

Network Working Group
Request for Comments: 762
Internet Experiment Note: 127

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Obsoletes RFCs: 758, 755,
750, 739, 604, 503, 433, 349
Obsoletes IENS: 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 internetwork, 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 | |
| 34-254 | 42-376 | | 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 | 1 | January 1978 version | [36] |
| 2 | 2 | February 1978 version A | [42] |
| 3 | 3 | February 1978 version B | [43] |
| 4 | 4 | August 1979 version 4 | [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] |
| 19-63 | 23-77 | Unassigned | |
| 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.

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] |
| 55-63 | 67-77 | unassigned | |

Host Specific Functions

| Decimal ----- | Octal ----- | Description ----- | References ----- |
|------------------|----------------|-------------------------------|---------------------|
| 65 | 101 | unassigned | |
| 67 | 103 | Datacomputer at CCA | [24] |
| 69 | 105 | CPYNET | |
| 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 | |
| 86-94 | 126-136 | 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] |
| 72-151 | 110-227 | Reserved | |
| 152 | 230 | PARC Universal Protocol | |
| 153 | 231 | TIP Status Reporting | |
| 154 | 232 | TIP Accounting | |
| 155-158 | 233-236 | Internet Protocol | [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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