

# Index

## A

- Address Resolution Protocol, 60
- addresses
  - data link layer, 56
  - IP, 59
  - ISO, 59
  - mask, 59
  - network layer, 59
- analyzing data, 32, 47
- animation, 31
  - LAN, 47
  - out-of-service, 32
  - packets, 47
- antidromes, 28, 74
  - controls, 75
  - editing, 75
- arcs, 10, 19
  - creating, 10
- ARP, 60–61
- assemble components, 9, 73
- attributes, 20
  - capacity, 23
  - concatenation rules, 23
  - cost, 31
  - descriptive, 20
  - dialog box, 9
  - distributional, 22, 67
  - palette, 29–30
  - performance, 21
  - ratio, 23
  - scalar, 22
  - scalar distributional, 22, 67
  - selection, 29
  - types, 20

## B

- backup designated router(BDR), 62
- blocked calls, 31
- box plot, 12
- bridge model, 43
  - controls, 44
- browsers, 19
  - attributes, 23
  - saving changes, 20
  - systems, 19
  - telecom models, 19
- building a network model, 8
  - LAN, 46
  - telecom, 24

## C

- command panel, 5–6
  - icons, 6
- compound equipment models, 9
- computing device model, 38
  - architecture, 38
- concatenation rules, 23
- connection-oriented networks, 2
- connectionless networks, 2
- connectors, 10
- controls
  - bridge model, 44
  - IS-IS, 64
  - OSPF, 66
  - printer model, 39
  - random variation, 69
  - reliability, 33
  - router model, 45
  - server model, 42
  - traffic generators, 28
  - transmission media model, 36
  - workstation model, 40
- cost attribute, 31
- CSMA/CD, 56

## D

- data link layer, 55
  - addresses, 56
- DataSource, 71
- designated router(DR), 62
- dialog box
  - attributes, 9
  - paths, 27
- distance vector routing, 62
- drawing panel, 5
  - pop-up menu, 5–6

## E

- editing
  - simple telecom models, 19
  - telecom system models, 19
- End System - Intermediate System, 60, 63
- equipment models, 2, 9
  - compound, 9, 15
  - pop-up menus, 11
  - simple, 9, 15
  - systems, 15
  - telecom, 15
- ES-IS, 60–61, 63
- Ethernet, 56

expose/hide details, 73

## F

fail distn, 34

formula distribution, 70

## H

hierarchy

simple equipment model, 16

systems, 17–18

histogram, 12

holding time, 31

hotspots, 10

## I

icons, 6

in-service, 26

inheritance, 16

Intermediate System - Intermediate System

See IS-IS

internetwork device model, 43

architecture, 43

IP address, 59

IS-IS, 62

controls, 64

topology, 63

ISO address, 59

## L

LAN environment, 33

LAN equipment models, 33

bridge, 43

computing device, 38

internetwork device, 43

NIC, 34

palette, 46

printer, 38

receive processor delay, 39

router, 44

send processor delay, 39

server, 42

transmission media, 36

workstation, 39

LAN subsystem, 2, 33

equipment models, 33

line plot, 12

link state routing, 62

## M

MAC, 34

CSMA/CD, 56

Ethernet, 56

Token Bus, 56–57

Token Ring, 56, 58

mask, 59

media access control

See MAC

menu

pop-up, 5, 11

menu bar, 5, 7

models

connector, 11

LAN equipment, 33

restoring, 13

saving, 13

telecom equipment, 15

## N

neighbor greeting protocol, 60

ARP, 61

ES-IS, 61

network interface card

See NIC

network layer, 58

addresses, 59

ARP, 61

ES-IS, 61

IP address, 59

ISO address, 59

neighbor greeting protocol, 60

network model

building, 8

building a LAN, 46

building a telecom model, 24

netWorks window, 5

NIC, 34

control panel, 35

properties, 35

statistics, 36

## O

Open Shortest Path First

See OSPF

OSPF, 62, 64

area border router, 65

backbone, 64

controls, 66

internal router, 65

topology, 65

out-of-service, 26, 32

## P

palette, 7

attributes, 29–30

default, 8

LAN, 46

plots, 12

telecom equipment, 7, 24–25

paths, 25

capacity, 26

creating, 26

dialog box, 27

endpoints, 27

generation, 26

in-service, 26

out-of-service, 26

terminology, 25

plots, 12

- box plot, 12
- creating, 12
- histogram, 12
- line plot, 12
- palette, 12
- plots palette, 12
- pop-up menu, 5, 11
- printer model, 38
  - controls, 39
- processor delay
  - receive, 39
  - send, 39
- protocol, 55
  - MAC, 34, 56
  - neighbor greeting, 60
  - network routing, 41
  - routing, 45, 61
- pull-down menu, 7

**R**

- random variation, 67
  - control panel, 69
  - DataSource, 71
  - deterministic, 68
  - erlang, 68
  - exponential, 68
  - formula distribution, 70
  - gamma, 68
  - iuniform, 68
  - nonhomogenous poisson, 68
  - uniform, 68
- receive processor delay, 39
- reference model
  - data link layer, 55
  - network layer, 58
  - OSI, 55
  - TCP/IP, 55
- reliability controls, 33–34
  - fail distn, 34
  - restore distn, 34
- restore distn, 34
- restoring models, 13
- router model, 44
  - architecture, 45
  - controls, 45
- routing protocol, 61
  - distance vector, 62
  - IS-IS, 62
  - link state, 62
  - OSPF, 62, 64

**S**

- saving models, 13
- send processor delay, 39
- server model, 42
  - controls, 42
- shortest path first algorithm, 63
- simple equipment models, 9
- simulation

- LAN, 46
  - starting, 31
  - telecom, 25
- systems, 15–16

**T**

- telecom environment, 2, 15
- telecom equipment models, 15
  - palette, 25
- telecom equipment palette, 24
- template, 74
- Token Bus, 56–57
- Token Ring, 56, 58
- traffic generators, 28, 40, 42
  - control panel, 28–29
  - LAN, 40, 42, 46
  - start delay, 46
  - telecom, 28
- transmission media model, 36
  - controls, 36
- two wire vs. four wire, 19

**U**

- user interface, 3, 5

**W**

- workstation model, 39
  - architecture, 40
  - controls, 40