

authentication protocol examples, 700–705
 authoritative DNS servers, 134–137, 499
 hostnames, 139
 IP addresses, 142
 names, 142
 Automatic Repeat reQuest protocols. *See*
 ARQ
 autonomous system number. *See* ASN
 autonomous systems. *See* ASs
 available bit-rate. *See* ABR
 average throughput, 44

B

backbone area, 389
 bandwidth, 29, 281
 guaranteed minimal, 311
 link-level allocation, 639–640
 use-it-or-lose-it resource, 640
 video, 588–589, 594
 bandwidth flooding, 57
 bandwidth provisioning, 635
 bandwidth-sensitive applications, 92
 Baran, Paul, 60
 base HTML file, 99
 base station controller. *See* BSC
 base stations, 516–518, 528
 handoff between, 572–574
 base station system. *See* BSS
 base transceiver station. *See* BTS
 Basic Encoding Rules. *See* BER
 basic service set. *See* BSS
 beacon frames, 529–530
 Bellman-Ford equation, 371–372
 Bellovin, Steven M., 753–754
 BER (Basic Encoding Rules), 780
 BER (bit error rate), 520–521
 Berners-Lee, Tim, 64
 best-effort delivery service, 190
 best-effort networks, 634–636
 best-effort service, 190, 311–312,
 612–614, 633–634
 BGP (Border Gateway Protocol),
 390–399, 498–499
 ASN (autonomous system number), 394
 attributes, 394, 395

 BGP peers, 391
 BGP sessions, 393
 complexity, 391, 393
 DV (distance-vector) algorithm, 374
 eBGP (external BGP) session, 393–395
 elimination rules for routes, 396
 iBGP (internal BGP) session, 393–395
 inter-AS routing protocols, 390–391,
 393–399
 peers, 391
 prefix bits, 342, 344, 393
 route advertisement, 391, 396–399
 routes, 394–395
 route selection, 395–396
 routing policy, 397–399
 routing tables, 399
 session, 393
 TCP connections, 391, 393
 bidirectional data transfer, 205–206
 binary exponential backoff algorithm,
 457–458
 BIND (Berkeley Internet Name Domain),
 131
 bit error rate. *See* BER
 bit-level error detection and correction,
 438–445
 BITNET, 63
 bits, 19
 propagation delay, 37–38
 BitTorrent, 86, 149–151
 accepting connections from other
 hosts, 352
 chunks, 149
 developing, 182
 Kademlia DHT, 156
 P2P (peer-to-peer) protocol, 145, 182
 swarming data principles, 183
 trading algorithm, 150
 blades, 490
 block ciphers, 678–681
 Bluetooth, 518, 544–545
 Boggs, David, 470, 473
 Border Gateway Protocol. *See* BGP
 border routers, 491
 botnet, 56