Network Working Group Request for Comments: 739 NIC: 42341 J. Postel USC-ISI 11 November 1977

#### 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.

Jon Postel
USC - Information Sciences Institute
4676 Admiralty Way
Marina del Rey, California 90291

phone: (213) 822-1511

ARPANET mail: POSTEL@ISIB

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 to the protocol assigned that number.

[Page 1]

NWG/RFC# 739 Assigned Numbers Assigned Link Numbers

#### 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]
72-151	110-227	Reserved	
152	230	PARC Universal Protocol	
153	231	TIP Status Reporting	
154	232	TIP Accounting	
155-158	233-236	Internet Protocol	[35,36]
159-191	237-277	Measurements	[28]
192-195	300-303	Message Switching Protocol	[4,5]
196-255	304-377	Experimental Protocols	

NWG/RFC# 739 Assigned Numbers Assigned Socket Numbers

#### ASSIGNED SOCKET NUMBERS

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 all callers an Initial Connection Procedure ICP [1,34] is used between the user process and the server process. This list specifies the socket used by the server process as its contact socket.

# 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

[Page 3]

Specific Assignments:

Decimal	Octal	Description	References	
	Standard Fu			
1	1	Old Telnet	[6]	
3	3	Old File Transfer	[7,8,9]	
5	5	Remote Job Entry	[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	[22]	
39	47	NSW User System w/SRI FE	[20]	
Host Spec	cific Funct	tions		
65	101	Speech Data Base at LL-TX-2	[23]	
67	103	Datacomputer at CCA	[24]	
69	105	CPYNET		
71	107	NETRJS (EBCDIC) at UCLA-CCN	[25]	
73	111	NETRJS (ASCII) at UCLA-CCN	[25]	
75	113	NETRJS (TTY) at UCLA-CCN	[25]	
77	115	any private RJE server		
79	117	Finger		
81	121	Network BSYS		
95	137	SUPDUP	[33]	
Experimental Functions				
229	345	Garlick's Debugger		
232-237	350-355	Authorized Mailer at BBN		
239	357	Graphics	[1,26]	
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]	

NWG/RFC# 739 Assigned Numbers Assigned Network Numbers

## ASSIGNED NETWORK NUMBERS

This list of network numbers is used in the internetwork protocols now under development, the field is 8 bits in size.

# Assigned Network Numbers

Decimal	Octal	Network
0	0	Reserved
1	1	BBN Packet Radio Network
2	2	SF Bay Area Packet Radio Network (1)
3	3	BBN RCC Network
4	4	Atlantic Satellite Network
5	5	Washington D.C. Packet Radio Network
6	6	SF Bay Area Packet Radio Network (2)
7-9	7-11	Not assigned
10	12	ARPANET
11	13	University College London Network
12	14	CYCLADES
13	15	National Physical Laboratory
14	16	TELENET
15	17	British Post Office EPSS
16	20	DATAPAC
17	21	TRANSPAC
18	22	LCS Network
19	23	TYMNET
20-254	24-376	Unassigned
255	377	Reserved

NWG/RFC# 739 Assigned Numbers Assigned Internet Message Versions

## ASSIGNED INTERNET MESSAGE VERSIONS

In the internetwork protocols there is a field to identify the version of the internetwork general protocol. This field is 4 bits in size.

Assigned Internet Message Versions

Decimal	Octal	Version	References
0	0	Old	[35]
1	1	Current	[36]
2-14	2-16	Unassigned	
15	17	Reserved	

NWG/RFC# 739 Assigned Numbers Assigned Internet Message Formats

## ASSIGNED INTERNET MESSAGE FORMATS

In the internetwork protocols there is a field to identify the format of the host level specific protocol. This field is 8 bits in size.

Assigned Internet Message Formats

Decima:	l Octal	Format	References
0	0	Reserved	
1	1	raw internet	
2	2	TCP-3	[36]
3	3	DSP	[37,38]
2-254	2-376	Unassigned	
255	377	Reserved	

NWG/RFC# 739 Assigned Numbers Assigned Internet Message Types

## ASSIGNED INTERNET MESSAGE TYPES

In the internetwork old protocol there is a field to identify the type of the message. This field is 4 bits in size.

Assigned Internet Message Types

Decimal	Octal	Type
0	0	Escape
1	1	TCP-2
2	2	Secure
3	3	Gateway
4	4	Measurement
5	5	DSP
6	6	UCL
7-12	7-14	Reserved
13	15	Pluribus
14	16	Telenet
15	17	Xnet

#### REFERENCES

- [1] Feinler, E. "ARPANET Protocol Handbook," NIC 7104, Defense Communications Agency, 1 April 1976.
- [2] BBN, "Specifications for the Interconnection of a Host and an IMP," Report 1822, Bolt Beranek and Newman, Cambridge, Massachusetts, January 1976.
- [3] McKenzie, A. "Host/Host Protocol for the ARPA Network," NIC 8246, January 1972.
- [4] Walden, D. "A System for Interrprocess Communication in a Resource Sharing Computer Network," RFC 62, NIC 4962, 3-Aug-70. Also published in Communications of the ACM volume 15, number 4, April 1972.
- [5] Bressler, B. "A Proposed Experiment with a Message Switching Protocol," RFC 333, NIC 9926, 15-May-72.
- [6] Postel, J. "Telnet Protocol," RFC 318, NIC 9348, 3-April-72.
- [7] McKenzie, A. "File Transfer Protocol," NIC 14333, RFC 454, 16-Feb-73.
- [8] Clements, R. "FTPSRV -- Extensions for Tenex Paged Files," RFC 683, NIC 32251, 3-April-75.
- [9] Harvey, B. "One More Try on the FTP," RFC 691, NIC 32700, 6-Jun-75.
- [11] Postel, J. "Echo Process," RFC 347, NIC 10426, 30-May-72.
- [12] Postel, J. "Discard Process," RFC 348, NIC 10427, 30-May-72.
- [13] Postel, J. "Character Generator Process," RFC 429, NIC 13281, 12-Dec-72.
- [14] Neigus, N. "File Transfer Protocol," NIC 17759 RFC 542 12-July-73.
- [15] Postel, J. "Revised FTP Reply Codes," NIC 30843 RFC 640 5-June-74.

- [16] McKenzie, A. "Telnet Protocol Specifications," NIC 18639, August 1973.
- [17] McKenzie, A. "Telnet Option Specification," NIC 18640, August 1973.
- [18] White, J. "A High Level Framework for Network-Based Resource Sharing," RFC 707, NIC 34263, 14 January 1976. Also in NCC Proceedings, AFIPS, June 1976.
- [19] White, J. "Elements of a Distributed Programming System," RFC 708, NIC 34353, 28 January 1976.
- [20] COMPASS. "Semi-Annual Technical Report," CADD-7603-0411,
  Massachusetts Computer Associates, 4 March 1976. Also as,
  "National Software Works, Status Report No. 1,"
  RADC-TR-76-276, Volume 1, September 1976. and COMPASS. "Second Semi-Annual Report," CADD-7608-1611, Massachusetts Computer Associates, 16 August 1976.
- [21] NSW Protocol Committee, "MSG: The Interprocess Communication Facility for the National Software Works," CADD-7612-2411, Massachusetts Computer Associates, BBN 3237, Bolt Beranek and Newman, Revised 24 December 1976.
- [22] Harrenstien, K. "Time Server," RFC 738, NIC 42218, 31-Oct-77.
- [23] Armenti, A., D. Hall, and A. Stone. "Lincoln Speech Data Facility," SUR Note 37, NIC 10917, 14 July 1972.
- [24] CCA, "Datacomputer Version 1 User Manual," Computer Corporation of America, August 1975.
- [25] Braden, R. "Interim NETRJS Specification," RFC 189, NIC 7133, 15-July-71.
- [26] Sproull, R, and E. Thomas. "A Networks Graphics Protocol," NIC 24308, 16-Aug-74.
- [27] Cerf, V., "NCP Statistics," RFC 388, NIC 11360, 23 August 1972.
- [28] Cerf, V., "Formation of a Network Measurement Group (NMG)," RFC 323, NIC 9630, 23 March 1972.

- [29] Bhushan, A., "A Report on the Survey Project," RFC 530, NIC 17375, 22 June 1973.
- [30] Cantor, D., "Storing Network Survey Data at the Datacomputer," RFC 565, NIC 18777, 28 August 1973.
- [31] Bressler, R., "Inter-Entity Communication -- An Experiment," RFC 441, NIC 13773, 19 January 1973.
- [32] Thomas, R. "A Resource Sharing Executive for the ARPANET," AFIPS Conference Proceedings, 42:155-163, NCC, 1973.
- [33] Crispin, M. "SUPDUP Protocol," RFC 734, NIC 41953, 7 October 1977.
- [34] Postel, J. "Official Initial Connection Protocol," NIC 7101, 11 June 1971.
- [35] Cerf, V. "Specification of Internet Transmission Control Program -- TCP (version 2)," March 1977.
- [36] Cerf, V. and J. Postel, "Specification of Internet Transmission Control Program -- TCP-3," November 1977.
- [37] Reed, D. "Protocols for the LCS Network," Local Network Note 3, Laboratory for Computer Science, MIT, 29 November 1976.
- [38] Clark, D. "Revision of DSP Specification," Local Network Note 9, Laboratory for Computer Science, MIT, 17 June 1977.

[Page 11]