

Network Working Group
Request for Comments: 990

J. Reynolds
J. Postel
ISI
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Obsoletes RFCs: 960, 943, 923, 900,
870, 820, 790, 776, 770, 762, 758,
755, 750, 739, 604, 503, 433, 349
Obsoletes IENS: 127, 117, 93

ASSIGNED NUMBERS

Status of this Memo

This memo is an official status report on the numbers used in protocols in the ARPA-Internet community. Distribution of this memo is unlimited.

Introduction

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 Joyce Reynolds. The assignment of numbers is also handled by Joyce. If you are developing a protocol or application that will require the use of a link, socket, port, protocol, network number, etc., please contact Joyce to receive a number assignment.

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Most of the protocols mentioned here are documented in the RFC series of notes. Some of the items listed are undocumented. Further information on protocols can be found in the memo "Official ARPA-Internet Protocols" [114]. The more prominent and more generally used are documented in the "DDN Protocol Handbook" [46] prepared by the NIC. Other collections of older or obsolete protocols are contained in the "Internet Protocol Transition Workbook" [47], or in the "ARPANET Protocol Handbook" [48]. For further information on ordering the complete 1985 DDN Protocol Handbook, write: SRI International, DDN Network Information Center, Room EJ291, 333 Ravenswood Avenue, Menlo Park, California, 94025. Or call: 1-800-235-3155.

The convention in the documentation of Internet Protocols is to express numbers in decimal and to picture data in "big-endian" order [131]. That is, fields are described left to right, with the most significant octet on the left and the least significant octet on the right.

[illegible]

Whenever an octet represents a numeric quantity the left most bit in the diagram is the high order or most significant bit. That is, the bit labeled 0 is the most significant bit. For example, the following diagram represents the value 170 (decimal).

Significance of Bits

[Page 2]

the left most bit of the whole field is the most significant bit.
When a multi-octet quantity is transmitted the most significant octet
is transmitted first.

The network numbers listed here are used as internet addresses by the Internet Protocol (IP) [46,101]. The IP uses a 32-bit address field and divides that address into a network part and a "rest" or local address part. The division takes 3 forms or classes.

| 1 | | | | | | | | | | | | | | | | 2 | | | | | | | | | | | | | | | | 3 | | | | | | | | | | | | | | | |
|---------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | | | | | | | | | | | | | | | | |
| NETWORK | | | | | | | | | | | | | | | | Local Address | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

[illegible]

| | | | | | | | | | | 1 | | | | | | | | | | 2 | | | | | | | | | | 3 | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|------------------------------|---|---|---|---|---|---|---|---|---|------------------------------|---|---|---|---|---|---|---|---|---|------------------------------|---|--|--|--|--|--|--|--|--|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | | | | | | | | |
| +--+--+--+--+--+--+--+--+--+ | | | | | | | | | | +--+--+--+--+--+--+--+--+--+ | | | | | | | | | | +--+--+--+--+--+--+--+--+--+ | | | | | | | | | | +--+--+--+--+--+--+--+--+--+ | | | | | | | | | |
| 1 1 0 | | | | | | | | | | NETWORK | | | | | | | | | | Local Address | | | | | | | | | | | | | | | | | | | |
| +--+--+--+--+--+--+--+--+--+ | | | | | | | | | | +--+--+--+--+--+--+--+--+--+ | | | | | | | | | | +--+--+--+--+--+--+--+--+--+ | | | | | | | | | | +--+--+--+--+--+--+--+--+--+ | | | | | | | | | |

The fourth type of address, class D, is used as a multicast address [44]. The four highest-order bits are set to 1-1-1-0.

```

          1               2               3
0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1
+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+
|1 1 1 0|                                multicast address          |
+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+

```

Class D Address

Note: No addresses are allowed with the four highest-order bits set to 1-1-1-1. These addresses, called "class E", are reserved.

One commonly used notation for internet host addresses divides the 32-bit address into four 8-bit fields and specifies the value of each field as a decimal number with the fields separated by periods. This is called the "dotted decimal" notation. For example, the internet address of B.ISI.EDU in dotted decimal is 010.003.000.052, or 10.3.0.52.

The dotted decimal notation will be used in the listing of assigned network numbers. The class A networks will have nnn.rrr.rrr.rrr, the class B networks will have nnn.nnn.rrr.rrr, and the class C networks will have nnn.nnn.nnn.rrr, where nnn represents part or all of a network number and rrr represents part or all of a local address.

There are four categories of users of Internet Addresses: Research, Defense, Government (Non-Defense), and Commercial. To reflect the allocation of network identifiers among the categories, a one-character code is placed to the left of the network number: R for Research, D for Defense, G for Government, and C for Commercial (see Appendix A for further details on this division of the network identification).

Network numbers are assigned for networks that are connected to the ARPA-Internet and DDN-Internet, and for independent networks that use the IP family protocols (these are usually commercial). These independent networks are marked with an asterisk preceding the number.

The administrators of independent networks must apply separately for permission to interconnect their network with either the ARPA-Internet or the DDN-Internet. Independent networks should not be listed in the working tables of either the ARPA-Internet or DDN-Internet hosts or gateways.

For various reasons, the assigned numbers of networks are sometimes changed. To ease the transition the old number will be listed for a transition period as well. These "old number" entries will be marked with a "T" following the number and preceding the name, and the network name will be suffixed "-TEMP".

Special Addresses:

In certain contexts, it is useful to have fixed addresses with functional significance rather than as identifiers of specific hosts.

The address zero is to be interpreted as meaning "this", as in "this network".

For example, the address 0.0.0.37 could be interpreted as meaning host 37 on this network.

The address of all ones are to be interpreted as meaning "all", as in "all hosts".

For example, the address 128.9.255.255 could be interpreted as meaning all hosts on the network 128.9.

The class A network number 127 is assigned the "loopback" function, that is, a datagram sent by a higher level protocol to a network 127 address should loop back inside the host. No datagram "sent" to a network 127 address should ever appear on any network anywhere.

Assigned Network Numbers

Class A Networks

| * Internet Address | Name | Network | References |
|---------------------------------|------------------|------------------------------|---------------|
| - - - - - | - - - - - | - - - - - | - - - - - |
| 000.rrr.rrr.rrr | | Reserved | [JBP] |
| R 004.rrr.rrr.rrr | SATNET | Atlantic Satellite Network | [SHB] |
| D 006.rrr.rrr.rrr | T YPG-NET-TEMP | Yuma Proving Grounds | [10,BWA] |
| D 007.rrr.rrr.rrr | T EDN-TEMP | DCEC EDN | [EC5] |
| R 008.rrr.rrr.rrr | T BBN-NET-TEMP | BBN Network | [JSG5] |
| R 010.rrr.rrr.rrr | ARPANET | ARPANET | [10,SA2] |
| D 011.rrr.rrr.rrr | DODIIS | DoD INTEL INFO SYS | [AY7] |
| C 012.rrr.rrr.rrr | ATT | ATT, Bell Labs | [MH12] |
| C 013.rrr.rrr.rrr | XEROX-NET | XEROX Internet | [129,JNL1] |
| C 014.rrr.rrr.rrr | PDN | Public Data Network | [REK4] |
| R*015.rrr.rrr.rrr | HP-INTERNET | Hewlett-Packard-Internet | [BXR] |
| R 018.rrr.rrr.rrr | T MIT-TEMP | MIT Network | [23,113,DDC1] |
| D 021.rrr.rrr.rrr | DDN-RVN | DDN-RVN | [MLC] |
| D 022.rrr.rrr.rrr | DISNET | DISNET | [FLM2] |
| D 023.rrr.rrr.rrr | DDN-TC-NET | DDN-TestCell-Network | [DH17] |
| R 025.rrr.rrr.rrr | RSRE-EXP | RSRE | [RNM1] |
| D 026.rrr.rrr.rrr | MILNET | MILNET | [FLM2] |
| R 027.rrr.rrr.rrr | T NOSC-LCCN-TEMP | NOSC / LCCN | [RH6] |
| R 028.rrr.rrr.rrr | WIDEBAND | Wide Band Satellite Net | [CJW2] |
| D 029.rrr.rrr.rrr | T MILX25-TEMP | MILNET X.25 Temp | [MLC] |
| D 030.rrr.rrr.rrr | T ARPAX25-TEMP | ARPA X.25 Temp | [MLC] |
| G 031.rrr.rrr.rrr | UCDLA-NET | UCDLA-CATALOG-NET | [CXL] |
| R 032.rrr.rrr.rrr | UCL-TAC | UCL TAC | [PK] |
| R 035.rrr.rrr.rrr | MERIT | MERIT COMPUTER NETWK | [HWB] |
| R 036.rrr.rrr.rrr | T SU-NET-TEMP | Stanford University Network | [PA5] |
| R 039.rrr.rrr.rrr | T SRINET-TEMP | SRI Local Network | [GEOF] |
| R 041.rrr.rrr.rrr | BBN-TEST-A | BBN-GATE-TEST-A | [RH6] |
| R 044.rrr.rrr.rrr | AMPRNET | Amateur Radio Experiment Net | [HM] |
| 001.rrr.rrr.rrr-003.rrr.rrr.rrr | | Unassigned | [JBP] |
| 005.rrr.rrr.rrr | Unassigned | Unassigned | [JBP] |
| 009.rrr.rrr.rrr | Unassigned | Unassigned | [JBP] |
| 016.rrr.rrr.rrr-017.rrr.rrr.rrr | | Unassigned | [JBP] |
| 019.rrr.rrr.rrr-020.rrr.rrr.rrr | | Unassigned | [JBP] |
| 024.rrr.rrr.rrr | Unassigned | Unassigned | [JBP] |
| 033.rrr.rrr.rrr-034.rrr.rrr.rrr | | Unassigned | [JBP] |
| 037.rrr.rrr.rrr-038.rrr.rrr.rrr | | Unassigned | [JBP] |
| 040.rrr.rrr.rrr | Unassigned | Unassigned | [JBP] |
| 042.rrr.rrr.rrr-043.rrr.rrr.rrr | | Unassigned | [JBP] |
| 045.rrr.rrr.rrr-126.rrr.rrr.rrr | | Unassigned | [JBP] |
| R 127.rrr.rrr.rrr | | Loopback | [JBP] |

Class B Networks

| * Internet Address | Name | Network | References |
|--------------------|--------------|-----------------------------|---------------|
| - - - - - | - - - - - | - - - - - | - - - - - |
| 128.000.rrr.rrr | | Reserved | [JBP] |
| R 128.001.rrr.rrr | BBN-TEST-B | BBN-GATE-TEST-B | [RH6] |
| R 128.002.rrr.rrr | CMU-NET | CMU-Ethernet | [HDW2] |
| R 128.003.rrr.rrr | LBL-CSAM | LBL-CSAM-RESEARCH | [JS38] |
| R 128.004.rrr.rrr | DCNET | LINKABIT DCNET | [78,DLM1] |
| R 128.005.rrr.rrr | FORDNET | FORD DCNET | [78,DLM1] |
| R 128.006.rrr.rrr | RUTGERS | RUTGERS | [CLH3] |
| R 128.007.rrr.rrr | DFVLR | DFVLR DCNET Network | [GB7] |
| R 128.008.rrr.rrr | UMDNET | Univ of Maryland DCNET | [78,DLM1] |
| R 128.009.rrr.rrr | ISI-NET | USC-ISI Local Network | [CMR] |
| R 128.010.rrr.rrr | PURDUE-CS-EN | Purdue Computer Science | [CAK] |
| R 128.011.rrr.rrr | BBN-CRONUS | BBN DOS Project | [72,WXM] |
| R 128.012.rrr.rrr | SU-NET | Stanford University Net | [LB3] |
| D 128.013.rrr.rrr | MATNET | Mobile Access Terminal Net | [SHB] |
| R 128.014.rrr.rrr | BBN-SAT-TEST | BBN SATNET Test Net | [SHB] |
| R 128.015.rrr.rrr | S1NET | LLL-S1-NET | [EAK1] |
| R 128.016.rrr.rrr | UCLNET | University College London | [PK] |
| D 128.017.rrr.rrr | MATNET-ALT | Mobile Access Terminal Alt | [SHB] |
| R 128.018.rrr.rrr | SRINET | SRI Local Network | [GEOF] |
| D 128.019.rrr.rrr | EDN | DCEC EDN | [EC5] |
| D 128.020.rrr.rrr | BRLNET | BRLNET | [10,MJM2] |
| R 128.021.rrr.rrr | SF-PR-1 | SF-1 Packet Radio Network | [JEM] |
| R 128.022.rrr.rrr | SF-PR-2 | SF-2 Packet Radio Network | [JEM] |
| R 128.023.rrr.rrr | BBN-PR | BBN Packet Radio Network | [JAW3] |
| R 128.024.rrr.rrr | ROCKWELL-PR | Rockwell Packet Radio Net | [EHP] |
| D 128.025.rrr.rrr | BRAGG-PR | Ft. Bragg Packet Radio Net | [JEM] |
| D 128.026.rrr.rrr | SAC-PR | SAC Packet Radio Network | [BG5] |
| D 128.027.rrr.rrr | DEMO-PR-1 | Demo-1 Packet Radio Network | [LCS] |
| D 128.028.rrr.rrr | C3-PR-TEMP | Testbed Development PR NET | [BG5] |
| R 128.029.rrr.rrr | MITRE | MITRE Cablenet | [121,TML] |
| R 128.030.rrr.rrr | MIT-NET | MIT Local Network | [DDC1] |
| R 128.031.rrr.rrr | MIT-RES | MIT Research Network | [DDC1] |
| R 128.032.rrr.rrr | UCB-ETHER | UC Berkeley Ethernet | [DAM1] |
| R 128.033.rrr.rrr | BBN-NET | BBN Network | [JSG5] |
| R 128.034.rrr.rrr | NOSC-LCCN | NOSC / LCCN | [RH6] |
| R 128.035.rrr.rrr | CISLTESTNET1 | Honeywell | [60,61,JLM23] |
| R 128.036.rrr.rrr | YALE-NET | YALE NET | [129,JO5] |
| D 128.037.rrr.rrr | YPG-NET | Yuma Proving Grounds | [10,BWA] |
| D 128.038.rrr.rrr | NSWC-NET | NSWC Local Host Net | [RLH2] |
| R 128.039.rrr.rrr | NTANET | NDRE-TIU | [PS3] |
| R 128.040.rrr.rrr | UCL-NET-A | UCL | [RC7] |
| R 128.041.rrr.rrr | UCL-NET-B | UCL | [RC7] |
| R 128.042.rrr.rrr | RICE-NET | Rice University | [129,PGM] |

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|-----------------------------------|---------------|--------------------------|------------|
| R 128.043.rrr.rrr | DRENET | Canada REF ARPANET | [10,JR17] |
| D 128.044.rrr.rrr | WSMR-NET | White Sands Network | [CAS1] |
| C 128.045.rrr.rrr | DEC-WRL-NET | DEC WRL Network | [129,RKJ2] |
| R 128.046.rrr.rrr | PURDUE-NET | Purdue Campus Network | [CAK] |
| D 128.047.rrr.rrr | TACTNET | Tactical Packet Net | [9,KTP] |
| G 128.048.rrr.rrr | UCDLA-NET-B | UCDLA-Network-B | [10,CXL] |
| R 128.049.rrr.rrr | NOSC-ETHER | NOSC Ethernet | [129,RLB3] |
| G 128.050.rrr.rrr | COINS | COINS On-Line Intel Net | [RLS6] |
| G 128.051.rrr.rrr | COINSTNET | COINS TEST NETWORK | [RLS6] |
| R 128.052.rrr.rrr | MIT-AI-NET | MIT AI NET | [129,MDC] |
| R 128.053.rrr.rrr | SAC-PR-2 | SAC PRNET Number 2 | [BG5] |
| R 128.054.rrr.rrr | UCSD | UC San Diego Network | [129,GH29] |
| R*128.055.rrr.rrr | MFENET | LLNL MFE Network | [119,DRP] |
| D 128.056.rrr.rrr | USNA-NET | US Naval Academy Network | [TXS] |
| D 128.057.rrr.rrr | DEMO-PR-2 | Demo-2 Packet Radio Net | [LCS] |
| C*128.058.rrr.rrr | SPAR | Schlumberger PA Net | [129,RXB] |
| R 128.059.rrr.rrr | CU-NET | Columbia University | [129,LH2] |
| D 128.060.rrr.rrr | NRL-LAN | NRL Lab Area Net | [WF3] |
| R*128.061.rrr.rrr | GATECH | Georgia Tech | [129,GXS] |
| R 128.062.rrr.rrr | MCC-NET | MCC Corporate Net | [129,CBD] |
| R 128.063.rrr.rrr | BRL-SUBNET | BRL-SUBNET-EXP | [RBN1] |
| R 128.064.rrr.rrr-128.079.rrr.rrr | | Net Dynamics Exp | [ZSU] |
| D 128.080.rrr.rrr | CECOMNET | CECOM EPR NET | [PFS2] |
| R 128.081.rrr.rrr | SYMBOLICS | SYMBOLICS | [129,CH2] |
| 128.082.rrr.rrr | Unassigned | Unassigned | [JBP] |
| R 128.083.rrr.rrr | UTAAUSTIN | U. Texas Austin | [129,JSQ1] |
| R 128.084.rrr.rrr | CORNELL-NET | Cornell Backbone Net | [129,BN9] |
| C*128.085.rrr.rrr | DRILL-NET | Teleco Drilltech Net | [DBJ] |
| R 128.086.rrr.rrr | MRC | UK.CO.GEC.RL.MRC | [RHC3] |
| R 128.087.rrr.rrr | HIRST | UK.CO.GEC.RL.HRC | [RHC3] |
| R*128.088.rrr.rrr | HP-NET | HEWLETT-PACKARD-NET | [AXG] |
| R 128.089.rrr.rrr | BBN-ENET-TEMP | BBN ETHER NETWORK | [129,SGC] |
| C*128.090.rrr.rrr | PQS | PERQ SYSTEMS CORP | [129,DXS] |
| R 128.091.rrr.rrr | UPENN | UPenn Campus Network | [129,IW5] |
| R 128.092.rrr.rrr | INTELLINET | INTELLICORP NET | [129,DAVE] |
| R*128.093.rrr.rrr | INRIA-ROCQU | INRIA Rocquencourt | [MXA1] |
| R*128.094.rrr.rrr | SYSNET | AT&T SYSNETWORK | [EXY] |
| R 128.095.rrr.rrr | WASHINGTON | Comp Sci Ether Net | [129,RA17] |
| C*128.096.rrr.rrr | BELLCORE-NET | BELLCORE-NET | [PK28] |
| R 128.097.rrr.rrr | UCLANET | UCLA Network | [BJL5] |
| R 128.098.rrr.rrr | RSRE-EN2 | RSRE-EXP-NET-2 | [JXW] |
| C 128.099.rrr.rrr | NORTHROP-NET | Northrop Net | [129,RSM1] |
| R*128.100.rrr.rrr | TORONTO | U. of Toronto Net | [129,BXD] |
| R 128.101.rrr.rrr | UMN | Univ. of Minn. | [SSB] |
| G 128.102.rrr.rrr | AMES-NET | Ames Backbone Net. | [129,MSM1] |
| R 128.103.rrr.rrr | HARV-FIBER | Harvard FiberOp Ether | [129,SB28] |
| R 128.104.rrr.rrr | WISC-HERD | Univ. of Wisconsin | [129,EJN1] |

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|-------------------|--------------|--------------------------|-------------|
| R 128.105.rrr.rrr | WISC-CS | Univ. of Wisconsin | [129,CBP] |
| D 128.106.rrr.rrr | SRI-PSON-1 | ADEA/SRI Ft. Lewis | [ERK3] |
| D 128.107.rrr.rrr | LEWIS-PRNET1 | ADEA/SRI Ft. Lewis | [ERK3] |
| D 128.108.rrr.rrr | LEWIS-PRNET2 | ADEA/SRI Ft. Lewis | [ERK3] |
| R 128.109.rrr.rrr | TUCC-MCNC | TUCC-MCNC NC Net | [JXR] |
| R 128.110.rrr.rrr | UTAH-NET | UTAH-CAMPUS-NET | [JL15] |
| R 128.111.rrr.rrr | UCSB | U of CA, Santa Barbara | [PXH] |
| R 128.112.rrr.rrr | PRINCETON | Princeton University | [LXR] |
| R 128.113.rrr.rrr | RPINET | RPI-LOCALNET | [MS9] |
| R 128.114.rrr.rrr | UCSC | U.C. Santa Cruz Net | [129,JXH] |
| R 128.115.rrr.rrr | LLL-LABNET | LLNL Open Labnet | [BANDY] |
| R 128.116.rrr.rrr | USAN | UNIV SATELLITE NET | [129,BXI] |
| R 128.117.rrr.rrr | UCAR | UNIV CORP ATM RSCH | [129,BXI] |
| R 128.118.rrr.rrr | PENN-STATE | Penn State Network | [SXS1] |
| R 128.119.rrr.rrr | UMASS-CS | UMass COINS Dept LAN | [129,GXW] |
| R 128.120.rrr.rrr | UCDAVIS | U.C. Davis Network | [129,RXH] |
| R 128.121.rrr.rrr | JVNC-NET | John von Neumann Ctr Net | [FXH] |
| R 128.122.rrr.rrr | NYU-NET | NYU Campus Network | [BJR2] |
| R*128.123.rrr.rrr | NMSU | N M State Univ | [129,MXS3] |
| R 128.124.rrr.rrr | T NTA-TEMP | NTARE BF-TO-PDP11 | [TM10] |
| R 128.125.rrr.rrr | USCNET | USC Campus Network | [129,MAB4] |
| R 128.126.rrr.rrr | SDC-PRC | SDC Paoli R&D Center | [129,MXS2] |
| C*128.127.rrr.rrr | FTP-SOFTWARE | FTP Software Net | [JLR4] |
| R 128.128.rrr.rrr | WHOINET | WHOI Campus Net | [ARM5] |
| C*128.129.rrr.rrr | CGI | Carnegie Group | [RXA] |
| R*128.130.rrr.rrr | TUNET-T | TU Wien Terminal Net | [129,GXP1] |
| R*128.131.rrr.rrr | TUNET-F | TU Wien File Net | [129,GXP1] |
| G*128.132.rrr.rrr | RADC-LONS | RADC-LONS Net | [129,GXG] |
| G*128.133.rrr.rrr | AFSC-LONS | AFSC-LONS Net | [129,GXG] |
| R 128.134.rrr.rrr | SDN | System Dev Net | [21,22,HXC] |
| R 128.135.rrr.rrr | U-CHICAGO | UNIVERSITYOFCHICAGO | [129,MC17] |
| R 128.136.rrr.rrr | TEK-ALLNET | Teknowledge-Net | [129,TE2] |
| C*128.137.rrr.rrr | GENNET1 | Genentech Corp Net | [129,SXM1] |
| R 128.138.rrr.rrr | COLORADO | U Colorado Boulder | [129,RXJ1] |
| R 128.139.rrr.rrr | ILAN | Israel Academic Net | [129,DB35] |
| R 128.140.rrr.rrr | EMORY-INET | Emory Internet | [129,SA29] |
| R*128.141.rrr.rrr | CERN-ETHER | DD Main Ethernet | [129,BXS] |
| R*128.142.rrr.rrr | CERN-TOKEN | DD Main IBM Token Ring | [129,BXS] |
| R*128.143.rrr.rrr | VIRGINIA | Univ. of Virginia | [129,JXJ1] |
| R*128.144.rrr.rrr | ARC-CALGARY | Alta Research Calgary | [DXK] |
| R 128.145.rrr.rrr | NYSERNET | NYSERNET | [MXF] |
| R 128.146.rrr.rrr | OHIO-STATE | Ohio State Univ | [RSD2] |
| R 128.147.rrr.rrr | U-PGH-NET | Univ. Pittsburgh Net | [SM6] |
| R 128.148.rrr.rrr | BROWN-UNIV | Brown University Net | [MXR1] |
| G 128.149.rrr.rrr | JPL-NET | JPL Central Net | [MSM1] |
| G 128.150.rrr.rrr | NSF-LAN | NSF-LAN | [FW17] |
| R 128.151.rrr.rrr | UR-NET | Univ. of Rochester | [TXM1] |

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|---------------------------------|-----------|---------------------------|--------|
| C*128.152.rrr.rrr | HAC-VLSI | Hughes Aircraft VLSI Net | [PXH1] |
| R 128.153.rrr.rrr | CLARKSON | Clarkson University | [JXH] |
| G 128.154.rrr.rrr | GSFC-NET | GSFC Central Net | [MSM1] |
| G 128.155.rrr.rrr | LARC-NET | LARC Central Net | [MSM1] |
| G 128.156.rrr.rrr | LERC-NET | LERC Central Net | [MSM1] |
| G 128.157.rrr.rrr | JSC-NET | JSC Central Net | [MSM1] |
| G 128.158.rrr.rrr | MSFC-NET | MSFC Central Net | [MSM1] |
| G 128.159.rrr.rrr | KSC-NET | KSC Central Net | [MSM1] |
| G 128.160.rrr.rrr | NSTL-NET | NSTL Central Net | [MSM1] |
| G 128.161.rrr.rrr | NSN-NET | NASA Science Net | [MSM1] |
| C 128.162.rrr.rrr | CRAY-NET | Cray Research | [DXB] |
| R 128.163.rrr.rrr | UKY-NET | U. of Kentucky Net | [GXB] |
| R 128.164.rrr.rrr | GWU-GATE | George Washington U. | [TXT] |
| G 128.165.rrr.rrr | LANL-INET | LANL Inter-Network | [JC11] |
| D*128.166.rrr.rrr | BAC-NET | Boeing Aerospace Corp Net | [JXJ2] |
| R 128.167.rrr.rrr | SURA | SURAnet | [JXH1] |
| C 128.168.rrr.rrr | GOLDHILL | Gold-Hill-Computers | [GXM] |
| R 128.169.rrr.rrr | UTK | Univ Tenn-Knoxville | [JXC] |
| R 128.170.rrr.rrr | SDC-CAM | SDC Camarillo R&D Net | [DSR] |
| 128.171.rrr.rrr-191.254.rrr.rrr | | Unassigned | [JBP] |
| 191.255.rrr.rrr | | Reserved | [JBP] |

Class C Networks

| * Internet Address | Name | Network | References |
|-----------------------------------|----------------|--------------------------|------------|
| - - - - - | - - - - | - - - - - | - - - - - |
| 192.000.000.rrr | | Reserved | [JBP] |
| R 192.000.001.rrr | BBN-TEST-C | BBN-GATE-TEST-C | [RH6] |
| 192.000.002.rrr-192.000.255.rrr | | Unassigned | [JBP] |
| R 192.001.000.rrr-192.001.004.rrr | | BBN local networks | [SGC] |
| R 192.001.005.rrr | BBN-ENET2 | BBN-ENET2 | [SGC] |
| R 192.001.006.rrr | | BBN local network | [SGC] |
| R 192.001.007.rrr | BBN-ENET | BBN-ENET | [SGC] |
| R 192.001.008.rrr | | BBN local network | [SGC] |
| R 192.001.009.rrr | BBN-ENET3 | BBN-ENET3 | [SGC] |
| R 192.001.010.rrr | BBN-NETR | BBN-NETR | [SGC] |
| R 192.001.011.rrr | BBN-SPC-ENET | BBN-SPC-ENET | [SGC] |
| R 192.001.012.rrr-192.003.255.rrr | | BBN local networks | [SGC] |
| R*192.004.000.rrr-192.004.255.rrr | | BELLCORE-NET | [129,PK28] |
| R 192.005.001.rrr | CISLHYPERNET | Honeywell | [JLM23] |
| R*192.005.002.rrr | UF-NET-A | UF-CIS Dept Ether | [AXW] |
| C 192.005.003.rrr | HP-DESIGN-AIDS | HP Design Aids | [AXG] |
| C 192.005.004.rrr | HP-TCG-UNIX | Hewlett Packard TCG Unix | [AXG] |
| R 192.005.005.rrr | DEC-MRNET | DEC Marlboro Ethernet | [129,KWP] |
| R 192.005.006.rrr | DEC-MRRAD | DEC Marlboro Developmt | [129,KWP] |
| R 192.005.007.rrr | CIT-CS-NET | Caltech-CS-Net | [137,DSW] |
| 192.005.008.rrr | Unassigned | Unassigned | [JBP] |

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|-------------------|----------------|---------------------------|---------------|
| R 192.005.009.rrr | AERONET | Aerospace Labnet | [2,LCN] |
| R 192.005.010.rrr | ECLNET | USC-ECL-CAMPUS-NET | [MAB4] |
| R 192.005.011.rrr | CSS-RING | SEISMIC-RESEARCH-NET | [RR2] |
| R 192.005.012.rrr | UTAH-NET-C | UTAH-COMPUTER-SCIENCE-NET | [GW22] |
| R 192.005.013.rrr | GSWDNET | Compion Network | [129,FAS] |
| R 192.005.014.rrr | RAND-NET | RAND Network | [129,JDG] |
| R 192.005.015.rrr | T NYU-NET-TEMP | NYU Network | [EF5] |
| R 192.005.016.rrr | LANLLAND | Los Alamos Dev LAN | [129,JC11] |
| R 192.005.017.rrr | NRL-NET | Naval Research Lab | [AP] |
| R 192.005.018.rrr | IPTO-NET | ARPA-IPTO Office Net | [SA2] |
| R 192.005.019.rrr | UCIICS | UCI-ICS Res Net | [MTR] |
| R 192.005.020.rrr | CISLTTYNET | Honeywell | [JLM23] |
| D 192.005.021.rrr | BRLNET1 | BRLNET1 | [10,MJM2] |
| D 192.005.022.rrr | BRLNET2 | BRLNET2 | [10,MJM2] |
| D 192.005.023.rrr | BRLNET3 | BRLNET3 | [10,MJM2] |
| D 192.005.024.rrr | BRLNET4 | BRLNET4 | [10,MJM2] |
| D 192.005.025.rrr | BRLNET5 | BRLNET5 | [10,MJM2] |
| D 192.005.026.rrr | NSRDCOA-NET | NSRDC Office Auto Net | [TXC] |
| D 192.005.027.rrr | DTNSRDC-NET | DTNSRDC-NET | [TXC] |
| R 192.005.028.rrr | RSRE-NUL | RSRE-NUL | [RNM1] |
| R 192.005.029.rrr | RSRE-ACC | RSRE-ACC | [RNM1] |
| R 192.005.030.rrr | RSRE-PR | RSRE-PR | [RNM1] |
| R*192.005.031.rrr | SIEMENS-NET | Siemens Research Network | [PXN] |
| R 192.005.032.rrr | CISLTESTNET2 | Honeywell | [60,61,JLM23] |
| R 192.005.033.rrr | CISLTESTNET3 | Honeywell | [60,61,JLM23] |
| R 192.005.034.rrr | CISLTESTNET4 | Honeywell | [60,61,JLM23] |
| R 192.005.035.rrr | RIACS | USRA | [129,RLB1] |
| R 192.005.036.rrr | CORNELL-CS | CORNELL CS Research | [129,DK2] |
| R 192.005.037.rrr | UR-CS-NET | U of R CS 3Mb Net | [129,LB1] |
| R 192.005.038.rrr | SRI-C3ETHER | SRI-AITAD C3ETHERNET | [129,BG5] |
| R 192.005.039.rrr | UDEL-EECIS | Udel EECIS LAN | [129,CC2] |
| R 192.005.040.rrr | PUCC-NET-A | PURDUE Comp Cntr Net | [JRS8] |
| D 192.005.041.rrr | WISLAN | WIS Research LAN | [129,JRM1] |
| D 192.005.042.rrr | HYPER-1ISG | AFDSC Hypernet | [MCA1] |
| R 192.005.043.rrr | CUCSNET | Columbia CS Net | [129,LH2] |
| R 192.005.044.rrr | FARBER-PC-NET | Farber PC Network | [DJF] |
| R 192.005.045.rrr | AIDS-NET | AI&DS Network | [129,KFD] |
| R 192.005.046.rrr | NTA-RING | NDRE-RING | [PS3] |
| R 192.005.047.rrr | NSRDC | NSRDC | [PXM] |
| R 192.005.048.rrr | PURDUE-CS-NET | Purdue CS Ethernet | [129,CAK] |
| R 192.005.049.rrr | UCSF | Univ of Calif, San Fran | [129,TF6] |
| R 192.005.050.rrr | CTH-CS-NET | Chalmers CSN Net | [129,UXB] |
| R 192.005.051.rrr | THEORYNET | Cornell Theory Center | [129,AB13] |
| R 192.005.052.rrr | NLM-ETHER | NLM-LHNCBC-ETHERNET | [129,JA1] |
| R 192.005.053.rrr | UR-CS-ETHER | U of R CS 10Mb Net | [129,LB1] |
| R 192.005.054.rrr | AERO-A6 | Aerospace | [2,LCN] |
| R 192.005.055.rrr | UCLA-CECS | UCLA-CECS Network | [129,RBW] |

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|-----------------------------------|--------------|------------------------|--------------|
| C 192.005.056.rrr | TARTAN-NET | Tartan Labs | [SXB] |
| R 192.005.057.rrr | UDEL-CC | UDEL Comp Center | [129,RR18] |
| R 192.005.058.rrr | CSNET-PDN | CSNET X.25 Network | [68,RDR4] |
| R*192.005.059.rrr | INRIA-SM90 | Inria GIP SM-90 | [MXS] |
| R*192.005.060.rrr | SM90-X1 | Inria SM-90 exp. 1 | [MXS] |
| R*192.005.061.rrr | SM90-X2 | Inria SM-90 exp. 2 | [MXS] |
| R*192.005.062.rrr | LITP-SM90 | LITP SM-90 | [MXS] |
| 192.005.063.rrr | Unassigned | Unassigned | [JBP] |
| R 192.005.064.rrr | AMES-NAS-NET | NASA ARC NAS LAN | [129,MF31] |
| R 192.005.065.rrr | NPRDC-Ether | NPRDC TRCF Ethernet | [LRB] |
| R 192.005.066.rrr | HARV-NET | Harvard Comp Sci Net | [SB28] |
| R 192.005.067.rrr | CECOM-ETHER | CECOM ADDCOMPE ETHER | [129,GIH] |
| R 192.005.068.rrr | AERO-130 | AEROSPACE-130 | [LCN] |
| R 192.005.069.rrr | UIUC-NET | Univ of IL at Urbana | [129,AKC] |
| G 192.005.070.rrr | CELAN | COINS Exper. LAN | [MXM] |
| R 192.005.071.rrr | SAC-ETHER | SAC C3 Ethernet | [129,BG5] |
| R*192.005.072.rrr | U CHICAGO | U Chicago | [TXN] |
| R 192.005.073.rrr | U CHICAGO | U Chicago | [TXN] |
| R*192.005.074.rrr-192.005.087.rrr | | U Chicago | [TXN] |
| R 192.005.088.rrr | YALE-EE-NET | YALE-EE-NET | [129,AG22] |
| R 192.005.089.rrr | HARV-APPOLLO | Harvard University | [4,SB28] |
| R 192.005.090.rrr | HARV-ETHER | Harvard CS Ethernet | [SB28] |
| R 192.005.091.rrr | PURDUE-ECN1 | Purdue ECN | [42,63,GG11] |
| R 192.005.092.rrr | BRAGG-ETHER | SRI Bragg Ether | [129,GIH] |
| R 192.005.093.rrr | SRI-DEMO | SRI Ether Demo | [129,GIH] |
| R*192.005.094.rrr | SDCRDCF-10MB | SDC R&D primary net | [129,DJV1] |
| R*192.005.095.rrr | SDCRDCF-3MB | SDC R&D old net | [129,DJV1] |
| R*192.005.096.rrr | UBC-CS-NET | UBC Comp Sci Net | [129,PXB] |
| R*192.005.097.rrr | UCLA-CS-LNI | UCLA CS LNI Network | [RBW] |
| R*192.005.098.rrr | UCLA-PIC | UCLA PIC Network | [129,RBW] |
| R 192.005.099.rrr | SPACENET | S-1 Workstation Net. | [129,TXW] |
| R*192.005.100.rrr | HCSC-NET | Honeywell CSC Net | [129,TRG4] |
| R 192.005.101.rrr | PUCC-NET-B | Purdue Gateway Network | [JRS8] |
| R 192.005.102.rrr | PUCC-RHF-NET | PUCC RHF Based Net | [JRS8] |
| C*192.005.103.rrr | TYM-NTD-NET | Tymnet NTD Ethernet | [SMF] |
| R 192.005.104.rrr | THINK-INET | Thinking Machines | [129,BJN1] |
| R 192.005.105.rrr | CCA-POND | CCA Ethernet1 (POND) | [129,AL6] |
| C*192.005.106.rrr | BITSTREAM | Bitstream Type Foundry | [129,PXA] |
| R*192.005.107.rrr | PASC-ETHER | IBM PASC Ethernet | [129,GXL] |
| R*192.005.108.rrr | PASC-BB | IBM PASC Broadband | [63,GXL] |
| R*192.005.109.rrr | CWR-JCC-T | ARJCC TOPS-20 NET | [129,JAG3] |
| R*192.005.110.rrr | CWR-JCC-L | ARJCC LOCAL NET | [129,JAG3] |
| R*192.005.111.rrr | CWR-QUAD | Campus QUAD NET | [129,JAG3] |
| R*192.005.112.rrr | CWR-CAISR | CAISR LOCAL NET | [129,JAG3] |
| R*192.005.113.rrr | CWR-CES | CES LOCAL NET | [JAG3] |
| C*192.005.114.rrr | I2-RING-1 | INTERMETRICS PRONET | [129,NXH] |
| C*192.005.115.rrr | I2-ETHER-1 | INTERMETRICS ETHER | [129,NXH] |

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|-------------------|---------------|----------------------|------------|
| R 192.005.116.rrr | BRAGGNET-1 | BRAGG/ADDCOMPE | [129,BG25] |
| R 192.005.117.rrr | BRAGGNET-2 | BRAGG/ADDCOMPE | [129,BG25] |
| R 192.005.118.rrr | BRAGGNET-3 | BRAGG/ADDCOMPE | [129,BG25] |
| R 192.005.119.rrr | BRAGGNET-4 | BRAGG/ADDCOMPE | [129,BG25] |
| R 192.005.120.rrr | BRAGGNET-5 | BRAGG/ADDCOMPE | [129,BG25] |
| R 192.005.121.rrr | BRAGGNET-6 | BRAGG/ADDCOMPE | [129,BG25] |
| R 192.005.122.rrr | BRAGGNET-7 | BRAGG/ADDCOMPE | [129,BG25] |
| R 192.005.123.rrr | BRAGGNET-8 | BRAGG/ADDCOMPE | [129,BG25] |
| R 192.005.124.rrr | BRAGGNET-9 | BRAGG/ADDCOMPE | [129,BG25] |
| R 192.005.125.rrr | BRAGGNET-10 | BRAGG/ADDCOMPE | [129,BG25] |
| R 192.005.126.rrr | BRAGGNET-11 | BRAGG/ADDCOMPE | [129,BG25] |
| R 192.005.127.rrr | BRAGGNET-12 | BRAGG/ADDCOMPE | [129,BG25] |
| R 192.005.128.rrr | BRAGGNET-13 | BRAGG/ADDCOMPE | [129,BG25] |
| R 192.005.129.rrr | BRAGGNET-14 | BRAGG/ADDCOMPE | [129,BG25] |
| R 192.005.130.rrr | BRAGGNET-15 | BRAGG/ADDCOMPE | [129,BG25] |
| R 192.005.131.rrr | BRAGGNET-16 | BRAGG/ADDCOMPE | [129,BG25] |
| R 192.005.132.rrr | BRAGGNET-17 | BRAGG/ADDCOMPE | [129,BG25] |
| R*192.005.133.rrr | PERCEPT-AI | Perceptronics | [KXC] |
| C*192.005.134.rrr | I2-ETHER-2 | Intermetrics | [129,NH2] |
| R 192.005.135.rrr | LL-SPEECH-NET | LL Speech Net | [129,RH60] |
| R 192.005.136.rrr | LL43-LEX-BACK | Lincoln G43-LEX-BACK | [129,BC65] |
| R 192.005.137.rrr | LL43-LEX-SUNA | Lincoln G43-LEX-SUNA | [129,BC65] |
| R 192.005.138.rrr | LL43-LEX-SUNB | Lincoln G43-LEX-SUNB | [129,BC65] |
| R 192.005.139.rrr | LL43-LEX-APO | Lincoln G43-LEX-APO | [129,BC65] |
| R 192.005.140.rrr | LL43-TB-BACK | Lincoln G43-TB-BACK | [129,BC65] |
| R 192.005.141.rrr | LL43-TB-APO | Lincoln G43-TB-APO | [129,BC65] |
| R*192.005.142.rrr | CCVR | CCVR Network | [129,RXD] |
| R 192.005.143.rrr | NWU | NORTHWESTERN | [AXS] |
| R 192.005.144.rrr | CRE-NET | CANADA-CRC-ETHERNET | [JR17] |
| R 192.005.145.rrr | ECRC-SL | ECRC-SL Net | [PXD] |
| R 192.005.146.rrr | CPW-PSC | Pittsburgh SC Center | [MXL] |
| R 192.005.147.rrr | ALV-ETHER | MMDAALVVAX | [LXR] |
| R 192.005.148.rrr | DISE | Dist Sys Eval Envir | [RHS4] |
| R 192.005.149.rrr | RDL-ETHER | RDL | [129,MXS1] |
| G*192.005.150.rrr | SP-ACE-NET | Sperry Space Sys Net | [129,JXM] |
| R 192.005.151.rrr | PENN-STATE-1 | Penn State Network | [SXS1] |
| R 192.005.152.rrr | PENN-STATE-2 | Penn State Network | [SXS1] |
| R 192.005.153.rrr | PENN-STATE-3 | Penn State Network | [SXS1] |
| R 192.005.154.rrr | PENN-STATE-4 | Penn State Network | [SXS1] |
| R 192.005.155.rrr | PENN-STATE-5 | Penn State Network | [SXS1] |
| R 192.005.156.rrr | PENN-STATE-6 | Penn State Network | [SXS1] |
| R 192.005.157.rrr | PENN-STATE-7 | Penn State Network | [SXS1] |
| R 192.005.158.rrr | PENN-STATE-8 | Penn State Network | [SXS1] |
| R 192.005.159.rrr | PENN-STATE-9 | Penn State Network | [SXS1] |
| R 192.005.160.rrr | PENN-STATE-10 | Penn State Network | [SXS1] |
| R 192.005.161.rrr | PENN-STATE-11 | Penn State Network | [SXS1] |
| R 192.005.162.rrr | PENN-STATE-12 | Penn State Network | [SXS1] |

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| C*192.005.163.rrr | I2-SPDNET-1 | I2 SPD Ethernet | [129,NH2] |
| C 192.005.164.rrr | GTEECN | GTE Eng Net | [129,JXE] |
| R 192.005.165.rrr | SDC-CAM-1 | SDC Camarillo R&D Net | [DSR] |
| R*192.005.166.rrr | CRC-WDC-NET | CRC Washington DC | [GEOF] |
| R 192.005.167.rrr | MCC-AI-NET | MCC AI Subnet | [129,CBD] |
| R 192.005.168.rrr | MCC-CAD2-NET | MCC CAD2 Subnet | [129,CBD] |
| R 192.005.169.rrr | MCC-PKG-NET | MCC PKG Subnet | [129,CBD] |
| G 192.005.170.rrr | ANLNET1 | Argonne Network | [129,LW26] |
| G 192.005.171.rrr | ANLNET2 | Argonne Network | [129,LW26] |
| G 192.005.172.rrr | ANLNET3 | Argonne Network | [129,LW26] |
| G 192.005.173.rrr | ANLNET4 | Argonne Network | [129,LW26] |
| G 192.005.174.rrr | ANLNET5 | Argonne Network | [129,LW26] |
| G 192.005.175.rrr | ANLNET6 | Argonne Network | [129,LW26] |
| G 192.005.176.rrr | ANLNET7 | Argonne Network | [129,LW26] |
| G 192.005.177.rrr | ANLNET8 | Argonne Network | [129,LW26] |
| G 192.005.178.rrr | ANLNET9 | Argonne Network | [129,LW26] |
| G 192.005.179.rrr | ANLNET10 | Argonne Network | [129,LW26] |
| G 192.005.180.rrr | ANLNET11 | Argonne Network | [129,LW26] |
| G 192.005.181.rrr | ANLNET12 | Argonne Network | [129,LW26] |
| G 192.005.182.rrr | ANLNET13 | Argonne Network | [129,LW26] |
| G 192.005.183.rrr | ANLNET14 | Argonne Network | [129,LW26] |
| G 192.005.184.rrr | ANLNET15 | Argonne Network | [129,LW26] |
| G 192.005.185.rrr | ANLNET16 | Argonne Network | [129,LW26] |
| G 192.005.186.rrr | ANLNET17 | Argonne Network | [129,LW26] |
| G 192.005.187.rrr | ANLNET18 | Argonne Network | [129,LW26] |
| G 192.005.188.rrr | ANLNET19 | Argonne Network | [129,LW26] |
| G 192.005.189.rrr | ANLNET20 | Argonne Network | [129,LW26] |
| G 192.005.190.rrr | ANLNET21 | Argonne Network | [129,LW26] |
| G 192.005.191.rrr | ANLNET22 | Argonne Network | [129,LW26] |
| G 192.005.192.rrr | ANLNET23 | Argonne Network | [129,LW26] |
| G 192.005.193.rrr | ANLNET24 | Argonne Network | [129,LW26] |
| G 192.005.194.rrr | ANLNET25 | Argonne Network | [129,LW26] |
| G 192.005.195.rrr | ANLNET26 | Argonne Network | [129,LW26] |
| G 192.005.196.rrr | ANLNET27 | Argonne Network | [129,LW26] |
| G 192.005.197.rrr | ANLNET28 | Argonne Network | [129,LW26] |
| G 192.005.198.rrr | ANLNET29 | Argonne Network | [129,LW26] |
| G 192.005.199.rrr | ANLNET30 | Argonne Network | [129,LW26] |
| G 192.005.200.rrr | ANLNET31 | Argonne Network | [129,LW26] |
| G 192.005.201.rrr | ANLNET32 | Argonne Network | [129,LW26] |
| R 192.005.202.rrr | FMC-CEL | FMC-CEL Host Net | [129,BXL1] |
| R*192.005.203.rrr | OKSTATE-CS | Okla. St. CS Network | [129,MXV] |
| R 192.005.204.rrr | SKL-ENET | Canada_SKL_ethernet | [JR17] |
| R*192.005.205.rrr | ARC-CALGARY | Alta Research Calgary | [DXK] |
| R 192.005.206.rrr | BU-MATHNET | BU-MATHNET | [BS24] |
| R 192.005.207.rrr | BU-CHEMNET | BU-CHEMNET | [BS24] |
| R 192.005.208.rrr | BU-CLANNET | BU-CLANNET | [BS24] |
| D 192.005.209.rrr | SSDF-CDCNET | CDC-DDN-DEVELOPMENT | [RXE] |

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|-----------------------------------|-----------------|---------------------------|------------|
| G 192.005.210.rrr | ECSNET | Embedded Comp Sys Net | [CAL7] |
| R 192.005.211.rrr | INTEL-IWARP | Intel iWarp Net | [129,BT5] |
| R 192.005.212.rrr | T EMORY-INET4 | Emory Internet 4 | [SA29] |
| R 192.005.213.rrr | HARRIS | Harris-GSSNet | [DXT1] |
| C*192.005.214.rrr | DECUACNET | Decuac Network | [129,FXA] |
| R 192.005.215.rrr | MASONNET | GMU Network | [129,TH15] |
| R*192.005.216.rrr | NTT-NET | NTT Research Lab Net | [129,YXS] |
| R 192.005.217.rrr | YALE-ZOO-NET | Yale Apollo Ed Net | [RC77] |
| R 192.005.218.rrr | ARINC-GW-NET | Yale Apollo Ed Net | [YXN] |
| R 192.005.219.rrr | CLEMSON | Clemson Univ Comp Center | [DXB] |
| C*192.005.220.rrr | SCCNET | SPACECOM IP Network | [MXO] |
| C*192.005.221.rrr | CSC-LONS | CSC-LONS Network | [129,GXG] |
| C*192.005.222.rrr | CSC-OIS | CSC-OIS Network | [129,GXG] |
| R*192.005.223.rrr | HWELL-RE | HWELL-RES-D-ENGRG | [129,PPX] |
| D*192.005.224.rrr | HAIC-NET | Hughes AI Center Net | [129,DXK] |
| C*192.005.225.rrr-192.005.236.rrr | | GE CALMA BLOCK | [129,TRX] |
| C*192.005.237.rrr | PRIME-AI | Prime AI CAD/CAM | [112,NXS] |
| C*192.005.238.rrr | PALLADIAN-1 | Palladian-IN1 | [CSTACY] |
| C*192.005.239.rrr | PALLADIAN-2 | Palladian-RING | [CSTACY] |
| C*192.005.240.rrr | PALLADIAN-3 | Palladian-IN2 | [CSTACY] |
| R 192.005.241.rrr | USC-CYPRESS | USC Cypress Network | [27,DXE] |
| C*192.005.242.rrr | MOT-ASIC | Motorola Chandler LAN | [GXW1] |
| C*192.005.243.rrr | MOT-MESA | Motorola Mesa LAN | [GXW1] |
| C*192.005.244.rrr | MOT-DOVER | Motorola Dover LAN | [GXW1] |
| C*192.005.245.rrr | MOT-PRICE | Motorola Prince Road LAN | [GXW1] |
| C*192.005.246.rrr | MOT-PICO | Motorola Pico LAN | [GXW1] |
| C*192.005.247.rrr | MOT-52ND | Motorola Semi MIS LAN | [GXW1] |
| C*192.005.248.rrr | MOT-AUSTIN | Motorola Austin LAN | [GXW1] |
| C*192.005.249.rrr | MOT-OAKHILL | Motorola Oakhill LAN | [GXW1] |
| C*192.005.250.rrr | MOT-TELAVIV | Motorola Tel Aviv LAN | [GXW1] |
| C*192.005.251.rrr | MOT-GENEVA | Motorola Geneva LAN | [GXW1] |
| C*192.005.252.rrr | MOT-TOKYO | Motorola Tokyo LAN | [GXW1] |
| C*192.005.253.rrr | MOT-HONGKONG | Motorola Hongkong LAN | [GXW1] |
| R*192.005.254.rrr | ANSA | ANSA Project | [129,DXO] |
| 192.005.255.rrr | Unassigned | Unassigned | [JBP] |
| C*192.006.000.rrr-192.006.255.rrr | | Hewlett Packard | [AXG] |
| C*192.007.000.rrr-192.007.255.rrr | | Computer Consoles, Inc. | [RA11] |
| C*192.008.000.rrr-192.008.255.rrr | | Spartacus Computers, Inc. | [SXM] |
| C*192.009.000.rrr-192.009.255.rrr | | SUN Microsystems, Inc. | [BN4] |
| C*192.010.000.rrr-192.010.040.rrr | | Symbolics, Inc. | [CH2] |
| R 192.010.041.rrr | T SCRC-ETHERNET | SCRC ETHERNET | [129,CH2] |
| C*192.010.042.rrr-192.010.255.rrr | | Symbolics, Inc. | [CH2] |
| C*192.011.000.rrr-192.011.255.rrr | | ATT, Bell Labs | [MH12] |
| 192.012.000.rrr | Unassigned | Unassigned | [JBP] |
| 192.012.001.rrr | Unassigned | Unassigned | [JBP] |
| 192.012.002.rrr | Unassigned | Unassigned | [JBP] |
| C*192.012.003.rrr | FLAIR | Fairchild AI Lab Net | [129,AMS1] |

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| C*192.012.004.rrr | SCG-NET | Hughes SCG Net | [132,MXP] |
| R 192.012.005.rrr | AIC-LISPMS | SRI-AIC-LispMachNet | [129,PM4] |
| R 192.012.006.rrr | NPS-C2 | NPS-C2 | [129,AW9] |
| R 192.012.007.rrr | T NYU-CS-ETHER | NYU CompSci Ethernet | [129,LOU] |
| D 192.012.008.rrr | PICANET1 | Picatinny Arsenal LAN1 | [129,RFD1] |
| R 192.012.009.rrr | T CADRE-NET | Decision Systems Lab | [SM6] |
| R 192.012.010.rrr | CORNELL-ENG | Cornell-Engineering | [129,BN9] |
| R 192.012.011.rrr | MIT-TEST | MIT Gateway TEST NET | [129,NC3] |
| 192.012.012.rrr | Unassigned | Unassigned | [JBP] |
| R 192.012.013.rrr | JHU-NET1 | JHU-NET1 | [129,MO14] |
| R 192.012.014.rrr | JHU-NET2 | JHU-NET2 | [129,MO14] |
| R 192.012.015.rrr | BROOKNET | BNL Brooknet III | [129,GC] |
| R 192.012.016.rrr | PRMNET | SRI-SURAN-EN | [129,BP17] |
| G 192.012.017.rrr | LLL-TIS-NET | LLL-TIS-NET | [129,132,NAL] |
| R 192.012.018.rrr | CIT-CS-10NET | Caltech 10Meg EtherNet | [137,AD22] |
| R 192.012.019.rrr | CIT-NET | Caltech Campus Net | [137,AD22] |
| R 192.012.020.rrr | CIT-SUN-NET | Caltech Sun Net | [137,AD22] |
| R 192.012.021.rrr | CIT-PHYSCOMP | Caltech Phys Comp Net | [137,AD22] |
| R 192.012.022.rrr | UTCSRES | UTCS Net Research | [129,JSQ1] |
| R 192.012.023.rrr | UTCSTTY | UTCS TTY Kludgenet | [129,JSQ1] |
| R 192.012.024.rrr | MICANET | MITRE (Experimental) | [WDL] |
| R 192.012.025.rrr | CSS-GRAMINAE | CSS Workstation Net | [62,RR2] |
| R 192.012.026.rrr | NOSC-NETR | Net-R Testbed at BBN | [116,CP10] |
| R 192.012.027.rrr | UR-LASER | UR Laser Energetics | [129,WXL] |
| R*192.012.028.rrr | RIACS-X-NET | RIACS-Experimental-Net | [DG28] |
| D 192.012.029.rrr | RF-EVANS | ADDCOMPE DC3 LAN1 | [129,MB31] |
| D 192.012.030.rrr | RF-HEX-A | ADDCOMPE DC3 LAN2 | [129,MB31] |
| D 192.012.031.rrr | USNA-ENET | USNA Engineering Net | [129,TXS] |
| R*192.012.032.rrr | CMU-VINEYARD | CMU File Cluster Net | [129,MXK] |
| R 192.012.033.rrr | SRI-CSL-NET | SRI-CSL 10MB Ethernet | [GEOF] |
| C*192.012.034.rrr-192.012.043.rrr | | Schlumberger PA Net | [129,RXB] |
| R 192.012.044.rrr | T NRTC-NET | Northrop Research Net | [129,RSM1] |
| R 192.012.045.rrr | ACC-SB-IMP-NET | ACC Santa Barbara IMP | [AB20] |
| R 192.012.046.rrr | ACC-SB-ETHER | ACC Santa Barbara Ethernet | [AB20] |
| R 192.012.047.rrr | UMN-UCC-NET | Univ. of Minnesota | [RG12] |
| G 192.012.048.rrr | AMES-ED-EXPNET | Code ED Exp. Net. | [129,MSM1] |
| G 192.012.049.rrr | AMES-ED-NET | Code ED IP Net | [129,MSM1] |
| G 192.012.050.rrr | AMES-DB-NET | Ames DBridge Net | [129,MSM1] |
| R 192.012.051.rrr | THINK-CHAOS | TMC Chaos | [129,BJN1] |
| R*192.012.052.rrr | NEURO-NET | NEURO-NET | [129,JXB] |
| R*192.012.053.rrr | PU-LCA | Princeton U. LCA | [129,CXH] |
| R 192.012.054.rrr | AERO-A3 | Aerospace | [AWS3] |
| R 192.012.055.rrr | HAZ-LPR-BETA | Hazeltine LPR Net | [129,KXK] |
| R 192.012.056.rrr | UTAH-AP-NET | Utah-Appolo-Ring-Net | [JL15] |
| R 192.012.057.rrr | MCC-CAD-NET | MCC CAD Subnet | [129,CBD] |
| R 192.012.058.rrr | MCC-PP-NET | MCC AI Subnet | [129,CBD] |
| R 192.012.059.rrr | MCC-DB-NET | MCC DB Subnet | [129,CBD] |

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| R 192.012.060.rrr | MCC-HI-NET | MCC HI Subnet | [129,CBD] |
| R 192.012.061.rrr | MCC-SW-NET | MCC SW Subnet | [129,CBD] |
| R 192.012.062.rrr | DREA-ENET | DREA Lisp & Vaxen | [129,GLH5] |
| R 192.012.063.rrr | CYPRESS | CYPRESS Serial Net | [CAK] |
| D 192.012.064.rrr | LOGNET | Logistics Net GW | [10,JR15] |
| D 192.012.065.rrr | HELNET1 | HELNET1 | [129,MJM2] |
| D 192.012.066.rrr | HELNET2 | HELNET2 | [129,MJM2] |
| D 192.012.067.rrr | HELNET3 | HELNET3 | [MJM2] |
| G 192.012.068.rrr | ORNL-MSRNET | ORNL Local Area Net | [10,HD] |
| R 192.012.069.rrr | UA-CS-NET | UNIV. OF ARIZ-CS DEPT | [129,BM40] |
| R 192.012.070.rrr | NPRDC-IPD | NPRDC-IPD REMOTE ETHERNET | [LRB] |
| R 192.012.071.rrr | NPRDC-ISG | NPRDC-ISG REMOTE ETHERNET | [LRB] |
| R 192.012.072.rrr | ULCC | UK.AC.ULCC | [RHC3] |
| R 192.012.073.rrr | BTRL | UK.CO.BT-RESEARCH-LABS | [RHC3] |
| R*192.012.074.rrr | APPLE-ETHER | APPLE COMPUTER ETHER | [129,RXJ] |
| R*192.012.075.rrr | PASC-RING | IBM PASC TOKEN RING | [GXL] |
| R*192.012.076.rrr | UQ-NET | UNIV. OF QLD NETWORK | [129,AXH] |
| C*192.012.077.rrr | PRIME | PRIME COMPUTER, INC. | [FXS] |
| C*192.012.078.rrr | GENNET | GENENTECH NET | [129,SXM] |
| C*192.012.079.rrr | SLI | SOFTWARE LEVERAGE INC. | [MXG] |
| R 192.012.080.rrr | CAEN | UMICH-CAEN | [HWB] |
| R 192.012.081.rrr | YALE-RING-NET | YALE RESEARCH RING | [RC77] |
| C 192.012.082.rrr | CU-CC-NET | Columbia CC Net | [129,BC14] |
| G 192.012.083.rrr | UCDLA-EXNET | UCDLA EXPERIMENTAL NET | [CXL] |
| G 192.012.084.rrr | UCDLA-PCNET | UCDLA PERSONAL NET | [CXL] |
| G 192.012.085.rrr | UCDLA-OPNET | UCDLA OPTICAL DISK | [CXL] |
| G 192.012.086.rrr | UCDLA-RADNET | UCDLA PACKET RADIO | [CXL] |
| G 192.012.087.rrr | UCDLA-CSLNET | UCDLA STATE LIBRARY | [CXL] |
| R*192.012.088.rrr | RUTGERS-NWK | RUTGERS, NEWARK | [DXB] |
| R 192.012.089.rrr | SBSC-CSDEPT-1 | SB Computer Science | [JXS] |
| R 192.012.090.rrr | SBSC-CSDEPT-2 | SB Computer Science | [JXS] |
| R 192.012.091.rrr | RPICSNET0 | RPICS-LOCALNET-0 | [MS9] |
| R 192.012.092.rrr | RPICSNET1 | RPICS-LOCALNET-1 | [MS9] |
| R 192.012.093.rrr | RPICSNET2 | RPICS-LOCALNET-2 | [MS9] |
| R 192.012.094.rrr | RPICSNET3 | RPICS-LOCALNET-3 | [MS9] |
| R 192.012.095.rrr | RPICSNET4 | RPICS-LOCALNET-4 | [MS9] |
| R 192.012.096.rrr | RPICSNET5 | RPICS-LOCALNET-5 | [MS9] |
| R 192.012.097.rrr | RPICSNET6 | RPICS-LOCALNET-6 | [MS9] |
| R 192.012.098.rrr | RPICSNET7 | RPICS-LOCALNET-7 | [MS9] |
| R 192.012.099.rrr | RPICSNET8 | RPICS-LOCALNET-8 | [MS9] |
| R 192.012.100.rrr | RPICSNET9 | RPICS-LOCALNET-9 | [MS9] |
| R*192.012.101.rrr | OSU-CGRG | OSU Computer Graphics | [129,KXS] |
| G 192.012.102.rrr | AMES-NAS-HY | AMES NAS HY NET | [MF31] |
| R 192.012.103.rrr | CSU-USCETHER | Colorado State Univ Nets | [RXB1] |
| R 192.012.104.rrr | CSUNRELEETHER | Colorado State Univ Nets | [RXB1] |
| R 192.012.105.rrr | CSU-ASYNC | Colorado State Univ Nets | [RXB1] |
| R 192.012.106.rrr | CSU-LANCE | Colorado State Univ Nets | [RXB1] |

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| R 192.012.107.rrr | CSU-ATMOS | Colorado State Univ Nets | [RXB1] |
| R 192.012.108.rrr | CSU-UCC-ETHER | Colorado State Univ Nets | [RXB1] |
| R*192.012.109.rrr-192.012.118.rrr | | Colorado State Univ Nets | [RXB1] |
| G 192.012.119.rrr | ICST | ICST Network | [129,JCN2] |
| D 192.012.120.rrr | MITRE-B-NET | MITRE BEDFORD ETHER | [BSW] |
| R*192.012.121.rrr | FSUCS | FSU COMPUTER SCIENCE 1 | [TXB] |
| R*192.012.122.rrr | FSUCS2 | FSU COMPUTER SCIENCE 2 | [TXB] |
| G 192.012.123.rrr | AMES-CCF-NET | AMES CCF NETWORK | [129,MSM1] |
| D 192.012.124.rrr | ETL-LAN | ETL LOCAL AREA NET | [129,WWS] |
| D 192.012.125.rrr | CRDC-NET1 | CRDC-NET1 | [129,JXY] |
| D 192.012.126.rrr | CRDC-NET2 | CRDC-NET2 | [129,JXY] |
| R 192.012.127.rrr | LL-MI-NET | LL-Machine Intell. | [129,GAA] |
| R 192.012.128.rrr | AITAC-ADMIN | SRI-AITAC ADMIN NET | [129,DVC] |
| C*192.012.129.rrr | SYM-CAN | Symbolics/Canada | [MXH] |
| R 192.012.130.rrr | SDC-SM | SDC Santa Monica | [CAS] |
| R 192.012.131.rrr | SAC-ADMIN | SRI-SAC ADMIN NET | [129,KMC3] |
| R 192.012.132.rrr | LLL-MON | LLL Open Labnet-1 | [129,BANDY] |
| R 192.012.133.rrr | LLL-TUE | LLL Open Labnet-2 | [129,BANDY] |
| R 192.012.134.rrr | LLL-WED | LLL Open Labnet-3 | [129,BANDY] |
| R 192.012.135.rrr | LLL-THU | LLL Open Labnet-4 | [129,BANDY] |
| R 192.012.136.rrr | LLL-FRI | LLL Open Labnet-5 | [129,BANDY] |
| R 192.012.137.rrr | LLL-SAT | LLL Open Labnet-6 | [129,BANDY] |
| R 192.012.138.rrr | LLL-SUN | LLL Open Labnet-7 | [129,BANDY] |
| D 192.012.139.rrr | JTELS-BEN-GW | JUMPS Teleprocessing | [RR26] |
| R*192.012.140.rrr | INFERENCE | INFERENCE | [DXT] |
| R 192.012.141.rrr | CSS-ETHER | CSS Workstation Net 2 | [RA11] |
| C*192.012.142.rrr | SENTRY | Sentry Adv. Prod. Net | [LXL] |
| C*192.012.143.rrr | VHSIC-NET | Sentry VHSIC Test | [LXL] |
| R 192.012.144.rrr | ECRCNET | ECRC Internet | [129,PXD] |
| C*192.012.145.rrr-192.012.154.rrr | | RCA-CADNET | [129,RXG] |
| C*192.012.155.rrr-192.012.170.rrr | | MTCS-CUST | [SXF] |
| D 192.012.171.rrr | PICANET2 | Picatinny Arsenal 2 | [RFD1] |
| R 192.012.172.rrr | ROCKWELLENET | ROCKWELL ETHERNET | [NG] |
| R 192.012.173.rrr | AERO-D8 | Aerospace | [AWS3] |
| R*192.012.174.rrr-192.012.183.rrr | | TORONTO | [129,BXD] |
| R 192.012.184.rrr | DSPO-NET | BRL Hyper Proj Net | [BT5] |
| R 192.012.185.rrr | BU-NET | BU COMPUTING | [BS24] |
| R 192.012.186.rrr | BU-ACCNET | BU ACADEMIC | [BS24] |
| R 192.012.187.rrr | BU-BROADB | BU BROADBAND | [BS24] |
| R 192.012.188.rrr | BU-SCINET | BU SCIENCE | [BS24] |
| R 192.012.189.rrr | BU-ENGNET | BU ENGINEERING | [BS24] |
| R 192.012.190.rrr | BU-DSGNET | BU DIST SYS | [BS24] |
| R 192.012.191.rrr | BU-MEDNET | BU MED SCHOOL | [BS24] |
| R 192.012.192.rrr | CNUCE-LAN1 | CNR Pisa Ethernet | [ABB2] |
| R 192.012.193.rrr | CNUCE-LAN2 | CNR Pisa Ethernet | [ABB2] |
| R 192.012.194.rrr | CNUCE-LAN3 | CNR Pisa Ethernet | [ABB2] |
| R 192.012.195.rrr | SDC-PRC | SDC Paoli R&D Center | [MXS2] |

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| D 192.012.196.rrr | JHUAPL-NET | JHU APL Net | [129,SAK3] |
| D 192.012.197.rrr | ACATT-ETHER1 | ADEA/CECOM Adv Tech | [129,ERK3] |
| D 192.012.198.rrr | ACATT-ETHER2 | ADEA/CECOM Adv Tech | [129,ERK3] |
| D 192.012.199.rrr | LEWIS-ETHER1 | ADEA/SRI Ft. Lewis | [129,ERK3] |
| D 192.012.200.rrr | SRI-PSON-10 | ADEA/SRI Ft. Lewis | [129,ERK3] |
| D 192.012.201.rrr | SRI-PSON-11 | ADEA/SRI Ft. Lewis | [129,ERK3] |
| D 192.012.202.rrr | SRI-PSON-12 | ADEA/SRI Ft. Lewis | [129,ERK3] |
| D 192.012.203.rrr | SRI-PSON-13 | ADEA/SRI Ft. Lewis | [129,ERK3] |
| D 192.012.204.rrr | SRI-PSON-14 | ADEA/SRI Ft. Lewis | [129,ERK3] |
| R 192.012.205.rrr | OHIO-STATE1 | Ohio State Univ. | [RSD2] |
| R 192.012.206.rrr | INDIANA | Indiana-Bloomington | [BXS1] |
| R 192.012.207.rrr | SUPERCOMP | SDSC-Supercomputer | [SIP] |
| R 192.012.208.rrr | TEK-NET | Teknowledge-Net | [TE2] |
| R 192.012.209.rrr | NSF | NSF Internal Net | [FXW] |
| R*192.012.210.rrr | NORTHEASTERN | Northeastern Univ. | [CXJ] |
| R 192.012.211.rrr | JVNC | NSF/JVNC Net | [HXH] |
| R 192.012.212.rrr | RAND-NET2 | RAND-NET2 | [JDG] |
| R 192.012.213.rrr | RAND-NET3 | RAND-NET3 | [JDG] |
| R*192.012.214.rrr | BUFFALO-CS | SUNY/Buffalo-CS-Ether | [129,JRL8] |
| R 192.012.215.rrr | XDRENET | DRE X.25 COMPONENT | [JR17] |
| R 192.012.216.rrr | STEVENS-TECH | Stevens Inst of Tech | [129,RXM] |
| R 192.012.217.rrr | T EMORY-INET1 | Emory Internet | [129,SA29] |
| R 192.012.218.rrr | T EMORY-INET2 | Emory Internet | [129,SA29] |
| R 192.012.219.rrr | T EMORY-INET3 | Emory Internet | [129,SA29] |
| R 192.012.220.rrr-192.012.234.rrr | | UWISC-IPNET | [129,EJN1] |
| R*192.012.235.rrr | IDA-NET | Comp Sc Linkoping S | [MXA2] |
| R 192.012.236.rrr | CITNET | CIT Campus Net | [129,CXB] |
| R*192.012.237.rrr | HCSC-APOLLO | Honeywell CSC Apollo | [4,TRG4] |
| R*192.012.238.rrr | CU-BOULDER | CU Boulder Campus | [129,DXW] |
| R*192.012.239.rrr | CU-ACS | CU ACS Net | [129,DXW] |
| R*192.012.240.rrr | CU-ENGINEER | CU Engineering Net | [129,DXW] |
| R*192.012.241.rrr | CU-SUNNET | CU Sun Net | [129,DXW] |
| R*192.012.242.rrr | CU-CER | CU CER Net | [129,DXW] |
| R*192.012.243.rrr | CU-OT | CU Office Tower | [129,DXW] |
| R*192.012.244.rrr | CU-ENTERPRISE | CU ECE Sun Net | [129,DXW] |
| R*192.012.245.rrr | CU-LASP | CU LASP Net | [129,DXW] |
| R*192.012.246.rrr | CU-JILA | CU JILA Net | [129,DXW] |
| R*192.012.247.rrr | CU-PHYSICS | CU Physics Net | [129,DXW] |
| R*192.012.248.rrr | CU-PSYCHOLOGY | CU Psychology Net | [129,DXW] |
| R*192.012.249.rrr | CU-MCDB | CU MCDB Net | [129,DXW] |
| R*192.012.250.rrr | CU-AI | CU AI Consortium | [129,DXW] |
| R*192.012.251.rrr | CU-CHEMISTRY | CU Chemistry Net | [129,DXW] |
| R 192.012.252.rrr | LL-VENET1 | Linclon Labs Venet1 | [129,BC65] |
| R 192.012.253.rrr | LL-VENET2 | Linclon Labs Venet2 | [129,BC65] |
| R 192.012.254.rrr | LL-APOLLO | Linclon Labs Apollo | [129,BC65] |
| R 192.012.255.rrr | LL-ENET | Linclon Labs Enet | [129,BC65] |
| D 192.013.000.rrr-192.014.255.rrr | | DODIIS Subnetworks | [AY5] |

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| C*192.015.000.rrr-192.015.255.rrr | NBINET | [WW2] |
| G 192.016.000.rrr-192.016.049.rrr | LANLLAN | [129,JC11] |
| R 192.016.050.rrr-192.016.071.rrr | RPI-LOCALNETS | [129,MS9] |
| R 192.016.072.rrr | UTCHPC | [129,WCB3] |
| R 192.016.073.rrr | UTDALLAS | [129,WCB3] |
| R 192.016.074.rrr | UTABRC | [129,WCB3] |
| C*192.016.075.rrr-192.016.122.rrr | CSC-BLOCK | [129,GXG] |
| R*192.016.123.rrr-192.016.154.rrr | Swedish Network | [BXE] |
| R*192.016.155.rrr-192.016.166.rrr | CERN-Block | [BXS] |
| R 192.016.167.rrr | YALE-HP-NET | [RC77] |
| D 192.016.168.rrr | PICANET3 | [RFD1] |
| D 192.016.169.rrr | NRL-HUBNET | [MPM] |
| C 192.016.170.rrr | TWG-DEMO-NET | [JXS1] |
| R 192.016.171.rrr | MACOM | [JXA] |
| 192.016.172.rrr-192.016.255.rrr | Unassigned | [JBP] |
| R*192.017.000.rrr-192.017.255.rrr | NIBELUNG | [MXA] |
| C*192.018.000.rrr-192.018.255.rrr | SUN Microsystems, Inc. | [BN4] |
| C*192.019.000.rrr-192.019.255.rrr | SYSNET-2 | [EXY] |
| C*192.020.000.rrr-192.020.255.rrr | ATT-MD-NET | [129,MH12] |
| C*192.021.000.rrr-192.021.255.rrr | FORMATIVE | [SXB] |
| C*192.022.000.rrr-192.022.255.rrr | APPLICON | [AXS1] |
| C*192.023.000.rrr-192.023.255.rrr | FACTNET | [JXB] |
| C*192.024.000.rrr-192.024.255.rrr | CHROMATICS | [RXB2] |
| R*192.025.000.rrr-192.024.255.rrr | Hewlett Packard | [SXI] |
| D*192.026.000.rrr | ACSAD | [SXH] |
| R 192.026.001.rrr | MCC-DB1-NET | [CBD] |
| R 192.026.002.rrr | MCC-DB2-NET | [CBD] |
| R 192.026.003.rrr | MCC-DB3-NET | [CBD] |
| R 192.026.004.rrr | MCC-DB4-NET | [CBD] |
| R 192.026.005.rrr | MCC-DB5-NET | [CBD] |
| R 192.026.006.rrr | MCC-DB6-NET | [CBD] |
| R 192.026.007.rrr | SPAWAR | [JK7] |
| 192.026.008.rrr | Unassigned | [JBP] |
| R*192.026.009.rrr | ICOT | [SXT] |
| R 192.026.010.rrr | GALLAUDET | [KXC] |
| D 192.026.011.rrr | NRL-HUBNET1 | [MPM] |
| D 192.026.012.rrr | NRL-HUBNET2 | [MPM] |
| D 192.026.013.rrr | NRL-HUBNET3 | [MPM] |
| D 192.026.014.rrr | NRL-HUBNET4 | [MPM] |
| D 192.026.015.rrr | NRL-HUBNET5 | [MPM] |
| D 192.026.016.rrr | NRL-HUBNET6 | [MPM] |
| D 192.026.017.rrr | NRL-HUBNET7 | [MPM] |
| D 192.026.018.rrr | NRL-HUBNET8 | [MPM] |
| D 192.026.019.rrr | NRL-HUBNET9 | [MPM] |
| R*192.026.020.rrr | NJIT-NET | [BXC] |
| R 192.026.021.rrr | SDC-PRC-SW | [MXS2] |
| R 192.026.022.rrr | SDC-PRC-LBS | [MXS2] |

| | | | | |
|----|---------------------------------|------------|----------------------|--------|
| R | 192.026.023.rrr | SDC-PRC-SA | SDC/PAOLI SYS ARCH | [MXS2] |
| R | 192.026.024.rrr | SDC-PRC-CR | SDC/PAOLI COMP RES | [MXS2] |
| R | 192.026.025.rrr | LUCID | Lucid Network | [BXM] |
| | 192.026.026.rrr-192.026.255.rrr | | Unassigned | [JBP] |
| C* | 192.027.000.rrr-192.027.255.rrr | | Hughes Aircraft VLSI | [PXH1] |
| | 192.028.000.rrr-223.255.254.rrr | | Unassigned | [JBP] |
| | 223.255.255.rrr | | Reserved | [JBP] |

Other Reserved Internet Addresses

| * | Internet Address | Name | Network | References |
|---|---------------------------------|------|-----------|------------|
| - | ----- | ---- | ----- | ----- |
| | 224.000.000.000-239.255.255.255 | | Multicast | [44,JBP] |
| | 240.000.000.000-255.255.255.255 | | Reserved | [JBP] |

Network Totals

Assigned for the ARPA-Internet and the DDN-Internet

| Class | A | B | C | Total |
|------------|----|-----|-----|-------|
| Research | 13 | 92 | 775 | 880 |
| Defense | 9 | 19 | 45 | 73 |
| Government | 1 | 15 | 97 | 113 |
| Commercial | 3 | 4 | 5 | 12 |
| Total | 26 | 130 | 922 | 1078 |

Allocated for Internet and Independent Uses

| Class | A | B | C | Total |
|------------|----|-----|------|-------|
| Research | 14 | 105 | 1681 | 1800 |
| Defense | 9 | 20 | 47 | 76 |
| Government | 1 | 17 | 98 | 116 |
| Commercial | 3 | 12 | 3974 | 3989 |
| Total | 27 | 154 | 5800 | 5981 |

Maximum Allowed

| Class | A | B | C | Total |
|------------|-----|-------|---------|---------|
| Research | 8 | 1024 | 65536 | 66568 |
| Defense | 24 | 3072 | 458752 | 461848 |
| Government | 24 | 3072 | 458752 | 461848 |
| Commercial | 74 | 9214 | 1114137 | 1123394 |
| Total | 126 | 16382 | 2097150 | 2113658 |

ASSIGNED VERSION NUMBERS

In the Internet Protocol (IP) [46,101] 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 | Keyword | Version | References |
|---------|---------|-------------------|------------|
| ----- | ----- | ----- | ----- |
| 0 | | Reserved | [JBP] |
| 1-3 | | Unassigned | [JBP] |
| 4 | IP | Internet Protocol | [101,JBP] |
| 5 | ST | ST Datagram Mode | [51,JWF] |
| 6-14 | | Unassigned | [JBP] |
| 15 | | Reserved | [JBP] |

ASSIGNED PROTOCOL NUMBERS

In the Internet Protocol (IP) [46,101] there is a field, called Protocol, to identify the the next level protocol. This is an 8 bit field.

Assigned Internet Protocol Numbers

| Decimal | Keyword | Protocol | References |
|---------|-------------|--------------------------------|------------|
| ----- | ----- | ----- | ----- |
| 0 | | Reserved | [JBP] |
| 1 | ICMP | Internet Control Message | [92,JBP] |
| 2 | IGMP | Internet Group Management | [44,JBP] |
| 3 | GGP | Gateway-to-Gateway | [59,MB] |
| 4 | | Unassigned | [JBP] |
| 5 | ST | Stream | [51,JWF] |
| 6 | TCP | Transmission Control | [102,JBP] |
| 7 | UCL | UCL | [PK] |
| 8 | EGP | Exterior Gateway Protocol | [118,DLM1] |
| 9 | IGP | any private interior gateway | [JBP] |
| 10 | BBN-RCC-MON | BBN RCC Monitoring | [SGC] |
| 11 | NVP-II | Network Voice Protocol | [25,SC3] |
| 12 | PUP | PUP | [15,HGM] |
| 13 | ARGUS | ARGUS | [RWS4] |
| 14 | EMCON | EMCON | [BN7] |
| 15 | XNET | Cross Net Debugger | [57,JFH2] |
| 16 | CHAOS | Chaos | [NC3] |
| 17 | UDP | User Datagram | [100,JBP] |
| 18 | MUX | Multiplexing | [26,JBP] |
| 19 | DCN-MEAS | DCN Measurement Subsystems | [DLM1] |
| 20 | HMP | Host Monitoring | [58,RH6] |
| 21 | PRM | Packet Radio Measurement | [ZSU] |
| 22 | XNS-IDP | XEROX NS IDP | [139,HGM] |
| 23 | TRUNK-1 | Trunk-1 | [SA2] |
| 24 | TRUNK-2 | Trunk-2 | [SA2] |
| 25 | LEAF-1 | Leaf-1 | [SA2] |
| 26 | LEAF-2 | Leaf-2 | [SA2] |
| 27 | RDP | Reliable Data Protocol | [135,RH6] |
| 28 | IRTP | Internet Reliable Transaction | [76,TXM] |
| 29 | ISO-TP4 | ISO Transport Protocol Class 4 | [64,RC7] |
| 30 | NETBLT | Bulk Data Transfer Protocol | [24,DDC1] |
| 31-60 | | Unassigned | [JBP] |
| 61 | | any host internal protocol | [JBP] |
| 62 | CFTP | CFTP | [52,HCF2] |
| 63 | | any local network | [JBP] |
| 64 | SAT-EXPAK | SATNET and Backroom EXPAK | [SHB] |
| 65 | MIT-SUBNET | MIT Subnet Support | [NC3] |

| | | | |
|--------|------------|----------------------------------|-------|
| 66 | RVD | MIT Remote Virtual Disk Protocol | [MBG] |
| 67 | IPPC | Internet Pluribus Packet Core | [SHB] |
| 68 | | any distributed file system | [JBP] |
| 69 | SAT-MON | SATNET Monitoring | [SHB] |
| 70 | | Unassigned | [JBP] |
| 71 | IPCV | Internet Packet Core Utility | [SHB] |
| 72-75 | | Unassigned | [JBP] |
| 76 | BR-SAT-MON | Backroom SATNET Monitoring | [SHB] |
| 77 | | Unassigned | [JBP] |
| 78 | WB-MON | WIDEBAND Monitoring | [SHB] |
| 79 | WB-EXPAK | WIDEBAND EXPAK | [SHB] |
| 80-254 | | Unassigned | [JBP] |
| 255 | | Reserved | [JBP] |

ASSIGNED PORT NUMBERS

Ports are used in the TCP [46,102] to name the ends of logical connections which carry long term conversations. For the purpose of providing services to unknown callers, a service contact port is defined. This list specifies the port used by the server process as its contact port. The contact port is sometimes called the "well-known port".

To the extent possible, these same port assignments are used with the UDP [46,100].

To the extent possible, these same port assignments are used with the ISO-TP4 [64].

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

Port Assignments:

| Decimal | Keyword | Description | References |
|---------|------------|------------------------------|------------|
| ----- | ----- | ----- | ----- |
| 0 | | Reserved | [JBP] |
| 1-4 | | Unassigned | [JBP] |
| 5 | RJE | Remote Job Entry | [17,JBP] |
| 7 | ECHO | Echo | [90,JBP] |
| 9 | DISCARD | Discard | [88,JBP] |
| 11 | USERS | Active Users | [84,JBP] |
| 13 | DAYTIME | Daytime | [87,JBP] |
| 15 | NETSTAT | Who is up or NETSTAT | [JBP] |
| 17 | QUOTE | Quote of the Day | [95,JBP] |
| 19 | CHARGEN | Character Generator | [86,JBP] |
| 20 | FTP-DATA | File Transfer [Default Data] | [91,JBP] |
| 21 | FTP | File Transfer [Control] | [91,JBP] |
| 23 | TELNET | Telnet | [108,JBP] |
| 25 | SMTP | Simple Mail Transfer | [97,JBP] |
| 27 | NSW-FE | NSW User System FE | [29,RHT] |
| 29 | MSG-ICP | MSG ICP | [82,RHT] |
| 31 | MSG-AUTH | MSG Authentication | [82,RHT] |
| 33 | DSP | Display Support Protocol | [MLC] |
| 35 | | any private printer server | [JBP] |
| 37 | TIME | Time | [104,JBP] |
| 39 | RLP | Resource Location Protocol | [1,MA] |
| 41 | GRAPHICS | Graphics | [125,JBP] |
| 42 | NAMESERVER | Host Name Server | [94,JBP] |
| 43 | NICNAME | Who Is | [56,JAKE] |

| | | | |
|-----|------------|---------------------------------------|-------------|
| 44 | MPM-FLAGS | MPM FLAGS Protocol | [JBP] |
| 45 | MPM | Message Processing Module [recv] | [93,JBP] |
| 46 | MPM-SND | MPM [default send] | [93,JBP] |
| 47 | NI-FTP | NI FTP | [132,SK] |
| 49 | LOGIN | Login Host Protocol | [PHD1] |
| 51 | LA-MAINT | IMP Logical Address Maintenance | [75,AGM] |
| 53 | DOMAIN | Domain Name Server | [79,80,PM1] |
| 55 | ISI-GL | ISI Graphics Language | [14,RB6] |
| 57 | | any private terminal access | [JBP] |
| 59 | | any private file service | [JBP] |
| 61 | NI-MAIL | NI MAIL | [12,SK] |
| 63 | VIA-FTP | VIA Systems - FTP | [DXD] |
| 65 | TACACS-DS | TACACS-Database Service | [11,RHT] |
| 67 | BOOTPS | Bootstrap Protocol Server | [41,WJC2] |
| 68 | BOOTPC | Bootstrap Protocol Client | [41,WJC2] |
| 69 | TFTP | Trivial File Transfer | [122,DDC1] |
| 71 | NETRJS-1 | Remote Job Service | [16,RTB] |
| 72 | NETRJS-2 | Remote Job Service | [16,RTB] |
| 73 | NETRJS-3 | Remote Job Service | [16,RTB] |
| 74 | NETRJS-4 | Remote Job Service | [16,RTB] |
| 75 | | any private dial out service | [JBP] |
| 77 | | any private RJE service | [JBP] |
| 79 | FINGER | Finger | [54,KLH] |
| 81 | HOSTS2-NS | HOSTS2 Name Server | [EAK1] |
| 83 | MIT-ML-DEV | MIT ML Device | [DPR] |
| 85 | MIT-ML-DEV | MIT ML Device | [DPR] |
| 87 | | any private terminal link | [JBP] |
| 89 | SU-MIT-TG | SU/MIT Telnet Gateway | [MRC] |
| 91 | MIT-DOV | MIT Dover Spooler | [EBM] |
| 93 | DCP | Device Control Protocol | [DT15] |
| 95 | SUPDUP | SUPDUP | [32,MRC] |
| 97 | SWIFT-RVF | Swift Remote Vitural File Protocol | [MXR] |
| 98 | TACNEWS | TAC News | [FRAN] |
| 99 | METAGRAM | Metagram Relay | [GEOF] |
| 101 | HOSTNAME | NIC Host Name Server | [55,JAKE] |
| 102 | ISO-TSAP | ISO-TSAP | [20,MTR] |
| 103 | X400 | X400 | [HCF2] |
| 104 | X400-SND | X400-SND | [HCF2] |
| 105 | CSNET-NS | Mailbox Name Nameserver | [123,MHS1] |
| 107 | RTELNET | Remote Telnet Service | [96,JBP] |
| 109 | POP-2 | Post Office Protocol - Version 2 | [19,JKR1] |
| 111 | SUNRPC | SUN Remote Procedure Call | [DXG] |
| 113 | AUTH | Authentication Service | [126,MCSJ] |
| 115 | SFTP | Simple File Transfer Protocol | [71,MKL1] |
| 117 | UUCP-PATH | UUCP Path Service | [45,MAE] |
| 119 | NNTP | Network News Transfer Protocol | [66,PL4] |
| 121 | ERPC | HYDRA Expedited Remote Procedure Call | [128,JXO] |

| | | | |
|---------|-----------|-----------------------------------|-----------|
| 123 | NTP | Network Time Protocol | [78,DLM1] |
| 125 | LOCUS-MAP | Locus PC-Interface Net Map Server | [134,BXG] |
| 127 | LOCUS-CON | Locus PC-Interface Conn Server | [134,BXG] |
| 129 | PWDGEN | Password Generator Protocol | [136,FJW] |
| 130 | CISCO-FNA | CISCO FNATIVE | [WXB] |
| 131 | CISCO-TNA | CISCO TNATIVE | [WXB] |
| 132 | CISCO-SYS | CISCO SYSMANT | [WXB] |
| 133-159 | | Unassigned | [JBP] |
| 160-223 | | Reserved | [JBP] |
| 224-241 | | Unassigned | [JBP] |
| 243 | SUR-MEAS | Survey Measurement | [13,AV] |
| 245 | LINK | LINK | [18,RDB2] |
| 247-255 | | Unassigned | [JBP] |

ASSIGNED AUTONOMOUS SYSTEM NUMBERS

The Exterior Gateway Protocol (EGP) [115,118] specifies that groups of gateways may form autonomous systems. The EGP provides a 16-bit field for identifying such systems. The values of this field are registered here.

Autonomous System Numbers:

| Decimal | Name | References |
|---------|-----------------------|------------|
| ----- | ---- | ----- |
| 0 | Reserved | [JBP] |
| 1 | The BBN Core Gateways | [MB] |
| 2 | DCN-AS | [DLM1] |
| 3 | The MIT Gateways | [LM8] |
| 4 | ISI-AS | [JKR1] |
| 5 | Symbolics | [CH2] |
| 6 | HIS-Multics | [JLM23] |
| 7 | UK-MOD | [RNM1] |
| 8 | RICE-AS | [PGM] |
| 9 | CMU-ROUTER | [MA] |
| 10 | CSNET-PDN-AS | [RDR4] |
| 11 | HARVARD | [SB28] |
| 12 | NYU-DOMAIN | [EF5] |
| 13 | BRL-AS | [RBN1] |
| 14 | COLUMBIA-GW | [BC14] |
| 15 | NET DYNAMICS EXP | [ZSU] |
| 16 | LBL | [WG] |
| 17 | PURDUE-CS | [KCS1] |
| 18 | UTEXAS | [JSQ1] |
| 19 | CSS-DOMAIN | [RR2] |
| 20 | UR | [LB16] |
| 21 | RAND | [JDG] |
| 22 | NOSC | [RLB3] |
| 23 | RIACS-AS | [DG28] |
| 24 | AMES-NAS-GW | [MF31] |
| 25 | UCB | [MK17] |
| 26 | CORNELL | [BN9] |
| 27 | UMDNET | [JWO1] |
| 28 | DFVLR-SYS | [GB7] |
| 29 | YALE-AS | [JG46] |
| 30 | SRI-AICNET | [PM4] |
| 31 | CIT-CS | [AD22] |
| 32 | STANFORD | [PA5] |
| 33 | DEC-WRL-AS | [RKJ2] |
| 34 | UDEL-EECIS | [NMM] |
| 35 | MICATON | [WDL] |

| | | |
|----|-----------------|---------|
| 36 | EGP-TESTOR | [BP17] |
| 37 | NSWC | [MXP1] |
| 38 | UIUC | [AKC] |
| 39 | NRL-ITD | [AP] |
| 40 | MIT-TEST | [NC3] |
| 41 | AMES | [MSM1] |
| 42 | THINK-AS | [BJN1] |
| 43 | BNL-AS | [GC] |
| 44 | S1-DOMAIN | [LWR] |
| 45 | LLL-TIS-AS | [NAL] |
| 46 | RUTGERS | [RM8] |
| 47 | USC-OBERON | [DRS4] |
| 48 | NRL-AS | [WF3] |
| 49 | ICST-AS | [JCN2] |
| 50 | ORNL-MSRNET | [THD] |
| 51 | USAREUR-EM-AS | [WXD] |
| 52 | UCLA | [BXL] |
| 53 | NORTHROP-AS | [RSM1] |
| 54 | COA-FIN-NET | [RR26] |
| 55 | UPENN-CIS | [IW5] |
| 56 | OPTIMIS-P | [JXL] |
| 57 | UMN-REI-UC | [HWB] |
| 58 | DREA-AS | [GLH5] |
| 59 | WISC-MADISON-AS | [EJN1] |
| 60 | DARPA-BFLY | [MB] |
| 61 | DEC-MARLBORO-AS | [WM3] |
| 62 | TEKVAXC | [TE2] |
| 63 | LL-MI | [RTL] |
| 64 | MITRE-B-AS | [BSW] |
| 65 | LOGNET-AS | [JR15] |
| 66 | ETL-AI | [MMM3] |
| 67 | SDC-PRC-AS | [MXS2] |
| 68 | LANL-INET-AS | [JC11] |
| 69 | WHARTON-AS | [HK2] |
| 70 | NLM-GW | [JA1] |
| 71 | SU-TEST | [KSL] |
| 72 | SPAR-AS | [RXB] |
| 73 | WASHINGTON-AS | [RA17] |
| 74 | XDRENET-AS | [JR17] |
| 75 | ANL-AS | [LW26] |
| 76 | SDC-CAM-AS | [DSR] |
| 77 | JHUAPL-AS | [SAK3] |
| 78 | SSDF-CDC-GW | [RE22] |
| 79 | DSPO-HC-AS | [BT5] |
| 80 | GE-CRD | [JC106] |
| 81 | TUCC-MCNC | [JXR] |
| 82 | TWG-DEMO-AS | [JXS1] |

| | | |
|----------|-------------|--------|
| 83 | PICANET-AS | [RFD1] |
| 84 | DTNSRDC-AS1 | [RWT2] |
| 85 | AERO-NET | [LCN] |
| 86 | SURANET-AS | [JXH1] |
| 87-65534 | Unassigned | [JBP] |
| 65535 | Reserved | [JBP] |

DOMAIN SYSTEM PARAMETERS

The Internet Domain Naming System (DOMAIN) includes several parameters. These are documented in RFC 883 [80]. The CLASS parameter is listed here. The per CLASS parameters are defined in separate RFCs as indicated.

Domain System Parameters:

| Decimal | Name | References |
|---------|------------|-------------|
| ----- | ---- | ----- |
| 0 | Reserved | [PM1] |
| 1 | Internet | [80, PM1] |
| 2 | Unassigned | [PM1] |
| 3 | Chaos | [PM1] |
| 4-65534 | Unassigned | [PM1] |
| 65535 | Reserved | [PM1] |

ASSIGNED ARPANET LOGICAL ADDRESSES

The ARPANET facility for "logical addressing" is described in RFC 878 [74]. A portion of the possible logical addresses are reserved for standard uses.

There are 49,152 possible logical host addresses. Of these, 256 are reserved for assignment to well-known functions. Assignments for well-known functions are made by Joyce Reynolds. Assignments for other logical host addresses are made by the NIC.

Logical Address Assignments:

| Decimal | Description | References |
|---------|-----------------------|------------|
| ----- | ----- | ----- |
| 0 | Reserved | [JBP] |
| 1 | The BBN Core Gateways | [MB] |
| 2-254 | Unassigned | [JBP] |
| 255 | Reserved | [JBP] |

ASSIGNED ARPANET 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. Later specifications defined this field as the "message-id" with a length of 12 bits. The name link now refers to the high order 8 bits of this 12-bit message-id field. The Host/IMP interface is defined in BBN Report 1822 [10].

The low-order 4 bits of the message-id field are called the sub-link. Unless explicitly specified otherwise for a particular protocol, there is no sender to receiver significance to the sub-link. The sender may use the sub-link in any way he chooses (it is returned in the RFNm by the destination IMP), the receiver should ignore the sub-link.

Link Assignments:

| Decimal | Description | References |
|---------|----------------------------------|------------|
| ----- | ----- | ----- |
| 0 | Reserved | [JBP] |
| 1-149 | Unassigned | [JBP] |
| 150 | Xerox NS IDP | [139,HGM] |
| 151 | Unassigned | [JBP] |
| 152 | PARC Universal Protocol | [15,HGM] |
| 153 | TIP Status Reporting | [JGH] |
| 154 | TIP Accounting | [JGH] |
| 155 | Internet Protocol [regular] | [101,JBP] |
| 156-158 | Internet Protocol [experimental] | [101,JBP] |
| 159 | Figleaf Link | [JBW1] |
| 160-194 | Unassigned | [JBP] |
| 195 | ISO-IP | [65,RXM] |
| 196-247 | Experimental Protocols | [JBP] |
| 248-255 | Network Maintenance | [JGH] |

IEEE 802 NUMBERS OF INTEREST

Some of the networks of all classes are IEEE 802 Networks. These systems may use a Link Service Access Point (LSAP) field in much the same way the ARPANET uses the "link" field, further, there is an extension of the LSAP header called the Sub-Network Access Protocol (SNAP).

The IEEE likes to describe numbers in binary in bit transmission order, which is the opposite of the big-endian order used throughout the Internet protocol documentation.

Assignments:

| Link Service Access Point | | | Description | References |
|---------------------------|----------|---------|------------------------|------------|
| ----- | | | ----- | ----- |
| IEEE | Internet | | | |
| binary | binary | decimal | | |
| 00000000 | 00000000 | 0 | Null LSAP | [IEEE] |
| 11000000 | 00000011 | 3 | Group LLC Sublayer Mgt | [IEEE] |
| 01000000 | 00000010 | 4 | Indiv LLC Sublayer Mgt | [IEEE] |
| 01100000 | 00000110 | 6 | DOD IP | [101,JBP] |
| 01110000 | 00001110 | 14 | PROWAY-LAN | [IEEE] |
| 01110010 | 01001110 | 78 | EIA-RS 511 | [IEEE] |
| 01110001 | 10001110 | 142 | PROWAY-LAN | [IEEE] |
| 01010101 | 10101010 | 170 | SNAP | [IEEE] |
| 01111111 | 11111110 | 254 | ISO DIS 8473 | [65,JXJ] |
| 11111111 | 11111111 | 255 | Global DSAP | [IEEE] |

These numbers (and others) are assigned by the IEEE Standards Office. The address is: IEEE Standards Office, 345 East 47th Street, New York, N.Y. 10017, Attn: Vince Condello. Phone: (212) 705-7092.

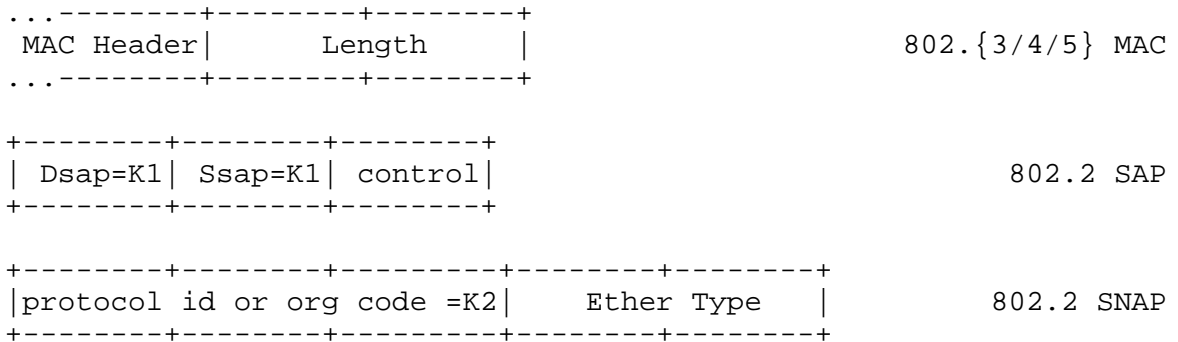
At an ad hoc special session on "IEEE 802 Networks and ARP" held during the TCP Vendors Workshop (August 1986), an approach to a consistent way to send DOD-IP datagrams and other IP related protocols on 802 networks was developed.

Due to some evolution of the IEEE 802.2 standards and the need to provide for a standard way to do additional DOD-IP related protocols (such as Address Resolution Protocol (ARP)) on IEEE 802 networks, the following new policy is established, which will replace the old policy (see RFC-960 and RFC-948 [138]).

The new policy is for DDN and ARPA-Internet community to use IEEE 802.2 encapsulation on 802.3, 802.4, and 802.5 networks by using the

SNAP with an organization code indicating that the following 16 bits specify the Ethertype code (where IP = 2048 (0800 hex), see Ethernet Numbers of Interest).

Header



The values of K1 and K2 must be assigned by the IEEE. There is already assigned a value of K1 that indicates that the 5-octet SNAP header follows. There may be a value of K2 that is already assigned that indicates that the last two octets of the SNAP header holds the EtherType.

The total length of the SAP Header and the SNAP header is 8-octets, making the 802.2 protocol overhead come out on a nice octet boundary.

K1 is 170. The IEEE like to talk about things in bit transmission order and specifies this value as 01010101. In big-endian order, as used in Internet specifications, this becomes 10101010 binary, or AA hex, or 170 decimal.

We believe that K2 is 0 (zero). This must be further investigated. As an interim measure use K2 = 0.

The use of the IP LSAP (K1 = 6) is to be phased out as quickly as possible.

ETHERNET NUMBERS OF INTEREST

Many of the networks of all classes are Ethernets (10Mb) or Experimental Ethernets (3Mb). These systems use a message "type" field in much the same way the ARPANET uses the "link" field.

If you need an Ethernet type number, contact the XEROX Corporation, 2300 Geng Road, Palo Alto, California 94303, ATTN: Ms. Pam Cance [PXC].

Assignments:

| Ethernet | | Exp. Ethernet | | Description | References |
|----------|------|---------------|-------|-------------------|------------|
| ----- | | ----- | | ----- | ----- |
| decimal | Hex | decimal | octal | | |
| 512 | 0200 | 512 | 1000 | XEROX PUP | [15,HGM] |
| 513 | 0201 | - | - | PUP Addr. Trans. | [HGM] |
| 1536 | 0600 | 1536 | 3000 | XEROX NS IDP | [139,HGM] |
| 2048 | 0800 | 513 | 1001 | DOD IP | [101,JBP] |
| 2049 | 0801 | - | - | X.75 Internet | [HGM] |
| 2050 | 0802 | - | - | NBS Internet | [HGM] |
| 2051 | 0803 | - | - | ECMA Internet | [HGM] |
| 2052 | 0804 | - | - | Chaosnet | [HGM] |
| 2053 | 0805 | - | - | X.25 Level 3 | [HGM] |
| 2054 | 0806 | - | - | ARP | [83,JBP] |
| 2055 | 0807 | - | - | XNS Compatability | [HGM] |
| 2076 | 081C | - | - | Symbolics Private | [DCP1] |
| 32771 | 8003 | - | - | Cronus VLN | [127,DT15] |
| 32772 | 8004 | - | - | Cronus Direct | [127,DT15] |
| 32774 | 8006 | - | - | Nestar | [HGM] |
| 32784 | 8010 | - | - | Excelan | [HGM] |
| 32821 | 8035 | - | - | Reverse ARP | [50,JCM] |
| 36864 | 9000 | - | - | Loopback | [HGM] |

The standard for transmission of IP datagrams over Ethernets and Experimental Ethernets is specified in RFC 894 [99] and RFC 895 [85] respectively.

NOTE: Ethernet 48-bit address blocks are now assigned by the IEEE Standards Office (see section "IEEE 802 Numbers of Interest").

ASSIGNED ADDRESS RESOLUTION PROTOCOL PARAMETERS

The Address Resolution Protocol (ARP) specified in RFC 826 [83] has several parameters. The assigned values for these parameters are listed here.

Assignments:

Operation Code (op)

- 1 REQUEST
- 2 REPLY

Hardware Type (hrd)

| Type | Description | References |
|------|-----------------------------|------------|
| ---- | ----- | ----- |
| 1 | Ethernet (10Mb) | [JBP] |
| 2 | Experimental Ethernet (3Mb) | [JBP] |
| 3 | Amateur Radio AX.25 | [PXK] |
| 4 | Proteon ProNET Token Ring | [JBP] |
| 5 | Chaos | [GXP] |
| 6 | IEEE 802 Networks | [JBP] |

Protocol Type (pro)

Use the same codes as listed in the section "Ethernet Numbers of Interest" (all hardware types use this code set for the protocol type).

ASSIGNED PUBLIC DATA NETWORK NUMBERS

One of the Internet Class A Networks is the international system of Public Data Networks. This section lists the mapping between the Internet Addresses and the Public Data Network Addresses (X.121).

The numbers below are assigned for networks that are connected to the ARPA-Internet and DDN-Internet, and for independent networks. These independent networks are marked with an asterisk preceding the number.

Assignments:

| * Internet | Public Data Net | Description | References |
|---------------------------------|-------------------|--------------|------------|
| - - - - - | - - - - - | - - - - - | - - - - - |
| 014.000.000.000 | | Reserved | [JBP] |
| 014.000.000.001 | 3110-317-00035 00 | PURDUE-TN | [CAK] |
| 014.000.000.002 | 3110-608-00027 00 | UWISC-TN | [CAK] |
| 014.000.000.003 | 3110-302-00024 00 | UDEL-TN | [CAK] |
| 014.000.000.004 | 2342-192-00149 23 | UCL-VTEST | [PK] |
| 014.000.000.005 | 2342-192-00300 23 | UCL-TG | [PK] |
| 014.000.000.006 | 2342-192-00300 25 | UK-SATNET | [PK] |
| 014.000.000.007 | 3110-608-00024 00 | UWISC-IBM | [MHS1] |
| 014.000.000.008 | 3110-213-00045 00 | RAND-TN | [MO2] |
| 014.000.000.009 | 2342-192-00300 23 | UCL-CS | [PK] |
| 014.000.000.010 | 3110-617-00025 00 | BBN-VAN-GW | [JD21] |
| * 014.000.000.011 | 2405-015-50300 00 | CHALMERS | [UXB] |
| 014.000.000.012 | 3110-713-00165 00 | RICE | [PAM6] |
| 014.000.000.013 | 3110-415-00261 00 | DECWRL | [PAM6] |
| 014.000.000.014 | 3110-408-00051 00 | IBM-SJ | [SA1] |
| 014.000.000.015 | 2041-117-01000 00 | SHAPE | [JFW] |
| 014.000.000.016 | 2628-153-90075 00 | DFVLR4-X25 | [GB7] |
| 014.000.000.017 | 3110-213-00032 00 | ISI-VAN-GW | [JD21] |
| 014.000.000.018 | 2624-522-80900 52 | DFVLR5-X25 | [GB7] |
| 014.000.000.019 | 2041-170-10000 00 | SHAPE-X25 | [JFW] |
| 014.000.000.020 | 5052-737-20000 50 | UQNET | [AXH] |
| 014.000.000.021 | 3020-801-00057 50 | DMC-CRC1 | [JR17] |
| 014.000.000.022 | 2624-522-80902 77 | DFVLRVAX-X25 | [GB7] |
| * 014.000.000.023 | 2624-589-00908 01 | ECRC-X25 | [PXD] |
| 014.000.000.024-014.255.255.254 | | Unassigned | [JBP] |
| 014.255.255.255 | | Reserved | [JBP] |

The standard for transmission of IP datagrams over the Public Data Network is specified in RFC 877 [68].

ASSIGNED TELNET OPTIONS

The Telnet Protocol has a number of options that may be negotiated. These options are listed here. "Official ARPA-Internet Protocols" [114] provides more detailed information.

| Options | Name | References |
|---------|------------------------------------|-------------|
| ----- | ----- | ----- |
| 0 | Binary Transmission | [106,JBP] |
| 1 | Echo | [107,JBP] |
| 2 | Reconnection | [7,JBP] |
| 3 | Suppress Go Ahead | [110,JBP] |
| 4 | Approx Message Size Negotiation | [130,JBP] |
| 5 | Status | [109,JBP] |
| 6 | Timing Mark | [111,JBP] |
| 7 | Remote Controlled Trans and Echo | [103,JBP] |
| 8 | Output Line Width | [5,JBP] |
| 9 | Output Page Size | [6,JBP] |
| 10 | Output Carriage-Return Disposition | [33,JBP] |
| 11 | Output Horizontal Tab Stops | [37,JBP] |
| 12 | Output Horizontal Tab Disposition | [36,JBP] |
| 13 | Output Formfeed Disposition | [34,JBP] |
| 14 | Output Vertical Tabstops | [39,JBP] |
| 15 | Output Vertical Tab Disposition | [38,JBP] |
| 16 | Output Linefeed Disposition | [35,JBP] |
| 17 | Extended ASCII | [133,JBP] |
| 18 | Logout | [30,MRC] |
| 19 | Byte Macro | [40,JBP] |
| 20 | Data Entry Terminal | [43,JBP] |
| 22 | SUPDUP | [31,32,MRC] |
| 22 | SUPDUP Output | [53,MRC] |
| 23 | Send Location | [67,EAK1] |
| 24 | Terminal Type | [124,MHS1] |
| 25 | End of Record | [98,JBP] |
| 26 | TACACS User Identification | [3,BA4] |
| 27 | Output Marking | [120,SXS] |
| 28 | Terminal Location Number | [81,RN6] |
| 255 | Extended-Options-List | [105,JBP] |

OFFICIAL MACHINE NAMES

These are the Official Machine Names as they appear in the NIC Host Table. Their use is described in RFC 952 [49].

An Official Machine Name or CPU Type may be up to 40 characters taken from the set of uppercase letters, digits, and the two punctuation characters hyphen and slash. It must start with a letter, and end with a letter or digit.

ALTO
AMDAHL-V7
APOLLO
ATT-3B20
BBN-C/60
BURROUGHS-B/29
BURROUGHS-B/4800
BUTTERFLY
C/30
C/70
CADLINC
CADR
CDC-170
CDC-170/750
CDC-173
CELERITY-1200
COMTEN-3690
CP8040
CTIWS-117
DANDELION
DEC-10
DEC-1050
DEC-1077
DEC-1080
DEC-1090
DEC-1090B
DEC-1090T
DEC-2020T
DEC-2040
DEC-2040T
DEC-2050T
DEC-2060
DEC-2060T
DEC-2065
DEC-FALCON
DEC-KS10
DORADO

DPS8/70M
ELXSI-6400
FOONLY-F2
FOONLY-F3
FOONLY-F4
GOULD
GOULD-6050
GOULD-6080
GOULD-9050
GOULD-9080
H-316
H-60/68
H-68
H-68/80
H-89
HONEYWELL-DPS-6
HONEYWELL-DPS-8/70
HP3000
HP3000/64
IBM-158
IBM-360/67
IBM-370/3033
IBM-3081
IBM-3084QX
IBM-3101
IBM-4331
IBM-4341
IBM-4361
IBM-4381
IBM-4956
IBM-PC
IBM-PC/AT
IBM-PC/XT
IBM-SERIES/1
IMAGEN
IMAGEN-8/300
IMSAI
INTEGRATED-SOLUTIONS
INTEGRATED-SOLUTIONS-68K
INTEGRATED-SOLUTIONS-CREATOR
INTEGRATED-SOLUTIONS-CREATOR-8
INTEL-IPSC
IS-1
IS-68010
LMI
LSI-11
LSI-11/2

LSI-11/23
LSI-11/73
M68000
MASSCOMP
MC500
MC68000
MICROVAX
MICROVAX-I
MICROVAX-II
MV/8000
NAS3-5
NCR-COMTEN-3690
NOW
ONYX-Z8000
PDP-11
PDP-11/3
PDP-11/23
PDP-11/24
PDP-11/34
PDP-11/40
PDP-11/44
PDP-11/45
PDP-11/50
PDP-11/70
PDP-11/73
PE-7/32
PE-3205
PERQ
PLEXUS-P/60
PLI
PLURIBUS
PYRAMID-90
PYRAMID-90MX
PYRAMID-90X
RIDGE
RIDGE-32
RIDGE-32C
ROLM-1666
S1-MKIIA
SMI
SEQUENT-BALANCE-8000
SIEMENS
SILICON-GRAPHICS
SILICON-GRAPHICS-IRIS
SPERRY-DCP/10
SUN
SUN-2

SUN-2/50
SUN-2/100
SUN-2/120
SUN-2/140
SUN-2/150
SUN-2/160
SUN-2/170
SUN-3/160
SUN-3/75
SUN-50
SUN-100
SUN-120
SUN-130
SUN-150
SUN-170
SYMBOLICS-3600
SYMBOLICS-3670
TANDEM-TXP
TEK-6130
TI-EXPLORER
TP-4000
TRS-80
UNIVAC-1100
UNIVAC-1100/60
UNIVAC-1100/62
UNIVAC-1100/63
UNIVAC-1100/64
UNIVAC-1100/70
UNIVAC-1160
VAX-11/725
VAX-11/730
VAX-11/750
VAX-11/780
VAX-11/785
VAX-11/790
VAX-11/8600
VAX-8600
VAX-8650
WANG-PC002
WANG-VS100
WANG-VS400
XEROX-1108
XEROX-8010

OFFICIAL SYSTEM NAMES

These are the Official System Names as they appear in the NIC Host Table. Their use is described in RFC 952 [49].

An Official System Names or Operating System Type may be up to 40 characters taken from the set of uppercase letters, digits, and the two punctuation characters hyphen and slash. It must start with a letter, and end with a letter or digit.

AEGIS
APOLLO
BS-2000
CEDAR
CGW
CHRYSALIS
CMOS
CMS
COS
CPIX
CTOS
DCN
DDNOS
DOMAIN
EDX
ELF
EMBOS
EMMOS
EPOS
FOONEX
FUZZ
GCOS
GPOS
HDOS
IMAGEN
INTERCOM
IMPRESS
INTERLISP
IOS
ITS
LISP
LISPM
LOCUS
MINOS
MOS
MPE5
MSDOS

MULTICS
MVS
MVS/SP
NEXUS
NMS
NONSTOP
NOS-2
OS/DDP
OS4
OS86
OSX
PCDOS
PERQ/OS
PLI
PSDOS/MIT
RMX/RDOS
ROS
RSX11M
SATOPS
SCS
SIMP
SWIFT
TAC
TANDEM
TENEX
TOPS10
TOPS20
TP3010
TRSDOS
ULTRIX
UNIX
UT2D
V
VM
VM/370
VM/CMS
VM/SP
VMS
VMS/EUNICE
VRTX
WAITS
WANG
XDE
XENIX

OFFICIAL PROTOCOL AND SERVICE NAMES

These are the Official Protocol Names. Their use is described in greater detail in RFC 952 [49].

An Official Protocol Name or Service Type may be up to 20 characters taken from the set of uppercase letters, digits, and the punctuation character hyphen. It must start with a letter, and end with a letter or digit.

| | |
|-------------|--|
| ARGUS | - ARGUS Protocol |
| AUTH | - Authentication Service |
| BBN-RCC-MON | - BBN RCC Monitoring |
| BOOTPC | - Bootstrap Protocol Client |
| BOOTPS | - Bootstrap Protocol Server |
| BR-SAT-MON | - Backroom SATNET Monitoring |
| CFTP | - CFTP |
| CHAOS | - CHAOS Protocol |
| CHARGEN | - Character Generator Protocol |
| CISCO-FNA | - CISCO FNATIVE |
| CISCO-TNA | - CISCO TNATIVE |
| CISCO-SYS | - CISCO SYSMANT |
| CLOCK | - DCNET Time Server Protocol |
| CSNET-NS | - CSNET Mailbox Nameserver Protocol |
| DAYTIME | - Daytime Protocol |
| DCN-MEAS | - DCN Measurement Subsystems Protocol |
| DCP | - Device Control Protocol |
| DISCARD | - Discard Protocol |
| DOMAIN | - Domain Name Server |
| ECHO | - Echo Protocol |
| EGP | - Exterior Gateway Protocol |
| EMCON | - Emission Control Protocol |
| FINGER | - Finger Protocol |
| FTP | - File Transfer Protocol |
| FTP-DATA | - File Transfer Protocol Data |
| GGP | - Gateway Gateway Protocol |
| GRAPHICS | - Graphics Protocol |
| HMP | - Host Monitoring Protocol |
| HOST2-NS | - Host2 Name Server |
| HOSTNAME | - Hostname Protocol |
| ICMP | - Internet Control Message Protocol |
| IGMP | - Internet Group Multicast Protocol |
| IGP | - Interior Gateway Protocol |
| IP | - Internet Protocol |
| IPCU | - Internet Packet Core Utility |
| IPPC | - Internet Pluribus Packet Core |
| IRTP | - Internet Reliable Transaction Protocol |

| | |
|------------|---|
| ISI-GL | - ISI Graphics Language Protocol |
| ISO-TP4 | - ISO Transport Protocol Class 4 |
| ISO-TSAP | - ISO TSAP |
| LA-MAINT | - IMP Logical Address Maintenance |
| LEAF-1 | - Leaf-1 Protocol |
| LEAF-2 | - Leaf-2 Protocol |
| LINK | - Link Protocol |
| LOGIN | - Login Host Protocol |
| METAGRAM | - Metagram Relay |
| MIT-ML-DEV | - MIT ML Device |
| MIT-SUBNET | - MIT Subnet Support |
| MIT-DOV | - MIT Dover Spooler |
| MPM | - Internet Message Protocol (Multimedia Mail) |
| MPM-FLAGS | - MPM Flags Protocol |
| MPM-SND | - MPM Send Protocol |
| MSG-AUTH | - MSG Authentication Protocol |
| MSG-ICP | - MSG ICP Protocol |
| MUX | - Multiplexing Protocol |
| NAMESERVER | - Host Name Server |
| NETBLT | - Bulk Data Transfer Protocol |
| NETED | - Network Standard Text Editor |
| NETRJS | - Remote Job Service |
| NI-FTP | - NI File Transfer Protocol |
| NI-MAIL | - NI Mail Protocol |
| NICNAME | - Who Is Protocol |
| NNTP | - Network News Transfer Protocol |
| NSW-FE | - NSW User System Front End |
| NTP | - Network Time Protocol |
| NVP-II | - Network Voice Protocol |
| POP2 | - Post Office Protocol - Version 2 |
| PRM | - Packet Radio Measurement |
| PUP | - PUP Protocol |
| PWDGEN | - Password Generator Protocol |
| QUOTE | - Quote of the Day Protocol |
| RDP | - Reliable Data Protocol |
| RJE | - Remote Job Entry |
| RLP | - Resource Location Protocol |
| RTELNET | - Remote Telnet Service |
| RVD | - Remote Virtual Disk Protocol |
| SAT-EXPAK | - Satnet and Backroom EXPAK |
| SAT-MON | - SATNET Monitoring |
| SFTP | - Simple File Transfer Protocol |
| SMTP | - Simple Mail Transfer Protocol |
| ST | - Stream Protocol |
| SU-MIT-TG | - SU/MIT Telnet Gateway Protocol |
| SUNRPC | - SUN Remote Procedure Call |
| SUPDUP | - SUPDUP Protocol |

| | |
|-----------|--------------------------------------|
| SUR-MEAS | - Survey Measurement |
| SWIFT-RVF | - Remote Virtual File Protocol |
| TACACS-DS | - TACACS-Database Service |
| TACNEWS | - TAC News |
| TCP | - Transmission Control Protocol |
| TELNET | - Telnet Protocol |
| TFTP | - Trivial File Transfer Protocol |
| TIME | - Time Server Protocol |
| TRUNK-1 | - Trunk-1 Protocol |
| TRUNK-2 | - Trunk-2 Protocol |
| UCL | - University College London Protocol |
| UDP | - User Datagram Protocol |
| USERS | - Active Users Protocol |
| UUCP-PATH | - UUCP Path Service |
| VIA-FTP | - VIA Systems-File Transfer Protocol |
| WB-EXPAK | - Wideband EXPAK |
| WB-MON | - Wideband Monitoring |
| XNET | - Cross Net Debugger |
| XNS-IDP | - Xerox NS IDP |

OFFICIAL TERMINAL TYPE NAMES

These are the Official Terminal Type Names. Their use is described in RFC 930 [124].

An Official Terminal Type Names may be up to 40 characters taken from the set of uppercase letters, digits, and the two punctuation characters hyphen and slash. It must start with a letter, and end with a letter or digit.

ADDS-CONSUL-980
ADDS-REGENT-100
ADDS-REGENT-20
ADDS-REGENT-200
ADDS-REGENT-25
ADDS-REGENT-40
ADDS-REGENT-60
AMPEX-DIALOGUE-80
ANDERSON-JACOBSON-630
ANDERSON-JACOBSON-832
ANDERSON-JACOBSON-841
ANN-ARBOR-AMBASSADOR
ARDS
BITGRAPH
BUSSIPLEXER
CALCOMP-565
CDC-456
CDI-1030
CDI-1203
CLNZ
COMPUCOLOR-II
CONCEPT-100
CONCEPT-104
CONCEPT-108
DATA-100
DATA-GENERAL-6053
DATAGRAPHIX-132A
DATAMEDIA-1520
DATAMEDIA-1521
DATAMEDIA-2500
DATAMEDIA-3025
DATAMEDIA-3025A
DATAMEDIA-3045
DATAMEDIA-3045A
DATAMEDIA-DT80/1
DATAPOINT-2200
DATAPOINT-3000

DATAPOINT-3300
DATAPOINT-3360
DEC-DECWRITER-I
DEC-DECWRITER-II
DEC-GT40
DEC-GT40A
DEC-GT42
DEC-LA120
DEC-LA30
DEC-LA36
DEC-LA38
DEC-VT05
DEC-VT100
DEC-VT132
DEC-VT50
DEC-VT50H
DEC-VT52
DELTA-DATA-5000
DELTA-TELTERM-2
DIABLO-1620
DIABLO-1640
DIGILOG-333
DTC-300S
EDT-1200
EXECUPORT-4000
EXECUPORT-4080
GENERAL-TERMINAL-100A
GSI
HAZELTINE-1500
HAZELTINE-1510
HAZELTINE-1520
HAZELTINE-2000
HP-2621
HP-2621A
HP-2621P
HP-2626
HP-2626A
HP-2626P
HP-2640
HP-2640A
HP-2640B
HP-2645
HP-2645A
HP-2648
HP-2648A
HP-2649
HP-2649A

IBM-3101
IBM-3101-10
IBM-3275-2
IBM-3276-2
IBM-3276-3
IBM-3276-4
IBM-3277-2
IBM-3278-2
IBM-3278-3
IBM-3278-4
IBM-3278-5
IBM-3279-2
IBM-3279-3
IMLAC
INFOTON-100
INFOTONKAS
ISC-8001
LSI-ADM-3
LSI-ADM-31
LSI-ADM-3A
LSI-ADM-42
MEMOREX-1240
MICROBEE
MICROTERM-ACT-IV
MICROTERM-ACT-V
MICROTERM-MIME-1
MICROTERM-MIME-2
NETRONICS
NETWORK-VIRTUAL-TERMINAL
OMRON-8025AG
PERKIN-ELMER-1100
PERKIN-ELMER-1200
PERQ
PLASMA-PANEL
QUME-SPRINT-5
SOROC
SOROC-120
SOUTHWEST-TECHNICAL-PRODUCTS-CT82
SUPERBEE
SUPERBEE-III-M
TEC
TEKTRONIX-4010
TEKTRONIX-4012
TEKTRONIX-4013
TEKTRONIX-4014
TEKTRONIX-4023
TEKTRONIX-4024

TEKTRONIX-4025
TEKTRONIX-4027
TELERAY-1061
TELERAY-3700
TELERAY-3800
TELETEC-DATASCREEN
TELETERM-1030
TELETYPE-33
TELETYPE-35
TELETYPE-37
TELETYPE-38
TELETYPE-43
TELEVIDEO-912
TELEVIDEO-920
TELEVIDEO-920B
TELEVIDEO-920C
TELEVIDEO-950
TERMINET-1200
TERMINET-300
TI-700
TI-733
TI-735
TI-743
TI-745
TYCOM
UNIVAC-DCT-500
VIDEO-SYSTEMS-1200
VIDEO-SYSTEMS-5000
VISUAL-200
XEROX-1720
ZENITH-H19
ZENITEC-30

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APPENDIX A

Network Numbers

The network numbers in class A, B, and C network addresses are allocated among Research, Defense, Government (Non-Defense) and Commercial uses.

Class A (highest-order bit 0)

| | |
|------------------------|----------|
| Research allocation: | 8 |
| Defense allocation: | 24 |
| Government allocation: | 24 |
| Commercial allocation: | 94 |
| Reserved Addresses: | (0, 127) |
| Total | 128 |

Class B (highest-order bits 1-0)

| | |
|------------------------|------------|
| Research allocation: | 1024 |
| Defense allocation: | 3072 |
| Government allocation: | 3072 |
| Commercial allocation: | 12286 |
| Reserved Addresses: | (0, 16383) |
| Total | 16384 |

Class C (highest-order bits 1-1-0)

| | |
|------------------------|--------------|
| Research allocation: | 65536 |
| Defense allocation: | 458725 |
| Government allocation: | 458725 |
| Commercial allocation: | 1572862 |
| Reserved Addresses: | (0, 2097151) |
| Total | 2097152 |

Class D (highest-order bits 1-1-1-0)

All addresses in this class are used for multicast addresses.

Class E (highest-order bits 1-1-1-1)

All addresses in this class are reserved for future use.

Within the Research community, network identifiers will only be granted to applicants who show evidence that they are acquiring standard Bolt Beranek and Newman gateway software or have implemented or are acquiring a gateway meeting the Exterior Gateway Protocol requirements. Acquisition of the Berkeley BSD 4.3 UNIX software might be considered evidence of the latter.

Experimental networks which later become operational need not be renumbered. Rather, the identifiers could be moved from Research to Defense, Government or Commercial status. Thus, network identifiers may change state among Research, Defense, Government and Commercial, but the number of identifiers allocated to each use must remain within the limits indicated above. To make possible this fluid assignment, the network identifier spaces are not allocated by simple partition, but rather by specific assignment.

Protocol Identifiers

These assignments are shared by the four communities.

Port Numbers

These assignments are shared by the four communities.

ARPANET Link Numbers

These assignments are shared by the four communities.

IP Version Numbers

These assignments are shared by the four communities.

TCP, IP and Telnet Option Identifiers

These assignments are shared by the four communities.

Implementation:

Joyce Reynolds is the coordinator for all number assignments.

