-37 to 60-38

displaying log queues 60-49, 60-52

displaying output definitions 60-8, 60-47



- displaying reception of log messages 60-50
- enabling 60-26, 60-52
- enabling generation of log messages 60-26
- enabling output definitions 60-8, 60-27
- enabling reception of log messages 60-27
- example configuration 60-10
- fields in log message 60-3
- filters 60-4, 60-13, 60-29, 60-45
- format of log messages 60-3
- forwarding to another router via SRLP 60-6, 60-29
- forwarding to syslog server 60-6, 60-29
- forwarding via email 60-6
- forwarding via SRLP 60-29
- message filter comparison operators 60-9, 60-29
- message filters 60-4, 60-8, 60-13, 60-29, 60-45
- message ID 60-3
- message reference 60-3
- message severity 60-3 to 60-4
- message subtype 60-3 to 60-4
- message text 60-3
- message type 60-3 to 60-4
- modifying log filters 60-8, 60-29
- modifying output definitions 60-8, 60-29
- module ID 60-3
- Net Manage protocol 60-2, 60-4, 60-17, 60-23, 60-25, 60-27, 60-35 to 60-36, 60-50
- output definitions 60-4, 60-8, 60-19, 60-23 to 60-25, 60-27 to 60-29, 60-45, 60-47
- output to asynchronous port 60-6
- output to RAM or NVS 60-6
- PERMANENT output definition 60-5
- processing of log messages 60-4
- purging 60-28
- queues 60-5, 60-28, 60-49, 60-52
- reception via Net Manage 60-17, 60-23, 60-25, 60-27, 60-35, 60-50
- reception via SRLP 60-17, 60-23, 60-25, 60-27, 60-35, 60-50, 60-52
- secure router logging protocol (SRLP) 60-2, 60-4, 60-6, 60-17, 60-25, 60-27, 60-35, 60-50
- source file 60-3
- source line 60-3
- status 60-52
- syslog server 60-6
- TEMPORARY output definition 60-5
- Universal Coordinated Time (UTC) 60-3, 60-36
- logging in and out 41-8, 41-50 to 41-51
- logical interfaces
 - configuring for Frame Relay 14-17
 - Frame Relay 14-8, 14-17
- LOGIN command 41-50
- login name
 - asynchronous calls 19-4
 - authenticating with CHAP 19-5
 - authenticating with PAP 19-5
- loginFailureAttempts MIB object C-19
- loginFailureIPAddress MIB object C-19
- loginFailureTrap trap message C-19
- loginFailureUser MIB object C-19
- LOGOFF command 41-51
- loopback plugs
 - for testing 63-3
- lossless data compression 42-2
- lossy data compression 42-2
- LQM. See link quality management
- M**
- MAC (message authentication code)
 - definition 45-2
- MAC address
 - DECnet 37-3, 37-24
 - IPX 36-4
- Magic Number Option, LCP 15-6
- magic number, PPP 15-21
- MAIL command 4-22
- mail subsystem 4-10
 - configuration examples 4-11
 - debugging 4-10
 - deleting mail messages 4-10, 4-15
 - disabling debugging 4-17
 - displaying mail 4-10
 - displaying status 4-48
 - enabling debugging 4-21
 - sending mail 4-10, 4-22
 - setting host name 4-26
- Maintenance group, SHDSL MIB C-43
- managed devices, SNMP 55-3
- Management Information Base C-55
 - See also Tables, MIB
 - See also Groups, MIB
 - access mode 55-8
 - ADSL Line MIB C-40
 - Allied Telesis Enterprise MIB C-4
 - ATM MIB C-39
 - atRouter subtree, Allied Telesis Enterprise MIB C-9
 - Border Gateway Protocol version 4 (BGP-4) MIB C-56
 - Bridge MIB C-37
 - Circuit table, Frame Relay DTE MIB C-48
 - combined notation 55-6
 - deprecated status 55-8
 - dotted notation 55-6
 - DS1, E1, DS2 and E2 Interface Types MIB C-50
 - enterprise MIB C-4
 - Ethernet-like Interface Types MIB C-34
 - Frame Relay DTE MIB C-48
 - get-bulk-request PDU 55-9
 - get-next PDU 55-9
 - get-request PDU 55-9
 - get-response PDU 55-9
 - Host Resources MIB C-52
 - instance identifier 55-7
 - Interfaces Group MIB C-31
 - Internet-standard MIB 55-5
 - IP Forwarding Table MIB C-33
 - Management Target MIB C-55
 - mandatory status 55-8
 - Medium Attachment Unit (MAU) MIB C-35
 - Message Processing and Dispatching MIB C-55
 - mib-2 C-29
 - MIB-II MIB C-29



- not-accessible access mode 55-8
- object descriptor 55-6
- object identifier 55-6
- object instance 55-7
- object syntax 55-7
- obsolete status 55-8
- optional status 55-8
- Port Access Control MIB C-44
- Products subtree, Allied Telesis Enterprise MIB C-5
- read-only access mode 55-8
- read-write access mode 55-8
- RMON MIB C-46
- set PDU 55-9
- SHDSL Line MIB C-42
- SNMP Framework MIB C-55
- SNMPv3 MIBs C-55
- status 55-8
- textual notation 55-6
- trap PDU 55-9
- User-based Security MIB C-55
- write-only access mode 55-8
- Management Information Base (MIB)
 - DECnet 37-6, 37-29
 - Ethernet 9-62
 - Frame Relay 14-14 to 14-15, 14-52, 14-62
 - Internet Protocol (IP) 22-38, 55-1
 - IPX 36-16, 36-65
 - Point-to-Point Protocol (PPP) 15-30
- Management Target MIB C-55
- management, using Telnet 61-7
- manager port, semipermanent 41-4, 41-14, 41-53, 41-62
- MANAGER privilege 41-4
- mandatory status 55-8
- mask, OSPF 26-3, 26-28, 26-42, 26-63
- master keys, star key management 50-8
- master router, star key management 50-6
- Matrix group, RMON MIB C-46
- MAU MIB. See Medium Attachment Unit (MAU) MIB
- Maximum Receive Unit Option, LCP 15-6
- Maximum Received Reconstructed Unit Option, LCP 15-6
- Maximum Transmission Unit (MTU)
 - Internet Protocol version 6 (IPv6) 31-19
 - IP, for asynchronous ports 19-4, 19-12
- Medium Attachment Unit (MAU) MIB C-35
- memory
 - displaying
 - contents 4-9, 4-19
 - free 4-9, 4-34
 - modifying
 - contents 4-9, 4-24
- memory MIB object C-16
- message format
 - NTP 57-3
- message format, SNMP protocol 55-9 to 55-10, 55-13
- Message Processing and Dispatching MIB C-55
- metrics
 - boosts 22-25
 - Internet Protocol (IP) 22-25
- MIB. See Management Information Base
- mib-2 MIB C-29
- MIB-II MIB C-29
- MIOX 13-65, 13-80 to 13-81
- MIOX circuits 13-8, 13-39, 13-41, 13-54 to 13-55, 13-61 to 13-62, 13-66, 13-83, 1-20
- mixed mode, Time Division Multiplexing (TDM) 12-2
- MLD. See Multicast Listener Discovery
- modem control signals 9-12, 9-50, 9-78
- modem control, PPP 15-15
- modems
 - asynchronous 19-2
 - scripts 19-6
 - creating 19-21
 - deleting 19-7, 19-24, 19-27
 - displaying 19-7, 19-34, 19-38
 - modifying 19-7, 19-32
- MODIFY command 4-24
- modifying
 - asynchronous calls 19-3, 19-28, 19-31
 - call definitions, asynchronous 19-3, 19-28, 19-31
 - domain name 11-110
 - firewall rules 46-144
 - Frame Relay DLC 14-50
 - interfaces, PPP 15-83
 - IPsec bundle specifications 48-93
 - IPsec policies 48-94
 - IPsec SA specifications 48-102
 - ISAKMP policies 48-105
 - passwords 41-54 to 41-55
 - permanent assignments 62-8
 - PPP interfaces 15-83
 - PPP templates 15-90
 - route templates 22-168
 - RSVP interfaces 40-6, 40-20
 - RSVP proxy agent 40-8, 40-21
 - Security Associations 48-113
 - synchronous tunnel 17-7
 - templates 15-90
 - TPAD instances 18-6, 18-25
- modules
 - disabling DECnet 37-21
 - enabling DECnet 37-22
- Modules group, Allied Telesis Enterprise MIB C-18
- modules MIB object C-9
- monitoring
 - firewall 46-45, 46-49
- monitoring operation 4-6
- MTU (Maximum Transmission Unit) 51-5
- MTU. See Maximum Transmission Unit
- MTU. See Maximum Transmission Unit (MTU)
- multicast addresses 9-9, 9-67 to 9-68
- Multicast Border Router
 - IPv4 24-5
 - IPv6 33-4
- Multicast Listener Discovery (MLD)
 - commands
 - DISABLE IPV6 MLD 33-27
 - DISABLE IPV6 MLD DEBUG 33-28
 - DISABLE IPV6 MLD INTERFACE 33-28
 - ENABLE IPV6 MLD 33-30
 - ENABLE IPV6 MLD DEBUG 33-30



- ENABLE IPV6 MLD INTERFACE 33-31
 - SET IPV6 MLD 33-34
 - SET IPV6 MLD INTERFACE 33-35
 - SHOW IPV6 MLD 33-40
 - SHOW IPV6 MLD CONFIG 33-42
 - SHOW IPV6 MLD COUNTERS 33-43
 - SHOW IPV6 MLD DEBUG 33-44
 - configuration 33-7
 - displaying 33-42
 - configuration example 33-13
 - counters 33-34
 - displaying 33-43
 - debugging
 - displaying 33-44
 - disabling 33-7, 33-27
 - disabling debugging 33-28
 - disabling interfaces 33-28
 - displaying 33-40
 - displaying configuration 33-42
 - displaying counters 33-43
 - displaying debugging 33-44
 - enabling 33-7, 33-30
 - enabling debugging 33-30
 - enabling interfaces 33-31
 - example configuration 33-13
 - introduction 33-5
 - setting interface parameters 33-35
 - timers 33-34
- multicast packet limiting 8-6
 - multicasting
 - displaying IP route 22-217
 - multicasting, IP 22-47
 - Multicasting, IPv4. See IPv4 Multicasting
 - Multicasting, IPv6. See IPv6 Multicasting
 - multidrop 9-11
 - multihoming, Internet Protocol (IP) 22-11
 - multilink, PPP 15-9
- N**
- name
 - displaying 4-51
 - setting 4-31
 - Name Binding Protocol (NBP) 35-9
 - See also AppleTalk
 - name information socket (NIS) 35-9
 - See also AppleTalk
 - name server 22-162, 22-170
 - name server, Internet Protocol (IP) 22-162
 - Names, MIB objects 55-6
 - naming files 6-2
 - using wildcards 6-5
 - naming interfaces 7-4, 9-4
 - NAT
 - port restricted cone NAT 46-25
 - used with firewall 46-20
 - NAT (Network Address Translation)
 - definition 51-4
 - interaction with firewall 51-9
 - route-based virtual balancer 51-6
 - NAT (with WAN load balancing) 52-10
 - NAT. See Network Address Translation (NAT)
 - neighbour
 - OSPF 26-36, 26-45, 26-70, 26-96
 - Net Manage protocol 60-2, 60-4
 - Network Address Translation (NAT) 22-48 to 22-51, 22-87, 22-103, 22-117, 22-130, 22-206
 - commands
 - ADD IP NAT 22-87
 - DELETE IP NAT 22-103
 - DISABLE IP NAT 22-117
 - ENABLE IP NAT 22-130
 - Network Address Tunneling (NAT)
 - IPsec 48-19
 - network address, IPX 36-4
 - network classes 22-7
 - Network Control Protocol (NCP) 15-4 to 15-5
 - Network iQ VPNet 22-43
 - network key, star key management 50-7
 - network keys, star key management 50-7 to 50-8
 - network management protocol 55-3
 - Network Management Station (NMS) 55-3
 - Network Service Access Point address. See ISO NSAP addresses 34-2
 - Network Time Protocol (NTP) 57-1 to 57-12
 - adding peer 57-8
 - broadcast mode 57-2
 - client mode 57-2, 57-4
 - commands
 - ADD NTP PEER 57-8
 - DELETE NTP PEER 57-8
 - DISABLE NTP 57-9
 - ENABLE NTP 57-9
 - PURGE NTP 57-9
 - RESET NTP 57-10
 - SET NTP UTCOFFSET 57-10
 - SHOW NTP 57-11
 - configuring 57-4
 - deleting peer 57-8
 - disabling 57-9
 - displaying configuration 57-11
 - enabling 57-9
 - message format 57-3
 - operating modes 57-2
 - operation 57-4
 - peer 57-2
 - adding 57-8
 - deleting 57-8
 - purging 57-9
 - reference clocks 57-2
 - resetting 57-10
 - server mode 57-2, 57-4
 - setting
 - UTC offset 57-10
 - symmetric mode 57-2
 - time servers 57-2
 - UTC offset 57-10
 - network types, OSPF 26-4
 - Networking phases 47-5
 - network-visible entity, AppleTalk 35-7



node
 DECnet 37-2, 37-24
 nodelpAddress MIB object C-23
 non-associated signalling, ISDN 11-30
 normal mode operation 41-41, 41-46
 not-accessible, MIB object 55-8
 notation, MIB object identifiers
 combined 55-6
 dotted 55-6
 textual 55-6
 notifications
 of firewall events 46-45
 Notifications group, SHDSL MIB C-43
 Novell IPX
 dial-in connections 19-13
 NSAP addresses. See ISO NSAP addresses 34-2
 NTP See Network Time Protocol (NTP)
 numberOfSessionsPerNode MIB object C-23
 numberOfSessionsPerNodeCountingStatus MIB object C-23
 numberOfSessionsPerNodeTable MIB object C-23
 NVE. See AppleTalk: network-visible entity (NVE)

O

object descriptor 55-6
 object identifier 55-6
 combined notation 55-6
 dotted notation 55-6
 textual notation 55-6
 object instance 55-7
 object syntax 55-7
 object, MIB
 access mode 55-8
 deprecated 55-8
 mandatory 55-8
 not-accessible 55-8
 obsolete 55-8
 optional 55-8
 read-only 55-8
 read-write 55-8
 status 55-8
 write-only 55-8
 Objects group, Allied Telesis Enterprise MIB C-9
 objects MIB object C-9
 obsolete status 55-8
 on-demand bridging 16-6
 online help 2-13
 setting system help file 2-15
 Open Shortest Path First (OSPF) 26-3
 adding
 areas 26-28, 26-37
 hosts 26-30
 interfaces 26-31
 neighbours 26-36
 ranges 26-37
 stubs 26-40
 summary addresses 26-41
 addresses, summary 26-41, 26-48, 26-75, 26-104
 addressless interfaces 26-10, 26-22, 26-31, 26-43, 26-50, 26-53, 26-57, 26-66

adjacency 26-5 to 26-6
 aging 26-5, 26-91, 26-93
 area 26-3, 26-28, 26-37, 26-42, 26-45, 26-63, 26-71, 26-79
 area border router 26-4
 authentication 26-3, 26-28, 26-42, 26-63
 autonomous systems 26-3
 backbone 26-24, 26-28, 26-42, 26-63
 commands 26-27
 ADD OSPF AREA 26-28
 ADD OSPF HOST 26-30
 ADD OSPF INTERFACE 26-31
 ADD OSPF NEIGHBOUR 26-36
 ADD OSPF STUB 26-40
 ADD OSPF SUMMARYADDRESS 26-41
 DELETE OSPF AREA 26-42
 DELETE OSPF HOST 26-42
 DELETE OSPF INTERFACE 26-43
 DELETE OSPF NEIGHBOUR 26-45
 DELETE OSPF STUB 26-47
 DELETE OSPF SUMMARYADDRESS 26-48
 DISABLE OSPF 26-48
 DISABLE OSPF DEBUG 26-49
 DISABLE OSPF INTERFACE 26-50
 DISABLE OSPF LOG 26-50
 ENABLE OSPF 26-51
 ENABLE OSPF DEBUG 26-51
 ENABLE OSPF INTERFACE 26-53
 ENABLE OSPF LOG 26-54
 PURGE OSPF 26-55
 RESET OSPF 26-55
 RESET OSPF COUNTERS 26-56
 RESET OSPF INTERFACE 26-57
 RESET OSPF SPF 26-58
 SET OSPF 26-59
 SET OSPF AREA 26-63
 SET OSPF HOST 26-65
 SET OSPF INTERFACE 26-66
 SET OSPF NEIGHBOUR 26-70
 SET OSPF STUB 26-74
 SET OSPF SUMMARYADDRESS 26-75
 SHOW OSPF 26-76
 SHOW OSPF AREA 26-79
 SHOW OSPF DEBUG 26-82
 SHOW OSPF HOST 26-83
 SHOW OSPF INTERFACE 26-85
 SHOW OSPF LSA 26-90
 SHOW OSPF NEIGHBOURS 26-96
 SHOW OSPF RANGE 26-98
 SHOW OSPF ROUTE 26-101
 SHOW OSPF STUB 26-103
 SHOW OSPF SUMMARYADDRESS 26-104
 configuration 26-76
 examples 26-20
 counters
 resetting 26-56
 debugging 26-49, 26-51
 deleting
 areas 26-42, 26-45
 hosts 26-42



- interfaces 26-43
- neighbours 26-45
- ranges 26-45
- stubs 26-47
- summary addresses 26-48
- designated router 26-5, 26-7, 26-33, 26-36, 26-45, 26-68, 26-70, 26-85
- disable 26-48
- disabling
 - interfaces 26-50
- displaying
 - areas 26-79
 - configuration 26-76
 - hosts 26-83
 - interfaces 26-85
 - link state advertisements 26-90
 - neighbours 26-96
 - ranges 26-98
 - router configuration 26-76
 - routes 26-101
 - status 26-76
 - stubs 26-103
 - summary addresses 26-104
- enable 26-48, 26-51
- enabling
 - interfaces 26-53
- examples 26-20
- external routes 26-3
- features 26-3
- Hello packets 26-5, 26-31, 26-43, 26-50, 26-53, 26-57, 26-66
- hosts 26-30, 26-42, 26-65, 26-83
- interface to RIP 26-14, 26-59
- interfaces 26-7, 26-31, 26-43, 26-50, 26-53, 26-57, 26-66, 26-85
 - adding 26-31
 - addressless 26-10, 26-22, 26-31, 26-43, 26-50, 26-53, 26-57, 26-66
 - deleting 26-43
 - disabling 26-50
 - displaying 26-85
 - enabling 26-53
 - modifying 26-66
 - resetting 26-57
- link state advertisements 26-5, 26-90
- logging 26-50, 26-54
- mask 26-3, 26-28, 26-42, 26-63
- modifying
 - areas 26-63, 26-71
 - hosts 26-65
 - interfaces 26-66
 - neighbours 26-70
 - ranges 26-71
 - stubs 26-74
 - summary addresses 26-75
- neighbour 26-36, 26-45, 26-70, 26-96
- network types 26-4
- on demand circuits 26-18
- packet types 26-6
- path types 26-9
- purge 26-55
- ranges 26-37, 26-45, 26-71, 26-98
- reset 26-55
- resetting
 - interfaces 26-57
 - route table 26-58
- resetting counters 26-56
- RIP interface 26-14, 26-59
- router id 26-59
- router status 26-76
- router types 26-4, 26-28, 26-42, 26-63
- routes 26-9, 26-101
- routing 26-9
- state 26-48, 26-51
- states 26-7
- status 26-76
- stub areas 26-4, 26-28, 26-42, 26-63
- stubs 26-40, 26-47, 26-74, 26-103
- summary addresses 26-41, 26-48, 26-75, 26-104
- transit network 26-6, 26-24
- virtual links 26-24, 26-31, 26-43, 26-50, 26-53, 26-57, 26-66
- Open Systems Interconnection (OSI) 34-1 to 34-46
 - commands
 - ADD CLNS ADJACENCY 34-12
 - ADD CLNS AREA 34-13
 - ADD CLNS CIRCUIT 34-14
 - ADD CLNS RA 34-16
 - DELETE CLNS ADJACENCY 34-17
 - DELETE CLNS AREA 34-18
 - DELETE CLNS CIRCUIT 34-18
 - DELETE CLNS RA 34-19
 - DISABLE CLNS CIRCUIT 34-20
 - DISABLE CLNS DEBUG 34-20
 - ENABLE CLNS 34-21
 - ENABLE CLNS CIRCUIT 34-22
 - ENABLE CLNS DEBUG 34-23
 - PURGE CLNS 34-24
 - RESET CLNS 34-24
 - SET CLNS 34-25
 - SET CLNS CIRCUIT 34-27
 - SET CLNS RA 34-29
 - SHOW CLNS 34-30
 - SHOW CLNS ADJACENCY 34-31
 - SHOW CLNS AREA 34-33
 - SHOW CLNS CIRCUIT 34-44
 - SHOW CLNS CIRCUIT COUNTERS 34-37
 - SHOW CLNS COUNTERS 34-39
 - SHOW CLNS DETAIL 34-41
 - SHOW CLNS RA 34-44
 - SHOW CLNS ROUTE 34-45
- Operation
 - adding
 - users 41-33
 - administrator name
 - displaying 4-51
 - setting 4-29
 - asynchronous port security 41-12
 - base hardware serial number
 - displaying 4-54



- booting the router 4-9, 5-37
- changing
 - passwords 41-54 to 41-55
- command
 - editing 2-4
 - history 2-4
- commands
 - ADD ALIAS 2-12, 6-10, 6-13, 6-22
 - ADD RADIUS SERVER 41-30
 - ADD TACACS SERVER 41-31
 - ADD USER 41-33
 - ADD USER RSO 41-36
 - CREATE CONFIG 5-22
 - DELETE ALIAS 2-13
 - DELETE FILE 6-14
 - DELETE INSTALL 5-23
 - DELETE MAIL 4-15
 - DELETE RADIUS SERVER 41-37
 - DELETE TACACS SERVER 41-38
 - DELETE USER 41-39
 - DISABLE FEATURE 5-24
 - DISABLE GUI 5-25
 - DISABLE HTTP DEBUG 5-25
 - DISABLE HTTP SERVER 5-25
 - DISABLE MAIL DEBUG 4-17
 - DISABLE RELEASE 5-26
 - DISABLE SYSTEM SECURITY_MODE 41-41
 - DISABLE USER 41-43
 - DUMP 4-19
 - EDIT 6-16
 - ENABLE FEATURE 5-27
 - ENABLE GUI 3-21
 - ENABLE HTTP DEBUG 5-28, 44-13 to 44-14, 44-17
 - ENABLE HTTP SERVER 5-28
 - ENABLE MAIL DEBUG 4-21
 - ENABLE RELEASE 5-30
 - ENABLE SYSTEM SECURITY_MODE 41-46
 - ENABLE USER 41-48
 - HELP 2-13
 - LOAD 5-31
 - LOGIN 41-50
 - LOGOFF 41-51
 - MAIL 4-22
 - MODIFY 4-24
 - PURGE USER 41-51
 - RENAME 6-21
 - RESET CPU UTILISATION 4-25
 - RESET HTTP SERVER 5-36
 - RESET LOADER 5-36
 - RESET USER 41-52
 - RESTART 5-37
 - SET CONFIG 5-38
 - SET HELP 2-15
 - SET HTTP SERVER 5-39
 - SET INSTALL 5-40
 - SET LOADER 5-42
 - SET MAIL 4-26
 - SET MANAGER PORT 41-53
 - SET PASSWORD 41-54 to 41-55
 - SET SYSTEM CONTACT 4-29
 - SET SYSTEM LOCATION 4-30
 - SET SYSTEM NAME 4-31
 - SET SYSTEM TERRITORY 11-120
 - SET TIME 4-32
 - SET USER 41-59
 - SHOW ALIAS 2-15 to 2-16, 6-28
 - SHOW BUFFER 4-34
 - SHOW CONFIG 5-46
 - SHOW CPU 4-38
 - SHOW DEBUG 4-40
 - SHOW EXCEPTION 4-47
 - SHOW FEATURE 5-48
 - SHOW FFILE 6-23, 6-25
 - SHOW FLASH 6-29
 - SHOW FLASH PHYSICAL 6-31
 - SHOW HTTP CLIENT 5-50
 - SHOW HTTP DEBUG 5-51
 - SHOW HTTP SERVER 5-52
 - SHOW HTTP SESSION 5-53
 - SHOW INSTALL 5-54
 - SHOW LOADER 5-58
 - SHOW MAIL 4-48
 - SHOW MANAGER PORT 41-62
 - SHOW PATCH 5-60
 - SHOW RADIUS 41-63
 - SHOW RELEASE 5-61
 - SHOW STARTUP 4-49
 - SHOW SYSTEM 4-51
 - SHOW SYSTEM SERIALNUMBER 4-54
 - SHOW TACACS SERVER 41-68
 - SHOW TIME 4-55
 - SHOW USER 41-73
 - UPLOAD 5-62
- configuration
 - displaying dynamic 5-46
 - saving dynamic 5-22
 - setting default 5-38
- contact name
 - displaying 4-51
 - setting 4-29
- counters 41-14
- CPU utilisation 4-8, 4-38
 - resetting 4-25
- creating
 - files 6-4
- debugging 4-9, 4-40
- debugging mail 4-10
- default configuration, setting 5-38
- deleting
 - files 6-14
 - FLASH files 6-14
 - install information 5-23
 - mail messages 4-10, 4-15
 - users 41-39
- disabling
 - mail debugging 4-17
 - security mode 41-41
 - software releases 5-26
 - users 41-43



- displaying
 - administrator name 4-51
 - base hardware serial number 4-54
 - clock 4-55
 - contact name 4-51
 - date 4-55
 - directory of files 6-4
 - dynamic configuration 5-46
 - exceptions 4-9, 4-47
 - file downloads 5-58
 - files 6-25
 - FLASH files 6-25
 - FLASH memory 6-6, 6-29, 6-31
 - free memory 4-9, 4-34
 - help 1-4, 2-9, 2-13
 - install information 5-54
 - location 4-51
 - mail 4-10
 - mail system 4-48
 - memory contents 4-9, 4-19
 - name 4-51
 - patches 5-60
 - semipermanent manager port 41-62
 - software releases 5-61
 - special feature licences 5-48
 - startup status 4-9, 4-49
 - system clock 4-55
 - system date 4-55
 - system information 4-51
 - system location 4-51
 - system name 4-51
 - system territory 4-51
 - system time 4-55
 - territory 4-51
 - time 4-55
 - users 41-73
- download files 5-31
- downloading files 5-36, 5-42, 5-58, 6-4
- dynamic configuration
 - displaying 5-46
 - saving 5-22
- editing files 6-4, 6-16
- editor 6-5, 6-16
- enabling
 - mail debugging 4-21
 - security mode 41-46
 - software releases 5-30
 - special feature licences 5-27
 - users 41-48
- entering commands 2-4
- event logging 4-6
- exceptions, displaying 4-9, 4-47
- fatal errors 4-9, 4-47
- fault diagnosis 4-6
- file naming conventions 6-2
- file types 6-2
- files
 - creating 6-4
 - deleting 6-14
 - displaying 6-25
 - displaying directory 6-4
 - downloading 5-36, 5-42, 5-58, 6-4
 - editing 6-4, 6-16
 - renaming 6-21
 - uploading 5-62
- FLASH files 6-7
 - deleting 6-14
 - displaying 6-23, 6-25
 - displaying directory 6-7
 - downloading 5-36, 5-42, 5-58
 - editing 6-16
 - renaming 6-21
 - uploading 5-62
- FLASH memory 6-6
 - compaction 6-7
 - displaying 6-29, 6-31
- GUI
 - enabling and disabling 3-18
- help
 - displaying 2-13
 - setting system help file 2-15
- help file 1-4, 2-9
- HTTP server 5-9
 - disabling 5-25
 - disabling debugging 5-25
 - displaying client status 5-50
 - displaying debugging status 5-51
 - displaying session information 5-53
 - displaying status 5-52
 - enabling 5-28
 - enabling debugging 5-28, 44-13 to 44-14, 44-17
 - resetting 5-36
 - setting homepage 5-39
- install information 5-13
 - deleting 5-23
 - displaying 5-54
 - setting 5-40
- location
 - displaying 4-51
 - setting 4-30
- logging events 4-6
- logging in and out 41-8, 41-50 to 41-51
- mail 4-22
- mail subsystem 4-10
 - configuration 4-11
 - deleting mail messages 4-15
 - displaying mail status 4-48
 - sending mail messages 4-22
 - setting mail host name 4-26
- manager port, semipermanent 41-4, 41-14, 41-53, 41-62
- MANAGER privilege 41-4
- memory
 - displaying 4-9
 - displaying contents 4-19
 - displaying FLASH 6-6
 - displaying free 4-9, 4-34
 - FLASH 6-6, 6-29, 6-31
 - FLASH compaction 6-7
 - modifying 4-9, 4-24



- modifying
 - memory 4-9, 4-24
 - passwords 41-54 to 41-55
 - users 41-59
- monitoring 4-6
- name
 - displaying 4-51
 - setting 4-31
- normal mode 41-41, 41-46
- online help 1-4, 2-9, 2-13
- passwords 41-11 to 41-12
 - changing 41-54 to 41-55
 - recovering 41-12
- patches
 - displaying 5-60
 - downloading 5-36, 5-42, 5-58
- purging
 - users 41-51
- RADIUS servers 41-9, 41-15, 41-30, 41-37, 41-63
- recovering passwords 41-12
- remote management 61-7
- renaming
 - files 6-21
 - FLASH files 6-21
- resetting
 - users 41-52
- restarting the router 4-9, 5-37
- saving default configuration 5-38
- saving dynamic configuration 5-22
- security mode
 - disabling 41-41
 - enabling 41-46
- security timer 41-5
- semipermanent manager port 41-4, 41-14, 41-53, 41-62
- sending mail 4-10, 4-22
- setting
 - administrator name 4-29
 - clock 4-32
 - contact name 4-29
 - date 4-32
 - install information 5-40
 - location 4-30
 - mail host name 4-26
 - name 4-31
 - semipermanent manager port 41-53
 - system clock 4-32
 - system date 4-32
 - system help file 2-15
 - system information 4-29 to 4-31, 11-120
 - system location 4-30
 - system name 4-31
 - system territory 11-120
 - system time 4-32
 - territory 11-120
 - time 4-32
- snapshot 4-9, 4-40
- software releases
 - deleting 5-23
 - disabling 5-26
 - displaying 5-54, 5-61
 - downloading 5-36, 5-42, 5-58
 - enabling 5-30
 - setting 5-40
- special feature licences 5-16
 - disabling 5-24
 - displaying 5-48
 - enabling 5-27
- startup status 4-9, 4-49
- system information
 - displaying 4-51
 - setting 4-29 to 4-31, 11-120
- system location
 - displaying 4-51
 - setting 4-30
- system name
 - displaying 4-51
 - setting 4-31
- system territory
 - displaying 4-51
 - setting 11-120
- TACACS servers 41-9, 41-18, 41-31, 41-38, 41-68
- Telnet 61-7
- Telnet from the router 41-13
- territory
 - displaying 4-51
 - setting 11-120
- text editor 6-5, 6-16
- uploading files 5-62
- User Authentication Database 41-9 to 41-10
 - adding users 41-10, 41-33
 - counters 41-14
 - deleting users 41-11, 41-39
 - disabling users 41-43
 - displaying users 41-11, 41-73
 - enabling users 41-48
 - logging in and out 41-8, 41-50 to 41-51
 - modifying users 41-11, 41-59
 - passwords 41-11 to 41-12
 - purging users 41-51
 - recovering passwords 41-12
 - resetting users 41-52
- User Authentication Facility 41-8
 - asynchronous port security 41-12
 - semipermanent manager port 41-14
 - Telnetting from the router 41-13
- USER privilege 41-3
- users
 - adding 41-33
 - deleting 41-39
 - disabling 41-43
 - displaying 41-73
 - enabling 41-48
 - modifying 41-59
 - purging 41-51
 - resetting 41-52
- wildcards, in file names 6-5



- operation
 - commands
 - SET SYSTEM TERRITORY 11-21, 11-32, 11-49, 11-51
- Operations 45-2
- optional status 55-8
- orphantimeout (WAN Load Balancing) 52-3
- OSI group, Allied Telesis Enterprise MIB C-24
- osi MIB object C-24
- OSI. See also Open Systems Interconnection (OSI) 34-1
- osiVirtualInstance MIB object C-25
- ospf MIB object C-59
- ospfAddressLessIf MIB object C-59
- ospfIfIpAddress MIB object C-59
- ospfIfState MIB object C-59
- ospfIfStateChange trap message C-59
- ospfNbrAddressLessIndex MIB object C-59
- ospfNbrRtrId MIB object C-59
- ospfNbrRtrId MIB object C-59
- ospfNbrState MIB object C-59
- ospfNbrStateChange trap message C-59
- ospfRouterId MIB object C-59
- ospfVirtIfAreaId MIB object C-59
- ospfVirtIfNeighbor MIB object C-59
- ospfVirtIfState MIB object C-59
- ospfVirtIfStateChange trap message C-59
- ospfVirtNbrArea MIB object C-59
- ospfVirtNbrRtrId MIB object C-59
- ospfVirtNbrState MIB object C-59
- ospfVirtNbrStateChange trap message C-59
- outgoing calls
 - activating 19-8, 19-16
 - asynchronous 19-2
 - deactivating 19-8, 19-22
- P**
- packet assembler/disassembler (PAD) 13-3
- Packet Capture group, RMON MIB C-47
- Packet Fragment Handling 46-19
- packet or DDP filtering 35-13
- packet storm protection 8-6
- packet types, OSPF 26-6
- PAD, X.25 13-3
- PAE Authenticator group, Port Access Control MIB C-45
- PAE Supplicant group, Port Access Control MIB C-45
- PAE System group, Port Access Control MIB C-44 to C-45
- PAP. See Password Authentication Protocol (PAP)
- parameters, in scripts 58-5
- password
 - asynchronous calls 19-4
 - authenticating with CHAP 19-5
 - authenticating with PAP 19-5
- Password Authentication Protocol (PAP) 15-23, 19-5
- passwords 41-11 to 41-12
 - changing 41-54 to 41-55
 - recovering 41-12
- patches
 - displaying 5-60
 - downloading 5-36, 5-42, 5-58, 5-62
- path types, OSPF 26-9
- payload compression 42-3
- payload encryption 42-7
- peer
 - adding NTP 57-8
 - deleting NTP 57-8
 - NTP 57-2
- peers defined, IPsec 48-4
- periodic triggers 59-2
- permanent assignments 62-1 to 62-9
 - adding a permanent assignment 62-3, 62-6
 - commands 62-5
 - ADD PERM 62-6
 - DELETE PERM 62-7
 - RESET PERM 62-7
 - SET PERM 62-8
 - SHOW PERM 62-9
 - configuring 62-3
 - deleting a permanent assignment 62-3, 62-7
 - displaying a permanent assignment 62-3, 62-9
 - examples 62-4
 - modifying a permanent assignment 62-3, 62-8
 - overview 62-2
 - resetting a permanent assignment 62-3, 62-7
- permanent virtual circuits (PVC) 13-3
- PIM Dense Mode, See Protocol Independent Multicast (PIM)
- PIM Sparse Mode, See Protocol Independent Multicast (PIM)
- PIM4 group, Allied Telesis Enterprise MIB C-25
- pim4ErrorTrap trap message C-25
- pim4ErrorTrapType MIB object C-25
- pim4Events MIB object C-25
- pim4InterfaceDownTrap trap message C-25
- pim4InterfaceUpTrap trap message C-25
- pim4NeighbourAddedTrap trap message C-25
- pim4NeighbourDeletedTrap trap message C-25
- PING 22-40, 22-135, 22-171, 22-224, 22-233, 35-17, 36-15 to 36-16
- PING command 22-135
- Ping group, Allied Telesis Enterprise MIB C-22
- ping MIB object C-22
- Ping Polling of Device Reachability
 - commands
 - ADD PING POLL 54-9
 - DELETE PING POLL 54-11
 - DISABLE PING POLL 54-12
 - DISABLE PING POLL DEBUG 54-12
 - ENABLE PING POLL 54-13
 - ENABLE PING POLL DEBUG 54-13
 - RESET PING POLL 54-14
 - SET PING POLL 54-15
 - SHOW PING POLL 54-17
- pingIndex MIB object C-22
- pingStatistics MIB object C-22
- pingStatus MIB object C-22
- pingTable MIB object C-22
- pingTrap trap message C-22
- PKI. See Public Key Infrastructure (PKI)
- plain text 42-4
- Point-to-Point Protocol (PPP) 15-1
 - See also Layer Two Tunnelling Protocol (L2TP)
 - adding
 - physical links 15-50
 - aggregating links 15-9, 15-37
 - Always On/Demand ISDN (AODI) 15-14



- asynchronous PPP 9-16, 19-4
- authentication 15-22 to 15-27, 15-50
- BACP. See Bandwidth Allocation Control Protocol
- Bandwidth Allocation Control Protocol (BACP) 15-10
- Bandwidth Allocation Protocol (BAP) 15-10
- bandwidth on demand 15-13, 15-43, 15-45
- BAP. See Bandwidth Allocation Protocol
- callback 15-19
- Challenge-Handshake Authentication Protocol (CHAP) 15-23 to 15-25
- channel aggregation 15-9, 15-37
- commands
 - ACTIVATE PPP 15-49
 - ADD PPP 15-50
 - CREATE PPP 15-54
 - CREATE PPP TEMPLATE 15-63
 - DELETE PPP 15-70
 - DESTROY PPP 15-71
 - DESTROY PPP TEMPLATE 15-72
 - DISABLE PPP 15-73
 - DISABLE PPP DEBUG 15-73
 - DISABLE PPP TEMPLATE DEBUG 15-75
 - ENABLE PPP 15-76
 - ENABLE PPP DEBUG 15-77
 - ENABLE PPP TEMPLATE DEBUG 15-80
 - PURGE PPP 15-81
 - RESET PPP 15-82
 - SET PPP 15-83
 - SET PPP TEMPLATE 15-90
 - SHOW PPP 15-98
 - SHOW PPP CONFIG 15-99
 - SHOW PPP COUNT 15-105
 - SHOW PPP DEBUG 15-118
 - SHOW PPP IDLETIMER 15-119
 - SHOW PPP LIMITS 15-120
 - SHOW PPP MULTILINK 15-121
 - SHOW PPP NAMESERVER 15-123
 - SHOW PPP TEMPLATE 15-124
 - SHOW PPP TXSTATUS 15-130
 - SHOW PPP UTILISATION 15-132
- compression 15-40, 15-50
- configuration
 - displaying 15-99
- configuration examples 15-34
- control protocols 15-4 to 15-5
- counters 15-30
 - displaying 15-105
 - displaying activity 15-30
 - resetting activity 15-30, 15-82
- creating
 - interfaces 15-54
 - templates 15-63
- debugging 15-31, 15-73, 15-77, 15-118
 - templates 15-75, 15-80
- deleting
 - physical links 15-70
- destroying
 - interfaces 15-71
 - templates 15-72
- dial-on-demand 15-11, 15-38
- disabling
 - debugging, interfaces 15-73
 - debugging, templates 15-75
 - interfaces 15-73
- displaying
 - activity counters 15-30
 - configuration 15-99
 - counters 15-105
 - debugging 15-118
 - interfaces 15-98
 - multilink information 15-121
 - nameservers 15-123
 - templates 15-124
 - timers 15-119
 - transmission queue 15-130
- dynamic interfaces 19-9
 - templates 7-11, 15-18
- enabling
 - debugging, interfaces 15-77
 - debugging, templates 15-80
 - interfaces 15-76
- encapsulation 9-16, 15-3, 19-4
- encryption 15-40
- events 15-5
- example configurations 15-34
- interfaces
 - adding physical links 15-50
 - creating 15-54
 - deleting physical links 15-70
 - destroying 15-71
 - disabling 15-73
 - displaying 15-98
 - enabling 15-76
 - modifying 15-83
 - purging 15-81
 - resetting 15-82
- interfaces, dynamic 19-9
- leased line backup 15-11, 15-41
- limiting connection time and data throughput 15-29, 15-54, 15-63, 15-82 to 15-83, 15-90
- Link Control Protocol (LCP) 15-5, 15-30
 - Asynchronous Control Character Map (ACCM) Option 15-6
 - Authentication Protocol Option 15-6
 - Endpoint Discriminator Option 15-6
 - Link Discriminator Option 15-6
 - Link Quality Reporting (LQR) Option 15-6, 15-9
 - Magic Number Option 15-6
 - Maximum Receive Unit Option 15-6
 - Maximum Received Reconstructed Unit Option 15-6
 - options 15-6
- link management 15-29, 15-54, 15-63, 15-82 to 15-83, 15-90
- link quality management 15-39, 15-50
- Link Quality Reporting (LQR) 15-9
- magic number 15-21
- MIB 15-30
- modem control 15-15
- modifying
 - interfaces 15-83



- multilink 15-9
 - displaying 15-121
- nameservers
 - displaying 15-123
 - setting 15-83
- NCP 15-5
- Network Control Protocol (NCP) 15-5
- Password Authentication Protocol (PAP) 15-23
- protocols 15-3
- purging configuration 15-81
- resetting
 - activity counters 15-30, 15-82
- resetting interfaces 15-82
- setting
 - activity limits 15-29 to 15-30, 15-54, 15-63
- standards 15-3
- states 15-5
- synchronous dialling 15-15
- templates 7-11, 15-18
 - creating 15-63
 - debugging 15-75, 15-80
 - destroying 15-72
 - displaying 15-124
 - modifying 15-90
- thresholds for connection time and data throughput 15-29, 15-54, 15-63, 15-82 to 15-83, 15-90
- timers 15-30, 15-119
- transmission queue 15-130
- policies, firewall 46-6
 - adding interfaces 46-6, 46-72
 - creating 46-6, 46-98
 - deleting interfaces 46-6, 46-103
 - destroying 46-6, 46-112
 - displaying 46-7
 - setting firewall policy 46-140
- policies, IPsec 48-14
- policies, ISAKMP 48-21
 - creating 48-22, 48-62
 - destroying 48-22, 48-73
 - displaying 48-22, 48-192
 - setting 48-105
- policy based routing (with WAN load balancing) 52-10
- polling, SNMP protocol 55-11
- port
 - AppleTalk 35-8
 - UDP listen 48-19, 48-104
- Port Access Control MIB C-44
- port authentication (802.1x)
 - 802.1x Port Based Network Access Control 43-2
 - authentication process 43-9
 - authentication server 43-8
 - Authenticator PAE 43-7
 - Command Reference 43-21
 - commands
 - ACTIVATE PORTAUTH PORT REAUTHENTICATE 43-21
 - DISABLE PORTAUTH 43-22
 - DISABLE PORTAUTH DEBUG PORT 43-23
 - DISABLE PORTAUTH PORT 43-24
 - ENABLE PORTAUTH 43-25
 - ENABLE PORTAUTH DEBUG PORT 43-26
 - PURGE PORTAUTH PORT 43-33
 - RESET PORTAUTH PORT MULTIMIB 43-35
 - SET PORTAUTH PORT 43-36
 - SET PORTAUTH PORT SUPPLICANTMAC 43-42
 - SET PORTAUTH USERNAME 43-45
 - SHOW PORTAUTH 43-47
 - SHOW PORTAUTH PORT 43-52
 - SHOW PORTAUTH PORT MULTISUPPLICANT 43-58
 - SHOW PORTAUTH TIMER 43-63
 - configuration example
 - authenticator 43-19
 - supplicant 43-20
 - Configuration Examples 43-19
 - configure a multi-supplicant system 43-17
 - debug 802.1x 43-17
 - enable 802.1x 43-13
 - multi-supplicant system 43-5
 - port authentication control overview 43-6
 - Authenticator PAE 43-7
 - Supplicant PAE 43-8
 - reauthenticate supplicants 43-16
 - set global username and password 43-16
 - single supplicant system 43-3
 - supplicant and authenticator configuration 43-6
 - Supplicant PAE 43-8
- Port Authentication group, Allied Telesis Enterprise MIB C-26
- Port Authentication. See 802.1x
- port speed, autonegotiation 7-8, 8-4
- port-based VLANs 8-11
- ports
 - configuring asynchronous 19-3
 - switch 8-4
 - autonegotiation 7-8, 8-4
 - displaying 8-47
 - ingress rules 8-15
 - packet storm protection 8-6
 - triggers 8-18
- VLAN
 - deleting 8-27
- ppr8624xl80 MIB object C-10
- ppr8948EX MIB object C-13
- ppr8948i MIB object C-13
- ppr8948iN MIB object C-14
- ppr9812T MIB object C-13
- ppr9812TDC MIB object C-13
- ppr9812TF MIB object C-12
- ppr9816GB MIB object C-12
- ppr9816GBDC MIB object C-13
- ppr9816GF MIB object C-12
- ppr9924SP MIB object C-13
- ppr9924T MIB object C-13
- ppr9924T4SP MIB object C-13
- ppr9924TEMC MIB object C-13
- ppr9924Ts MIB object C-14
- ppr9924TsiN MIB object C-15
- pprA35LXSC MIB object C-10
- pprA35SXSC MIB object C-10
- pprA36MTRJ MIB object C-10



pprA37VF45 MIB object C-10
 pprA38LC MIB object C-10
 pprA39Tx MIB object C-10
 pprA40MTRJ MIB object C-12
 pprA40SC MIB object C-12
 pprA41MTRJ MIB object C-12
 pprA41SC MIB object C-12
 pprA42GBIC MIB object C-12
 pprA46Tx MIB object C-14
 pprA50 MIB object C-13
 pprA51 MIB object C-13
 pprA52 MIB object C-13
 pprA53 MIB object C-13
 pprAr010 MIB object C-10
 pprAr011 MIB object C-10
 pprAr012 MIB object C-10
 pprAr120 MIB object C-9
 pprAr130s MIB object C-10
 pprAr130u MIB object C-10
 pprAr140s MIB object C-10
 pprAr140u MIB object C-10
 pprAr160su MIB object C-10
 pprAr300 MIB object C-9
 pprAr300L MIB object C-9
 pprAr300Lu MIB object C-9
 pprAr300u MIB object C-9
 pprAr310 MIB object C-9
 pprAr310u MIB object C-9
 pprAr320 MIB object C-10
 pprAr330 MIB object C-10
 pprAr350 MIB object C-9
 pprAr370 MIB object C-10
 pprAr370u MIB object C-10
 pprAr390 MIB object C-10
 pprAr395 MIB object C-10
 pprAr410 MIB object C-12
 pprAr410v2 MIB object C-13
 pprAr410v3 MIB object C-13
 pprAR415S MIB object C-14
 pprAR415SDC MIB object C-14
 pprAR420 MIB object C-14
 pprAR440 MIB object C-14
 pprAR441 MIB object C-14
 pprAR442 MIB object C-14
 pprAR443 MIB object C-14
 pprAR444 MIB object C-14
 pprAr450 MIB object C-13
 pprAr450Dual MIB object C-13
 pprAR550 MIB object C-14
 pprAR550SDP MIB object C-14
 pprAR551 MIB object C-14
 pprAR552 MIB object C-14
 pprAR570 MIB object C-14
 pprAr720 MIB object C-9
 pprAr725 MIB object C-12
 pprAr725DC MIB object C-13
 pprAr740 MIB object C-10
 pprAr740DC MIB object C-10
 pprAr745 MIB object C-12
 pprAr745DC MIB object C-13

pprAR770 MIB object C-14
 pprAr816fMT MIB object C-11
 pprAr816fMTi MIB object C-11
 pprAr816fSC MIB object C-11
 pprAr816fSCi MIB object C-11
 pprAr824 MIB object C-11
 pprAr824i MIB object C-11
 pprAr88fMT MIB object C-11
 pprAr88fMTi MIB object C-11
 pprAr88fSC MIB object C-11
 pprAr88fSCi MIB object C-11
 pprAr88t8fMT MIB object C-11
 pprAr88t8fMTi MIB object C-11
 pprAr88t8fSC MIB object C-11
 pprAr88t8fSCi MIB object C-11
 pprAT-8624PoE MIB object C-14
 pprAt8624T2M MIB object C-14
 pprAt86482SP MIB object C-14
 pprAt8724XL MIB object C-11
 pprAt8724XLDC MIB object C-11
 pprAt8724XLDC-NEBS MIB object C-11
 pprAt8748XL MIB object C-11
 pprAt8748XLDC MIB object C-11
 pprAt8824 MIB object C-11
 pprAt8824DC MIB object C-11
 pprAt8824XLDC MIB object C-11
 pprAt8848 MIB object C-12
 pprAt8848DC MIB object C-11
 pprAtFan01 MIB object C-13
 pprAtPwr01AC MIB object C-13
 pprAtPwr01DC MIB object C-13
 pprAtXum10G MIB object C-14
 pprAtXum10Gi MIB object C-14
 pprAtXum12SFP MIB object C-14
 pprAtXum12SFPi MIB object C-14
 pprAtXum12T MIB object C-14
 pprAtXum12TiN MIB object C-14
 pprC8724MLB MIB object C-14
 pprFan01R MIB object C-14
 pprFanA01 MIB object C-13
 pprlcmAr020 MIB object C-10
 pprlcmAr021s MIB object C-9
 pprlcmAr021u MIB object C-9
 pprlcmAr021v2s MIB object C-13
 pprlcmAr022 MIB object C-9
 pprlcmAr023 MIB object C-9
 pprlcmAr024 MIB object C-9
 pprlcmAr025 MIB object C-9
 pprlcmAR026 MIB object C-12
 pprlcmAr027 MIB object C-13
 pprNsm0404Pic MIB object C-10
 pprNsm0418BRI MIB object C-10
 pprNsm0428BRI MIB object C-12
 pprNsm048DS3 MIB object C-13
 pprPwr01RAC MIB object C-14
 pprPwr02AC MIB object C-14
 pprPwr02RAC MIB object C-14
 pprRapier16fMT MIB object C-10
 pprRapier16fMTi MIB object C-10
 pprRapier16fSC MIB object C-10



- pprRapier16fSCi MIB object *C-11*
- pprRapier24 MIB object *C-10*
- pprRapier24i MIB object *C-11*
- pprRapier24iDC-NEBS MIB object *C-11*
- pprRapier48 MIB object *C-11*
- pprRapier48i MIB object *C-12*
- pprRapier48w MIB object *C-15*
- pprRapier8fMT MIB object *C-10*
- pprRapier8fMTi MIB object *C-11*
- pprRapier8fSC MIB object *C-10*
- pprRapier8fSCi MIB object *C-10*
- pprRapier8t8fMT MIB object *C-10*
- pprRapier8t8fMTi MIB object *C-10*
- pprRapier8t8fSC MIB object *C-10*
- pprRapier8t8fSCi MIB object *C-10*
- pprRapierG6 MIB object *C-11*
- pprRapierG6LX MIB object *C-11*
- pprRapierG6MT MIB object *C-11*
- pprRapierG6SX MIB object *C-11*
- pprSb1XFP MIB object *C-13*
- pprSb24RJ MIB object *C-13*
- pprSb24SFP MIB object *C-14*
- pprSb32fMT MIB object *C-12*
- pprSb32fSC MIB object *C-12*
- pprSb48t MIB object *C-12*
- pprSb8fLXMT MIB object *C-12*
- pprSb8fLXSC MIB object *C-12*
- pprSb8fRJ MIB object *C-12*
- pprSb8fSXMT MIB object *C-12*
- pprSb8fSXSC MIB object *C-12*
- pprSb8GBIC MIB object *C-12*
- pprSb96t MIB object *C-12*
- pprSbChassis16AC MIB object *C-12*
- pprSbChassis16DC MIB object *C-12*
- pprSbChassis4AC MIB object *C-12*
- pprSbChassis4DC MIB object *C-12*
- pprSbChassis8AC MIB object *C-12*
- pprSbChassis8DC MIB object *C-12*
- pprSbControl MIB object *C-12*
- pprSbControlDTM MIB object *C-12*
- pprSbExpander MIB object *C-13*
- Predictor compression *42-11, 42-27*
- preferred router (DECnet) *37-24*
- Presentation *47-5*
- PRI group, Allied Telesis Enterprise MIB *C-20*
- pri MIB object *C-20*
- PRI physical layer *11-20*
- priChanTable MIB object *C-20*
- priIntTable MIB object *C-20*
- primary clock source *57-2*
- primary name server *22-162*
- Primary Rate Access
 - configuring *11-21*
- Primary Rate Access, ISDN *11-8 to 11-14*
 - E1 *11-8*
 - T1 *11-10*
- priority *16-13*
 - DECnet nodes *37-17, 37-21, 37-34*
- priority (DECnet) *37-4, 37-24*
- priority based routing (with WAN load balancing) *52-10*
- private keys *49-2*
- privilege levels
 - MANAGER *41-4*
 - USER *41-3*
- products MIB object *C-5*
- Products subtree, Allied Telesis Enterprise MIB *C-5*
- protocol
 - IPX *36-3*
 - RIP (IPX) *36-3, 36-5*
 - SAP (IPX) *36-3*
 - XNS *36-3*
- Protocol Independent Multicast (PIM)
 - Assert message, Sparse Mode *24-13*
 - bootstrap router candidate *24-12, 24-15, 33-8*
 - adding, IPv4 *24-47*
 - adding, IPv6 *33-23*
 - deleting, IPv4 *24-55*
 - deleting, IPv6 *33-26*
 - displaying, IPv4 *24-106*
 - displaying, IPv6 *33-46*
 - setting parameters, IPv6 *33-37*
 - setting preference, IPv4 *24-81*
 - commands, IPv4
 - ADD PIM BSRCANDIDATE *24-47*
 - ADD PIM INTERFACE *24-48*
 - ADD PIM RPCANDIDATE *24-50*
 - DELETE PIM BSRCANDIDATE *24-55*
 - DELETE PIM INTERFACE *24-56*
 - DELETE PIM RPCANDIDATE *24-57*
 - DISABLE PIM *24-62*
 - DISABLE PIM DEBUG *24-63*
 - ENABLE PIM *24-63, 24-68 to 24-69*
 - ENABLE PIM DEBUG *24-69*
 - PURGE PIM *24-70*
 - RESET PIM INTERFACE *24-72*
 - SET PIM *24-79*
 - SET PIM BSRCANDIDATE *24-81*
 - SET PIM INTERFACE *24-82*
 - SET PIM RPCANDIDATE *24-84*
 - SHOW PIM *24-105*
 - SHOW PIM BSRCANDIDATE *24-106*
 - SHOW PIM COUNTERS *24-108*
 - SHOW PIM DEBUG *24-111*
 - SHOW PIM INTERFACE *24-112*
 - SHOW PIM NEIGHBOUR *24-114*
 - SHOW PIM ROUTE *24-115*
 - SHOW PIM RPCANDIDATE *24-121*
 - SHOW PIM RPSET *24-122*
 - SHOW PIM STATEREFRRESH *24-124*
 - SHOW PIM TIMER *24-125*
 - commands, IPv6
 - ADD PIM6 BSRCANDIDATE *33-23*
 - ADD PIM6 INTERFACE *33-24*
 - ADD PIM6 RPCANDIDATE *33-25*
 - DELETE PIM6 BSRCANDIDATE *33-26*
 - DELETE PIM6 INTERFACE *33-26*
 - DELETE PIM6 RPCANDIDATE *33-27*
 - DISABLE PIM6 *33-29*
 - DISABLE PIM6 DEBUG *33-29*
 - ENABLE PIM6 *33-32*



- ENABLE PIM6 DEBUG 33-32
- PURGE PIM6 33-33
- RESET PIM6 INTERFACE 33-33
- SET PIM6 33-36
- SET PIM6 BSRCANDIDATE 33-37
- SET PIM6 INTERFACE 33-38
- SET PIM6 RPCANDIDATE 33-39
- SHOW PIM6 BSRCANDIDATE 33-46
- SHOW PIM6 CONFIG 33-47
- SHOW PIM6 COUNTERS 33-48
- SHOW PIM6 DEBUG 33-51
- SHOW PIM6 INTERFACE 33-52
- SHOW PIM6 NEIGHBOUR 33-54
- SHOW PIM6 ROUTE 33-55
- SHOW PIM6 RPCANDIDATE 33-60
- SHOW PIM6 RPSET 33-61
- SHOW PIM6 STATEREFRESH 33-63
- SHOW PIM6 TIMER 33-64
- configuration
 - displaying, IPv4 24-107
 - displaying, IPv6 33-47
 - example, IPv4 24-35
 - example, IPv6 33-13
- counters
 - displaying, IPv4 24-108
 - displaying, IPv6 33-48
- debugging
 - disabling, IPv4 24-63
 - disabling, IPv6 33-29
 - displaying, IPv4 24-111
 - displaying, IPv6 33-51
 - enabling, IPv4 24-69
 - enabling, IPv6 33-10, 33-32
- Dense Mode
 - interoperability with Sparse Mode, IPv6 33-4
 - introduction 24-8
- designated router 24-11
- disabling, IPv4 24-62
- disabling, IPv6 33-29
- displaying, IPv4 24-105, 24-122
- enabling, IPv4 24-63, 24-68 to 24-69
- enabling, IPv6 33-32
- example configuration, IPv4 24-35
- example configuration, IPv6 33-13
- interfaces 24-9, 24-14, 33-8
 - adding, IPv4 24-48
 - adding, IPv6 33-24
 - deleting, IPv4 24-56
 - deleting, IPv6 33-26
 - displaying, IPv4 24-112
 - displaying, IPv6 33-52
 - resetting, IPv4 24-72
 - resetting, IPv6 33-33
 - setting parameters, IPv4 24-82
 - setting parameters, IPv6 33-38
- interoperability with DVMRP 24-5
- neighbours
 - displaying, IPv4 24-114
 - displaying, IPv6 33-54
- overview 24-8
- overview, IPv6 33-7
- purging, IPv4 24-70
- purging, IPv6 33-33
- Rendezvous Point candidate 24-11, 24-15
 - adding, IPv4 24-50
 - adding, IPv6 33-25
 - deleting, IPv4 24-57
 - deleting, IPv6 33-27
 - displaying information about, IPv4 24-121
 - displaying information about, IPv6 33-60 to 33-61
 - setting parameters, IPv6 33-39
 - setting priority, IPv4 24-84
- Rendezvous Point tree 24-12
- Rendezvous Point, static 24-16, 33-9
- routing table
 - displaying, IPv4 24-115
 - displaying, IPv6 33-55
- shortest path tree 24-13
- Sparse Mode
 - interoperability with Dense Mode, IPv6 33-4
 - introduction 24-10
- State Refresh, IPv4 24-9, 24-124
- State Refresh, IPv6 33-11, 33-63
- timers
 - displaying, IPv4 24-125
 - displaying, IPv6 33-64
 - setting, IPv4 24-79
 - setting, IPv6 33-36
- Protocol Independent Multicast, IPv6. See Protocol Independent Multicasting (PIM)
- protocols
 - OSPF 22-25
 - RIP 22-24
- protocols MIB object C-9
- Proxy
 - Firewall HTTP 46-34
 - Firewall SMTP 46-33
- proxy ARP 22-17
- PSTN. See Public Switched Telephone Network (PSTN)
- public key encryption 49-2
- Public Key Infrastructure (PKI) 49-1
 - alternative name 49-10
 - Certificate Authority (CA) 49-5
 - root 49-6, 49-8
 - Certificate Database 49-7
- certificates 49-3
 - adding 49-7
 - chains 49-6
 - deleting 49-23
 - fingerprint 49-8
 - modifying information about 49-8
 - requesting 49-9
 - retrieving 49-7, 49-9
 - storage limits 49-10
 - updating 49-10
 - updating keypairs 49-22
 - validating 49-6, 49-8
- CMP 49-9
- commands
 - ADD PKI CERTIFICATE 49-16
 - ADD PKI CRL 49-18
 - ADD PKI LDAPREPOSITORY 49-19
 - CREATE PKI ENROLLMENTREQUEST 49-21
 - CREATE PKI KEYUPDATEREQUEST 49-22



- DELETE PKI CERTIFICATE 49-23
 - DELETE PKI CRL 49-23
 - DELETE PKI LDAPREPOSITORY 49-24
 - DESTROY PKI ENROLLMENTREQUEST 49-24
 - DESTROY PKI KEYUPDATEREQUEST 49-25
 - DISABLE PKI DEBUG 49-25
 - ENABLE PKI DEBUG 49-26
 - PURGE PKI 49-27
 - SET PKI 49-28
 - SET PKI CERTIFICATE 49-29
 - SET PKI CRL 49-30
 - SET PKI LDAPREPOSITORY 49-31
 - SHOW PKI 49-33
 - SHOW PKI CERTIFICATE 49-40
 - SHOW PKI CRL 49-43
 - SHOW PKI ENROLLMENTREQUEST 49-46
 - SHOW PKI KEYUPDATEREQUEST 49-48
 - SHOW PKI LDAPREPOSITORY 49-50
 - configuration examples 49-11
 - CRL
 - adding 49-18
 - update frequency 49-10
 - CRL Database 49-9
 - End Entity 49-5
 - enrollment 49-9, 49-21
 - removing requests 49-24
 - retry number 49-10
 - updating keypairs 49-10
 - implementing 49-7
 - ISAKMP
 - interaction with 49-8
 - Key Update requests
 - destroying 49-25
 - LDAP 49-5, 49-9
 - overview 49-2
 - PKCS #10 49-9
 - PKIX 49-9
 - repositories 49-5, 49-9
 - retrieving certificates 49-7
 - X.509 49-3
 - Public Switched Telephone Network (PSTN) 19-2
 - purge
 - DECnet configuration 37-22
 - Internet Protocol (IP) configuration 22-137
 - IPX configuration 36-49
 - OSPF 26-55
 - PURGE ACC command 19-26
 - PURGE ACC SCRIPT command 19-27
 - PURGE APPLE command 35-39
 - PURGE ASYN command 9-34
 - PURGE BOOTP RELAY command 23-34
 - PURGE BRIDGE command 16-40
 - PURGE CLNS command 34-24
 - PURGE DECNENET command 37-22
 - PURGE DVMRP command 24-70
 - PURGE GRE command 30-17
 - PURGE IP command 22-137
 - PURGE IPSEC command 48-87
 - PURGE IPX command 36-49
 - PURGE LOG command 60-28
 - PURGE NTP command 57-9
 - PURGE OSPF command 26-55
 - PURGE PIM command 24-70
 - PURGE PIM6 command 33-33
 - PURGE PKI command 49-27
 - PURGE PORT command 9-28, 9-31
 - PURGE PORTAUTH PORT command 43-33
 - PURGE PPP command 15-81
 - PURGE SNMP command 55-42
 - PURGE TDM command 12-11
 - PURGE TRIGGER command 59-17
 - PURGE USER command 41-51
 - purging
 - asynchronous calls 19-26
 - bridge configuration 16-40
 - call definitions, asynchronous 19-26
 - IPsec 48-87
 - NTP 57-9
 - PPP configuration 15-81
 - users 41-51
 - PVC. See X.25
- ## Q
- Q.931 11-32
 - Quality of Service (QOS) 8-17
 - displaying 8-53
 - modifying 8-40
 - queues
 - transmission 8-17
- ## R
- RADIUS
 - used by ACC 19-5 to 19-6
 - RADIUS authentication 41-15, 41-30, 41-37, 41-63
 - RADIUS server
 - adding to rule 46-15, 46-82
 - used with firewall 46-14
 - ranges, OSPF 26-37, 26-45, 26-71, 26-98
 - Rapid Commit 32-6, 32-21 to 32-22
 - reachable (WAN load balancing) 52-9
 - read-only, MIB object 55-8
 - read-write, MIB object 55-8
 - realTimeClockStatus MIB object C-16
 - reboot
 - triggers 59-2
 - RECONNECT command 61-22
 - redundancy 51-10
 - configuration overview 51-10
 - device requirements 51-10
 - fail-over balancer 51-10
 - firewall policy
 - adding logical interface 51-11
 - IPaddress alias 51-10
 - master 51-10
 - master-slave negotiation 51-10
 - slave 51-10
 - redundant pair
 - definition 51-10
 - reference clock 57-2



- reinitialise
 - DECnet module 37-23
 - Internet Protocol (IP) module 22-138
 - IPX module 36-50
- remote management 61-7
- Remote Security Officer, encryption 41-6
- removing
 - PKI Enrollment Requests 49-24
- RENAME command 6-21
- renaming
 - files 6-21
 - FLASH files 6-21
- Rendezvous Point (RP) 24-11
 - adding PIM RP candidate, IPv4 24-15, 24-50
 - adding PIM RP candidate, IPv6 33-9, 33-25
 - deleting PIM RP candidate, IPv4 24-15, 24-57
 - deleting PIM RP candidate, IPv6 33-9, 33-27
 - RP tree 24-12
 - static 24-16, 33-9
- Repeater Jack Table, MAU MIB C-35
- Repeater MAU Basic Group, MAU MIB C-35 to C-36
- Repeater MAU MIB table, MAU MIB C-35
- repositories 49-5, 49-9
- reset 9-37
 - DECnet module 37-23
 - Ethernet 9-36
 - Frame Relay
 - DLC 14-9
 - interface 14-8, 14-45
 - Frame Relay DLC 14-46
 - IPX module 36-50
 - OSPF 26-55
 - permanent assignment 62-7
- RESET APPLE command 35-39
- RESET BGP PEER command 27-82
- RESET BRI command 11-98
- RESET BRI COUNTERS command 11-98
- RESET BRIDGE command 16-41
- RESET CLNS command 34-24
- RESET CPU UTILISATION command 4-25
- RESET DECNET command 37-23
- RESET DVMRP INTERFACE command 24-71
- RESET ENCO COUNTERS command 42-24
- RESET ETH command 9-36
- RESET ETH COUNTERS command 9-37
- RESET FRAMERELAY command 14-45
- RESET FRAMERELAY DLC command 14-46
- RESET GRE command 30-18
- RESET HTTP SERVER command 5-36
- RESET IP command 22-138
- RESET IP INTERFACE command 22-139
- RESET IPSEC COUNTERS command 48-88
- RESET IPSEC POLICY COUNTERS command 48-89
- RESET IPSEC SA COUNTERS command 48-90
- RESET IPX command 36-50
- RESET ISAKMP COUNTERS command 48-91
- RESET LAPB command 13-63
- RESET LOADBALANCER command 51-40
- RESET LOADER command 5-36
- RESET NTP command 57-10
- RESET OSPF command 26-55
- RESET OSPF COUNTERS command 26-56
- RESET OSPF INTERFACE command 26-57
- RESET OSPF SPF command 26-58
- RESET PERM command 62-7
- RESET PIM INTERFACE command 24-72
- RESET PIM6 INTERFACE command 33-33
- RESET PING POLL command 54-14
- RESET PORT command 9-34
- RESET PORT COUNTERS command 9-35
- RESET PORT HISTORY command 9-36
- RESET PORTAUTH PORT MULTIMIB command 43-35
- RESET PPP command 15-82
- RESET PRI command 11-99
- RESET PRI COUNTERS command 11-100
- RESET Q931 command 11-101
- RESET RSVP PROXY command 40-19
- RESET STT command 17-6
- RESET SWITCH command 8-34
- RESET TEST INTERFACE command 63-12
- RESET TPAD command 18-24
- RESET USER command 41-52
- RESET VOIP command 29-35
- RESET X25T command 13-63
- resetting
 - activity counters on PPP interfaces 15-30, 15-82
 - bridge 16-41
 - counters
 - ENCO 42-24
 - hardware tests 63-12
 - interfaces, PPP 15-82
 - IPsec counters 48-88
 - IPsec policy counters 48-89
 - IPsec SA counters 48-90
 - ISAKMP counters 48-91
 - NTP 57-10
 - OSPF counters 26-56
 - PPP interfaces 15-82
 - RSVP proxy agent 40-8, 40-19
 - synchronous tunnel 17-6
 - tests 63-12
 - TPAD instances 18-6, 18-24
- resource
 - definition 51-3
- resource pool
 - definition 51-3
- Resource Reservation Protocol (RSVP) 40-1 to 40-32
 - best effort QoS 40-2
 - commands 40-9 to 40-32
 - CREATE RSVP PROXY 40-9
 - DESTROY RSVP PROXY 40-12
 - DISABLE RSVP 40-12
 - DISABLE RSVP DEBUG 40-13
 - DISABLE RSVP INTERFACE 40-14
 - DISABLE RSVP PROXY 40-15
 - ENABLE RSVP 40-15
 - ENABLE RSVP DEBUG 40-16
 - ENABLE RSVP INTERFACE 40-17
 - ENABLE RSVP PROXY 40-18
 - RESET RSVP PROXY 40-19



- SET RSVP INTERFACE 40-20
- SET RSVP PROXY 40-21
- SHOW RSVP 40-23
- SHOW RSVP COUNTER 40-24
- SHOW RSVP INTERFACE 40-27
- SHOW RSVP PATH 40-28
- SHOW RSVP PROXY 40-29
- SHOW RSVP PROXY COUNTER 40-31
- SHOW RSVP RESV 40-32
- controlled load service 40-5
- counters
 - proxy agent 40-8, 40-31
- counters, displaying 40-6, 40-24
- creating, proxy agent 40-7, 40-9
- data flows 40-2
- debugging
 - disabling 40-6, 40-13, 40-15
 - enabling 40-6, 40-16, 40-18
- destroying, proxy agent 40-8, 40-12
- disabling 40-5, 40-12
 - debugging 40-6, 40-13, 40-15
 - interfaces 40-6, 40-14
 - proxies 40-8
 - proxy agent 40-7, 40-15
- displaying
 - counters 40-6, 40-24
 - interfaces 40-6, 40-27
 - path information 40-6, 40-28
 - reservation information 40-6, 40-32
 - status 40-5, 40-23
- displaying, counters 40-8, 40-31
- displaying, proxies 40-8, 40-29
- enabling 40-5, 40-15
 - debugging 40-6, 40-16, 40-18
 - interfaces 40-6, 40-17
 - proxies 40-8
 - proxy agent 40-7, 40-18
- error messages 40-5
- FF (Fixed-Filter) style 40-4
- filter spec 40-4
- flowspec 40-4
- interfaces
 - disabling 40-6, 40-14
 - displaying 40-6, 40-27
 - enabling 40-6, 40-17
 - modifying 40-6, 40-20
- messages
 - error 40-5
 - Path 40-2
 - PathErr 40-5
 - PathTear 40-4
 - Resv 40-4
 - ResvErr 40-5
 - ResvTear 40-4
 - teardown 40-4
- modifying
 - interfaces 40-6, 40-20
 - proxy agent 40-8, 40-21
- overview 40-2 to 40-5
- Path message 40-2
 - Path messages
 - displaying 40-6, 40-28
 - path state 40-4
 - PathErr message 40-5
 - PathTear message 40-4
 - protocol overview 40-2 to 40-5
 - proxy agent 40-7 to 40-9
 - creating 40-7, 40-9
 - destroying 40-8, 40-12
 - disabling 40-7, 40-15
 - disabling proxies 40-8
 - displaying counters 40-8, 40-31
 - displaying proxies 40-8, 40-29
 - enabling 40-7, 40-18
 - enabling proxies 40-8
 - modifying 40-8, 40-21
 - receiver 40-7
 - resetting 40-8, 40-19
 - sender 40-7
- QoS
 - best effort 40-2
 - controlled load 40-5
 - receiver 40-4
 - receiver proxy agent 40-7
 - reservation state 40-4
 - reservation style 40-4
 - resetting, proxy agent 40-8, 40-19
- Resv message 40-4
- Resv messages
 - displaying 40-6, 40-32
- ResvErr message 40-5
- ResvTear message 40-4
- SE (Shared-Explicit) style 40-4
- sender proxy agent 40-7
- senders 40-2
- sessions 40-2
- soft state 40-4
- state
 - path 40-4
 - reservation 40-4
- status 40-5, 40-23
- support 40-5
- teardown messages 40-4
- TSpec 40-2
- WF (Wildcard-Filter) style 40-4
- restart
 - Internet Protocol (IP) module 22-138
- RESTART command 5-37
- restartGroup MIB object C-16
- restarting the router 4-9, 5-37
- RIP (IPX) 36-3, 36-5
- RIP filters
 - IPX 36-10, 36-37, 36-45, 36-54 to 36-55, 36-71
- RIPng. See Router Information Protocol version 6 (RIPv6)
- RIPv6. See Router Information Protocol version 6 (RIPv6)
- RMON MIB C-46
- rmon MIB object C-46
- root bridge 16-15
- root path cost 16-15
- round robin distribution 52-3



- route
 - mapping
 - X.25 13-7, 13-13, 13-45, 13-58, 13-95
 - X.25
 - mapping 13-7, 13-13, 13-45, 13-58, 13-95
 - route or RTMP filtering 35-14
 - route templates
 - adding 22-93
 - deleting 22-106
 - displaying 22-219
 - modifying 22-168
 - route templates, IP 22-28
 - route-based virtual balancer 51-6
 - affinity table 51-6
 - selection algorithm 51-6
 - static routes 51-6
 - router id
 - OSPF 26-59
 - Router Information Protocol version 6 (RIPv6) 31-16
 - router status
 - OSPF 26-76
 - router type
 - Internet Protocol (IP) 22-109, 22-113, 22-122, 22-126
 - router types
 - OSPF 26-4, 26-28, 26-42, 26-63
 - routerSwitch MIB object C-5 to C-6
 - routes
 - adding Internet Protocol (IP) 22-21, 22-90
 - changing Internet Protocol (IP) 22-164
 - DECnet 37-5, 37-35
 - deleting Internet Protocol (IP) 22-105
 - disabling Internet Protocol (IP) 22-118
 - displaying Internet Protocol (IP) 22-23, 22-56, 22-213
 - enabling Internet Protocol (IP) 22-131
 - Internet Protocol (IP) 22-20, 22-90, 22-105, 22-118, 22-131, 22-164
 - IPX 36-5
 - modifying Internet Protocol (IP) 22-164
 - OSPF 26-9
 - setting Internet Protocol (IP) 22-164
 - routes, OSPF 26-101
 - routing
 - DECnet 37-5
 - information filters 22-25
 - information filters, Internet Protocol (IP) 28-47, 28-59, 28-63, 28-76
 - Internet Protocol (IP) 22-20
 - IPX 36-5
 - OSPF 26-9
 - protocols
 - Routing Information Protocol (RIP) 22-24
 - Routing Information Protocol (RIP) 22-24, 25-7, 25-12, 25-14, 25-18 to 25-19, 25-21, 25-24, 36-3, 36-5, 36-54
 - interface to OSPF 26-14, 26-59
 - OSPF interface 26-14, 26-59
 - routing modules
 - configuring for Frame Relay 14-17
 - Routing Table Maintenance Protocol (RTMP) 35-8
 - See *also* AppleTalk
 - routing table, Internet Protocol (IP) 22-21, 22-213
 - rpJackTable MIB object C-35
 - rpMauTable object C-35
 - RSO. See Remote Security Officer
 - RSVP. See Resource Reservation Protocol (RSVP)
 - RTMP. See AppleTalk: Routing Table Maintenance Protocol (RTMP)
 - rules, firewall 46-7
 - adding 46-82
 - deleting 46-109
 - modifying 46-144
- S**
 - S/T interfaces, Basic Rate Access 11-5
 - SAP filters
 - IPX 36-11, 36-39, 36-46, 36-54, 36-56, 36-73
 - saving dynamic configuration 5-22
 - scripting. See scripts
 - scripts 58-1
 - activating by trigger 58-2
 - activating from command line 58-2, 58-7
 - adding 58-8
 - calling other scripts 58-4
 - commands
 - ACTIVATE SCRIPT 58-7
 - ADD SCRIPT 58-8
 - DEACTIVATE SCRIPT 58-9
 - DELETE SCRIPT 58-10
 - SET SCRIPT 58-12
 - SHOW SCRIPT 58-14
 - WAIT 58-11, 58-15
 - control structures 58-5, 58-11
 - creating 58-2
 - creating modem 19-21
 - creating using script commands 58-3, 58-8
 - creating using text editor 58-3
 - deactivating 58-9
 - deleting 58-10
 - deleting modem 19-7, 19-24, 19-27
 - displaying 58-3, 58-14
 - displaying modem 19-7, 19-34, 19-38
 - file format 58-2
 - halting 58-9
 - if..then..else..endif 58-5, 58-11
 - loading from asynchronous port 58-4
 - loading from TFTP server 58-3
 - modem 19-6
 - modifying 58-12
 - modifying modem 19-7, 19-32
 - modifying using script commands 58-3, 58-10, 58-12
 - output to logging facility 58-4
 - output to terminal 58-4
 - parameters 58-5
 - parameters, global 58-5
 - pausing 58-15
 - playing 58-2
 - redirecting output 58-4
 - script commands 58-3
 - using scripts 58-4
 - secondary name server 22-170



- Secure Copy
 - configuration 44-5
- secure router logging protocol (SRLP) 60-4, 60-6
- Secure Shell 44-1
 - adding
 - users 44-4, 44-10
 - ciphers 44-3
 - commands
 - ADD SSH USER 44-10
 - DELETE SSH USER 44-12
 - DISABLE SSH SERVER 44-13, 44-18
 - DISABLE SSH USER 44-14
 - ENABLE SSH SERVER 44-15
 - ENABLE SSH USER 44-16
 - SET SSH USER 44-20
 - SHOW SSH 44-21
 - SHOW SSH SESSIONS 44-30
 - SHOW SSH USER 44-33
 - SSH 44-35
 - configuration 44-4
 - configuration examples 44-6
 - deleting
 - users 44-4, 44-12
 - disabling
 - server 44-13
 - users 44-5, 44-14
 - displaying
 - server configuration 44-4, 44-21
 - sessions 44-30
 - users 44-5, 44-33
 - enabling
 - server 44-15
 - users 44-5, 44-16
 - encryption algorithms 44-3
 - encryption keys 44-2, 44-5
 - example configurations 44-6
 - keys 44-2, 44-5
 - log messages 44-3
 - modifying
 - server 44-18
 - users 44-5, 44-20
 - operations 44-2
 - Secure Copy 44-5
 - Secure Shell protocol 44-2
 - server
 - disabling 44-13
 - displaying 44-4, 44-21
 - enabling 44-15
 - modifying 44-18
 - sessions 44-35
 - displaying 44-30
 - users
 - adding 44-4, 44-10
 - deleting 44-4, 44-12
 - disabling 44-5, 44-14
 - displaying 44-5, 44-33
 - enabling 44-5, 44-16
 - modifying 44-5, 44-20
- Secure Sockets Layer
 - commands
 - DISABLE SSL DEBUG 45-10
 - ENABLE SSL DEBUG 45-10
 - SET SSL 45-11
 - SHOW SSL 45-12
 - SHOW SSL COUNTERS 45-14
 - SHOW SSL SESSIONS 45-22
- security
 - asynchronous ports 41-12
 - options for Internet Protocol (IP) 22-43
- Security Associations
 - adding members 48-48
 - bundles 48-16, 48-49, 48-71, 48-93, 48-115
 - converting old style to IPsec 48-20, 48-47
 - creating 48-70
 - debugging 48-80, 48-87
 - deleting members 48-71
 - destroying 48-74
 - disabling old style 48-75
 - displaying counters 48-205
 - displaying members 48-202
 - displaying users 48-211
 - enabling old style 48-81
 - IPsec 48-5
 - ISAKMP 48-25
 - modifying 48-113
 - specifications 48-13
 - creating 48-59
 - destroying 48-73
 - displaying 48-151
 - modifying 48-102
- security associations 22-43
- security gateway, defined 48-4
- security mode
 - disabling 41-41
 - enabling 41-46
- Security Parameter Index (SPI) 48-5
- security policies, firewall 46-6
- Security Policy Database (SPD) 48-13
- security policy for firewalls 46-6
- security timer 41-5
- seed router, AppleTalk 35-9
- Segment Endpoint 15-Minute Interval Status/Performance group, SHDSL MIB C-43
- Segment Endpoint 1-Day Interval Status/Performance group, SHDSL MIB C-43
- Segment Endpoint Alarm Configuration Profile group, SHDSL MIB C-43
- Segment Endpoint Current Status/Performance group, SHDSL MIB C-43
- Segment Endpoint group, SHDSL MIB C-42
- selection algorithm
 - definition 51-4
- selectors, IPsec policies 48-14
- semipermanent manager port 41-4, 41-14, 41-53, 41-62
- send statement, scripts 19-7
- sending mail 4-10, 4-22
- Serial Line Internet Protocol (SLIP) 19-2
 - See also Internet Protocol (IP)
 - encapsulation, asynchronous ports 9-16, 19-4



- server
 - NTP entity 57-2, 57-4
- Server Load Balancing
 - Introduction 51-3
 - Overview 51-3
- Server selection 22-36
- Service Advertisement Protocol (SAP) 36-39, 36-46, 36-54, 36-56, 36-73
- Services 47-4
- services 61-17 to 61-18, 61-23, 61-27
 - IPX 36-40, 36-47
- session keys, star key management 50-7, 50-10
- sessions, terminal server 61-5
- SET ACC CALL command 19-28
- SET ACC CALL PORT command 19-31
- SET ACC SCRIPT command 19-32
- SET APPLE PACKETFILTER command 35-40
- SET APPLE PORT command 35-16, 35-42
- SET APPLE ROUTECONVERT command 35-44
- SET APPLE ROUTEFILTER command 35-45
- SET APPLE ZONE command 35-46
- SET APPLE ZONEFILTER command 35-47
- SET BGP AGGREGATE command 27-87
- SET BGP command 27-84
- SET BGP IMPORT command 27-91
- SET BGP PEER command 27-93
- SET BOOTP MAXHOPS command 23-35
- SET BRI command 11-102
- SET BRIDGE AGEINGTIMER command 16-41
- SET BRIDGE FILTER command 16-42
- SET BRIDGE GROUP command 16-44
- SET BRIDGE PORT command 16-45
- SET BRIDGE PROTOCOL command 16-46
- SET BRIDGE SPANNING command 16-47
- SET CLNS CIRCUIT command 34-27
- SET CLNS command 34-25
- SET CLNS RA command 34-29
- SET CONFIG command 5-38
- SET DECNET command 37-24
- SET DECNET INTERFACE command 37-27
- SET DHCP POLICY command 23-41
- SET DTEADDRESS command 13-38
- SET DVMRP INTERFACE command 24-73
- SET ENCO DHPADDING command 42-25
- SET ENCO DHPRIORITY command 42-25
- SET ENCO KEY command 42-26
- SET ENCO SW command 42-27
- SET ETH MAXBANDWIDTH command 9-46
- SET ETH SPEED command 9-47
- SET FIREWALL POLICY ATTACK command 46-140
- SET FIREWALL POLICY command 46-138, 46-140
- SET FIREWALL POLICY RULE command 46-144
- SET FIREWALL POLICY SMTPDOMAIN command 46-149
- SET FRAMERELAY command 14-47
- SET FRAMERELAY DLC command 14-50
- SET GRE command 30-19
- SET H323 command 29-36
- SET H323 ENTRY command 29-37
- SET H323 GATEWAY command 29-38
- SET HELP command 2-15
- SET HTTP SERVER command 5-39
- SET IGMP FILTER command 24-74
- SET IGMP Snooping FASTLEAVE command 24-75
- SET IGMP Snooping ROUTERMODE command 24-76
- SET INSTALL command 5-40
- SET INTERFACE MTU command 9-48
- SET INTERFACE TRAPLIMIT command 9-49
- SET IP ARP command 22-142
- SET IP ARP TIMEOUT command 22-143 to 22-144
- SET IP AUTONOMOUS command 27-106
- SET IP DNSRELAY command 22-149
- SET IP FILTER command 22-150
- SET IP HOST command 22-154
- SET IP IGMP command 24-77
- SET IP IGMP INTERFACE command 24-78
- SET IP INTERFACE command 22-155, 30-4 to 30-5
- SET IP LOCAL command 22-160
- SET IP NAMESERVER command 22-162
- SET IP RIP 25-14
- SET IP RIPTIMER command 25-18
- SET IP ROUTE command 22-164
- SET IP ROUTE FILTER command 28-63
- SET IP ROUTE TEMPLATE command 22-168
- SET IP ROUTEMAP command 28-65
- SET IP SECONDARYNAMESERVER command 22-170
- SET IPSEC BUNDLESPECIFICATION command 48-93
- SET IPSEC POLICY command 48-94
- SET IPSEC SASPECIFICATION command 48-102
- SET IPSEC UDPPORT command 48-104
- SET IPV6 FILTER command 31-66
- SET IPV6 INTERFACE command 31-69
- SET IPV6 MLD command 33-34
- SET IPV6 MLD INTERFACE command 33-35
- SET IPV6 MTU command 31-70
- SET IPX CIRCUIT command 36-51
- SET IPX GRIP|GSAP command 36-54
- SET IPX RIP command 36-55
- SET IPX SAP command 36-56
- SET ISAKMP POLICY command 48-105
- SET ISDN CALL command 11-104
- SET ISDN DOMAINNAME command 11-110
- SET ISDN LOG command 11-110
- SET L2TP CALL command 20-40
- SET L2TP CHECKSUM command 20-43
- SET L2TP FILTER command 20-43
- SET L2TP PASSWORD command 20-44
- SET L2TP USER command 20-45
- SET LAPB command 13-64
- SET LOADBALANCER command 51-41
- SET LOADBALANCER REDUNDANCY command 51-42
- SET LOADBALANCER RESOURCE command 51-44
- SET LOADBALANCER RESPOOL command 51-45
- SET LOADBALANCER VIRTUALBALANCER command 51-46
- SET LOADER command 5-42
- SET LOG OUTPUT command 60-29
- SET LOG RECEIVE command 60-35
- SET LOG UTCOFFSET command 60-36
- SET MAIL command 4-26
- SET MANAGER PORT command 41-53
- SET MIOX CIRCUIT command 13-66



- SET MIOX command 13-65
- SET NTP UTCOFFSET command 57-10
- SET OSPF AREA command 26-63
- SET OSPF command 26-59
- SET OSPF HOST command 26-65
- SET OSPF INTERFACE command 26-66
- SET OSPF NEIGHBOUR command 26-70
- SET OSPF RANGE command 26-71
- SET OSPF STUB command 26-74
- SET OSPF SUMMARYADDRESS command 26-75
- SET PASSWORD command 41-54 to 41-55
- set PDU 55-9
- SET PERM command 62-8
- SET PIM BSRCANDIDATE command 24-81
- SET PIM command 24-79
- SET PIM INTERFACE command 24-82
- SET PIM RPCANDIDATE command 24-84
- SET PIM6 BSRCANDIDATE command 33-37
- SET PIM6 command 33-36
- SET PIM6 INTERFACE command 33-38
- SET PIM6 RPCANDIDATE command 33-39
- SET PING command 22-171
- SET PING POLL command 54-15
- SET PKI CERTIFICATE command 49-29
- SET PKI command 49-28
- SET PKI CRL command 49-30
- SET PKI LDAPREPOSITORY command 49-31
- SET PORT command 9-40
- SET PORTAUTH PORT command 43-36
- SET PORTAUTH PORT SUPPLICANTMAC command 43-42
- SET PORTAUTH USERNAME command 43-45
- SET PPP ACSERVICE command 15-90
- SET PPP command 15-83
- SET PPP TEMPLATE command 15-90
- SET PRI command 11-113
- SET Q931 command 11-117
- SET RSVP INTERFACE command 40-20
- SET RSVP PROXY command 40-21
- SET SA command 48-113
- SET SCRIPT command 58-12
- SET SERVICE command 61-23
- SET SIP command 29-39
- SET SIP GATEWAY command 29-41
- SET SNMP COMMUNITY command 55-42, 55-52
- SET SNMP ENGINEID command 55-43
- SET SNMP GROUP command 55-44
- SET SNMP TARGETADDR command 55-46
- SET SNMP TARGETPARAMS command 55-47
- SET SNMP USER command 55-48
- SET SSH USER command 44-20
- SET SSL command 45-11
- SET STAR command 50-17
- SET STT command 17-7
- SET SWITCH AGEINGTIMER command 8-36
- SET SWITCH QOS command 8-40
- SET SYN command 9-50
- SET SYSTEM CONTACT command 4-29
- SET SYSTEM LOCATION command 4-30
- SET SYSTEM NAME command 4-31
- SET SYSTEM TERRITORY command 11-21, 11-32, 11-49, 11-51, 11-120
- SET TELNET command 61-25
- SET TIME command 4-32
- SET TPAD command 18-25
- SET TRACE command 22-174
- SET TRIGGER command 59-18
- SET TTY command 61-26
- SET USER command 41-59
- SET VLAN PORT command 8-41
- SET VOIP BOOTCODE command 29-43
- SET VOIP command 29-42
- SET VOIP FILE command 29-45
- SET VOIP PHONE command 29-46
- SET VOIP PUBLIC INTERFACE command 29-53
- SET VRRP command 53-22
- SET X25C command 13-68
- SET X25C HUNTGROUPE command 13-70
- SET X25T command 13-72
- SET X25T CPAR command 13-74
- setting
 - activity limits on PPP interfaces 15-29 to 15-30, 15-54, 15-63
 - clock 4-32
 - date 4-32
 - default configuration 5-38
 - install information 5-40
 - mail host name 4-26
 - NTP
 - UTC offset 57-10
 - semipermanent manager port 41-53
 - synchronous tunnel 17-7
 - system clock 4-32
 - system date 4-32
 - system help file 2-15
 - system information 4-32
 - system time 4-32
 - time 4-32
- Setting Ethernet speed 9-47
- SHDSL Line MIB C-42
- shortest path tree, PIM Sparse Mode 24-13
- show 46-158
- SHOW ACC CALL command 19-35
- SHOW ACC command 19-34
- SHOW ACC DOMAINNAME command 19-38
- SHOW ACC SCRIPT command 19-38
- SHOW ALIAS command 2-15 to 2-16, 6-28
- SHOW APPLE AARP command 35-49
- SHOW APPLE CIRCUIT command 35-50
- SHOW APPLE command 35-48
- SHOW APPLE COUNTER command 35-51
- SHOW APPLE DLCI command 35-57
- SHOW APPLE PORT command 35-60
- SHOW APPLE ROUTE command 35-16, 35-62
- SHOW APPLE ZONE command 35-64
- SHOW APPLE ZONEFILTER command 35-65
- SHOW BGP AGGREGATE command 27-109
- SHOW BGP command 27-107
- SHOW BGP CONFEDERATION command 27-110
- SHOW BGP IMPORT command 27-120
- SHOW BGP NETWORK command 27-124
- SHOW BGP PEER command 27-125
- SHOW BGP ROUTE command 27-132



SHOW BOOTP RELAY command 23-48
 SHOW BRI CONFIGURATION command 11-121
 SHOW BRI COUNTERS command 11-123
 SHOW BRI CTEST command 11-130
 SHOW BRI DEBUG command 11-131
 SHOW BRI STATE command 11-132
 SHOW BRI TEST command 11-136
 SHOW BRIDGE command 16-49
 SHOW BRIDGE COUNTERS command 16-52
 SHOW BRIDGE GROUP command 16-61
 SHOW BRIDGE PORT command 16-63
 SHOW BRIDGE PROTOCOL command 16-66
 SHOW BRIDGE SPANNING command 16-67
 SHOW BRIDGE STATION command 16-69
 SHOW BUFFER command 4-34
 SHOW CLNS ADJACENCY command 34-31
 SHOW CLNS AREA command 34-33
 SHOW CLNS CIRCUIT command 34-44
 SHOW CLNS CIRCUIT COUNTERS command 34-37
 SHOW CLNS command 34-30
 SHOW CLNS COUNTERS command 34-39
 SHOW CLNS DETAIL command 34-41
 SHOW CLNS RA command 34-44
 SHOW CLNS ROUTE command 34-45
 SHOW CONFIG command 5-46
 SHOW CPU command 4-38
 SHOW DEBUG command 4-40
 SHOW DECNET command 37-28
 SHOW DECNET COUNTER command 37-29
 SHOW DECNET EXCLUSION command 37-31
 SHOW DECNET INCLUSION command 37-32
 SHOW DECNET INTERFACE command 37-33
 SHOW DECNET LPN command 37-34
 SHOW DECNET ROUTE command 37-35
 SHOW DHCP CLIENT command 23-53
 SHOW DHCP command 23-51
 SHOW DHCP POLICY command 23-55
 SHOW DHCP RANGE command 23-57
 SHOW DVMRP command 24-85
 SHOW DVMRP COUNTERS command 24-86
 SHOW DVMRP DEBUG command 24-87
 SHOW DVMRP FORWARDING command 24-88
 SHOW DVMRP INTERFACE command 24-89
 SHOW DVMRP NEIGHBOUR command 24-90
 SHOW DVMRP ROUTE command 24-91
 SHOW ENCO CHANNEL command 42-30
 SHOW ENCO COUNTERS command 42-36
 SHOW ENCO KEY command 42-53 to 42-54
 SHOW ETH CONFIGURATION command 9-61
 SHOW ETH COUNTERS command 9-62
 SHOW ETH MACADDRESS command 9-67
 SHOW ETH RECEIVE command 9-68
 SHOW ETH STATE command 9-69
 SHOW EXCEPTION command 4-47
 SHOW FEATURE command 5-48
 SHOW FFILE command 6-23, 6-25
 SHOW FIREWALL ACCOUNTING command 46-156
 SHOW FIREWALL ARP command 46-158
 SHOW FIREWALL ARP command 46-158
 SHOW FIREWALL command 46-153
 SHOW FIREWALL EVENT command 46-160
 SHOW FIREWALL POLICY SESSION command 46-190
 SHOW FLASH command 6-29
 SHOW FLASH PHYSICAL command 6-31
 SHOW FRAMERELAY command 14-52
 SHOW FRAMERELAY DLC command 14-62
 SHOW FRAMERELAY LI 14-70
 SHOW GRE command 30-22 to 30-24
 SHOW H323 command 29-54
 SHOW H323 ENTRY command 29-55
 SHOW H323 GATEWAY command 29-56
 SHOW HTTP DEBUG command 5-51
 SHOW HTTP SERVER command 5-52
 SHOW HTTP SESSION command 5-53
 SHOW IGMP FILTER command 24-92
 SHOW IGMP SNOOPING command 24-94
 SHOW IGMP SNOOPING COUNTER command 24-96
 SHOW IGMP SNOOPING ROUTERADDRESS command 24-98
 SHOW INSTALL command 5-54
 SHOW INTERFACE command 9-72
 SHOW IP ARP command 22-181
 SHOW IP AS PATH LIST 28-72
 SHOW IP command 22-176
 SHOW IP COMMUNITY LIST command 28-73
 SHOW IP DEBUG command 22-192
 SHOW IP FILTER command 22-196
 SHOW IP HELPER command 22-198
 SHOW IP HOST command 22-200
 SHOW IP IGMP command 24-99
 SHOW IP IGMP COUNTER command 24-102
 SHOW IP INTERFACE command 22-202
 SHOW IP POOL command 22-211
 SHOW IP RIP command 25-19
 SHOW IP RIP COUNTERS command 25-21
 SHOW IP RIPTIMER command 25-24
 SHOW IP ROUTE command 22-213
 SHOW IP ROUTE FILTER command 28-76
 SHOW IP ROUTE MULTICAST command 22-217
 SHOW IP ROUTE TEMPLATE command 22-219
 SHOW IP ROUTE MAP command 28-77
 SHOW IP TRUSTED command 25-25
 SHOW IP UDP command 22-222
 SHOW IPSEC BUNDLE SPECIFICATION command 48-115
 SHOW IPSEC command 48-114
 SHOW IPSEC COUNTERS command 48-118
 SHOW IPSEC POLICY command 48-134, 48-138
 SHOW IPSEC SA command 48-143
 SHOW IPSEC SASPECIFICATION command 48-151
 SHOW IPV6 command 31-75
 SHOW IPV6 COUNTER command 31-77
 SHOW IPV6 FILTER command 31-81
 SHOW IPV6 HOST command 31-83
 SHOW IPV6 INTERFACE command 31-84
 SHOW IPV6 MLD command 33-40
 SHOW IPV6 MLD CONFIG command 33-42
 SHOW IPV6 MLD COUNTERS command 33-43
 SHOW IPV6 MLD DEBUG command 33-44
 SHOW IPV6 MULTICAST command 31-86
 SHOW IPV6 ND command 31-87



SHOW IPV6 RIP command 31-90
 SHOW IPV6 ROUTE command 31-92
 SHOW IPV6 TUNNEL command 31-95
 SHOW IPX CACHE command 36-59
 SHOW IPX CALLLOG command 36-60
 SHOW IPX CIRCUIT command 36-63
 SHOW IPX command 36-57
 SHOW IPX COUNTER command 36-65
 SHOW IPX EXCLUSION command 36-69
 SHOW IPX INCLUSION command 36-70
 SHOW IPX RIP command 36-71
 SHOW IPX ROUTE command 36-72
 SHOW IPX SAP command 36-73
 SHOW IPX SERVICE command 36-75
 SHOW IPX SPX SPOOF command 36-76
 SHOW ISAKMP command 48-153
 SHOW ISAKMP COUNTERS command 48-155
 SHOW ISAKMP EXCHANGE command 48-185
 SHOW ISAKMP POLICY command 48-192
 SHOW ISAKMP SA command 48-197
 SHOW ISDN CALL command 11-139
 SHOW ISDN CLILIST command 11-143
 SHOW ISDN DOMAINNAME command 11-144
 SHOW ISDN LOG command 11-145
 SHOW L2TP CALL command 20-50
 SHOW L2TP command 20-48
 SHOW L2TP IP command 20-55
 SHOW L2TP TUNNEL command 20-56, 20-59
 SHOW L2TP USER command 20-67
 SHOW LAPB command 13-75
 SHOW LAPD command 11-147
 SHOW LAPD COUNT command 11-150
 SHOW LAPD STATE command 11-151
 SHOW LOADBALANCER AFFINITY command 51-50
 SHOW LOADBALANCER command 51-48
 SHOW LOADBALANCER CONNECTIONS command 51-52
 SHOW LOADBALANCER REDUNDANCY command 51-53
 SHOW LOADBALANCER RESOURCE command 51-56
 SHOW LOADBALANCER RESPOOL command 51-59
 SHOW LOADBALANCER VIRTUALBALANCER command 51-61
 SHOW LOADER 5-58
 SHOW LOADER command 5-58
 SHOW LOG command 60-37 to 60-38
 SHOW LOG COUNTERS command 60-43
 SHOW LOG OUTPUT command 60-45, 60-47
 SHOW LOG QUEUE command 60-49, 60-52
 SHOW LOG RECEIVE command 60-50
 SHOW LOG STATUS command 60-52
 SHOW MAIL command 4-48
 SHOW MANAGER PORT command 41-62
 SHOW MIOX CIRCUIT command 13-83
 SHOW MIOX command 13-80
 SHOW MIOX COUNT command 13-81
 SHOW NTP command 57-11
 SHOW OSPF AREA command 26-79
 SHOW OSPF command 26-76
 SHOW OSPF DEBUG command 26-82
 SHOW OSPF HOST command 26-83
 SHOW OSPF INTERFACE command 26-85
 SHOW OSPF LSA command 26-90
 SHOW OSPF NEIGHBOURS command 26-96
 SHOW OSPF RANGE command 26-98
 SHOW OSPF ROUTE command 26-101
 SHOW OSPF STUB command 26-103
 SHOW OSPF SUMMARYADDRESS command 26-104
 SHOW PATCH command 5-60
 SHOW PERM command 62-9
 SHOW PIM BSRCANDIDATE command 24-106
 SHOW PIM command 24-105
 SHOW PIM COUNTERS command 24-108
 SHOW PIM DEBUG command 24-111
 SHOW PIM INTERFACE command 24-112
 SHOW PIM NEIGHBOUR command 24-114
 SHOW PIM ROUTE command 24-115
 SHOW PIM RPCANDIDATE command 24-121
 SHOW PIM RPSET command 24-122
 SHOW PIM STATEREFRESH command 24-124
 SHOW PIM TIMER command 24-125
 SHOW PIM6 BSRCANDIDATE command 33-46
 SHOW PIM6 CONFIG command 33-47
 SHOW PIM6 COUNTERS command 33-48
 SHOW PIM6 DEBUG command 33-51
 SHOW PIM6 INTERFACE command 33-52
 SHOW PIM6 NEIGHBOUR command 33-54
 SHOW PIM6 ROUTE command 33-55
 SHOW PIM6 RPCANDIDATE command 33-60
 SHOW PIM6 RPSET command 33-61
 SHOW PIM6 STATEREFRESH command 33-63
 SHOW PIM6 TIMER command 33-64
 SHOW PING command 22-224
 SHOW PING POLL command 54-17
 SHOW PKI CERTIFICATE command 49-40
 SHOW PKI command 49-33
 SHOW PKI CRL command 49-43
 SHOW PKI ENROLLMENTREQUEST command 49-46
 SHOW PKI KEYUPDATEREQUEST command 49-48
 SHOW PKI LDAPREPOSITORY command 49-50
 SHOW PORTAUTH command 43-47
 SHOW PORTAUTH PORT command 43-52
 SHOW PORTAUTH PORT MULTISUPPLICANT command 43-58
 SHOW PORTAUTH TIMER command 43-63
 SHOW PPP command 15-98
 SHOW PPP CONFIG command 15-99
 SHOW PPP COUNT command 15-105
 SHOW PPP DEBUG command 15-118
 SHOW PPP IDLETIMER command 15-119
 SHOW PPP LIMITS command 15-120
 SHOW PPP MULTILINK command 15-121
 SHOW PPP NAMESERVER command 15-123
 SHOW PPP PPPOE command 15-124
 SHOW PPP TEMPLATE command 15-124
 SHOW PPP TXSTATUS command 15-130
 SHOW PPP UTILISATION command 15-132
 SHOW PRI CONFIGURATION command 11-152
 SHOW PRI COUNTERS command 11-153
 SHOW PRI CTEST command 11-163
 SHOW PRI DEBUG command 11-164
 SHOW PRI STATE command 11-165



SHOW PRI TEST command 11-171
 SHOW Q931 command 11-173
 SHOW Q931 SPID command 11-176
 SHOW RADIUS command 41-63
 SHOW RELEASE command 5-61
 SHOW RSVP command 40-23
 SHOW RSVP COUNTER command 40-24
 SHOW RSVP INTERFACE command 40-27
 SHOW RSVP PATH command 40-28
 SHOW RSVP PROXY command 40-29
 SHOW RSVP PROXY COUNTER command 40-31
 SHOW RSVP RESV command 40-32
 SHOW SA command 48-202
 SHOW SA COUNTER command 48-205
 SHOW SA USER command 48-211
 SHOW SCRIPT command 58-14
 SHOW SERVICE command 61-27
 SHOW SESSIONS command 61-28
 SHOW SIP command 29-57
 SHOW SIP GATEWAY command 29-58
 SHOW SNMP command 55-49, 55-52
 SHOW SNMP COMMUNITY command 55-52
 SHOW SNMP GROUP command 55-53
 SHOW SNMP TARGETADDR command 55-54
 SHOW SNMP TARGETPARAMS command 55-55
 SHOW SNMP USER command 55-56
 SHOW SNMP VIEW command 55-57
 SHOW SSH command 44-21
 SHOW SSH SESSIONS command 44-30
 SHOW SSH USER command 44-33
 SHOW SSL command 45-12
 SHOW SSL COUNTERS command 45-14
 SHOW SSL SESSIONS command 45-22
 SHOW STAR command 50-19, 50-21, 50-26 to 50-27
 SHOW STARTUP command 4-49
 SHOW STT command 17-8
 SHOW SWITCH command 8-42
 SHOW SWITCH COUNTER command 8-44
 SHOW SWITCH DEBUG command 8-43
 SHOW SWITCH PORT command 8-47
 SHOW SWITCH QOS command 8-53
 SHOW SYN command 9-78
 SHOW SYN COUNTERS command 9-80
 SHOW SYSTEM command 4-51
 SHOW SYSTEM SERIALNUMBER command 4-54
 SHOW TACACS SERVER command 41-68
 SHOW TCP command 22-226
 SHOW TDM command 12-12
 SHOW TEST command 63-13
 SHOW TIME command 4-55
 SHOW TPAD command 18-28
 SHOW TPAD COUNTERS command 18-33
 SHOW TPAD PORTS command 18-31
 SHOW TRACE command 22-231
 SHOW TRIGGER command 59-24
 SHOW TTY command 61-30
 show upnp 47-17
 show upnp counter 47-18
 show upnp interface 47-20
 show upnp interface subscriptions 47-23
 SHOW USER command 41-73
 SHOW USER RSO command 41-78
 SHOW VLAN command 8-54
 SHOW VLAN DEBUG command 8-56
 SHOW VOIP command 29-59
 SHOW VOIP COUNTER ENGINE command 29-61
 SHOW VOIP LOAD command 29-65
 SHOW VOIP PHONE command 29-67
 SHOW VRRP command 53-25
 SHOW X25C command 13-87
 SHOW X25C COUNTER command 13-89
 SHOW X25C DTEADDRESS command 13-92
 SHOW X25C HUNTGROU command 13-93
 SHOW X25C PATH command 13-94
 SHOW X25C ROUTE command 13-95
 SHOW X25C STATE command 13-96
 SHOW X25T command 13-98
 SHOW X25T CPAR command 13-103
 signals, modem control 9-12, 9-50, 9-78
 Simple Interface Names 9-4
 Simple Network Management (SNMP) commands
 ADD SNMP TARGETADDR 55-30
 Simple Network Management Commands commands
 ADD SNMP VIEW 55-32
 Simple Network Management Protocol (SNMP) 22-38,
 55-1 to 55-58
 access mode 55-8
 agent
 displaying 55-52
 enabling 55-40
 authentication trap
 enabling 55-41
 authenticationv1 and v2 55-17
 commands
 ADD SNMP COMMUNITY 55-25
 ADD SNMP GROUP 55-27
 ADD SNMP TARGETADDR 55-28
 ADD SNMP TARGETPARAMS 55-29
 ADD SNMP USER 55-30
 CREATE SNMP COMMUNITY 55-33
 DELETE SNMP COMMUNITY 55-35
 ENABLE SNMP 55-40
 ENABLE SNMP AUTHENTICATE_TRAP 55-41
 ENABLE SNMP COMMUNITY 55-41
 PURGE SNMP 55-42
 SET SNMP COMMUNITY 55-42, 55-52
 SET SNMP ENGINEID 55-43
 SET SNMP GROUP 55-44
 SET SNMP TARGETADDR 55-46
 SET SNMP TARGETPARAMS 55-47
 SET SNMP USER 55-48
 SHOW SNMP 55-49, 55-52
 SHOW SNMP COMMUNITY 55-52
 SHOW SNMP GROUP 55-53
 SHOW SNMP TARGETADDR 55-54
 SHOW SNMP TARGETPARAMS 55-55
 SHOW SNMP USER 55-56
 SHOW SNMP VIEW 55-57



- communities 55-16
 - adding 55-25
 - creating 55-33
 - deleting 55-35
 - destroying 55-39
 - disabling 55-40
 - displaying 55-52
 - enabling 55-41
 - setting 55-42
 - showing 55-52
- community 55-11
- configuration example 55-24
- deprecated status 55-8
- example configuration 55-24
- get-bulk-request PDU 55-9
- get-next PDU 55-9
- get-request PDU 55-9
- get-response PDU 55-9
- groups
 - adding 55-27
 - deleting 55-36
 - setting 55-44
 - showing 55-53
- instance 55-7
- instance identifier 55-7
- interface link traps 9-23, 9-29, 9-32, 9-49
- Internet-standard MIB 55-5
- Internet-standard Network Management Framework 55-3
- link traps 9-23, 9-29, 9-32, 9-49
- managed devices 55-3
- Management Information Base (MIB) 55-4 to 55-5
- managing interfaces 9-24
- mandatory status 55-8
- message format 55-9 to 55-10
- message format SNMPv3 55-13
- message protocol format SNMPv1 and v2 55-8
- names, object 55-6
- network management framework 55-3
- network management protocol 55-3 to 55-4
- Network Management Station (NMS) 55-3
- not-accessible access mode 55-8
- object descriptor 55-6
- object identifier 55-6
- object names 55-6
- object syntax 55-7
- obsolete status 55-8
- optional status 55-8
- polling 55-11
- protocol format SNMPv1 55-8
- read-only access mode 55-8
- read-write access mode 55-8
- set PDU 55-9
- SNMP versions 55-9
- SNMPv1 and v2 55-15
- SNMPv3 55-21
 - entities 55-12
 - message protocol format 55-13
- SNMPv3 MIB views 55-21
- status 55-8
 - structure of information 55-3, 55-5
 - syntax 55-7
 - trap PDU 55-9
 - view 55-15
 - write-only access mode 55-8
- Simple Network Management Protocol (SNMP) commands
 - DELETE SNMP SNMP 55-36
 - DELETE SNMP TARGETADDR 55-36
 - DELETE SNMP TARGETPARAMS 55-37
 - DELETE SNMP USER 55-37
 - DELETE SNMP VIEW 55-38
 - DESTROY SNMP COMMUNITY 55-39
 - DISABLE SNMP 55-39
 - DISABLE SNMP AUTHENTICATE_TRAP 55-39
 - DISABLE SNMP COMMUNITY 55-40
- slave router, star key management 50-6
- SLIP. See Serial Line Internet Protocol (SLIP)
- slotted interfaces 11-44
- slow-start mechanism
 - Frame Relay networks 14-9
- slowstart mechanism
 - Frame Relay networks 14-14
- slow-start mechanism, Frame Relay 14-44
- slowstart mechanism, Frame Relay 14-38
- SMTP Proxy
 - Firewall 46-33
 - Interaction 46-33
- SNAP
 - encapsulation on Ethernet 9-8
- SNMP. See Simple Network Management Protocol
- SNMP commands
 - CREATE SNMP 55-35 to 55-36
 - DELETE SNMP TARGETPARAMS command 55-37
- SNMP Framework MIB C-55
- SNMP group, MIB-II MIB C-30
- snmpDot3MauMgt MIB object C-35
- snmpEnableAuthenTraps MIB object C-30
- snmpModules MIB object C-55
- snmpMPDStats MIB object C-55
- SNMPv3 MIBs C-55
- snooping, IGMP 24-22
- socket
 - AppleTalk 35-7
- sockets, IPX 36-3
- Software QoS group, Allied Telesis Enterprise MIB C-27
- software releases
 - deleting 5-23
 - disabling 5-26
 - displaying 5-54, 5-61
 - downloading 5-36, 5-42, 5-58, 5-62
 - enabling 5-30
 - setting 5-40
- Span Configuration group, SHDSL MIB C-42
- Span Configuration Profile group, SHDSL MIB C-43
- Span Status group, SHDSL MIB C-42
- spanning tree protocol 16-15 to 16-16
 - See also bridging
- SPD 48-13



- special feature licences 5-16
 - disabling 5-24
 - displaying 5-48
 - enabling 5-27
- speed, synchronous lines 9-11
- SPI 48-5
- SPID. See Integrated Services Digital Network (ISDN)
- split horizon
 - AppleTalk 35-8
- spoofing, SPX 36-13
- SPX spoofing 36-13
- sqos MIB object C-27
- sqosCIfCounterTable MIB object C-28
- sqosDarCounterTable MIB object C-28
- sqosDarTable MIB object C-28
- sqosDscpMapRowTable MIB object C-28
- sqosDscpMapTable MIB object C-28
- sqosInterfaceTable MIB object C-28
- sqosMeterTable MIB object C-28
- sqosModuleTable MIB object C-27
- sqosPolicyCounterTable MIB object C-28
- sqosPolicyTable MIB object C-27
- sqosRedTable MIB object C-28
- sqosTcCounterTable MIB object C-28
- sqosTrafficTable MIB object C-27
- sqosTrapDCLimitExceeded trap message C-28
- sqosTrapPaused trap message C-28
- sqosTrapQLimitExceeded trap message C-28
- sqosTraps MIB object C-28
- sqosTrapUnpaused trap message C-28
- SRLP. See Logging Facility:secure router logging protocol (SRLP)
- SSH command 44-35
- SSL (Secure Sockets Layer)
 - definition 51-8
 - load balancer 45-6
 - sticky connection 51-8
- SSL and the GUI (graphical user interface) 45-5
- SSL connection
 - data transfer 45-3
 - handshake 45-3
 - session 45-4
- SSL handshake
 - certificate 45-3
 - change cipher spec 45-3
 - client hello 45-3
 - client key exchange 45-3
 - finished 45-3
 - server hello 45-3
 - server hello done 45-3
- SSL load balancing 51-8
 - HTTP virtual balancer with SSL enabled 51-9
 - SSL virtual balancer 51-9
- SSL messages
 - alert 45-4
 - application data 45-4
 - change cipher spec 45-4
 - record layer 45-4
- STAC LZS compression 42-11, 42-27
- standards
 - Point-to-Point Protocol (PPP) 15-3
- stand-by router, star key management 50-6, 50-10
- star entities, star key management 50-7
- star key management 50-5 to 50-10
 - creating master keys 50-8
 - creating network keys 50-7
 - creating star entities 50-7
 - entering network keys 50-8
 - exchanging session keys 50-10
 - master router 50-6
 - network key 50-7
 - session keys 50-7
 - slave router 50-6
 - stand-by router 50-6, 50-10
 - transferring master keys 50-8
- startup status 4-9, 4-49
- state
 - X.25 DCE 13-96
- State Refresh, PIM Dense Mode, IPv4 24-9
- State Refresh, PIM Dense Mode, IPv6 33-11
- State variables 47-4
- state, OSPF 26-48, 26-51
- stateful inspection, firewall 46-4
- states
 - OSPF 26-7
 - Point-to-Point Protocol (PPP) 15-5
- static ARPs 14-18
- station address, IPX 36-4
- Statistics group, RMON MIB C-46 to C-47
- statistics, compression 42-22
- status, MIB object 55-8
- status, OSPF 26-76
- STOP PING command 22-233
- STOP TRACE command 22-233
- storage, frame 8-17
- store and forward, bridging 16-4
- Structure of Management Information (SMI) 55-3, 55-5
- stub areas
 - OSPF 26-4, 26-28, 26-42, 26-63
- subnet 22-9
- subnet mask 22-9
- successchecks (WAN load balancing) 52-9
- support
 - for ISDN 11-14
 - for NTP 57-4
- Support for AppleTalk 35-11
- support for load balancer 51-18
 - redundancy 51-18
- support for SSL 45-7
- SVC. See X.25
- swi MIB object C-23
- swi56xxPortNumber MIB object C-23
- swi56xxPortTable MIB object C-23
- swiDebugVariables MIB object C-23 to C-24
- swiPortNumber MIB object C-23 to C-24
- swiPortTable MIB object C-23
- swiPortVlanControl MIB object C-23
- swiPortVlanPortNumber MIB object C-23
- swiPortVlanStateNotify MIB object C-23



- swiPortVlanTable MIB object C-23
 - swiPortVlanVlanId MIB object C-23
 - switch ageing timer 8-16
 - disabling 8-28
 - enabling 8-31
 - switch counters
 - displaying 8-44
 - switch debug
 - enabling 8-32
 - Switch group, Allied Telesis Enterprise MIB C-23
 - switch learning 8-16
 - switch port
 - enabling 8-33
 - switch ports 8-4
 - autonegotiation 7-8, 8-4
 - disabling 8-4
 - displaying 8-47
 - enabling 8-4
 - ingress filtering 8-15
 - ingress rules 8-15
 - packet storm protection 8-6
 - triggers 8-18
 - switched virtual circuits (SVC) 13-3
 - symmetric
 - NTP entity 57-2
 - symmetrical encryption 42-5
 - synchronous
 - tunnelling. *See* Synchronous Tunnelling; Layer Two Tunnelling Protocol (L2TP)
 - synchronous dialling, PPP 15-15
 - synchronous interfaces
 - commands
 - DISABLE SYN 9-30
 - DISABLE SYN DEBUG 9-30
 - ENABLE SYN 9-33
 - ENABLE SYN DEBUG 9-33
 - RESET SYN 9-38
 - RESET SYN COUNTERS 9-39
 - SET SYN 9-50
 - SHOW SYN 9-78
 - SHOW SYN COUNTERS 9-80
 - counters 9-39, 9-80
 - debugging 9-30, 9-33
 - disabling 9-30
 - displaying 9-78
 - displaying counters 9-80
 - enabling 9-33
 - modem control signals 9-12, 9-50, 9-78
 - modifying configuration 9-50
 - resetting 9-38
 - resetting counters 9-39
 - synchronous lines 9-11
 - clocks 9-11
 - encapsulations 9-12, 14-4
 - speeds 9-11
 - Synchronous Tunnelling 17-1 to 17-9
 - See Also* Layer Two Tunnelling Protocol (L2TP)
 - adding 17-5
 - changing 17-7
 - commands
 - ADD STT 17-5
 - DELETE STT 17-6
 - RESET STT 17-6
 - SET STT 17-7
 - SHOW STT 17-8
 - configuring 17-3
 - deleting 17-6
 - displaying 17-8
 - example configuration 17-3
 - modifying 17-7
 - operations 17-2
 - resetting 17-6
 - syntax, MIB object 55-7
 - sysinfo Group, Allied Telesis Enterprise MIB C-16
 - sysinfo MIB object C-9, C-16
 - system clock
 - displaying 4-55
 - setting 4-32
 - system date
 - displaying 4-55
 - setting 4-32
 - system group, MIB-II MIB C-29, C-38
 - system information
 - displaying 4-51, 4-55
 - setting 4-29 to 4-32, 11-120
 - system time
 - displaying 4-55
 - setting 4-32
 - sysTemperature MIB object C-16
 - sysUpTime MIB object C-31
- ## T
- T1 Primary Rate Access, ISDN 11-10
 - Tables, MIB
 - atrDot1xAuthConfigTable C-27
 - atrDot1xAuthStatsTable C-27
 - atrDot1xPaePortTable C-27
 - atrMacBasedAuthConfigTable C-27
 - atrMacBasedAuthPaePortTable C-27
 - BGP Peer C-56
 - BGP Received Path Attribute C-56
 - BGP-4 Received Path Attribute C-56
 - Boards C-17 to C-18
 - BRI Channel C-20
 - BRI Interface C-20
 - Broadband MAU Basic C-35
 - Circuit C-48
 - Disk Storage C-53
 - dot1xAuthConfigTable C-45
 - dot1xAuthDiagTable C-45
 - dot1xAuthSessionStatsTable C-45
 - dot1xAuthStatsTable C-45
 - dot1xPaePortTable C-45
 - dot1xSuppConfigTable C-45
 - dot1xSuppStatsTable C-45
 - DS1 Fractional C-50 to C-51
 - ds3TrapTable C-26
 - dsx1ChanMappingTable C-51
 - dsx1ConfigTable C-51



- Error C-49
- ES Adjacency C-25
- Ethernet Interfaces C-18
- File C-22
- File System C-53
- Generic Receive Address C-31 to C-32
- Host Resources Running Software C-52
- Install C-21
- Install History C-21
- Interface C-17
- Interface Extensions C-17, C-31 to C-32
- Interface Jack C-35
- Interface MAU C-35
- Interface MAU Autonegotiation C-35
- Interface Stack C-31 to C-32
- Interface Test C-31 to C-32
- Interfaces C-31 to C-32
- IP CIDR Route C-33
- IP Forwarding C-33
- IS Adjacency C-24
- IS Adjacency Area Address C-24
- IS Adjacency IP Address C-24
- IS Adjacency Protocol Supported C-24
- ISDN Active Call C-19
- ISDN B Channel C-19
- ISDN Call Attachment C-19
- ISDN Call Details C-19
- ISDN Call Log C-19
- ISDN CLI List C-19
- ISIS Area Address C-24
- ISIS Circuit C-24
- ISIS Circuit CLNS C-24
- ISIS Circuit IS C-24
- ISIS Level 1 CLNP Destination C-25
- ISIS Level 2 CLNP Destination C-25
- ISIS Level 2 Summary Address C-24
- ISIS Level 3 CLNP Destination C-25
- ISIS Manual Area Address C-24
- ISIS Reachable Address C-25
- ISIS System C-24
- ISIS System Protocol Supported C-24
- lbShowAffTable C-26
- lbShowConTable C-26
- lbShowGlobalTable C-26
- lbShowResPoolTable C-26
- lbShowResTable C-26
- lbShowVirtBalTable C-26
- Load C-20
- Network Devices C-53
- Ping C-22
- PRI Channel C-20
- PRI Interface C-20
- Printer C-53
- Release Licence C-21
- Repeater Jack C-35
- Repeater MAU C-35
- Slot C-17
- sqosClfrCounterTable C-28
- sqosDarCounterTable C-28
- sqosDarTable C-28
- sqosDscpMapRowTable C-28
- sqosDscpMapTable C-28
- sqosInterfaceTable C-28
- sqosMeterTable C-28
- sqosModuleTable C-27
- sqosPolicyCounterTable C-28
- sqosPolicyTable C-27
- sqosRedTable C-28
- sqosTcCounterTable C-28
- sqosTrafficTable C-27
- Switch Debug C-23 to C-24
- Switch Port C-23
- TACACS authentication 41-18, 41-31, 41-38, 41-68
- TARGETADDR command 55-36
- TARGETPARAMS command 55-55
- TCP group, MIB-II MIB C-29
- TCP virtual balancer 51-6
- tcpConnState MIB object C-30
- TDM. See Time Division Multiplexing (TDM)
- Telnet 61-6 to 61-7, 61-25, 61-34
 - for remote management 61-7
 - from the router 41-13
- TELNET command 61-34
- Telnet server
 - disabling 22-120
 - enabling 22-133
- templates, PPP interfaces 7-11, 15-18
 - creating 15-63
 - debugging 15-75, 15-80
 - destroying 15-72
 - displaying 15-124
 - modifying 15-90
- terminal server 61-1 to 61-35
 - accessing services 61-7, 61-16, 61-20, 61-22, 61-28
 - accessing Telnet hosts 61-6, 61-25, 61-34
 - asynchronous ports 9-15, 9-25, 9-27 to 9-28, 9-31, 9-33 to 9-36, 9-40
 - auto-bauding 9-21
 - commands 61-15
 - CONNECT 61-16
 - CONNECT PORT 9-25
 - CREATE SERVICE 61-17
 - DESTROY SERVICE 61-18
 - DISABLE PORT 9-27
 - DISCONNECT 61-20
 - ENABLE PORT 9-33
 - PURGE PORT 9-28, 9-31
 - RECONNECT 61-22
 - RESET PORT 9-34
 - RESET PORT COUNTERS 9-35
 - RESET PORT HISTORY 9-36
 - SET PORT 9-40
 - SET SERVICE 61-23
 - SET TELNET 61-25
 - SET TTY 61-26
 - SHOW SERVICE 61-27
 - SHOW SESSIONS 61-28
 - SHOW TTY 61-30
 - TELNET 61-34
 - configuration examples 61-10



- configuring asynchronous ports 9-16, 9-25, 9-27 to 9-28, 9-31, 9-33 to 9-36, 9-40
- configuring Telnet 61-25
- configuring TTY devices 61-26
- connecting to ports 9-25
- creating nicknames for Telnet hosts 61-6
- disabling ports 9-27
- disconnecting from a session 61-20
- displaying
 - sessions 61-28
 - TTY devices 61-30
- displaying asynchronous port characteristics 9-19
- enabling ports 9-33
- example configurations 61-10
- history 9-36
- multiple sessions 61-5, 61-20, 61-22, 61-28
- ports 9-16, 9-25, 9-27 to 9-28, 9-31, 9-33 to 9-35, 9-40
- purging port configuration 9-28, 9-31
- reconnecting to a session 61-22
- resetting command history 9-36
- resetting port counters 9-35
- resetting ports 9-34
- services 61-7, 61-16 to 61-18, 61-23, 61-27
- setting port characteristics 9-16, 9-40
- Telnet 61-6, 61-34
- TTY device 61-2
 - configuring 61-26
 - displaying 61-30
- territory
 - displaying 4-51
 - setting 11-120
- Testing
 - commands
 - DISABLE TEST INTERFACE 63-10
 - ENABLE TEST INTERFACE 63-11
 - RESET TEST INTERFACE 63-12
 - SHOW TEST 63-13
 - disabling tests 63-10
 - displaying test results 63-13
 - enabling tests 63-11
 - expansion options 63-1
 - hardware 63-1
 - interfaces 63-1
 - loopback plugs 63-3
 - resetting tests 63-12
- text editor 6-5, 6-16
- textual notation 55-6
- throttling, IGMP 24-27
- time
 - displaying 4-55
 - setting 4-32
 - triggers 59-2
- Time Division Multiplexing (TDM) 12-1 to 12-13
 - adding TDM groups 12-6
 - adding time slots 12-8
 - Basic Rate ISDN interfaces
 - configuring 12-7
 - channel aggregation 12-4
 - commands
 - ADD TDM 12-8
 - CREATE TDM 12-9
 - DELETE TDM 12-10
 - DESTROY TDM 12-11
 - PURGE TDM 12-11
 - SHOW TDM 12-12
 - configuration example 12-5
 - configuring BRI interfaces 12-7
 - configuring PRI interfaces 12-6
 - creating TDM groups 12-6, 12-9
 - deleting time slots 12-10
 - destroying TDM groups 12-11
 - displaying TDM groups 12-12
 - displaying time slots 12-12
 - E1/T1 12-2 to 12-3
 - example configuration 12-5
 - mixed mode 12-2
 - PPP interfaces, over TDM groups 12-6
 - Primary Rate ISDN interfaces 12-2
 - configuring 12-6
 - purging all TDM groups 12-11
 - static E1/T1 12-4
 - synchronous interfaces 12-4
 - TDM group 12-4 to 12-5
 - adding 12-6
 - adding time slots 12-8
 - creating 12-6, 12-9
 - creating PPP interfaces over 12-6, 12-8 to 12-9
 - deleting time slots 12-10
 - destroying 12-11
 - displaying 12-12
 - purging all 12-11
 - time slots 12-2 to 12-3
 - adding 12-8
 - deleting 12-10
 - displaying 12-12
- time servers. See Network Time Protocol (NTP)
- time. See Network Time Protocol (NTP)
- timer
 - switch ageing 8-16
- timers
 - DECnet 37-6, 37-24, 37-28
 - Point-to-Point Protocol (PPP) 15-30
- TLAP. See AppleTalk: TokenTalk Link Access Protocol (TLAP)
- TokenTalk 35-5
- totalNumberOfSessions MIB object C-23
- TPAD. See Transaction Packet Assembler Disassembler
- TRACE command 22-234
- trace route 22-174, 22-231, 22-233 to 22-234
- traffic filters 22-36
- traffic flow
 - interaction with firewall policies 51-9
- Transaction Packet Assembler Disassembler (TPAD) 18-1
 - adding ports 18-6, 18-17
 - commands 18-17
 - ADD TPAD 18-17
 - CREATE TPAD 18-18
 - DELETE TPAD 18-21
 - DESTROY TPAD 18-21



- DISABLE TPAD 18-22
- DISABLE TPAD DEBUG 18-23
- ENABLE TPAD 18-23
- ENABLE TPAD DEBUG 18-23
- RESET TPAD 18-24
- SET TPAD 18-25
- SHOW TPAD 18-28
- SHOW TPAD COUNTERS 18-33
- SHOW TPAD PORTS 18-31
- configuration examples 18-10 to 18-13
 - configuring X.25 18-10
 - creating TPAD instances 18-12
- connection
 - over a synchronous link 18-5
 - over ISDN B channel 18-5
 - over ISDN D channel 18-5
- counters, displaying 18-6, 18-33
- creating instances 18-5, 18-18
- debugging
 - disabling 18-6, 18-22
 - enabling 18-6, 18-23
- deleting ports 18-6, 18-21
- destroying instances 18-5, 18-21
- disabling
 - debugging 18-6, 18-22
 - instances 18-6, 18-22
- displaying
 - counters 18-6, 18-33
 - instances 18-6, 18-28
 - ports 18-6, 18-31
- enabling
 - debugging 18-6, 18-23
 - instances 18-6, 18-23
- environment 18-2
- example configurations 18-10 to 18-13
 - configuring X.25 18-10
 - creating TPAD instances 18-12
- instances
 - adding ports 18-6, 18-17
 - creating 18-5, 18-18
 - deleting ports 18-6, 18-21
 - destroying 18-5, 18-21
 - disabling 18-6, 18-22
 - disabling debugging 18-6, 18-22
 - displaying 18-6, 18-28
 - displaying ports 18-6, 18-31
 - enabling 18-6, 18-23
 - enabling debugging 18-6, 18-23
 - modifying 18-6, 18-25
 - resetting 18-6, 18-24
- ISDN B channel connection 18-5
- ISDN D channel connection 18-5
- modifying instances 18-6, 18-25
- operations 18-5
- ports
 - adding 18-6, 18-17
 - deleting 18-6, 18-21
 - displaying 18-6, 18-31
- protocol 18-3
- resetting instances 18-6, 18-24
- retail environment 18-2
- synchronous connection 18-5
- troubleshooting 18-14 to 18-16
- X.25
 - over a synchronous link 18-5
 - over ISDN B channel 18-5
 - over ISDN D channel 18-5
- transferring master keys, star key management 50-8
- transit network
 - OSPF 26-6, 26-24
- Transmission group, MIB-II MIB C-30, C-34, C-42, C-48, C-50
- transmission queues 8-17
- trap PDU 55-9
- traps Group, Allied Telesis Enterprise MIB C-16
- traps MIB object C-9, C-16
- traps, SNMP
 - bgpBackwardTransition, Border Gateway Protocol version 4 (BGP-4) MIB C-56
 - bgpEstablished, Border Gateway Protocol version 4 (BGP-4) MIB C-56
 - flashFailureTrap, Enterprise MIB C-18
 - igmpGeneralQueryNotReceivedEvent C-16
 - loginFailureTrap, Enterprise MIB C-19
 - ospfStateChange, Open Shortest Path First (OSPF) Version 2 MIB C-59
 - ospfNbrStateChange, Open Shortest Path First (OSPF) Version 2 MIB C-59
 - ospfVirtIfStateChange, Open Shortest Path First (OSPF) Version 2 MIB C-59
 - ospfVirtNbrStateChange, Open Shortest Path First (OSPF) Version 2 MIB C-59
 - vrrpTrapNewMaster, Virtual Router Redundancy Protocol (VRRP) MIB C-60
- Trigger Facility
 - firewall events 46-46
- Trigger group, Allied Telesis Enterprise MIB C-21
- trigger MIB object C-21
- triggerLastTriggerActivated MIB object C-21
- triggers 51-14, 59-1 to 59-28
 - actions 59-2
 - adding to triggers 59-7 to 59-8
 - deleting from triggers 59-15
 - displaying 59-24
 - activation 59-2, 59-6
 - automated command execution 59-2
 - commands
 - ACTIVATE TRIGGER 59-6
 - ADD TRIGGER 59-7
 - CREATE TRIGGER 59-8
 - DELETE TRIGGER 59-15
 - DESTROY TRIGGER 59-15
 - DISABLE TRIGGER 59-16
 - ENABLE TRIGGER 59-17
 - PURGE TRIGGER 59-17
 - SET TRIGGER 59-18
 - SHOW TRIGGER 59-24
 - CPU 59-8, 59-18
 - creating 59-3, 59-8
 - deleting 59-15



- destroying
 - triggers 59-15
 - disabling 59-16
 - displaying
 - triggers 59-24
 - enabling 59-17
 - firewall 46-46, 59-8, 59-18
 - interface 59-8, 59-18
 - link 59-8, 59-18
 - manual activation 59-6
 - memory 59-8, 59-18
 - modifying 59-18
 - output 59-2
 - periodic 59-2, 59-8, 59-18
 - purging 59-17
 - reboot 59-2, 59-8, 59-18
 - response to events 59-2
 - time 59-2, 59-8, 59-18
 - timed command execution 59-2
 - types 59-2, 59-8, 59-18
- triggerTrap trap message C-21
- Triple DES (3DES) encryption 42-5
- Triple DES encryption algorithm 42-5
- troubleshooting
 - IPsec 48-44
 - ISAKMP 48-45
 - TPAD 18-14 to 18-16
- trusted routers 25-11, 25-13, 25-25
- TTY group, Allied Telesis Enterprise MIB C-19
- tty MIB object C-19
- ttyTraps MIB object C-19
- tunnel key, GRE 30-3
- tunnel mode, IPsec 48-5
- tunnel, L2TP. See Layer Two Tunneling Protocol (L2TP)
- tunnelling
 - UDP 48-19
- tunnelling. See Synchronous Tunnelling; Layer Two Tunneling Protocol (L2TP)
- Type 1 routing node (DECnet) 37-2, 37-24
- Type 2 routing node (DECnet) 37-2, 37-24
- ## U
- U interfaces, Basic Rate Access 11-7
- UAF. See User Authentication Facility
- UDP group, MIB-II MIB C-29
- UDP heartbeats 48-19
- UDP listen port 48-19, 48-104
- UDP tunnelling 48-19
- Unit Inventory group, SHDSL MIB C-42
- Universal Coordinated Time (UTC) 60-3
- unreachable (WAN load balancing) 52-9
- untagged VLANs 8-11
- UPLOAD command 5-62
- UPnP
 - commands 47-12
- UPnP (and load balancing) 52-11
- UPnP on the router 47-7
 - additional security configuration 47-8
 - configuring UPnP 47-7
- UPnP overview 47-3
 - architecture 47-3
 - control points 47-4
 - devices 47-3
 - services 47-4
 - state variables 47-4
- networking phases 47-5
 - addressing 47-5
 - control 47-5
 - description 47-5
 - discovery 47-5
 - eventing 47-5
 - presentation 47-5
- UPnP and the firewall 47-6
 - firewall and NAT 47-6
 - Internet Gateway Device and NAT traversal 47-6
- User Authentication Database 41-9 to 41-10
 - adding users 41-10, 41-33
 - counters 41-14
 - deleting users 41-11, 41-39
 - disabling users 41-43
 - displaying users 41-11, 41-73
 - enabling users 41-48
 - logging in and out 41-8, 41-50 to 41-51
 - modifying users 41-11, 41-59
 - passwords 41-11 to 41-12
 - purging users 41-51
 - recovering passwords 41-12
 - resetting users 41-52
- User Authentication Database. See User Authentication Facility (UAF)
- User Authentication Facility 41-8
 - asynchronous port security 41-12
 - semipermanent manager port 41-14
 - Telnetting from the router 41-13
- User Authentication Facility (UAF)
 - See also Asynchronous Call Control (ACC)
 - asynchronous calls 19-4 to 19-5
 - database 15-28, 19-4
- USER privilege 41-3
- User-based Security MIB C-55
- users
 - displaying
 - Security Association 48-211
 - Security Association
 - displaying 48-211
- UTC. See Universal Coordinated Time (UTC)
- ## V
- validity timer
 - AppleTalk 35-8
- Van Jacobson header compression 42-4
- view, SNMP MIB 55-15
- View-based Access Control MIB C-55
- virtual balancer
 - definition 51-3
 - HTTP type 51-7
 - operation 51-3
 - route-based type 51-6
 - TCP type 51-6
- virtual links, OSPF 26-24, 26-31, 26-43, 26-50, 26-53, 26-57, 26-66
- Virtual Local Area Networks (VLAN) 8-6



- commands
 - ADD VLAN BRIDGE 16-34
 - DELETE VLAN BRIDGE 16-38
 - DELETE VLAN PORT 8-27
 - DESTROY VLAN 8-28
 - DISABLE VLAN DEBUG 8-30
 - ENABLE VLAN DEBUG 8-34
 - SET VLAN PORT 8-41
 - SHOW VLAN 8-54
 - destroying 8-28
 - displaying 8-54
 - modifying ports 8-41
 - SHOW VLAN DEBUG 8-56
 - switch ports
 - deleting 8-27
 - tagged ports 8-41
 - tagging 8-18
 - untagged VLANs 8-11
 - Virtual Router Redundancy Protocol (VRRP)
 - adopt IP address address 53-7
 - commands
 - ADD VRRP IP 53-12
 - ADD VRRP MONITOREDINTERFACE 53-13
 - CREATE VRRP 53-14
 - DELETE VRRP IP 53-17
 - DELETE VRRP MONITOREDINTERFACE 53-18
 - DESTROY VRRP 53-19
 - DISABLE VRRP 53-19
 - DISABLE VRRP DEBUG 53-20
 - ENABLE VRRP 53-20
 - ENABLE VRRP DEBUG 53-21
 - SET VRRP 53-22
 - SHOW VRRP 53-25
 - triggers 53-9
 - VLAN 8-6
 - VLAN example using untagged ports 8-21
 - Voice over IP (VoIP)
 - commands
 - CREATE H323 29-25
 - CREATE H323 ENTRY 29-27
 - CREATE SIP 29-28
 - DESTROY H323 29-30
 - DESTROY H323 ENTRY 29-31
 - DESTROY SIP 29-32
 - DISABLE VOIP 29-32
 - DISABLE VOIP DEBUG 29-33
 - ENABLE VOIP 29-33
 - ENABLE VOIP DEBUG 29-34
 - RESET VOIP 29-35
 - SET H323 29-36
 - SET H323 ENTRY 29-37
 - SET H323 GATEWAY 29-38
 - SET SIP 29-39
 - SET SIP GATEWAY 29-41
 - SET VOIP 29-42
 - SET VOIP BOOTCODE 29-43
 - SET VOIP FILE 29-45
 - SET VOIP PHONE 29-46
 - SET VOIP PUBLIC INTERFACE 29-53
 - SHOW H323 29-54
 - SHOW H323 ENTRY 29-55
 - SHOW H323 GATEWAY 29-56
 - SHOW SIP 29-57
 - SHOW SIP GATEWAY 29-58
 - SHOW VOIP 29-59
 - SHOW VOIP COUNTER ENGINE 29-61
 - SHOW VOIP LOAD 29-65
 - SHOW VOIP PHONE 29-67
 - rrrpMIB MIB object C-60
 - rrrpOperMasterIpAddr MIB object C-60
 - rrrpTrapNewMaster trap message C-60
- ## W
- WAIT command 58-11, 58-15
 - wait statement, modem scripts 19-7
 - WAN Load Balancer and Firewall operation 52-9
 - WAN Load Balancing
 - ADD WANLB RESource 52-17
 - DELETE WANLB RESource 52-18 to 52-19
 - Introduction 52-2
 - IP flow 52-2
 - Operating Principles 52-2
 - orphantimeout 52-3
 - round robin distribution 52-3
 - weighted fast response distribution 52-5
 - weighted least connect distribution 52-4
 - weighted lottery distribution 52-3
 - WAN load balancing
 - automatic weight 52-7
 - commands
 - ADD WANLB HEALTHCHECK 52-16
 - ADD WANLB RESOURCE 52-17
 - configuring 52-11
 - firewall operation 52-9
 - healthchecks 52-8
 - NAT 52-10
 - policy based routing 52-10
 - priority based routing 52-10
 - reachable 52-9
 - successchecks 52-9
 - unreachable 52-9
 - UPnP 52-11
 - web server. See HTTP server
 - weighted fast response distribution 52-5
 - weighted least connect distribution 52-4
 - weighted lottery distribution 52-3
 - wildcard characters
 - in file names 6-5
 - write-only, MIB object 55-8
 - WWW server. See HTTP server

**X**

X.25 13-1 to 13-103

- activating MIOX circuits 13-39

- adding

- call parameters 13-46

- MIOX circuits 13-41

- routes 13-45

- addresses

- DTE 13-7, 13-43, 13-56, 13-92

- call parameters

- adding 13-46

- configuring 13-15

- deleting 13-58

- displaying 13-103

- modifying 13-74

- call setup 13-4, 13-38

- channels 13-12

- circuit 13-3

- commands 13-38

- ACTIVATE MIOX CIRCUIT 13-39

- ADD MIOX CIRCUIT 13-41

- ADD X25C DTEADDRESS 13-43

- ADD X25C HUNGROUP 13-44

- ADD X25C ROUTE 13-45

- ADD X25T CPAR 13-46

- CREATE LAPB 13-47

- CREATE X25C 13-49

- CREATE X25C HUNGROUP 13-51

- CREATE X25T 13-52

- DEACTIVATE MIOX CIRCUIT 13-54

- DELETE MIOX CIRCUIT 13-55

- DELETE X25C DTEADDRESS 13-56

- DELETE X25C HUNGROUP 13-57

- DELETE X25C ROUTE 13-58

- DELETE X25T CPAR 13-58

- DESTROY LAPB 13-59

- DESTROY X25C 13-59

- DESTROY X25C HUNGROUP 13-60

- DESTROY X25T 13-60

- DISABLE MIOX CIRCUIT 13-61

- DISABLE X25C DEBUG 13-61

- ENABLE MIOX CIRCUIT 13-62

- ENABLE X25C DEBUG 13-62

- RESET LAPB 13-63

- RESET X25T 13-63

- SET LAPB 13-64

- SET MIOX 13-65

- SET MIOX CIRCUIT 13-66

- SET X25C 13-68

- SET X25C HUNGROUP 13-70

- SET X25T 13-72

- SET X25T CPAR 13-74

- SHOW LAPB 13-75

- SHOW MIOX 13-80

- SHOW MIOX CIRCUIT 13-83

- SHOW MIOX COUNT 13-81

- SHOW X25C 13-87

- SHOW X25C COUNTER 13-89

- SHOW X25C DTEADDRESS 13-92

- SHOW X25C HUNGROUP 13-93

- SHOW X25C PATH 13-94

- SHOW X25C ROUTE 13-95

- SHOW X25C STATE 13-96

- SHOW X25T 13-98

- SHOW X25T CPAR 13-103

- configuration example 13-11

- configuring

- call parameters 13-15

- DCE 13-11

- DTE 13-14

- LAPB 13-10

- permanent virtual circuit (PVC) 13-15

- counters

- displaying DCE 13-13, 13-89

- creating

- LAPB interfaces 13-47

- X.25 DCE interfaces 13-49

- X.25 DTE interfaces 13-52

- Data Communication Equipment (DCE) 13-3 to 13-4, 13-38

- Data Terminal Equipment (DTE) 13-3 to 13-4, 13-38

- DCE 13-3

- configuring 13-11

- DCE interfaces

- creating 13-49

- debugging 13-13, 13-61 to 13-62

- destroying 13-59

- displaying 13-87

- displaying counters 13-13, 13-89

- displaying state 13-96

- modifying 13-68

- DCE mode 13-5

- deactivating MIOX circuits 13-54

- debugging

- DCE interfaces 13-13, 13-61 to 13-62

- deleting

- call parameters 13-58

- MIOX circuits 13-55

- routes 13-58

- destroying

- LAPB interfaces 13-59

- X.25 DCE interfaces 13-59

- X.25 DTE interfaces 13-60

- disabling

- MIOX circuits 13-61

- displaying

- call parameters 13-103

- DCE counters 13-13, 13-89

- DCE interface state 13-96

- LAPB counters 13-75

- LAPB interfaces 13-75

- MIOX 13-80

- MIOX circuits 13-83

- MIOX counters 13-81

- routes 13-95

- X.25 DCE interfaces 13-87

- X.25 DTE counters 13-98

- X.25 DTE interfaces 13-98

- DTE 13-3

- configuring 13-14



- DTE addresses *13-7, 13-12*
 - adding *13-43*
 - deleting *13-56*
 - displaying *13-92*
 - DTE counters
 - displaying *13-98*
 - DTE interfaces
 - creating *13-52*
 - destroying *13-60*
 - displaying *13-98*
 - modifying *13-72*
 - resetting *13-63*
 - DTE mode *13-6*
 - enabling
 - MIOX circuits *13-62*
 - encapsulations *13-8*
 - interface parameters *13-12*
 - LAPB *13-4*
 - configuring *13-10*
 - LAPB counters, displaying *13-75*
 - LAPB interfaces
 - creating *13-47*
 - destroying *13-59*
 - displaying *13-75*
 - modifying *13-64*
 - resetting *13-63*
 - line *13-11*
 - logical line *13-11*
 - MIOX
 - displaying *13-80*
 - modifying *13-65*
 - MIOX circuits *13-8, 1-20*
 - activating *13-39*
 - adding *13-41*
 - deactivating *13-54*
 - deleting *13-55*
 - disabling *13-61*
 - displaying *13-83*
 - enabling *13-62*
 - modifying *13-66*
 - MIOX counters
 - displaying *13-81*
 - modifying
 - call parameters *13-74*
 - LAPB interfaces *13-64*
 - MIOX *13-65*
 - MIOX circuits *13-66*
 - X.25 DCE interfaces *13-68*
 - X.25 DTE interfaces *13-72*
 - over ISDN *11-27, 11-71 to 11-72, 11-76 to 11-77*
 - packet assembler/disassembler (PAD) *13-3*
 - permanent virtual circuit (PVC) *13-6*
 - configuring *13-15*
 - permanent virtual circuits (PVC) *13-3*
 - resetting
 - LAPB interfaces *13-63*
 - X.25 DTE interfaces *13-63*
 - route mapping *13-7, 13-13, 13-45, 13-58, 13-95*
 - routes
 - adding *13-45*
 - deleting *13-58*
 - displaying *13-95*
 - standards *13-4*
 - state, DCE
 - displaying DCE *13-96*
 - support for *13-4, 13-38*
 - switched virtual circuit (SVC) *13-3, 13-6*
 - virtual circuit *13-3*
 - Xbox Live *46-25, 46-95*
 - Xerox Network Standard (XNS) *36-3*
- ## Z
- ZIP or zone filtering *35-15*
 - ZIP. See AppleTalk: Zone Information Protocol (ZIP)
 - Zone Information Protocol (ZIP) *35-9 to 35-10*
 - See also AppleTalk
 - zone name, AppleTalk *35-9*
 - See also AppleTalk