IEEE 802 Numbers

Last Updated

2018-01-13

Note

This page has assignments under the control of the IEEE Registration Authority that are of primarily historic interest that and have traditionally been on the IANA web pages. For allocations under the IANA OUI $[{\hbox{\scriptsize {\it RFC7042}}}]$, see the "Ethernet Numbers" IANA web page. Contact information for the IEEE Registration Authority is as follows:

[http://standards.ieee.org/develop/regauth]

Phone: +1 732 465 6481

Address: The IEEE Registration Authority

445 Hoes Lane

Piscataway, NJ 08854 USA

Available Formats







HTML Plain text

Registries included below

• ETHER TYPES

- ORGANIZATIONALLY UNIQUE IDENTIFIERS
- Logical Link Control (LLC) Numbers

ETHER TYPES

Registration Procedure(s)

Not assigned by IANA. Per RFC 7042, updates to this registry are coordinated with the expert.

Expert(s)

Donald Eastlake (primary), Juan Carlos Zuniga (secondary)

Reference

[IEEE][RFC7042]

Note

The following list of EtherTypes is contributed unverified information from various sources. See the IEEE Registration Authority web pages at [http://standards.ieee.org/develop/regauth] for a public list of Ethertypes.

Another list of EtherTypes is maintained by Michael A. Patton and is accessible at:

[http://www.cavebear.com/archive/cavebear/Ethernet/index.html] [ftp://ftp.cavebear.com/pub/Ethernet.txt]

Available Formats



| Ethertype (decimal) | Ethertype (hex) | Exp. Ethernet (decimal) | Exp. Ethernet (octal) | Description ∑ | References ▼ |
|------------------------|-----------------|-------------------------------|-----------------------------|---------------------------|---------------------|
| 0000 | 0000- 05DC | - | - | IEEE802.3 Length Field | [Neil_Sembower] |
| 0257 | 0101- 01FF | - | - | Experimental | [Neil_Sembower] |

| Ethertype (decimal) | Ethertype (hex) | Exp. Ethernet (decimal) | Exp. Ethernet (octal) | Description 🖫 | References ▼ |
|------------------------|-----------------|-------------------------------|-----------------------------|---|---|
| 0512 | 0200 | 512 | 1000 | XEROX PUP (see 0A00) | [Boggs, D., J. Shoch, E. Taft, and R. Metcalfe, "PUP: An Internetwork Architecture", XEROX Palo Alto Research Center, CSL-79-10, July 1979; also in IEEE Transactions on Communication, Volume COM-28, Number 4, April 1980.][Neil Sembower] |
| 0513 | 0201 | - | - | PUP Addr Trans (see 0A01) | [Neil_Sembower] |
| | 0400 | | | Nixdorf | [Neil_Sembower] |
| 1536 | 0600 | 1536 | 3000 | XEROX NS IDP | ["The Ethernet, A Local Area Network: Data Link Layer and Physical Layer Specification", AA-K759B-TK, Digital Equipment Corporation, Maynard, MA. Also as: "The Ethernet - A Local Area Network", Version 1.0, Digital Equipment Corporation, Intel Corporation, Xerox Corporation, September 1980. And: "The Ethernet, A Local Area Network: Data Link Layer and Physical Layer Specifications", Digital, Intel and Xerox, November 1982. And: XEROX, "The Ethernet, A Local Area Network: Data Link Layer and Physical Layer Specification", X3T51/80-50, Xerox Corporation, Stamford, CT., October 1980.][Neil Sembower] |
| | 0660 | | | DLOG | [Neil Sembower] |
| | 0661 | | | DLOG | [Neil Sembower] |
| 2048 | 0800 | 513 | 1001 | Internet Protocol version 4 (IPv4) | [RFC7042] |
| 2049 | 0801 | - | - | X.75 Internet | [Neil Sembower] |
| 2050 | 0802 | - | - | NBS Internet | [Neil Sembower] |
| 2051 | 0803 | - | - | ECMA Internet | [Neil Sembower] |
| 2052 | 0804 | - | - | Chaosnet | [Neil_Sembower] |
| 2053 | 0805 | - | - | X.25 Level 3 | [Neil_Sembower] |
| 2054 | 0806 | - | - | Address Resolution Protocol (ARP) | [RFC7042] |
| 2055 | 0807 | - | - | XNS Compatability | [Neil_Sembower] |
| 2056 | 0808 | - | - | Frame Relay ARP | [<u>RFC1701</u>] |
| 2076 | 081C | - | - | Symbolics Private | [David_Plummer] |
| 2184 | 0888- 088A | - | - | Xyplex | [Neil Sembower] |
| 2304 | 0900 | - | - | Ungermann- Bass net debugr | [Neil Sembower] |
| 2560 | 0A00 | - | - | Xerox IEEE802.3 PUP | [Neil Sembower] |
| 2561 | 0A01 | - | - | PUP Addr Trans | [Neil Sembower] |
| 2989 | 0BAD | - | - | Banyan VINES | [Neil Sembower] |
| 2990 | 0BAE | - | - | VINES Loopback | [RFC1701] |
| 2991 | 0BAF | - | - | VINES Echo | [RFC1701] |
| 4096 | 1000 | - | - | Berkeley Trailer nego | [Neil_Sembower] |
| | | | | | |

| X | (hex) 🔣 | (decimal) | Ethernet (octal) | Description 🖫 | References 🖫 |
|--------|---------------|-----------|------------------|-----------------------------|-----------------------------------|
| 5632 | 1600 | - | - | Valid Systems | [Neil Sembower] |
| | 22F3 | | | TRILL | [RFC6325] |
| | 22F4 | | | L2-IS-IS | [RFC6325] |
| 16962 | 4242 | _ | _ | PCS Basic | [Neil Sembower] |
| 10002 | 7272 | | | Block Protocol | [Nell_Gettibower] |
| 21000 | 5208 | _ | _ | BBN Simnet | [Neil Sembower] |
| 24576 | 6000 | _ | - | DEC | [Neil Sembower] |
| | | | | Unassigned (Exp.) | |
| 24577 | 6001 | - | - | DEC MOP Dump/Load | [Neil_Sembower] |
| 24578 | 6002 | - | - | DEC MOP Remote Console | [Neil_Sembower] |
| 24579 | 6003 | - | - | DEC DECNET Phase IV Route | [Neil_Sembower] |
| 24580 | 6004 | - | - | DEC LAT | [Neil_Sembower] |
| 24581 | 6005 | - | - | DEC Diagnostic | [Neil_Sembower] |
| | | | | Protocol | |
| 24582 | 6006 | - | - | DEC Customer Protocol | [Neil_Sembower] |
| 24583 | 6007 | - | - | DEC LAVC, SCA | [Neil_Sembower] |
| 24584 | 6008- 6009 | - | - | DEC Unassigned | [Neil_Sembower] |
| 24592 | 6010- 6014 | - | - | 3Com Corporation | [Neil_Sembower] |
| 25944 | 6558 | - | - | Trans Ether Bridging | [RFC1701] |
| 25945 | 6559 | - | - | Raw Frame Relay | [RFC1701] |
| 28672 | 7000 | - | - | Ungermann- Bass download | [Neil_Sembower] |
| 28674 | 7002 | - | - | Ungermann- Bass dia/loop | [Neil_Sembower] |
| 28704 | 7020- 7029 | - | - | LRT | [Neil_Sembower] |
| 28720 | 7030 | - | - | Proteon | [Neil_Sembower] |
| 28724 | 7034 | - | - | Cabletron | [Neil_Sembower] |
| 32771 | 8003 | - | - | Cronus VLN | [RFC824][Daniel_Tappan] |
| 32772 | 8004 | - | - | Cronus Direct | [RFC824][Daniel_Tappan] |
| 32773 | 8005 | - | - | HP Probe | [Neil_Sembower] |
| 32774 | 8006 | - | - | Nestar | [Neil_Sembower] |
| 32776 | 8008 | - | - | AT&T | [Neil_Sembower] |
| 32784 | 8010 | - | - | Excelan | [Neil Sembower] |
| 32787 | 8013 | - | - | SGI diagnostics | [Andrew Cherenson] |
| 32788 | 8014 | - | - | SGI network games | [Andrew_Cherenson] |
| 32789 | 8015 | - | - | SGI reserved | [Andrew_Cherenson] |
| 32790 | 8016 | - | - | SGI bounce server | [Andrew_Cherenson] |
| 32793 | 8019 | - | - | Apollo Domain | [Neil_Sembower] |
| 32814 | 802E | - | - | Tymshare | [Neil Sembower] |
| 32815 | 802F | - | - | Tigan, Inc. | [Neil Sembower] |
| 32821 | 8035 | _ | _ | Reverse | [RFC903][Joseph Murdock] |
| 0202 I | 3000 | | | Address Resolution | <u>[.v. occol[occohi_maracon]</u> |
| | | | | Protocol (RARP) | |

| Ethertype (decimal) | Ethertype (hex) | Exp. Ethernet (decimal) | Exp. Ethernet (octal) | Description 🖫 | References 🖫 |
|------------------------|-----------------|-------------------------|-----------------------|-----------------------------|---------------------|
| 32824 | 8038 | - | - | DEC LANBridge | [Neil Sembower] |
| 32825 | 8039- 803C | - | - | DEC Unassigned | [Neil_Sembower] |
| 32829 | 803D | - | - | DEC Ethernet Encryption | [Neil_Sembower] |
| 32830 | 803E | - | - | DEC Unassigned | [Neil_Sembower] |
| 32831 | 803F | - | - | DEC LAN Traffic Monitor | [Neil_Sembower] |
| 32832 | 8040- 8042 | - | - | DEC Unassigned | [Neil_Sembower] |
| 32836 | 8044 | - | - | Planning Research Corp. | [Neil_Sembower] |
| 32838 | 8046 | - | - | AT&T | [Neil_Sembower] |
| 32839 | 8047 | - | - | AT&T | [Neil_Sembower] |
| 32841 | 8049 | - | - | ExperData | [Neil_Sembower] |
| 32859 | 805B | - | - | Stanford V Kernel exp. | [Neil_Sembower] |
| 32860 | 805C | - | - | Stanford V Kernel prod. | [Neil_Sembower] |
| 32861 | 805D | - | - | Evans & Sutherland | [Neil_Sembower] |
| 32864 | 8060 | - | - | Little Machines | [Neil_Sembower] |
| 32866 | 8062 | _ | - | Counterpoint Computers | [Neil_Sembower] |
| 32869 | 8065 | - | - | Univ. of Mass. @ Amherst | [Neil Sembower] |
| 32870 | 8066 | - | - | Univ. of Mass. @ Amherst | [Neil_Sembower] |
| 32871 | 8067 | - | - | Veeco Integrated Auto. | [Neil_Sembower] |
| 32872 | 8068 | - | - | General Dynamics | [Neil_Sembower] |
| 32873 | 8069 | - | - | AT&T | [Neil Sembower] |
| 32874 | 806A | - | - | Autophon | [Neil Sembower] |
| 32876 | 806C | - | - | ComDesign | [Neil Sembower] |
| 32877 | 806D | - | - | Computgraphic Corp. | [Neil_Sembower] |
| 32878 | 806E- 8077 | - | - | Landmark Graphics Corp. | [Neil_Sembower] |
| 32890 | 807A | - | - | Matra | [Neil Sembower] |
| 32891 | 807B | - | - | Dansk Data Elektronik | [Neil_Sembower] |
| 32892 | 807C | - | - | Merit Internodal | [Hans Werner Braun] |
| 32893 | 807D- 807F | - | - | Vitalink Communications | [Neil_Sembower] |
| 32896 | 8080 | - | - | Vitalink TransLAN III | [Neil_Sembower] |
| 32897 | 8081- 8083 | - | - | Counterpoint Computers | [Neil_Sembower] |
| 32923 | 809B | - | - | Appletalk | [Neil_Sembower] |
| 32924 | 809C- 809E | - | - | Datability | [Neil_Sembower] |
| 32927 | 809F | - | - | Spider Systems Ltd. | [Neil_Sembower] |
| 32931 | 80A3 | - | - | Nixdorf Computers | [Neil_Sembower] |

| Ethertype (decimal) | Ethertype (hex) | Exp. Ethernet (decimal) | Exp. Ethernet (octal) | Description 🖫 | References 🖫 |
|------------------------|------------------------|-------------------------|-----------------------|---|-----------------|
| 32932 | 80A4- 80B3 | - | - | Siemens Gammasonics Inc. | [Neil_Sembower] |
| 32960 | 80C0- 80C3 | - | - | DCA Data Exchange Cluster | [Neil_Sembower] |
| 32964 | 80C4 | - | - | Banyan Systems | [Neil_Sembower] |
| 32965 | 80C5 | - | - | Banyan Systems | [Neil_Sembower] |
| 32966 | 80C6 | - | - | Pacer Software | [Neil_Sembower] |
| 32967 | 80C7 | - | - | Applitek Corporation | [Neil_Sembower] |
| 32968 | 80C8- 80CC | - | - | Intergraph Corporation | [Neil_Sembower] |
| 32973 | 80CD- 80CE | - | - | Harris Corporation | [Neil_Sembower] |
| 32975 | 80CF- 80D2 | - | - | Taylor Instrument | [Neil_Sembower] |
| 32979 | 80D3- 80D4 | - | - | Rosemount Corporation | [Neil_Sembower] |
| 32981 | 80D5 | - | - | IBM SNA Service on Ether | [Neil_Sembower] |
| 32989 | 80DD | - | - | Varian Associates | [Neil_Sembower] |
| 32990 | 80DE- 80DF | - | - | Integrated Solutions TRFS | [Neil Sembower] |
| 32992 32996 | 80E0- 80E3 80E4- | - | - | Allen-Bradley | [Neil Sembower] |
| 33010 | 80F0 80F2 | - | - | Datability Retix | [Neil Sembower] |
| | | - | - | | |
| 33011 | 80F3 80F4- | - | - | AppleTalk AARP (Kinetics) Kinetics | [Neil_Sembower] |
| | 80F5 | - | - | | [Neil_Sembower] |
| 33015 | 80F7 | - | - | Apollo Computer | [Neil Sembower] |
| 33023 | 80FF | - | - | Wellfleet Communications | [Neil_Sembower] |
| 33024 | 8100 | - | - | Customer VLAN Tag Type (C- Tag, formerly called the Q- Tag) (initially Wellfleet) | [RFC7042] |
| 33025 | 8101- 8103 | - | - | Wellfleet Communications | [Neil_Sembower] |
| 33031 | 8107- 8109 | - | - | Symbolics Private | [Neil Sembower] |
| 33072 | 8130 | - | - | Hayes Microcomputers | [Neil_Sembower] |
| 33073 | 8131 | - | - | VG Laboratory Systems | [Neil_Sembower] |
| 33074 | 8132- 8136 | | | Bridge Communications | [Neil_Sembower] |
| 33079 | 8137- 8138 | - | - | Novell, Inc. | [Neil_Sembower] |
| 33081 | 8139- 813D | - | - | KTI | [Neil_Sembower] |

| Ethertype (decimal) | Ethertype (hex) 🖫 | Exp. Ethernet (decimal) | Exp. Ethernet (octal) | Description ∑ | References ∑ |
|------------------------|------------------------|-------------------------------|-----------------------------|--------------------------------------|---------------------|
| | 8148 | | | Logicraft | [Neil_Sembower] |
| | 8149 | | | Network Computing Devices | [Neil_Sembower] |
| | 814A | | | Alpha Micro | [Neil_Sembower] |
| 33100 | 814C | - | - | SNMP | [Joyce_K_Reynolds] |
| | 814D | | | BIIN | [Neil_Sembower] |
| | 814E | | | BIIN | [Neil_Sembower] |
| | 814F | | | Technically Elite Concept | [Neil_Sembower] |
| | 8150 | | | Rational Corp | [Neil_Sembower] |
| | 8151- 8153 | | | Qualcomm | [Neil_Sembower] |
| | 815C- 815E | | | Computer Protocol Pty Ltd | [Neil_Sembower] |
| | 8164- 8166 | | | Charles River Data System | [Neil_Sembower] |
| | 817D | | | XTP | [Neil_Sembower] |
| | 817E | | | SGI/Time Warner prop. | [Neil_Sembower] |
| | 8180 | | | HIPPI-FP encapsulation | [Neil_Sembower] |
| | 8181 | | | STP, HIPPI-ST | [Neil_Sembower] |
| | 8182 | | | Reserved for HIPPI-6400 | [Neil_Sembower] |
| | 8183 | | | Reserved for HIPPI-6400 | [Neil_Sembower] |
| | 8184- 818C | | | Silicon Graphics prop. | [Neil_Sembower] |
| | 818D | | | Motorola Computer | [Neil_Sembower] |
| | 819A- 81A3 | | | Qualcomm | [Neil_Sembower] |
| | 81A4 | | | ARAI Bunkichi | [Neil Sembower] |
| | 81A5- 81AE | | | RAD Network Devices | [Neil_Sembower] |
| | 81B7- 81B9 | | | Xyplex | [Neil_Sembower] |
| | 81CC- 81D5 | | | Apricot Computers | [Neil_Sembower] |
| | 81D6- 81DD | | | Artisoft | [Neil_Sembower] |
| | 81E6- 81EF | | | Polygon Compat Labo | [Neil_Sembower] |
| | 81F0- 81F2 | | | Comsat Labs | [Neil_Sembower] |
| | 81F3- 81F5 | | | SAIC VC Applytical | [Neil_Sembower] |
| | 81F6- 81F8 | | | VG Analytical | [Neil_Sembower] |
| | 8203- 8205 8221- | | | Quantum Software | [Neil_Sembower] |
| | 8221- 8222 823E- | | | Ascom Banking Systems Advanced | [Neil_Sembower] |
| | 8240 | | | Encryption Syste | [Neil_Sembower] |

| Ethertype (decimal) | Ethertype (hex) | Exp. Ethernet (decimal) | Exp. Ethernet (octal) | Description 🖫 | References 🖫 |
|------------------------|-----------------|-------------------------------|-----------------------------|---|--------------------------|
| | 827F- 8282 | | | Athena Programming | [Neil Sembower] |
| | 8263- 826A | | | Charles River Data System | [Neil_Sembower] |
| | 829A- 829B | | | Inst Ind Info Tech | [Neil_Sembower] |
| | 829C- 82AB | | | Taurus Controls | [Neil_Sembower] |
| | 82AC- 8693 | | | Walker Richer & Quinn | [Neil_Sembower] |
| | 8694- 869D | | | Idea Courier | [Neil_Sembower] |
| | 869E- 86A1 | | | Computer Network Tech | [Neil_Sembower] |
| | 86A3- 86AC | | | Gateway Communications | [Neil_Sembower] |
| | 86DB | | | SECTRA | [Neil_Sembower] |
| | 86DE | | | Delta Controls | [Neil_Sembower] |
| | 86DD | | | Internet Protocol version 6 (IPv6) | [RFC7042] |
| 34527 | 86DF | - | - | ATOMIC | [<u>JBP</u>] |
| | 86E0- 86EF | | | Landis & Gyr Powers | [Neil_Sembower] |
| | 8700- 8710 | | | Motorola | [Neil_Sembower] |
| 34667 | 876B | - | - | TCP/IP Compression | [RFC1144][RFC1701] |
| 34668 | 876C | - | - | IP Autonomous Systems | [RFC1701] |
| 34669 | 876D | - | - | Secure Data | [RFC1701] |
| | 8808 | | | IEEE Std 802.3 - Ethernet Passive Optical Network (EPON) | [EPON][<u>RFC7042</u>] |
| | 880B | | | Point-to-Point Protocol (PPP) | [RFC7042] |
| | 880C | | | General Switch Management Protocol (GSMP) | [RFC7042] |
| | 8847 | | | MPLS | [RFC5332] |
| | 8848 | | | MPLS with upstream-assigned label | [RFC5332] |
| | 8861 | | | Multicast Channel Allocation Protocol (MCAP) | [RFC7042] |
| 34915 | 8863 | - | - | PPP over Ethernet (PPPoE) Discovery Stage | [RFC2516] |
| 34916 | 8864 | - | - | PPP over Ethernet (PPPoE) Session Stage | [RFC2516] |

| Ethertype (decimal) | Ethertype (hex) 🖫 | Exp. Ethernet (decimal) | Exp. Ethernet (octal) | Description 🖫 | References 🖫 |
|------------------------|----------------------|-------------------------|-----------------------|---|------------------------|
| 34958 | 888E | - | - | IEEE Std 802.1X - Port- based network access control | (IEEE) |
| 34984 | 88A8 | - | - | IEEE Std 802.1Q - Service VLAN tag identifier (S- Tag) | [IEEE] |
| | 8A96- 8A97 | | | Invisible Software | [Neil_Sembower] |
| 34997 | 88B5 | - | - | IEEE Std 802 - Local Experimental Ethertype | [IEEE] |
| 34998 | 88B6 | - | - | IEEE Std 802 - Local Experimental Ethertype | (IEEE) |
| 34999 | 88B7 | - | - | IEEE Std 802 - OUI Extended Ethertype | [IEEE] |
| 35015 | 88C7 | - | - | IEEE Std 802.11 - Pre- Authentication (802.11i) | [IEEE] |
| 35020 | 88CC | - | - | IEEE Std 802.1AB - Link Layer Discovery Protocol (LLDP) | [IEEE] |
| 35045 | 88E5 | - | - | IEEE Std 802.1AE - Media Access Control Security | [IEEE] |
| 35047 | 88E7 | - | - | Provider Backbone Bridging Instance tag | [IEEE Std 802.1Q-2014] |
| 35061 | 88F5 | - | - | IEEE Std 802.1Q - Multiple VLAN Registration Protocol (MVRP) | [IEEE] |
| 35062 | 88F6 | - | - | IEEE Std 802.1Q - Multiple Multicast Registration Protocol (MMRP) | [IEEE] |
| 35085 | 890D | - | - | IEEE Std 802.11 - Fast Roaming Remote Request (802.11r) | [IEEE] |
| 35095 | 8917 | - | - | IEEE Std 802.21 - Media Independent Handover Protocol | (IEEE) |

| Ethertype (decimal) | Ethertype (hex) 🖫 | Exp. Ethernet (decimal) | Exp. Ethernet (octal) | Description 🖫 | References 🖫 |
|------------------------|----------------------|-------------------------------|-----------------------------|---|--------------------|
| 35113 | 8929 | - | - | IEEE Std 802.1Qbe - Multiple I-SID Registration Protocol | [IEEE] |
| 35131 | 893B | - | - | TRILL Fine Grained Labeling (FGL) | [RFC7172] |
| 35136 | 8940 | - | - | IEEE Std 802.1Qbg - ECP Protocol (also used in 802.1BR) | [IEEE] |
| 35142 | 8946 | - | - | TRILL RBridge Channel | [<u>RFC7178</u>] |
| 35143 | 8947 | - | - | GeoNetworking as defined in ETSI EN 302 636-4-1 | (IEEE) |
| 35151 | 894F | - | - | NSH (Network Service Header) | [RFC8300] |
| 36864 | 9000 | - | - | Loopback | [Neil_Sembower] |
| 36865 | 9001 | - | - | 3Com(Bridge) XNS Sys Mgmt | [Neil_Sembower] |
| 36866 | 9002 | - | - | 3Com(Bridge) TCP-IP Sys | [Neil_Sembower] |
| 36867 | 9003 | - | - | 3Com(Bridge) loop detect | [Neil Sembower] |
| 41197 | A0ED | - | - | LoWPAN encapsulation | [RFC7973] |
| 47082 | B7EA | | - | The Ethertype will be used to identify a "Channel" in which control messages are encapsulated as payload of GRE packets. When a GRE packet tagged with the Ethertype is received, the payload will be handed to the network processor for processing. | [RFC8157] |
| 65280 | FF00 | - | - | BBN VITAL- LanBridge cache | [Neil_Sembower] |
| | FF0F | | | ISC Bunker Ramo | [Neil_Sembower] |
| 65535 | FFFF | - | - | Reserved | [RFC1701] |

ORGANIZATIONALLY UNIQUE IDENTIFIERS

Registration Procedure(s)

Not assigned by IANA. Per RFC 7042, updates to this registry are coordinated with the expert.

Expert(s)

Donald Eastlake (primary), Juan Carlos Zuniga (secondary)

Reference

[IEEE]

Note

Another list of Ethernet vendor address components is maintained by Michael A. Patton and is accessible at:

[http://www.cavebear.com/archive/cavebear/Ethernet/Ethernet.txt]

Available Formats



| Hex 🔳 | Name 🖫 | References ▼ |
|--------|--|---------------------|
| 00000C | Cisco | |
| 00000E | Fujitsu | |
| 00000F | NeXT | |
| 000010 | Sytek | |
| 00001D | Cabletron | |
| 000020 | DIAB (Data Intdustrier AB) | |
| 000022 | Visual Technology | |
| 00002A | TRW | |
| 000032 | GPT Limited (reassigned from GEC Computers Ltd) | |
| 00005A | S & Koch | |
| 00005E | IANA | |
| 000065 | NetScout Systems, Inc. | [Ashwani Singhal] |
| 00006B | MIPS | |
| 000077 | Interphase Corporation | |
| 00007A | Ardent | |
| 080000 | Cray Communications A/S | |
| 000089 | Cayman Systems Gatorbox | |
| 000093 | Proteon | |
| 00009F | Ameristar Technology | |
| 0000A2 | Wellfleet | |
| 0000A3 | Network Application Technology | |
| 0000A6 | NetScout Systems, Inc. (internal assignment, not for products) | [Ashwani_Singhal] |
| 0000A7 | NCD X-terminals | |
| 0000A9 | Network Systems | |
| 0000AA | Xerox Xerox machines | |
| 0000B3 | CIMLinc | |
| 0000B7 | Dove Fastnet | |
| 0000BC | Allen-Bradley | |
| 0000C0 | Western Digital | |
| 0000C5 | Farallon phone net card | |
| 0000C6 | HP Intelligent Networks Operation (formerly Eon Systems) | |
| 0000C8 | Altos | |
| 0000C9 | Emulex Terminal Servers | |
| 0000D0 | Develcon | |
| 0000D7 | Dartmouth College (NED Router) | |
| 8D0000 | 3Com? Novell? PS/2 | |
| 0000DD | Gould | |
| 0000DE | Unigraph | |
| 0000E2 | Acer Counterpoint | |
| 0000EF | Alantec | |
| 0000FD | High Level Hardvare (Orion, UK) | |
| 0000FD | High Level Hardvare (Orion, UK) | |

| Hex 🔳 | Name 🖫 | References 🖫 |
|------------------|--|---|
| 000102 | BBN BBN internal usage (not registered) | |
| 0010D1 | BlazeNet | |
| 001700 | Kabel | |
| 0020AF | 3COM ??? | |
| 0020C9 | Victron | |
| 002094 | Cubix | |
| 00802B | IMAC ??? | |
| 00802D | Xylogics, Inc. Annex terminal servers | |
| 008037 | Ericsson | [Ericsson Group, Telefonaktiebolaget, LM Ericsson Corp. 126 25 STOCKHOLM, SWEDEN, SWEDEN] |
| 008064 | Wyse Technology / Link Technologies | |
| 00808C | NetScout Systems, Inc. | [Ashwani_Singhal] |
| 0080C2 | IEEE 802.1 Committee | |
| 0080D3 | Shiva | |
| 00A03E | ATM Forum | |
| 00AA00 | Intel | |
| 00DD00 | Ungermann-Bass | |
| 00DD01 | Ungermann-Bass | |
| 020701 | Racal InterLan | |
| 020406 | BBN BBN internal usage (not registered) | |
| 026086 | Satelcom MegaPac (UK) | |
| 02608C | 3Com IBM PC; Imagen; Valid; Cisco | |
| 02CF1F | CMC Masscomp; Silicon Graphics; Prime EXL | |
| 080002 | 3Com (Formerly Bridge) | |
| 080003 | ACC (Advanced Computer Communications) | |
| 080005 | Symbolics Symbolics LISP machines | |
| 80008 | BBN | |
| 080009 | Hewlett-Packard | |
| A00080 | Nestar Systems | |
| 08000B | Unisys | |
| 080011 | Tektronix, Inc. | |
| 080014 | Excelan BBN Butterfly, Masscomp, Silicon Graphics | |
| 080017 | NSC | |
| 08001A | Data General | |
| 08001B | Data General | |
| 08001E | Apollo | |
| 080020 | Sun Sun machines | |
| 080022 | NBI | |
| 080025 | CDC | |
| 080026 | Norsk Data (Nord) | |
| 080027 | PCS Computer Systems GmbH | |
| 080027 | TI Explorer | |
| 08002B | DEC | |
| 08002B 08002E | Metaphor | |
| 08002E | Prime Computer Prime 50-Series LHC300 | |
| 080036 | Intergraph CAE stations | |
| 080037 | Fuji-Xerox | |
| | Bull | |
| 080038 | DUII | |

| Hex 🔳 | Name 🔳 | References 🖫 |
|--------|---|--------------|
| 080041 | DCA Digital Comm. Assoc. | |
| 080045 | ???? (maybe Xylogics, but they claim not to know this number) | |
| 080046 | Sony | |
| 080047 | Sequent | |
| 080049 | Univation | |
| 08004C | Encore | |
| 08004E | BICC | |
| 080056 | Stanford University | |
| 080058 | ??? DECsystem-20 | |
| 08005A | IBM | |
| 080067 | Comdesign | |
| 080068 | Ridge | |
| 080069 | Silicon Graphics | |
| 08006E | Concurrent Masscomp | |
| 080075 | DDE (Danish Data Elektronik A/S) | |
| 08007C | Vitalink TransLAN III | |
| 080080 | XIOS | |
| 080086 | Imagen/QMS | |
| 080087 | Xyplex terminal servers | |
| 080089 | Kinetics AppleTalk-Ethernet interface | |
| 08008B | Pyramid | |
| 08008D | XyVision XyVision machines | |
| 080090 | Retix Inc Bridges | |
| 484453 | HDS ??? | |
| 800010 | AT&T | |
| AA0000 | DEC obsolete | |
| AA0001 | DEC obsolete | |
| AA0002 | DEC obsolete | |
| AA0003 | DEC Global physical address for some DEC machines | |
| AA0004 | DEC Local logical address for systems running DECNET | |

Logical Link Control (LLC) Numbers

Registration Procedure(s)

Not assigned by $\overline{\text{IANA}}$. Per RFC 7042, updates to this registry are coordinated with the expert.

Expert(s)

Donald Eastlake (primary), Juan Carlos Zuniga (secondary)

Reference

[IEEE]

Note

There is also a public listing of LLC numbers on the IEEE Registration Authority web pages at

[http://standards.ieee.org/develop/regauth].

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.

Available Formats



| Link Service Access Point (IEEE Binary) 🖫 | Link Service Access Point (Internet Binary) | Link Service Access Point (Decimal) 🖫 | Description | References |
|--|--|--|---------------------------|------------------------------------|
| 00000000 | 0000000 | 0 | Null LSAP | [IEEE] |
| 01000000 | 00000010 | 2 | Indiv LLC Sublayer Mgt | [IEEE] |
| 11000000 | 00000011 | 3 | Group LLC Sublayer Mgt | [IEEE] |
| 00100000 | 00000100 | 4 | SNA Path Control | [IEEE] |
| 01100000 | 00000110 | 6 | Reserved (DOD IP) | [<u>RFC768]</u> [<u>JBP]</u> |
| 01110000 | 00001110 | 14 | PROWAY- LAN | [IEEE] |
| 01110010 | 01001110 | 78 | EIA-RS 511 | [IEEE] |
| 01111010 | 01011110 | 94 | ISI IP | [JBP] |
| 01110001 | 10001110 | 142 | PROWAY- LAN | [IEEE] |
| 01010101 | 10101010 | 170 | SNAP | [IEEE] |
| 01111111 | 11111110 | 254 | ISO CLNS IS 8473 | [<u>RFC926]</u> [<u>JXJ</u>] |
| 11111111 | 11111111 | 255 | Global DSAP | [IEEE] |

People

| ID 🖫 | Name 🖫 | Organization | Contact URI <u>▼</u> | Last Updated |
|---------------------|--|---------------------------------------|--|-----------------|
| [Andrew_Cherenson] | Andrew Cherenson | | mailto:arc&sgi.com | |
| [Ashwani_Singhal] | Ashwani Singhal | | mailto:Ashwani.Singhal&netscout.com | 2010-04- 05 |
| [Daniel_Tappan] | Daniel Tappan | | mailto:Tappan&bbn.com | |
| [David_Plummer] | David Plummer | | mailto:DCP&scrc-quabbin.arpa | |
| [Hans_Werner_Braun] | Hans- Werner Braun | | mailto:HWB&mcr.umich.edu | |
| [IANA] | Internet Assigned Numbers Authority | | mailto:iana&iana.org | 1996-10 |
| [JBP] | Jon Postel | | mailto:postel&isi.edu | |
| [Joseph_Murdock] | Joseph Murdock | | | |
| [Joyce_K_Reynolds] | Joyce K. Reynolds | | mailto:jkrey&isi.edu | |
| [JXJ] | mystery contact | | | |
| [Neil_Sembower] | Neil Sembower | XEROX | mailto:sembower&eso.mc.xerox.com | |
| (IEEE) | | The IEEE Registration Authority | http://standards.ieee.org/develop/regauth/ | |