



Index

Symbols and Numerics

- * (asterisk) character, remote computer IP address setup, 10
- 2.4 GHz band, interference elimination, 92
- 802.11a, Wi-Fi standard, 6
- 802.11b, 6, 83, 90
- 802.11g, 6, 90–91

A

- access modes, wireless networks, 32
- access point. *See* WAPs
- ActiveSync, Bluetooth/Pocket PC, 136, 184
- ad hoc networks, 32, 114–120, 153
- admin password, WAP login, 8
- ADS Tech Instant HDTV PCI card, 156
- AirPort cards, 44–50
- AirPort Extreme, Macintosh compatibility, 41
- antennas, 93, 198
 - range extending, 93
 - weatherproof, 198
- any available networks, access mode, 32
- asterisk (*) character, IP address setup, 10
- audio, DMRs (digital media receivers), 175–181
- authentication, WPA-PSK encryption, 59–60

B

- baby monitors, interference elimination, 92
- bandwidth, 84, 109, 199, 201
- Belkin, accelerator technologies, 91
- bit depth, WEP encryption, 57
- Bluetooth
 - 802.11b/g signal interference, 121
 - ActiveSync, 136
 - computer names, 123
 - connections, 125
 - device types, 121
 - discovery options, 124
 - file beaming, 135
 - GPS receivers, 130–131
 - headsets, 129
 - interference elimination, 92
 - Macintosh configuration, 126–127
 - PIN code requests, 125, 127
 - Pocket PCs, 128, 133–136
 - service selections, 123
 - voice chats, 213
 - Windows PC configuration, 122–125
- Bluetooth Configuration Wizard, 123
- bottlenecks, identifying/removing, 90

- bridges
 - connections, 146
 - disabling, 148
 - game consoles, 149–154
 - network settings, 147
 - Wi-Fi card configuration, 145
 - Wi-Fi card installation, 144
- broadband modems, 7, 154

C

- cable modems, WAP port connections, 7
- cables, Ethernet, 7
- cameras. *See* wireless cameras
- cardbus Wi-Fi adapter, laptop computers, 26
- cell phones, Bluetooth device type, 121
- Centronics parallel ports, 190
- chats. *See* voice chats
- client computers, ICS (Internet Connection Sharing) setup, 17
- clients. *See* DHCP clients
- Closed Network dialog box, 46
- COM ports, GPS receivers/Bluetooth connections, 130–131
- component connectors, 157
- composite connectors, 157
- Computer Name Changes dialog box, 15
- computers. *See also* Macintosh; Windows PC
 - DHCP server IP address assignments, 16
 - disabling automatic connections, 110
 - ICS (Internet Connection Sharing) setup, 17
 - internal Wi-Fi cards, 24–25
 - MAC (Media Access Control) address cloning, 21

- media center requirements, 156–157
- network names, 14
- performance monitoring identification, 85
- public access prevention methods, 111
- Wi-Fi card/bridge installation, 144
- wireless camera video recording, 218–219
- workgroup names, 14, 15

Connect to Server window, Windows PC from a Mac login, 38

connections

- ad hoc networks, 113–116
- AirPort, 46
- bridging computers, 146
- disabling automatic, 110
- disabling/enabling, 31
- DMRs, 176
- game console status checking, 151
- GPS receivers/Bluetooth, 130–131
- headset/Bluetooth, 129
- Macintosh Bluetooth device, 127
- network storage devices, 168
- Pocket PC/Bluetooth, 128, 133–136
- Pocket PC/hotspot, 139
- Pocket PC/media server, 185
- public Wi-Fi hotspots, 108–110
- refreshing, 96
- troubleshooting, 98
- WAP devices, 7
- Windows PC Bluetooth device, 125
- wireless media center/TV, 157
- wireless print servers, 190
- Xbox Live, 154

contacts, Skype users, 207

cordless phones, interference elimination, 92

D

DB-25 parallel ports, 190
 detection regions, wireless cameras, 218
 devices
 accelerator technologies, 91
 AirPort cards, 44
 Bluetooth, 121–131
 cardbus Wi-Fi adapter, 26
 DMRs (digital media receivers), 175–181
 external Wi-Fi adapter, 26
 firmware updates, 99
 game consoles, 149–154
 identifying/removing bottlenecks, 90
 internal Wi-Fi cards, 24–25
 MAC address determination, 76–77
 network drives, 168–173
 network storage, 167–173
 range extending antennas, 93
 repeaters, 94
 software updates, 100
 SSID (service set identifier), 9
 WAPs (wireless access points), 6
 wireless cameras, 215–220
 wireless print servers, 189–195
 DHCP (Dynamic Host Configuration Protocol),
 server setup, 16
 DHCP clients
 access point identification, 73–75
 ICS (Internet Connection Sharing) setup, 17
 Macintosh configuration, 19
 performance monitoring identification, 85
 Windows PC configuration, 18

DHCP servers, ICS (Internet Connection Sharing)
 setup, 17
 DHCP service, restarting, 97
 digital media receivers (DMRs)
 capabilities, 175
 Ethernet port connections, 176
 iTunes library sharing, 180
 media folder sharing, 179
 media playback, 181
 streaming Internet radio, 181
 supported media types, 176
 Windows Media Connect configuration,
 176–179
 directional antennas, range extending method, 93
 D-Link routers
 accelerator technologies, 91
 DHCP server enabling, 16
 weatherproof WAPs, 198
 DMRs. *See* digital media receivers (DMRs)
 DNS servers, DHCP client configuration, 18
 drivers, software updates, 100
 DSL modems, WAP port connections, 7
 DVDs, wireless media center playback, 158–159
 Dynamic Host Configuration Protocol (DHCP),
 server setup, 16
 dynamic IP, 10, 20

E

EIDE connectors, network hard drives, 168
 eMacs, AirPort card installation, 45
 e-mail, router logs, 85

- encryption. *See also* security
 - game consoles, 151
 - WEP (Wireless Encryption Protocol), 48, 54
 - Wi-Fi adapter configuration, 27
 - wireless intrusion protection, 61
 - wireless print servers, 190, 193
 - WPA (Wi-Fi Protected Access), 49, 54
 - WPA-PSK (WPA Pre-Shared Key), 54
- Ethernet cables
 - network hard drives, 168–169
 - repeater connections, 94
 - WAP connection method, 7
 - wireless camera installation, 216
- Ethernet ports, 6, 26, 176
- exception lists, firewalls, 68
- external modems, ICS (Internet Connection Sharing) setup, 17
- external Wi-Fi adapter, connections, 26

F

- File Explorer, Pocket PC file sharing, 138
- file sharing
 - ad hoc networks, 118
 - Pocket PC, 138
 - wireless media centers, 160–162
- files
 - copying between networked Macs, 41
 - network access protections, 106
 - network sharing, 14
 - Pocket PC/Bluetooth beaming, 135
- Finder, network storage device access, 173
- fire codes, WAPs, 198

- firewalls
 - activity logs, 67
 - exception lists, 68
 - halting network traffic, 66
 - Internet intrusion protection, 61
 - Mac OS X, 69
 - public Wi-Fi hotspot exceptions, 62
 - router built-in, 63
 - third-party, 64–65
 - updates, 65
 - user blocking, 79
 - WAN ping command blocking, 69
 - Windows XP SP2 62–63
 - wireless client identification, 74–75
- firmware, updates, 99
- folders, 34–36, 159, 172
- Found New Hardware Wizard, 25
- FTP access, network storage devices, 171

G

- game consoles, 150–154
- gateways, wireless print servers, 192
- Google Talk, 210–213
- GPS receivers, 121, 130–131

H

- hard drives, network storage devices, 168–173
- Hardware Update Wizard, software updates, 100
- headsets, 121, 129, 213
- high gain antennas, range extending method, 93
- host computers, 17

Host Name controls, network storage device, 170
 hotspots. *See also* public Wi-Fi hotspots
 access control techniques, 202–203
 access point guidelines, 198
 bandwidth considerations, 199, 201
 deactivating, 203
 fire codes, 198
 firewall exceptions, 62
 ISP service agreements, 199
 Pocket PC connections, 139
 public/semi-public setup, 197–201
 router requirements, 198
 security risk reduction, 54
 WAP configuration, 200–201

I

iBooks, AirPort card installation, 44
 icons, wireless connection display, 29
 infrastructure networks, 32, 117
 internal Wi-Fi cards, installation, 24–25
 Internet, 154, 181, 205–213
 Internet Connection Sharing (ICS), network
 setup, 17
 Internet Explorer, access point IP address, 8
 Internet Protocol (TCP/IP) Properties dialog
 box, 18
 Internet Service Providers (ISPs), 21, 199
 IP address
 asterisk (*) character, 10
 determination methods, 10
 DHCP client configuration, 18
 DHCP server ranges, 16

Macintosh determination, 86
 network storage devices, 170
 ping command, 101
 Pocket PC determination, 87
 Pocket PC/Wi-Fi connections, 136–137
 remote computers, 10
 WAP/routers, 8
 Windows PC determination, 86
 wireless print servers, 192–193
 ISPs. *See* Internet Service Providers (ISP)
 iTunes, library sharing, 180
 iTunes, shared media access, 162

K

Key Index, WEP key settings, 58
 key types, WEP encryption, 57–58
 keyboards, Bluetooth device type, 121

L

laptops, external Wi-Fi adapters, 26
 Linksys routers, 8, 91, 198
 Linux, Skype support, 206
 Local Area Connection Properties dialog box, 18
 local area network (LAN), 6
 Log Settings dialog box, 63
 logins, 8, 38–40
 logs, 67, 72, 85

M

MAC. *See* Media Access Control (MAC)
 Mac OS X, Skype support, 206

- Macintosh. *See also* computers
 - AirPort card/eMac installation, 44
 - AirPort card/iBook installation, 44
 - AirPort Extreme compatibility checking, 41
 - Bluetooth configuration, 126–127
 - copying files between, 41
 - DHCP client configuration, 19
 - firewalls, 69
 - folder sharing, 36
 - IP address determination, 86
 - iTunes library sharing, 180
 - MAC address determination, 77
 - media file organization, 159
 - media file sharing, 161
 - network storage device access, 173
 - ping command, 101
 - shared media access, 162
 - WEP encryption, 48
 - Wi-Fi network management, 47
 - Windows PC login, 38–39
 - Windows user accounts, 37
 - wireless print server printing, 195
 - workgroup names, 36
 - WPA encryption, 49
- management software, 169–172
- Mbps (megabits per second), Wi-Fi speed, 83
- Media Access Control (MAC) address
 - access point logs, 72
 - cloning, 21
 - filtering, 56
 - Macintosh PC determination, 77
 - Pocket PC determination, 77
 - user blocking, 78–79

- wireless client identification, 73–75
- wireless device determination, 76
- media centers. *See* wireless media centers
- media files, 159, 176, 187
- media library, Pocket PCs, 186–187
- media players, 220
- media servers, Pocket PC connections, 185
- megabits per second (Mbps), Wi-Fi speed, 83
- microphones, voice chat requirement, 205
- microwave ovens, interference elimination, 92
- modems, 7, 17
- motherboards, wireless media center, 156
- motion sensitivity, wireless cameras, 218
- mouse, Bluetooth device type, 121
- movies, wireless media center playback, 158–159
- music, DMRs (digital media receivers), 175–181
- My Network Places
 - ad hoc network connections, 116
 - ad hoc network removal, 119
 - disabling network bridges, 148
 - enabling ad hoc networking, 114
 - Macintosh from a Windows PC login, 40
 - network storage device access, 173
 - shared media access, 162
 - shared network folder access, 35
 - Wi-Fi card/bridge computer configuration, 145

N

- Netgear, 91, 198
- Network Bridge Properties dialog box, 147
- network bridges, external Wi-Fi adapter, 26
- Network Connection Details dialog box, 76
- Network Connection Properties dialog box, 34, 106

Network Connections

- bridging computers, 146
- file access protections, 106
- refreshing, 96
- speed determination, 87
- Windows PC IP address determination, 86

Network dialog box, 47–49

network keys, Wi-Fi adapter configuration, 27

network storage devices, 168–173

networks. *See also* computers

- access modes, 32
- access point logs, 72
- ad hoc connections, 113–116
- AirPort card preference settings, 47
- bridges, 143–148
- client identification for monitoring, 85
- computer names, 14
- copying files between networked Macs, 41
- DHCP client configuration, 18, 19
- DHCP server setup, 16
- disabling automatic connections, 110
- disabling file/printer sharing, 106
- disabling SSID Broadcast, 55
- disabling/reactivating, 31
- file access protections, 106
- file/print sharing, 14
- game console settings, 152
- ICS (Internet Connection Sharing) setup, 17
- MAC (Media Access Control) address, 21
- Macintosh from a Windows PC login, 40
- Mbps (megabits per second) speed, 83
- performance monitoring, 83–88
- ping command troubleshooting, 101
- Pocket PC connections, 136–137

printer drivers, 194

public access prevention methods, 111

range measurements, 88

refreshing available, 30

shared folders, 34–36

storage devices, 167–173

user accounts, 37

WAN (wide area network) settings, 20

Wi-Fi adapter software configuration, 27

Windows Network Setup Wizard, 14

Windows PC from a Macintosh login, 38–39

wireless print servers, 189–195

workgroup names, 14, 15

WPA encryption, 28

non-preferred networks, 32, 110

Notification Area, 29

O

omni-directional antennas, 93

P

parallel ports, print server connections, 190

passkeys, Pocket PC, 134

passphrase, WPA-PSK encryption, 59

passwords

- Google Talk, 210

- network storage devices, 170

- Pocket PC security, 140

- Skype, 206

- WAP login, 8

- Windows user accounts, 37

PCI slots, internal Wi-Fi card installation, 24–25

- PDA, Bluetooth device type, 121
- performance monitoring, 84–88, 90–94
- PIN codes, Bluetooth requests, 125, 127
- ping command, 69, 101
- Plain Old Telephone System (POTS), 209
- PlayStation. *See* game consoles
- Pocket PC
 - ActiveSync, 136, 184
 - ad hoc networks, 115–116, 118–119
 - Bluetooth connections, 128, 133–136
 - file beaming, 135
 - file sharing, 138
 - hotspot connections, 139
 - IP address determination, 87
 - MAC address determination, 77
 - media library setup, 186
 - media playback, 187
 - media server connections, 185
 - passkeys, 134
 - passwords, 140
 - ping command, 101
 - power option adjustments, 140
 - refreshing connections, 96
 - remote control uses, 184–187
 - security protections, 140
 - Skype support, 206
 - Wi-Fi connections, 136–137
 - Windows Media Player installation, 184
 - Windows Mobile 5 operating system requirement, 133
- Point-to-Point over Ethernet (PPPoE), 20
- Port 80, remote access setup, 10
- ports, 6, 10, 190

- power supplies, wireless media center, 156
- printer drivers, wireless print servers, 194
- printers, 14, 121, 189–195
- processors, wireless media center, 156
- programs, firewall exception lists, 68
- protections, network file access, 106
- public Wi-Fi hotspots. *See also* hotspots
 - connection monitoring, 109
 - connections, 108
 - disabling automatic connections, 110
 - disconnecting, 112
 - firewall exceptions, 62
 - free versus subscription services, 105
 - locating, 107–108
 - Pocket PC connections, 139
 - setup, 197–201
 - signal searches, 108

R

- radio, Internet streaming, 181
- RADIUS servers, WPA encryption, 59
- range extending antennas, WAP enhancement, 93
- remote access, WAP setup, 10
- remote computers, 10–11
- remote controls, Pocket PCs, 184–187
- repeaters, range extending method, 94
- resolutions, wireless camera guidelines, 218
- routers. *See also* WAPs (wireless access points)
 - accelerator technologies, 91
 - access point logs, 72
 - blocking users, 78
 - built-in firewalls, 63

DHCP server setup, 16
DMR connections, 176
e-mail logs, 85
firmware update, 99
IP address, 8
MAC (Media Access Control) address, 21
MAC address filtering, 56
ping command blocking, 69
public Wi-Fi hotspot requirement, 198
supported encryption technologies, 54
WAN (wide area network) settings, 20
WAP (wireless access point) device, 6
wireless print servers, 190

S

searches, 30, 108
security. *See also* encryption
 access point logs, 72
 encryption types, 54
 file access protections, 106
 hotspot risk reduction, 54
 Internet intrusions, 61
 MAC address determinations, 76–77
 MAC address filtering, 56
 needs determinations, 54
 Pocket PCs, 140
 public access prevention methods, 111
 RADIUS servers, 59
 SSID Broadcasts, 55
 third-party firewalls, 64–65
 user blocking, 78–79
 WEP activation, 57
 WEP key settings, 57–58
 Windows Firewall, 62–63
 wireless cameras, 215–220
 wireless client identification, 73–75
 wireless intrusions, 61
 wireless print servers, 190, 193
 WPA-PSK encryption, 59–60
semi-public WiFi hotspots, setup, 197–201
servers, DHCP (Dynamic Host Configuration Protocol) setup, 16
Service Pack 2 (SP2), 62
service set identifier (SSID), 9, 27, 150
Shared Documents folder, 34, 159
shared files, ad hoc networks, 118
Shared folder, media file organization, 159
shared folders, 34–36, 179
Skype, 206–209, 213
SMB/CIFS Filesystem Authentication dialog box, Windows PC login, 38–39
SnapStream, Beyond TV, 163–165
software, driver updates, 100
sound cards, wireless media center, 157
SP2 (Service Pack 2), 62
speakers, 157, 205
SSID. *See* service set identifier (SSID)
SSID Broadcast, disabling, 55
standards, 6, 198
static IP, WAN (wide area network) settings, 20
subnet masks, wireless print servers, 192–193
S-Video connectors, 157
System Preferences, 36–37, 96
System Properties dialog box, 15
system tray, wireless connection icon display, 28

T

- text chats, Google Talk, 212
- traffic statistics, performance monitoring, 84
- troubleshooting
 - access problems, 102
 - ad hoc networks, 120
 - bad wireless connections, 98
 - DVD playback, 158
 - ping command, 101
- TV tuner cards, 156, 163–165
- TVs, 157, 163–165

U

- updates
 - AirPort card software, 45
 - driver software, 100
 - firewalls, 65
 - WAP firmware, 99
 - Wi-Fi cards, 25
 - WPA-PSK encryption, 60
- USB ports, wireless print server connections, 190
- USB Wi-Fi adapters, connections, 26
- user accounts, 37, 171
- users, 78–79, 207, 211

V

- video cards, wireless media center, 156
- video files, wireless camera storage, 218–219
- voice chats, 205–213

W

- WAN. *See* wide area network (WAN)
- WAN ping command, blocking, 69
- WAPs. *See* wireless access points (WAPs)
- Web sites
 - AirPort Extreme compatibility checking, 41
 - Boingo Hot Spot in a Box, 203
 - ControlAP, 203
 - Gemtek P-560, 203
 - Google Talk, 205, 210
 - hotspot access controls, 203
 - hotspot appliances, 203
 - IP address determinations, 10
 - JiWire.com, 107
 - Netopia Hotspot Starter Kit, 203
 - PatronSoft FirstSpot, 203
 - Rudeo Play & Control, 184
 - Skype, 205, 206
 - SnapStream's Beyond TV, 163
 - Wi-Fi card updates, 25
 - Wi-Fi hotspot locator, 107
 - Windows Media Connect, 176
- WEP. *See* Wireless Encryption Protocol (WEP)
- wide area network (WAN), 6, 20
- Wi-Fi cards, 24–25, 27, 150–152
- Wi-Fi Protected Access (WPA), 28, 49, 54
- Wi-Fi Protected Access Pre-Shared Key (WPA-PSK), 54, 59–60
- Windows Firewall
 - activity logs, 67
 - configuration, 62–63
 - exception lists, 68

- file access protections, 106
- halting network traffic, 66
- Windows Media Connect, 176–179, 185
- Windows Media Player, 158–1159, 184
- Windows Mobile 5 OS, Pocket PC, 133
- Windows Network Setup Wizard, 14, 17
- Windows OS, Skype support, 206
- Windows PC. *See also* computers
 - Bluetooth configuration, 122–125
 - connection troubleshooting, 98
 - DHCP client configuration, 18
 - file access protections, 106
 - folder sharing, 34
 - internal Wi-Fi card installation, 24–25
 - IP address determination, 86
 - Macintosh login, 40
 - media file organization, 159
 - media file sharing, 160
 - media folder sharing, 179
 - network storage device access, 173
 - ping command, 101
 - software updates, 100
 - user accounts, 37
 - wireless print server printing, 194
- Windows Security Center, SP2 requirement, 62
- Windows XP Video Decoder Checkup Utility, 158
- wireless access points (WAPs). *See also* routers
 - accelerator technologies, 91
 - activating, 9
 - AirPort connections, 46
 - best range positioning, 92
 - disabling SSID Broadcast, 55
 - enabling/disabling remote management, 11
 - Ethernet cable connection method, 7
 - fire codes, 198
 - firmware updates, 99
 - high gain antennas, 93
 - hotspot setup, 198
 - interference elimination, 92
 - IP address, 8
 - location/positioning suggestions, 7
 - login passwords, 8
 - logs, 72
 - Mbps speed ratings, 83
 - public Wi-Fi hotspot configuration, 200–201
 - range extending antennas, 93
 - rebooting, 97
 - refreshing connections, 96
 - remote access setup, 10
 - repeaters, 94
 - setup, 5–11
 - speed setting adjustments, 90
 - SSID (service set identifier), 9
 - weatherproof, 198
 - WEP key settings, 57–58
 - WiFi standards, 6
 - wireless client identification, 73–75
- wireless cameras
 - configuration settings, 217
 - date/time filename format, 220
 - detection regions, 218
 - installation, 216–217
 - motion sensitivity, 218
 - recycling storage space, 219
 - resolution guidelines, 218
 - selection guidelines, 216
 - video file storage considerations, 218–219
 - video playback, 220

- wireless cameras (*continued*)
 - video recording, 218–219
 - weatherproof advantages, 216
- wireless connection icon, Notification Area
 - display, 29
- Wireless Encryption Protocol (WEP)
 - activating, 57
 - bit depth settings, 57
 - encryption type, 54
 - key type settings, 57–58
 - Macintosh, 48
 - wireless print servers, 190, 193
- wireless media centers
 - capabilities, 155
 - computer (hardware) requirements, 156–157
 - DVD playback, 158–159
 - file sharing, 160–162
 - live TV recording, 164
 - media file organization, 159
 - recorded TV program playback, 165
 - TV connections, 157
 - TV viewing, 163
- Wireless Network Connection Properties
 - dialog box
 - access modes, 32
 - bridge computers, 145
 - enabling ad hoc networking, 114
 - network disabling, 117
 - network removal, 119
 - Wireless Network Connection Status dialog box
 - access modes, 32
 - network disabling, 117
 - network search, 30
- Wireless Network Connection utility, 28
- Wireless Network Connection window, 30–31
- Wireless Network Setup Wizard, 28
- wireless networks. *See* networks
- wireless PCs, speed determinations, 87
- wireless print servers, 190–195
- wireless radio, activating, 9
- wizards
 - Bluetooth Configuration Wizard, 123
 - Found New Hardware Wizard, 25
 - Hardware Update Wizard, 100
 - Windows Network Setup Wizard, 14, 17, 28
- workgroup names
 - Macintosh setup, 36
 - network storage devices, 170
 - networks, 14, 15
- WPA (Wi-Fi Protected Access), 28, 49, 54
- WPA-PSK (Wi-Fi Protected Access Pre-Shared Key), 54, 59–60



Xbox Live. *See also* game consoles
Xbox Live, game console connections, 154