Network Working Group
Request for Comments: 770

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Obsoletes RFCs: 762, 758, 755,
750, 739, 604, 503, 433, 349
Obsoletes IENs: 127, 117, 93

ASSIGNED NUMBERS

This Network Working Group Request for Comments documents the currently assigned values from several series of numbers used in network protocol implementations. This RFC will be updated periodically, and in any case current information can be obtained from Jon Postel. The assignment of numbers is also handled by Jon. If you are developing a protocol or application that will require the use of a link, socket, etc. please contact Jon to receive a number assignment.

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Most of the protocols mentioned here are documented in the RFC series of notes. The more prominent and more generally used are documented in the Protocol Handbook [1] prepared by the Network Information Center (NIC). In the lists that follow a bracketed number, e.g. [1], off to the right of the page indicates a reference for the listed protocol.

ASSIGNED NETWORK NUMBERS

This list of network numbers is used in the internet, the field is 8 bits in size.

Assigned Network Numbers

Decimal	Octal	Name	Network	References
0	0		Reserved	
1	1	BBN-PR	BBN Packet Radio Network	
2	2	SF-PR-1	SF Bay Area Packet Radio Network (1)	
3	3	BBN-RCC	BBN RCC Network	
4	4	SATNET	Atlantic Satellite Network	
5	5	SILL-PR	Ft. Sill Packet Radio Network	
6	6	SF-PR-2	SF Bay Area Packet Radio Network (2)	
7	7	CHAOS	MIT CHAOS Network	
8	10	CLARKNET	SATNET subnet for Clarksburg	
9	11	BRAGG-PR	Ft. Bragg Packet Radio Network	
10	12	ARPANET	ARPANET	[1,2]
11	13	UCLNET	University College London Network	
12	14	CYCLADES	CYCLADES	
13	15	NPLNET	National Physical Laboratory	
14	16	TELENET	TELENET	
15	17	EPSS	British Post Office EPSS	
16	20	DATAPAC	DATAPAC	
17	21	TRANSPAC	TRANSPAC	
18	22	LCSNET	MIT LCS Network	[37,38]
19	23	TYMNET	TYMNET	
20	24	DC-PR	Washington D.C. Packet Radio Network	
21	25	EDN	DCEC EDN	
22	26	DIALNET	DIALNET	[47,48]
23	27	MITRE	MITRE Cablenet	[23]
24	30	BBN-LOCAL	BBN Local Network	
25	31	RSRE-PPSN	RSRE / PPSN	
26	32	AUTODIN-II	AUTODIN II	
27	33	NOSC-LCCN	NOSC / LCCN	
28	34	WIDEBAND	Wide Band Satellite Network	
29	35	DCN-COMSAT	COMSAT Distributed Computing Network	
30	36	DCN-UCL	UCL Distributed Computing Network	
31	37	BBN-SAT-TEST	BBN SATNET Test Network	
32	40	UCL-CR1	UCL Cambridge Ring 1	
33	41	UCL-CR2	UCL Cambridge Ring 2	
34	42	MATNET	Mobile Access Terminal Network	
35	43	NULL	UCL/RSRE Null Network	
36	44	SU-NET	Stanford University Ethernet	

37	45	DECNET	Digital Equipment Network
38	46	DECNET-TEST	Test Digital Equipment Network
39-254	47-376		Unassigned
255	377		Reserved

ASSIGNED INTERNET PROTOCOL VERSIONS

In the Internet Protocol (IP) there is a field to identify the version of the internetwork general protocol. This field is 4 bits in size.

Assigned Internet Protocol Versions

Decimal	Octal	Version	References
0	0	March 1977 version	[35]
1-3	1-3	Unassigned	
4	4	January 1980 version	[44]
5	5	ST Datagram Mode	[45]
6-14	6-16	Unassigned	
15	17	Reserved	

ASSIGNED INTERNET PROTOCOL NUMBERS

In the Internet Protocol (IP) [44] there is a field to identify the the next level protocol. This field is 8 bits in size. This field is called Protocol in the IP header.

Assigned Internet Protocol Numbers

Decimal	Octal	Protocol Numbers	References
0	0	Reserved	
1	1	raw internet datagrams	[44]
2	2	TCP-3	[36]
3	3	Gateway-to-Gateway	[49]
4	4	Gateway Monitoring Message	[41]
5	5	ST	[45]
6	6	TCP-4	[46]
7	7	UCL	
8	10	DSP	[37,38]
9	11	Secure	
10	12	TCP-2	[35]
11	13	NVP	[39]
12	14	PUP	[55]
13	15	Pluribus	
14	16	Telenet	
15	17	XNET	
16	20	Chaos	
17	21	User Datagram	[50]
18	22	Multiplexing	[51]
19	23	DCN	
20-62	24-76	Unassigned	
63	77	any local network	
64	100	EXPAK cumstats	
65	101	EXPAK PC messages	
66	102	Unassigned	
67	103	Gateway Monitoring	
68	104	Unassigned	
69	105	SIMP monitoring	
70	106	SIMP polling	
71	107	SIMP packet core/U	
72-76	110-114	Unassigned	
77	115	backroom SIMP polling	
78	116	backroom SIMP monitoring	
79	117	SIMP message generators	
80-254	120-376	Unassigned	
255	377	Reserved	

ASSIGNED PORT or SOCKET NUMBERS

Ports are used in the TCP [46] and sockets are used in the AHHP [1,3] to name the ends of logical connections which carry long term conversations. For the purpose of providing services to unknown callers a service contact socket is defined. This list specifies the port or socket used by the server process as its contact socket. In the AHHP an Initial Connection Procedure ICP [1,34] is used between the user process and the server process to make the initial contact and establish the long term connections leaving the contact socket free to handle other callers. In the TCP no ICP is necessary since a port may engage in many simultaneous connections.

The assigned ports/sockets use a small part of the possible port/socket numbers. The ports/assigned sockets have all except the low order eight bits cleared to zero. The low order eigth bits are specified here.

Socket Assignments:

General Assignments:

Decimal	Octal	Description
0-63	0-77	Network Wide Standard Function
64-127	100-177	Hosts Specific Functions
128-223	200-337	Reserved for Future Use
224-255	340-377	Any Experimental Function

Specific Assignments:

Network Standard Functions

Decimal	Octal	Description	References
1	1	Old Telnet	[6]
3	3	Old File Transfer	[7,8,9]
5	5	Remote Job Entry	[1,10]
7	7	Echo	[11]
9	11	Discard	[12]
11	13	Who is on or SYSTAT	
13	15	Date and Time	
15	17	Who is up or NETSTAT	
17	21	Short Text Message	
19	23	Character generator or TTYTST	[13]
21	25	New File Transfer	[1,14,15]
23	27	New Telnet	[1,16,17]
25	31	Distributed Programming System	[18,19]
27	33	NSW User System w/COMPASS FE	[20]
29	35	MSG-3 ICP	[21]
31	37	MSG-3 Authentication	[21]
33	41	DPS ICP	[18,19]
35	43	IO Station Spooler	
37	45	Time Server	[1,22]
39	47	NSW User System w/SRI FE	[20]
41	51	Graphics	[1,26]
42	52	Name Server	[52]
43	53	WhoIs	
45	55	Internet Message Processing Module	[53]
47	57	NI FTP	[54]
49	61	RAND Network Graphics Conference	[56]
51	63	Simple Internet Mail	
53	65	AUTODIN II FTP	[57]
55	67	ISI Graphics Language	[58]
57	71	Mail Transfer	[43]
59-63	73-77	unassigned	

Host Specific Functions

Decimal	Octal	Description	References
65	101	unassigned	
67	103	Datacomputer at CCA	[24]
69	105	CPYNET	
69	105	Trivial File Transfer	[42]
71	107	NETRJS (EBCDIC) at UCLA-CCN	[1,25]
73	111	NETRJS (ASCII-68) at UCLA-CCN	[1,25]
75	113	NETRJS (ASCII-63) at UCLA-CCN	[1,25]
77	115	any private RJE server	
79	117	Name or Finger	[1,40]
81	121	Network BSYS	
83	123	MIT ML Device	
85	125	MIT ML Device	
87	127	any terminal link	
89	131	SU/MIT Telnet Gateway	
91-94	133-136	unassigned	
95	137	SUPDUP	[33]
97	141	Datacomputer Status	
99	143	CADC - NIFTP via UCL	
101	145	NPL - NIFTP via UCL	
103	147	BNPL - NIFTP via UCL	
105	151	CAMBRIDGE - NIFTP via UCL	
107	153	HARWELL - NIFTP via UCL	
109	155	SWURCC - NIFTP via UCL	
111	157	ESSEX - NIFTP via UCL	
113	161	RUTHERFORD - NIFTP via UCL	
115-127	163-177	unassigned	

Reserved for Future Use

Decimal	Octal	Description	References
128-223	200-337	reserved	

Experimental Functions

Decimal	Octal	Description	References
224-231	340-347	unassigned	
232-237	350-355	Authorized Mailer at BBN	
239	357	unassigned	
241	361	NCP Measurement	[27,28]
243	363	Survey Measurement	[28,29,30]
245	365	LINK	[31]
247	367	TIPSRV	
249-255	371-377	RSEXEC	[31,32]

ASSIGNED LINK NUMBERS

The word "link" here refers to a field in the original ARPANET Host/IMP interface leader. The link was originally defined as an 8 bit field. Some time after the ARPANET Host-to-Host (AHHP) protocol was defined and, by now, some time ago the definition of this field was changed to "Message-ID" and the length to 12 bits. The name link now refers to the high order 8 bits of this 12 bit message-id field. The low order 4 bits of the message-id field are to be zero unless specifically specified otherwise for the particular protocol used on that link. The Host/IMP interface is defined in BBN report 1822 [2].

Link Assignments:

Decimal	Octal	Description	References
0	0	AHHP Control Messages	[1,3]
1	1	Reserved	
2-71	2-107	AHHP Regular Messages	[1,3]
72-150	110-226	Reserved	
151	227	CHAOS Protocol	
152	230	PARC Universal Protocol	
153	231	TIP Status Reporting	
154	232	TIP Accounting	
155	233	Internet Protocol (regular traffic)	[44]
156-158	234-236	Internet Protocol (experimental traffic)	[44]
159-191	237-277	Measurements	[28]
192-195	300-303	Message Switching Protocol	[4,5]
196-255	304-377	Experimental Protocols	
224-255	340-377	NVP	[1,39]
248-255	370-377	Network Maintenance	

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