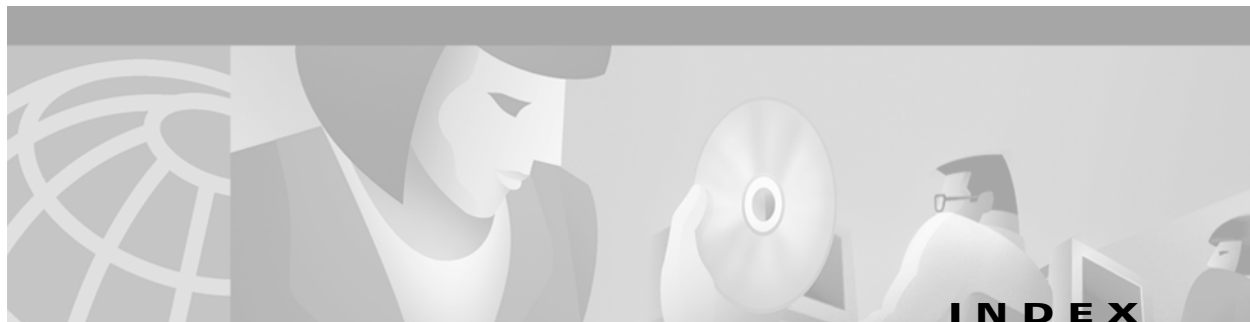




A

AAA

- case study **x**
- CLI commands **27, 28**
- design **27**
- negotiation **57**
- servers **31**

B

- busy hour ratio **31**

C

- capacity planning **31**
- Cisco 2511 **31**
 - setting up **83**
- Cisco 2511, console connection, troubleshooting **85**
- Cisco AS5300
 - MRTG configuration file **60**
 - MRTG graphs **57**
- Cisco AS5800 **31**
- Cisco IOS CLI Commander **89**
- Cisco IOS configurations
 - HTTP **86**
 - modem call records **75**
 - NTP **71**
 - SNMP **41**
 - syslog **67**
 - terminal server, Cisco 2511 **85**
 - troubleshooting **87**
- Cisco IOS configurations, backing up **123**

Cisco Network Registrar

- about **91**
- batch files, using **95**
- CLI commands, using **92**
- forward zone, creating **96**
- reverse zone, creating **99**

Cisco PIX **31**CiscoSecure Unix **33**Cisco TAC online **ix**CiscoView **124**

CiscoWorks 2000 RME

- about **117**
- configurations, backing up **123**
- design **32**
- devices, importing **118**
- devices, polling **120**

clear line command **85**CLI commands for dial operations **27, 38, 87**clocking, NTP configuration **71**clock summer-time command **71**clock timezone command **71**community strings **42**

configuration management

- Cisco IOS, backing up **123**
- CiscoView **124**
- CiscoWorks 2000 RME **117**
- CLI commands **87**
- design **27, 28**
- IP addresses, managing **91**
- MIBs to use **37**

console server, setting up **83, 85**crontab **63**

D

- Device Linker, setting up **83**
- dial NMS
 - benefits **24**
 - case study **23**
 - configuration design parameters **33**
 - hardware requirements **31**
 - implementation and operation tasks **35**
 - network topology **30**
 - planning questionnaire **25**
 - service definition **27**
 - software requirements **32**
- dir command **87**
- DNS
 - about **91**
 - IP addresses **91**

F

- fault management
 - CLI commands **27, 88**
 - description **67**
 - HP OpenView, using **101**
 - syslog and NTP, configuring **69**
- FCAPS **27**
- freeware
 - Cisco IOS CLI Command Center **86**
 - IP tracker web page **96**
 - Modem Call Record Viewer **70**
 - MRTG **53**
 - SNMP Commander **49**
 - UCD-SNMP **45**
- FTP
 - MIBs **46**
 - syslog messages **78**

H

- hardware for a dial NMS **30**
 - HP OpenView
 - about **101**
 - basic setup **102**
 - CLI, entering devices **115**
 - color legend **106, 110**
 - design **32**
 - devices, entering **115**
 - dial ports, unmanaging **110**
 - discovery filters
 - about **112**
 - setting up **113**
 - filters, setting up **112**
 - get requests, testing **107**
 - maps, adjusting **111**
 - polling devices
 - about **105**
 - demand polls, performing **105**
 - SNMP, troubleshooting **108**
 - SNMP configuration, verifying **102**
 - sysobjectID **106**
 - traps, verifying **108**
 - web site **102**
 - HTTP
 - access to CLI commands, using **86**
-
- implemenation tasks for a dial NMS **35**
 - interface loopback command **42**
 - interfaces
 - capacity planning **31**
 - unmanaging **110**
 - IOS, See Cisco IOS **41**
 - IP addresses, managing **91, 96**
 - IP design **33, 34**
 - ip http authentication aaa command **86**

ip http server command 86

L

line requirements 31
 loadhosts -m command 115
 logging, See syslog 67
 logging buffered command 75
 logging command 75
 logging console command 75
 logging facility command 75
 logging trap command 75
 loopback address 34

M

MIBs

about 16
 downloading from Cisco 46
 exploring by using UCD-SNMP 45
 ftp.cisco.com 46
 new dial features 38
 OIDs for MRTG 54
 recommended for the dial NMS 37

modem call records

about 69
 Cisco IOS configuration 75

modems

call records 70, 75
 modulation trends 69
 OIDs to poll 55

MRTG

configuration files, editing 59, 60
 design 32
 dial counters 54, 59
 electronic template 60
 functions 53
 installing 59

OIDs to poll 54

web site 59

N

network topology, dial NMS 30

NTP

about 69
 client, setting up 72
 client, troubleshooting 74
 enabling on a Cisco IOS device 71
 verifying 71

ntp clock-period command 71

ntpq -p command 73

ntp server command 71

ntp update-calendar command 71

O

OIDs 38

circuit utilization 54
 description 16
 modem information 54
 user information 54

OpenView, See HP OpenView 101

operation tasks for a dial NMS 35

out-of-band console 83

ovstatus command 102, 115

ovstop command 115

ovw& command 102

P

performance management

CLI commands 27, 29
 Connection Success Rate 57
 OIDs to query 54

planning questionnaire 25

polling devices

CiscoWorks 2000 RME 120

warnings 37, 54

portal, for a dial NMS 81

PPP 57, 69

PRI lines 31

ps -elf command 77

R

RADIUS design 26, 29

S

security management

AAA case study x

CLI commands 27, 29

for IP networks x

HTTP 86

incident tracking 69

SNMP 21

service definition 27

service timestamps command 71

show caller command 39, 88

show controllers t1 call-counters command 38

show dialer command 88

show file systems command 87

show flash command 87

show ip interface brief command 87

show ip route command 87

show isdn history command 40

show isdn memory command 38

show isdn service command 87

show isdn status command 87

show logging command 74

show modem call-stats command 88

show modem command 39, 88

show modem connect-speeds command 39

show modem summary command 38

show modem version command 87

show ntp association command 72

show ntp status command 71

show users command 85, 88

SNMP

about 13

agent 14

community strings 42

enabling in a Cisco IOS device 41

FAQ 14

managed devices 14

management 20

message types and commands 15

MIBs 16

NMS 14

security 21

SNMPv1 18

SNMPv2 19

TAC support 14

trap link status events, disabling 76

using HP OpenView 102

using MRTG 53

SNMP Commander

about 49

setting up 49

snmp host command 42

snmp-server community command 42

snmp-server contact command 42

snmp-server enable command 42

snmp-server engineID command 42

snmp-server location command 42

snmp-server packetsize command 42

snmp-server trap-source command 42

software for a dial NMS 32

Solaris workstations 31

subnetting plan 33

syslog

about 67

- console warnings **75**
- daemon, configuring **76**
- design **30**
- destinations **68**
- enabling on a Cisco IOS device **74**
- link status events, disabling **76**
- log file, inspecting **78**
- server **68**
- severity levels **68**
- WAN links **31**

T

- T3 cards **31**
- TACACS+ design **26, 29**
- tail -f command **78**
- terminal server, setting up **83**
- topology
 - NOC **30**
 - POP **30**
- touch command **77**
- troubleshooting
 - HP OpenView **108**
 - terminal server **85**
 - using modem call records **69, 75**
 - using NTP **69**
 - using syslog **69**

U

- UCD-SNMP
 - about **45**
 - design **32**
 - downloading MIBs **46**
 - installing **46**
 - MIBs for dial, exploring **46**
 - web-based access, setting up **49**
 - web site **46**

- Unix workstations **31**
- user-growth projections **25, 31**
- user IDs **69**

W

- War Dialer **33**
- web server, setting up **64**

X

- xntpd command **73**

