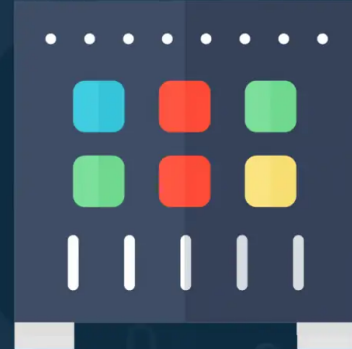# Common Ports Cheat Sheet: The Ultimate Ports & Protocols List

January 4, 2023 / By Nathan House

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Perhaps you're angsty that you've forgotten what a certain port number meant. Rest assured, you don't have to remember all 65,535 port numbers. With so much information to remember, it's understandable if you forget a common port. That's why we put together this cheat sheet of common network ports for you.

A crucial domain of expertise in IT-related certifications such as **Cisco Certified Network Associate (CCNA)** and **those of CompTIA** is **port numbers and associated services**, which this common ports and protocols cheat sheet covers. If you want to remember a port number or protocol, this cheat sheet will help everyone, from students to professionals.

Get a copy of this common ports cheat sheet **here** to keep on your desk. When you're ready, scroll below to find the port you're looking for.

Search cheats here	🔍

Common Ports and Protocols Cheat Sheet

The following tables cover services (and malware) that use common TCP ports and some UDP or SCTP ports.

Well-known/System Ports: 0 – 1023

PORT NUMBER	SERVICE NAME	TRANSPORT PROTOCOL	DESCRIPTION
7	Echo	TCP, UDP	Echo service
19	CHARGEN	TCP, UDP	Character Generator Protocol, has severe vulnerabilities and thus is rarely used nowadays
20	FTP-data	TCP, SCTP	File Transfer Protocol data transfer
21	FTP	TCP, UDP, SCTP	File Transfer Protocol command control
22	SSH/SCP/SFTP	TCP, UDP, SCTP	Secure Shell, secure logins, file transfers (`scp`, `sftp`), and port forwarding
23	Telnet	TCP	Telnet protocol, for unencrypted text communications
25	SMTP	TCP	Simple Mail Transfer Protocol, used for email routing between mail servers
42	WINS Replication	TCP, UDP	Microsoft Windows Internet Name Service, vulnerable to attacks on a local network
43	WHOIS	TCP, UDP	Whois service, provides domain-level information
49	TACACS	UDP; can also use TCP but not necessarily on port 49	Terminal Access Controller Access-Control System, provides remote authentication and related services for network access
53	DNS	TCP, UDP	Domain Name System name resolver
67	DHCP/BOOTP	UDP	Dynamic Host Configuration Protocol and its predecessor Bootstrap Protocol Server; server port
68	DHCP/BOOTP	UDP	Dynamic Host Configuration Protocol and its predecessor Bootstrap Protocol Server; client port

PORT NUMBER	SERVICE NAME	TRANSPORT PROTOCOL	DESCRIPTION
69	TFTP	UDP	Trivial File Transfer Protocol
70	Gopher	TCP	Gopher is a communication protocol for distributing, searching, and retrieving documents in Internet Protocol (IP) networks
79	Finger	TCP	Name/Finger protocol and Finger user information protocol, for retrieving and manipulating user information
80	HTTP	TCP, UDP, SCTP	Hypertext Transfer Protocol (HTTP) uses TCP in versions 1.x and 2. HTTP/3 uses QUIC, a transport protocol on top of UDP
88	Kerberos	TCP, UDP	Network authentication system
102	Microsoft Exchange ISO-TSAP	TCP	Microsoft Exchange ISO Transport Service Access Point (TSAP) Class 0 protocol
110	POP3	TCP	Post Office Protocol, version 3 (POP3)
113	Ident	TCP	Identification Protocol, for identifying the user of a particular TCP connection
119	NNTP (Usenet)	TCP	Network News Transfer Protocol
123	NTP	UDP	Network Time Protocol
135	Microsoft RPC EPMAP	TCP, UDP	Microsoft Remote Procedure Call (RPC) Endpoint Mapper (EPMAP) service, for remote system access and management
137	NetBIOS-ns	TCP, UDP	NetBIOS Name Service, used for name registration and resolution
138	NetBIOS-dgm	TCP, UDP	NetBIOS Datagram Service, used for providing access to shared resources

PORT NUMBER	SERVICE NAME	TRANSPORT PROTOCOL	DESCRIPTION
139	NetBIOS-ssn	TCP, UDP	NetBIOS Session Service
143	IMAP	TCP, UDP	Internet Message Access Protocol (IMAP), management of electronic mail messages on a server
161	SNMP-agents (unencrypted)	UDP	Simple network management protocol; agents communicate on this port
162	SNMP-trap (unencrypted)	UDP	Simple network management protocol; listens for asynchronous traps
177	XDMCP	UDP	X Display Manager Control Protocol
179	BGP	TCP	Border Gateway Protocol
194	IRC	UDP	Internet Relay Chat
201	AppleTalk	TCP, UDP	AppleTalk Routing Maintenance. Trojan horses and computer viruses have used UDP port 201.
264	BGMP	TCP, UDP	Border Gateway Multicast Protocol
318	TSP	TCP, UDP	Time Stamp Protocol
381	HP Openview	TCP, UDP	HP performance data collector
383	HP Openview	TCP, UDP	HP data alarm manager
389	LDAP	TCP, UDP	Lightweight directory access protocol
411	(Multiple uses)	TCP, UDP	Direct Connect Hub, Remote MT Protocol
412	(Multiple uses)	TCP, UDP	Direct Connect Client-to-Client, Trap Convention Port
427	SLP	TCP	Service Location Protocol
443	HTTPS (HTTP over SSL)	TCP, UDP, SCTP	Hypertext Transfer Protocol Secure (HTTPS) uses TCP in versions 1.x and 2. HTTP/3 uses

PORT NUMBER	SERVICE NAME	TRANSPORT PROTOCOL	DESCRIPTION
			QUIC, a transport protocol on top of UDP.
445	Microsoft DS SMB	TCP, UDP	Microsoft Directory Services: TCP for Active Directory, Windows shares; UDP for Server Message Block (SMB) file-sharing
464	Kerberos	TCP, UDP	For password settings on Kerberos
465	SMTP over TLS/SSL, SSM	TCP	Authenticated SMTP over TLS/SSL (SMTPS), URL Rendezvous Directory for Cisco's Source Specific Multicast protocol (SSM)
497	Dantz Retrospect	TCP, UDP	A software suite for backing up operating systems
500	IPSec / ISAKMP / IKE	UDP	Internet Protocol Security / Internet Security Association and Key Management Protocol / Internet Key Exchange
512	rexec	TCP	Remote Process Execution
513	rlogin	TCP	The Unix program `rlogin` allows users to log in on another host using a network.
514	syslog	UDP	Syslog Protocol, for collecting and organizing all of the log files sent from the various devices on a network
515	LPD/LPR	TCP	Line Printer Daemon protocol, or Line Printer Remote protocol
520	RIP	UDP	Routing Information Protocol, used to find the optimal path between source and destination networks
521	RIPng (IPv6)	UDP	Routing Information Protocol next generation, the IPv6 compatible version of RIP

PORT NUMBER	SERVICE NAME	TRANSPORT PROTOCOL	DESCRIPTION
540	UUCP	TCP	Unix-to-Unix Copy Protocol
548	AFP	TCP	Apple Filing Protocol
554	RTSP	TCP, UDP	Real Time Streaming Protocol
546	DHCPv6	TCP, UDP	Dynamic Host Configuration Protocol version 6. DHCPv6 Clients listen for DHCPv6 messages on UDP port 546.
547	DHCPv6	TCP, UDP	DHCPv6 Servers and DHCPv6 Relay Agents listen for DHCPv6 messages on UDP port 547.
560	rmonitor	UDP	Remote Monitor
563	NNTP over TLS/SSL	TCP, UDP	Network News Transfer Protocol with encryption and verification
587	SMTP	TCP	For email message submission via SMTP
591	FileMaker	TCP	FileMaker Web Companion, the web publishing technology available in FileMaker versions 4-6
593	Microsoft DCOM	TCP, UDP	Distributed Component Object Model (DCOM)
596	SMSD	TCP, UDP	SysMan Station daemon
631	IPP	TCP	Internet Printing Protocol
636	LDAP over TLS/SSL	TCP, UDP	Lightweight Directory Access Protocol over TLS/SSL
639	MSDP (PIM)	TCP	Multicast Source Discovery Protocol, which is part of the Protocol Independent Multicast (PIM) family
646	LDP (MPLS)	TCP, UDP	Label Distribution Protocol, applies to routers capable of Multiprotocol Label Switching (MPLS)

PORT NUMBER	SERVICE NAME	TRANSPORT PROTOCOL	DESCRIPTION
691	Microsoft Exchange	TCP	Microsoft Exchange Routing
860	iSCSI	TCP	Internet Small Computer Systems Interface
873	rsync	TCP	The `rsync` file synchronization protocol efficiently transfers and synchronizes files between devices and networked computers.
902	VMware Server	TCP, UDP	VMware ESXi, a hypervisor
989	FTPS	TCP	File Transfer Protocol (data) over TLS/SSL
990	FTPS	TCP	File Transfer Protocol (control) over TLS/SSL
993	IMAP over SSL (IMAPS)	TCP	Internet Message Access Protocol over TLS/SSL
995	POP3 over SSL (POP3S)	TCP, UDP	Post Office Protocol 3 over TLS/SSL

Registered Ports: 1024 – 49151

PORT NUMBER	SERVICE NAME	TRANSPORT PROTOCOL	DESCRIPTION
1025	Microsoft RPC	TCP	Microsoft Remote Procedure Call
1026-1029	Windows Messenger	UDP	Windows Messenger popup spam

PORT NUMBER	SERVICE NAME	TRANSPORT PROTOCOL	DESCRIPTION
1080	SOCKS proxy	TCP (or UDP since SOCKS5)	SOCKS stands for Socket Secure. This protocol exchanges network packets between a client and server through a proxy server.
1080	MyDoom	TCP	Computer virus
1194	OpenVPN	TCP, UDP	OpenVPN
1214	KAZAA	TCP	A peer-to-peer file-sharing protocol
1241	Nessus	TCP, UDP	Nessus Security Scanner
1311	Dell OpenManage	TCP	Dell EMC OpenManage Server Administrator Web GUI
1337	WASTE	TCP	WASTE peer-to-peer encrypted file-sharing Program
1589	Cisco VQP	TCP, UDP	Cisco VLAN Query Protocol (VQP)
1701	L2TP VPN	TCP	Layer Two Tunneling Protocol Virtual Private Networking
1720	H.323	TCP	H.323 Call Control Signaling, a VoIP call control protocol
1723	Microsoft PPTP	TCP, UDP	Point-to-Point Tunneling Protocol Virtual Private Networking
1725	Steam	UDP	Valve Steam Client uses port 1725
1741	CiscoWorks SNMS 2000	TCP	CiscoWorks Small Network Management Solution web server
1755	MMS	TCP, UDP	Microsoft Media Server
1812	RADIUS	UDP	RADIUS server authentication and authorization
1813	RADIUS	UDP	RADIUS server accounting
1863	(Multiple uses)	TCP, UDP	MSN Messenger, Xbox Live 360

PORT NUMBER	SERVICE NAME	TRANSPORT PROTOCOL	DESCRIPTION
1900	UPnP	UDP	Universal Plug and Play
1985	Cisco HSRP	UDP	Hot Standby Router Protocol
2000	Cisco SCCP	TCP	Skinny Client Control Protocol
2002	Cisco ACS	TCP	Access Control Server
2049	NFS	UDP	Network File Sharing
2082	cPanel	TCP, UDP	cPanel default
2083	radsec, cPanel	TCP, UDP	Secure RADIUS Service (`radsec`), cPanel default SSL
2100	amiganetfs	TCP	Amiga Network Filesystem
2222	DirectAdmin	TCP	Graphical web hosting control panel
2302	Gaming	UDP	The game HALO uses this port extensively
2483	Oracle	TCP, UDP	Oracle database listening for insecure client connections to the listener, replaces port 1521
2484	Oracle	TCP, UDP	Oracle database listening for SSL client connections to the listener
2745	Bagle.C – Bagle.H	TCP	Computer worms

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3074	XBOX Live	TCP, UDP	Gaming: Xbox LIVE and Games for Windows – Live
3127	MyDoom	TCP	Computer worm
3128	HTTP Proxy	TCP	Common web proxy server ports: 80, 8080, 3128, 6588
3222	GLBP	TCP, UDP	Gateway Load Balancing Protocol

PORT NUMBER	SERVICE NAME	TRANSPORT PROTOCOL	DESCRIPTION
3260	iSCSI Target	TCP, UDP	Microsoft iSCSI Target Server
3306	MySQL	TCP	MySQL database system
3389	RDP	TCP	Windows Remote Desktop Protocol (Microsoft Terminal Server)
3689	DAAP	TCP	Digital Audio Access Protocol, used by Apple's iTunes and AirPort Express
3690	SVN	TCP, UDP	Apache Subversion, a version control system
3724	World of Warcraft	TCP, UDP	Some Blizzard games, Unofficial Club Penguin Disney online game for kids
3784-3785	Ventrilo VoIP	TCP, UDP	Ventrilo's Voice over Internet Protocol program
4333	mSQL	TCP	Mini SQL server
4444	Blaster	TCP, UDP	Computer worm
4500	IPSec NAT Traversal	UDP	Internet Protocol Security Network Address Translation (NAT) Traversal
4664	Google Desktop	TCP	Google Desktop's built-in HTTP server and indexing software
4899	Radmin	TCP	Remote computer control software
5000	UPnP	TCP	Universal Plug and Play
5001	iperf	TCP	Tool for measuring TCP and UDP bandwidth performance
5004-5005	RTP, RTSP	UDP	Real-time Transport Protocol, Real Time Streaming Protocol

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PORT NUMBER	SERVICE NAME	TRANSPORT PROTOCOL	DESCRIPTION
5050	Yahoo! Messenger	TCP	Instant messaging service from Yahoo
5060	SIP	TCP, UDP	Session Initiation Protocol
5061	SIP-TLS	TCP	Session Initiation Protocol over TLS
5190	(Multiple uses)	TCP, UDP	ICQ, AIM (AOL Instant Messenger), Apple iChat
5222-5223	XMPP	TCP, UDP	Extensible Messaging and Presence Protocol Client Connection; also used in Google Talk, Jabber, Apple iChat, WhatsApp, etc.
5353	MDNS	UDP	Multicast DNS
5432	PostgreSQL	TCP	PostgreSQL database system
5554	Sasser	TCP	Computer worm
5631-5632	pcAnywhere	UDP	Symantec pcAnywhere
5800	VNC over HTTP	TCP	Virtual Network Computing (VNC)
5900-5999	RFB/VNC Server	TCP, UDP	VNC Remote Frame Buffer RFB protocol
6000	X11	TCP	X Window System protocol for delivering payloads
6001	X11	UDP	between X clients and servers
6112	Diablo	TCP, UDP	Gaming
6129	DameWare	TCP	Remote access software developed by SolarWinds
6257	WinMX	UDP	Windows Music Exchange, peer-to-peer file-sharing freeware

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PORT NUMBER	SERVICE NAME	TRANSPORT PROTOCOL	DESCRIPTION
6346-6347	Gnutella2	TCP, UDP	Peer-to-peer network protocol
6379	Redis	TCP	Popular non-relational database management system (NoSql)
6500	GameSpy	TCP, UDP	Gaming
6566	SANE	TCP, UDP	Scanner Access Now Easy
6588	AnalogX	TCP	AnalogX proxy server
6588	HTTP Proxy	TCP	Common web proxy server ports: 80, 8080, 3128, 6588
6665-6669	IRC	TCP	Internet Relay Chat
6679, 6697	IRC over SSL	TCP	Internet Relay Chat
6699	Napster	TCP	Peer-to-peer file-sharing application
6881-6999	BitTorrent	TCP, UDP	BitTorrent uses this range of ports the most often
6891-	Windows Live		
6970	QuickTime	TCP, UDP	QuickTime streaming server
7000	Cassandra	TCP	Inter-node communication within the cluster on Apache Cassandra
7001	Cassandra	TCP	SSL-enabled inter-node communication within the cluster on Apache Cassandra
7199	Cassandra JMX	TCP	Java Management Extensions on Apache Cassandra

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PORT NUMBER	SERVICE NAME	TRANSPORT PROTOCOL	DESCRIPTION
7648-7649	CU-SeeMe	TCP, UDP	Internet video conferencing client made by Cornell University
8000	Internet Radio	TCP	Commonly choice of alternate HTTP port for web applications
8080	HTTP Proxy	TCP	Common web proxy server ports: 80, 8080, 3128, 6588
8086	Kaspersky AV	TCP	Kaspersky AV Control Center
8087	Kaspersky AV	UDP	Kaspersky AV Control Center
8118	Privoxy	TCP	Advertisement-filtering Web proxy
8200	VMware Server	TCP, UDP	VMware vSphere Fault Tolerance
8222	VMware Server	TCP, UDP	VMware Server Management User Interface (insecure Web interface).
8500	(Multiple uses)	TCP, UDP	Adobe ColdFusion, Flight Message Transfer Protocol
8767	Teamspeak	UDP	VoIP communication system for online gaming
8866	Bagle.B	TCP	Computer worm
9042	Cassandra	TCP	Apache Cassandra, a NoSql database
9101-9103	Bacula	TCP, UDP	For automating backup tasks
9119	MXit	TCP, UDP	MXit Instant Messaging (deprecated)
9800	WebDAV	TCP, UDP	Web-based Distributed Authoring and Versioning, an extension of HTTP
9898	Dabber	TCP	Computer worm (Sasser)

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PORT NUMBER	SERVICE NAME	TRANSPORT PROTOCOL	DESCRIPTION
9999	Urchin	TCP, UDP	Urchin Web Analytics
10000	(Multiple uses)	TCP, UDP	Network Data Management Protocol; applications: Webmin, BackupExec, Viatalk; gaming: The Matrix Online, Dungeon Fighter
10161	SNMP-agents (encrypted)	TCP	Simple network management protocol; agents communicate on this port
10162	SNMP-trap (encrypted)	TCP	Simple network management protocol; listens for asynchronous traps
10113	NetIQ	TCP, UDP	NetIQ Endpoint
10114	NetIQ	TCP, UDP	NetIQ Qcheck
10115	NetIQ	TCP, UDP	NetIQ Endpoint
10116	NetIQ	TCP, UDP	NetIQ VoIP Assessor
11371	OpenPGP	TCP, UDP	OpenPGP HTTP Keyserver
12345	NetBus	TCP	NetBus remote administration tool (Trojan horse)
13720-13721	NetBackup	TCP, UDP	NetBackup request daemon

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PORT NUMBER	SERVICE NAME	TRANSPORT PROTOCOL	DESCRIPTION
19226	AdminSecure	TCP	Panda Software AdminSecure Communication Agent
19638	Ensim	TCP	Ensim Control Panel
20000	Usermin	TCP, UDP	Web email interface for regular non-root users
24800	Synergy	TCP, UDP	Keyboard/mouse sharing software
25999	Xfire	TCP	Communication tool for gamers (deprecated)

PORT NUMBER	SERVICE NAME	TRANSPORT PROTOCOL	DESCRIPTION
27015	Half-Life	UDP	Gaming
27017	MongoDB	TCP	NoSql database
27374	Sub7	TCP, UDP	Trojan horse
28960	Call of Duty	TCP, UDP	Gaming
31337	Back Orifice	TCP, UDP	Remote administration tool used for Trojan horses
33434+	traceroute	UDP	Utility for displaying paths and measuring transit delays of packets across a network

Dynamic/Private Ports: 49152 – 65535

You may use these ports for custom applications free from concerns that it may clash with existing processes.

The Most Common Ports for Exams

If you're studying for IT certifications such as **CCNA**, focus on these ports:

PORT NUMBER	SERVICE
7	Echo
20, 21	FTP

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~~23~~	~~Telnet~~
25	SMTP
53	DNS
67, 68	DHCP/BOOTP
69	TFTP
80	HTTP

PORT NUMBER	SERVICE
88	Kerberos
110	POP3
123	NTP
137	NetBIOS
143	IMAP
161	SNMP
194	IRC
389	LDAP
443	HTTPS
445	Microsoft DS SMB
464	Kerberos password settings
547	DHCPv6
596	SMSD
636	LDAP over SSL
1720	H.323
5060	SIP
5061	SIP over TLS

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Conclusion

We hope that you found this cheat sheet useful. Familiarity with ports and protocols is vital to building secure applications and troubleshooting problems on computer networks. Whether you're studying or working, this cheat sheet of common network ports will help you in academic and professional settings.

For further resources, or if you're curious about how ports and protocols fit into cyber security, look into **network security** courses in our **VIP membership**.

Frequently Asked Questions

⊖ **What are the most common ports?**

FTP: ports 20-21; SSH/SCP: port 22; HTTP: 80; HTTPS: 443; POP3: 110; POP3 over SSL: 995; IMAP: 143; IMAP over SSL: 993. We recommend you download the graphic in **Well-known/System Ports**.

⊕ **How many common ports are there?**

⊕ **What are the common TCP ports?**

⊕ **What are common open ports?**

⊕ **What are the three types of ports?**

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Nathan House

Nathan House is the founder and CEO of StationX. He has over 25 years of experience in cyber security, where he has advised some of the largest companies in the world. Nathan is the author of the popular "The Complete Cyber Security Course", which has been taken by over half a million students in 195 countries. He is the winner of the AI "Cyber Security Educator of the Year 2020" award and finalist for Influencer of the year 2022.

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