

Network Working Group
Request for Comments: 776

J. Postel
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Obsoletes RFCs: 770, 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, port, protocol, or network number 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 [17] prepared by the Network Information Center (NIC). Some of the items listed are undocumented. In all cases the name and mailbox of the responsible individual is indicated. In the lists that follow a bracketed entry, e.g. [17,iii], at the right hand margin of the page indicates a reference for the listed protocol, where the number cites the document and the "iii" cites the person.

Network Numbers

ASSIGNED NETWORK NUMBERS

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

Assigned Network Numbers

Decimal	Octal	Name	Network	References
-----	-----	----	-----	-----
0	0		Reserved	[JBP]
1	1	BBN-PR	BBN Packet Radio Network	[DCA2]
2	2	SF-PR-1	SF Packet Radio Network (1)	[JEM]
3	3	BBN-RCC	BBN RCC Network	[SGC]
4	4	SATNET	Atlantic Satellite Network	[DM11]
5	5	SILL-PR	Ft. Sill Packet Radio Network	[JEM]
6	6	SF-PR-2	SF Packet Radio Network (2)	[JEM]
7	7	CHAOS	MIT CHAOS Network	[MOON]
8	10	CLARKNET	SATNET subnet for Clarksburg	[DM11]
9	11	BRAGG-PR	Ft. Bragg Packet Radio Network	[JEM]
10	12	ARPANET	ARPANET	[17,1,VGC]
11	13	UCLNET	University College London	[PK]
12	14	CYCLADES	CYCLADES	[VGC]
13	15		Unassigned	[JBP]
14	16	TELENET	TELENET	[VGC]
15	17	EPSS	British Post Office EPSS	[PK]
16	20	DATAPAC	DATAPAC	[VGC]
17	21	TRANSPAC	TRANSPAC	[VGC]
18	22	LCSNET	MIT LCS Network	[43,10,DDC2]
19	23	TYMNET	TYMNET	[VGC]
20	24	DC-PR	D.C. Packet Radio Network	[VGC]
21	25	EDN	DCEC EDN	[EC5]
22	26	DIALNET	DIALNET	[26,16,MRC]
23	27	MITRE	MITRE Cablenet	[44,APS]
24	30	BBN-LOCAL	BBN Local Network	[SGC]
25	31	RSRE-PPSN	RSRE / PPSN	[BD2]
26	32	AUTODIN-II	AUTODIN II	[EC5]
27	33	NOSC-LCCN	NOSC / LCCN	[KTP]
28	34	WIDEBAND	Wide Band Satellite Network	[CJW2]
29	35	DCN-COMSAT	COMSAT Dist. Comp. Network	[DLM1]
30	36	DCN-UCL	UCL Dist. Comp. Network	[PK]
31	37	BBN-SAT-TEST	BBN SATNET Test Network	[DM11]
32	40	UCL-CR1	UCL Cambridge Ring 1	[PK]
33	41	UCL-CR2	UCL Cambridge Ring 2	[PK]
34	42	MATNET	Mobile Access Terminal Net	[DM11]
35	43	NULL	UCL/RSRE Null Network	[BD2]
36	44	SU-NET	Stanford University Ethernet	[MRC]

Network Numbers

37	45	DECNET	Digital Equipment Network	[DRL]
38	46	DECNET-TEST	Test Digital Equipment Net	[DRL]
39	47	SRINET	SRI Local Network	[GEOF]
40	50	CISLNET	CISL Multics Network	[CH2]
41	51	BBN-LN-TEST	BBN Local Network Testbed	[KTP]
42-254	50-376		Unassigned	[JBP]
255	377		Reserved	[JBP]

ASSIGNED INTERNET VERSION NUMBERS

In the Internet Protocol (IP) [33] there is a field to identify the version of the internetwork general protocol. This field is 4 bits in size.

Assigned Internet Version Numbers

Decimal	Octal	Version	References
-----	-----	-----	-----
0	0	Reserved	[JBP]
1-3	1-3	Unassigned	[JBP]
4	4	Internet Protocol	[33,JBP]
5	5	ST Datagram Mode	[20,JWF]
6-14	6-16	Unassigned	[JBP]
15	17	Reserved	[JBP]

Internet Protocol Numbers

ASSIGNED INTERNET PROTOCOL NUMBERS

In the Internet Protocol (IP) [33] there is a field, called Protocol, to identify the the next level protocol. This is an 8 bit field.

Assigned Internet Protocol Numbers

Decimal	Octal	Protocol Numbers	References
-----	-----	-----	-----
0	0	Reserved	[JBP]
1	1	raw internet datagrams	[33,JBP]
2	2	Unassigned	[JBP]
3	3	Gateway-to-Gateway	[48,49,VMS]
4	4	CMCC Gateway Monitoring Message	[18,19,DFP]
5	5	ST	[20,JWF]
6	6	TCP	[34,JBP]
7	7	UCL	[PK]
8	10	Unassigned	[JBP]
9	11	Secure	[VGC]
10	12	BBN RCC Monitoring	[VMS]
11	13	NVP	[12,DC]
12	14	PUP	[4,EAT3]
13	15	Pluribus	[RDB2]
14	16	Telenet	[RDB2]
15	17	XNET	[25,JFH2]
16	20	Chaos	[MOON]
17	21	User Datagram	[42,JBP]
18	22	Multiplexing	[13,JBP]
19	23	DCN	[DLM1]
20	24	TAC Monitoring	[RH6]
21-62	25-76	Unassigned	[JBP]
63	77	any local network	[JBP]
64	100	SATNET and Backroom EXPAK	[DM11]
65-68	101-104	Unassigned	[JBP]
69	105	SATNET Monitoring	[DM11]
70	106	Unassigned	[JBP]
71	107	Internet Packet Core Utility	[DM11]
72-75	110-113	Unassigned	[JBP]
76	114	Backroom SATNET Monitoring	[DM11]
77	115	Unassigned	[JBP]
78	116	WIDEBAND Monitoring	[DM11]
79	117	WIDEBAND EXPAK	[DM11]
80-254	120-376	Unassigned	[JBP]
255	377	Reserved	[JBP]

Port or Socket Numbers

ASSIGNED PORT or SOCKET NUMBERS

Ports are used in the TCP [34] and sockets are used in the AHHP [28,17] 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 [39,17] 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 assigned ports/sockets have all except the low order eight bits cleared to zero. The low order eight bits are specified here.

Socket Assignments:

General Assignments:

Decimal	Octal	Description
-----	-----	-----
0-63	0-77	Network Wide Standard Function
64-131	100-203	Hosts Specific Functions
132-223	204-337	Reserved for Future Use
224-255	340-377	Any Experimental Function

Port or Socket Numbers

Specific Assignments:

Network Standard Functions

Decimal -----	Octal -----	Description -----	References -----
1	1	Old Telnet	[40,JBP]
3	3	Old File Transfer	[27,11,24,JBP]
5	5	Remote Job Entry	[6,17,JBP]
7	7	Echo	[35,JBP]
9	11	Discard	[32,JBP]
11	13	Who is on or SYSTAT	[JBP]
13	15	Date and Time	[JBP]
15	17	Who is up or NETSTAT	[JBP]
17	21	Short Text Message	[JBP]
19	23	Character generator or TTYTST	[31,JBP]
21	25	New File Transfer	[36,JBP]
23	27	New Telnet	[41,JBP]
25	31	Unassigned	[JBP]
27	33	NSW User System w/COMPASS FE	[14,RHT]
29	35	MSG-3 ICP	[29,RHT]
31	37	MSG-3 Authentication	[29,RHT]
33	41	Unassigned	[JBP]
35	43	IO Station Spooler	[JBP]
37	45	Time Server	[22,JBP]
39	47	Unassigned	[JBP]
41	51	Graphics	[46,17,JBP]
42	52	Name Server	[38,JBP]
43	53	WhoIs	[JAKE]
45	55	Message Processing Module	[37,JBP]
47	57	NI FTP	[50,CJB]
49	61	RAND Network Graphics Conference	[30,MO2]
51	63	Unassigned	[JBP]
53	65	AUTODIN II FTP	[21,EC5]
55	67	ISI Graphics Language	[3,RB6]
57	71	Mail Transfer	[45,JBP]
59-63	73-77	Unassigned	[JBP]

Port or Socket Numbers

Host Specific Functions

Decimal -----	Octal -----	Description -----	References -----
65	101	Unassigned	[JBP]
67	103	Datacomputer at CCA	[8,JZS]
69	105	Unassigned	[JBP]
69	105	Trivial File Transfer	[47,KRS]
71	107	NETRJS (EBCDIC) at UCLA-CCN	[5,17,RTB]
73	111	NETRJS (ASCII-68) at UCLA-CCN	[5,17,RTB]
75	113	NETRJS (ASCII-63) at UCLA-CCN	[5,17,RTB]
77	115	any private RJE server	[JBP]
79	117	Name or Finger	[23,17,KLH]
81	121	Unassigned	[JBP]
83	123	MIT ML Device	[MOON]
85	125	MIT ML Device	[MOON]
87	127	any terminal link	[JBP]
89	131	SU/MIT Telnet Gateway	[MRC]
91	133	MIT Dover Spooler	[EBM]
93	135	Unassigned	[JBP]
95	137	SUPDUP	[15,MRC]
97	141	Datacomputer Status	[8,JZS]
99	143	CADC - NIFTP via UCL	[PLH]
101	145	NPL - NIFTP via UCL	[PLH]
103	147	BNPL - NIFTP via UCL	[PLH]
105	151	CAMBRIDGE - NIFTP via UCL	[PLH]
107	153	HARWELL - NIFTP via UCL	[PLH]
109	155	SWURCC - NIFTP via UCL	[PLH]
111	157	ESSEX - NIFTP via UCL	[PLH]
113	161	RUTHERFORD - NIFTP via UCL	[PLH]
115-129	163-201	Unassigned	[JBP]
131	203	Datacomputer	[8,JZS]

Reserved for Future Use

Decimal -----	Octal -----	Description -----	References -----
132-223	204-337	Reserved	[JBP]

Port or Socket Numbers

Experimental Functions

Decimal	Octal	Description	References
-----	-----	-----	-----
224-239	340-357	Unassigned	[JBP]
241	361	NCP Measurement	[9,JBP]
243	363	Survey Measurement	[2,AV]
245	365	LINK	[7,RDB2]
247	367	TIPSRV	[RHT]
249-255	371-377	RSEXEC	[51,RHT]

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 [1].

Link Assignments:

Decimal	Octal	Description	References
-----	-----	-----	-----
0	0	AHHP Control Messages	[28,17,JBP]
1	1	Reserved	[JBP]
2-71	2-107	AHHP Regular Messages	[28,17,JBP]
72-150	110-226	Reserved	[JBP]
151	227	CHAOS Protocol	[MOON]
152	230	PARC Universal Protocol	[4,EAT3]
153	231	TIP Status Reporting	[JGH]
154	232	TIP Accounting	[JGH]
155	233	Internet Protocol (regular)	[33,JBP]
156-158	234-236	Internet Protocol (experimental)	[33,JBP]
159-191	237-277	Measurements	[9,VGC]
192-195	300-303	Unassigned	[JBP]
196-255	304-377	Experimental Protocols	[JBP]
224-255	340-377	NVP	[12,17,DC]
248-255	370-377	Network Maintenance	[JGH]

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