Internet Official Protocol Standards

Status of this Memo

Copyright Notice

Abstract

This memo contains a snapshot of the state of standardization of
protocols used in the Internet as of April 17, 2001. It lists only
official protocol standards RFCs; it is not a complete index to the
RFC series. The latest version of this memo is designated STD 1.

Table of Contents

1. Overview

   This memo contains a snapshot of the state of standardization of
   protocols used in the Internet, as determined by the Internet
   Engineering Task Force (IETF). It is an April 17, 2001 snapshot of
   the current official protocol standards list, which is updated daily
   and is available from the RFC Editor Web site.

   The RFC Editor publishes Request for Comments (RFC) documents that
   are the output of the IETF process or are submitted individually via
   electronic mail. Further information about the RFC series is
   contained in section 2.1, RFC 2026 and at http://www.rfc-editor.org.

   This memo is published by the RFC Editor for the IESG and IAB in
   accordance with Section 2.1 of "The Internet Standards Process --
   Revision 3", RFC 2026, which specifies the rules and procedures by
   which all Internet standards are set. Sections 3.1 - 3.6 of this
   memo contain the lists of protocols in each stage of standardization
   - Standard, Draft Standard, Proposed Standard, Experimental and
   Historic. Protocols that are new to this document or have been moved
   from one protocol level to another, or that differ from the previous
   edition of this document are marked with an asterisk. Informational
   RFCs are not included. This memo lists the current standards track,
   Experimental, and Historic protocols; it is not a complete index to
   RFCs.

2. Resources

   This section contains important contact information, for reference.

2.1. Internet-Related Organizations

   Internet Architecture Board (IAB) Contact: www.iab.org

   Internet Engineering Task Force (IETF) Contact: www.ietf.org

   Internet Research Task Force (IRTF) Contact: www.irtf.org

   Internet Assigned Numbers Authority (IANA) Contact: www.iana.org

2.2. Request for Comments Editor (RFC Editor) Web Pages

   The RFC Editor maintains the official repository of all RFCs and
   indexes to them. The RFC Editor web site is:

      http://www.rfc-editor.org.

At this URL, a user can:

(a) Obtain the current "Internet Official Protocol Standards" list.
    See:

       http://www.rfc-editor.org/rfcxx00.html

    This hyper-linked listing is updated daily.

(b) Retrieve the latest version of this STD 1 memo. See:

       http://www.rfc-editor.org/go.html, and select STD and "1".

(c) Retrieve text of any RFC. See:

       http://www.rfc-editor.org/go.html

(d) Search for RFCs by category. See:

       http://www.rfc-editor.org/category.html

(e) Search the RFC index for document number, author, title, and/or
    keywords, and retrieve the text of any matching documents. See:

       http://www.rfc-editor.org/rfcsearch.html

   RFC information can also be retrieved using FTP or email.

2.3 Retrieval using FTP

   RFC-related files may be copied via FTP from the FTP.RFC-EDITOR.ORG
   computer using the FTP username "anonymous" and password
   "name@host.domain". An FTP user can:

(a) Retrieve the latest version of this STD 1 memo.

       File: "in-notes/std/std1.txt"

(b) Retrieve text of any RFC.

    File: "in-notes/rfcnnnn.txt" will retrieve the ASCII version.
    Some RFCs also have secondary Postscript and/or PDF versions,
    available from File: "in-notes/rfcnnnn.ps" and/or
    "in-notes/rfcnnnn.pdf", respectively.

    Here "nnnn" is a 1-4 digit RFC number, with no leading zeros.

2.4 Search and Retrieval Using Email

   To use the RFC Editor's email-based RFC-INFO service, send a request
   to:

      RFC-INFO@RFC-EDITOR.ORG

   In the message body, include your information request. For example,
   the following message bodies may be used.

   (a) To retrieve the latest version of this STD 1 memo:

         Retrieve: STD
           Doc-ID: STD0001

   (b) To retrieve ASCII text of any RFC:

         Retrieve: RFC
           Doc-ID: RFCnnnn

      Here "nnnn" must be filled with leading zeros to 4 digits.

   (c) The RFC-INFO@RFC-EDITOR.ORG server provides other capabilities,
       e.g., search and retrieval based on author, title, and/or
       keyword. For more information, send the following message body
       to the server:

         help: help

   The server will email back the results.

3. Current Technical Specifications

3.1. Standard Protocols Ordered by STD

```
Mnemonic    Title                                               RFC# STD#
-----------------------------------------------------------------------
--------    Internet Official Protocol Standards                2800 1*
--------    Assigned Numbers                                    1700 2
--------    Requirements for Internet Hosts - Communication     1122 3
               Layers
--------    Requirements for Internet Hosts - Application        1123 3
               and Support
--------    [Reserved for Router Requirements.  See RFC 1812]         4*
IP          Internet Protocol                                    791 5
ICMP        Internet Control Message Protocol                    792 5
--------    Broadcasting Internet Datagrams                      919 5
--------    Broadcasting Internet datagrams in the presence      922 5
               of subnets
--------    Internet Standard Subnetting Procedure               950 5
IGMP        Host extensions for IP multicasting                 1112 5
UDP         User Datagram Protocol                               768 6
TCP         Transmission Control Protocol                        793 7
TELNET      Telnet Protocol Specification                        854 8
TELNET      Telnet Option Specifications                         855 8
FTP         File Transfer Protocol                               959 9
SMTP        [Reserved for Simple Mail Transfer Protocol (SMTP).       10*
               See RFC 2821.]
SMTP-SIZE   SMTP Service Extension for Message Size Declaration 1870 10
MAIL        [Reserved for Internet Message Format.  See RFC          11*
               2822.]
NTP         [Reserved for Network Time Protocol (NTP).  See           12*
               RFC 1305.]
DOMAIN      Domain names - concepts and facilities              1034 13
DOMAIN      Domain names - implementation and specification     1035 13
DNS-MX      [Was Mail Routing and the Domain System (RFC974).         14*
               Now Historic.]
SNMP        Simple Network Management Protocol (SNMP)           1157 15
SMI         Structure and identification of management          1155 16
               information for TCP/IP-based internets
Concise-MI  Concise MIB definitions                             1212 16
MIB-II      Management Information Base for Network Management  1213 17
               of TCP/IP-based internets:MIB-II
EGP         [Was Exterior Gateway Protocol (RFC904).  Now             18*
               Historic.]
NETBIOS     Protocol standard for a NetBIOS service on          1001 19
               a TCP/UDP transport: Concepts and methods
NETBIOS     Protocol standard for a NetBIOS service on          1002 19
               a TCP/UDP transport: Detailed specifications
```

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ECHO        Echo Protocol                                    862 20
DISCARD     Discard Protocol                                 863 21
CHARGEN     Character Generator Protocol                     864 22
QUOTE       Quote of the Day Protocol                        865 23
USERS       Active users                                     866 24
DAYTIME     Daytime Protocol                                 867 25
TIME        Time Protocol                                    868 26
TOPT-BIN    Telnet Binary Transmission                       856 27
TOPT-ECHO   Telnet Echo Option                               857 28
TOPT-SUPP   Telnet Suppress Go Ahead Option                  858 29
TOPT-STAT   Telnet Status Option                             859 30
TOPT-TIM    Telnet Timing Mark Option                        860 31
TOPT-EXTOP  Telnet Extended Options: List Option             861 32
TFTP        The TFTP Protocol (Revision 2)                  1350 33
RIP1        [Was Routing Information Protocol (RIP).  Replaced    34*
               by STD 56.]
TP-TCP      ISO transport services on top of the TCP:       1006 35
               Version 3
IP-FDDI     Transmission of IP and ARP over FDDI Networks   1390 36
ARP         Ethernet Address Resolution Protocol: Or converting 826 37
               network protocol addresses to 48.bit Ethernet
               address for transmission on Ethernet hardware
RARP        Reverse Address Resolution Protocol              903 38
--------    [Was BBN Report 1822 (IMP/Host Interface).  Now     39*
               Historic.]
IP-WB       Host Access Protocol specification               907 40*
IP-E        Standard for the transmission of IP datagrams    894 41
               over Ethernet networks
IP-EE       Standard for the transmission of IP datagrams    895 42
               over experimental Ethernet networks
IP-IEEE     Standard for the transmission of IP datagrams   1042 43
               over IEEE 802 networks
IP-DC       DCN local-network protocols                      891 44
IP-HC       Internet Protocol on Network System's HYPERchannel: 1044 45
               Protocol specification
IP-ARC      Transmitting IP traffic over ARCNET networks    1201 46
IP-SLIP     Nonstandard for transmission of IP datagrams    1055 47
               over serial lines: SLIP
IP-NETBIOS  Standard for the transmission of IP datagrams   1088 48
               over NetBIOS networks
IP-IPX      Standard for the transmission of 802.2 packets  1132 49
               over IPX networks
ETHER-MIB   Definitions of Managed Objects for the Ethernet- 1643 50
               like Interface Types
PPP         The Point-to-Point Protocol (PPP)               1661 51
PPP-HDLC    PPP in HDLC-like Framing                        1662 51
IP-SMDS     Transmission of IP datagrams over the SMDS Service 1209 52
POP3        Post Office Protocol - Version 3                1939 53
```

```
OSPF2       OSPF Version 2                                   2328 54
IP-FR       Multiprotocol Interconnect over Frame Relay      2427 55
RIP2        RIP Version 2                                    2453 56
RIP2-APP    RIP Version 2 Protocol Applicability Statement   1722 57
SMIv2       Structure of Management Information Version       2578 58
               2 (SMIv2)
CONV-MIB    Textual Conventions for SMIv2                    2579 58
CONF-MIB    Conformance Statements for SMIv2                 2580 58
RMON-MIB    Remote Network Monitoring Management Information  2819 59
               Base
SMTP-Pipe   SMTP Service Extension for Command Pipelining     2920 60*
ONE-PASS    A One-Time Password System                       2289 61*
```

   [Note: an asterisk at the end of a line indicates a change from the
   previous edition of this document.]

3.2. Standard Protocols Ordered by RFC

```
Mnemonic    Title                                              STD# RFC#
-------------------------------------------------------------------------
SMTP-Pipe   SMTP Service Extension for Command Pipelining       60* 2920*
RMON-MIB    Remote Network Monitoring Management Information    59  2819
               Base
IAB         Internet Official Protocol Standards                1* 2800*
CONF-MIB    Conformance Statements for SMIv2                    58  2580
CONV-MIB    Textual Conventions for SMIv2                       58  2579
SMIv2       Structure of Management Information Version         58  2578
               2 (SMIv2)
RIP2        RIP Version 2                                       56  2453
IP-FR       Multiprotocol Interconnect over Frame Relay         55  2427
OSPF2       OSPF Version 2                                      54  2328
ONE-PASS    A One-Time Password System                         61* 2289*
POP3        Post Office Protocol - Version 3                    53  1939
SMTP-SIZE   SMTP Service Extension for Message Size Declaration 10  1870
RIP2-APP    RIP Version 2 Protocol Applicability Statement      57  1722
--------    Assigned Numbers                                     2  1700
PPP-HDLC    PPP in HDLC-like Framing                            51  1662
PPP         The Point-to-Point Protocol (PPP)                   51  1661
ETHER-MIB   Definitions of Managed Objects for the Ethernet-   50  1643
               like Interface Types
IP-FDDI     Transmission of IP and ARP over FDDI Networks       36  1390
TFTP        The TFTP Protocol (Revision 2)                      33  1350
MIB-II      Management Information Base for Network Management  17  1213
               of TCP/IP-based internets:MIB-II
Concise-MI  Concise MIB definitions                             16  1212
IP-SMDS     Transmission of IP datagrams over the SMDS Service  52  1209
IP-ARC      Transmitting IP traffic over ARCNET networks        46  1201
SNMP        Simple Network Management Protocol (SNMP)           15  1157
SMI         Structure and identification of management          16  1155
               information for TCP/IP-based internets
IP-IPX      Standard for the transmission of 802.2 packets      49  1132
               over IPX networks
--------    Requirements for Internet Hosts - Application        3  1123
               and Support
--------    Requirements for Internet Hosts - Communication      3  1122
               Layers
IGMP        Host extensions for IP multicasting                  5  1112
IP-NETBIOS  Standard for the transmission of IP datagrams       48  1088
               over NetBIOS networks
IP-SLIP     Nonstandard for transmission of IP datagrams        47  1055
               over serial lines: SLIP
IP-HC       Internet Protocol on Network System's HYPERchannel: 45  1044
               Protocol specification
```

```
IP-IEEE    Standard for the transmission of IP datagrams    43  1042
              over IEEE 802 networks
DOMAIN     Domain names - implementation and specification  13  1035
DOMAIN     Domain names - concepts and facilities           13  1034
TP-TCP     ISO transport services on top of the TCP:        35  1006
              Version 3
NETBIOS    Protocol standard for a NetBIOS service on       19  1002
              a TCP/UDP transport: Detailed specifications
NETBIOS    Protocol standard for a NetBIOS service on       19  1001
              a TCP/UDP transport: Concepts and methods
FTP        File Transfer Protocol                            9  959
--------   Internet Standard Subnetting Procedure            5  950
---------  Broadcasting Internet datagrams in the presence   5  922
              of subnets
---------  Broadcasting Internet Datagrams                   5  919
IP-WB      Host Access Protocol specification              40* 907*
RARP       Reverse Address Resolution Protocol              38  903
IP-EE      Standard for the transmission of IP datagrams    42  895
              over experimental Ethernet networks
IP-E       Standard for the transmission of IP datagrams    41  894
              over Ethernet networks
IP-DC      DCN local-network protocols                      44  891
TIME       Time Protocol                                    26  868
DAYTIME    Daytime Protocol                                 25  867
USERS      Active users                                     24  866
QUOTE      Quote of the Day Protocol                        23  865
CHARGEN    Character Generator Protocol                     22  864
DISCARD    Discard Protocol                                 21  863
ECHO       Echo Protocol                                    20  862
TOPT-EXTOP Telnet Extended Options: List Option             32  861
TOPT-TIM   Telnet Timing Mark Option                        31  860
TOPT-STAT  Telnet Status Option                             30  859
TOPT-SUPP  Telnet Suppress Go Ahead Option                  29  858
TOPT-ECHO  Telnet Echo Option                               28  857
TOPT-BIN   Telnet Binary Transmission                       27  856
TELNET     Telnet Option Specifications                      8  855
TELNET     Telnet Protocol Specification                     8  854
ARP        Ethernet Address Resolution Protocol: Or converting 37 826
              network protocol addresses to 48.bit Ethernet
              address for transmission on Ethernet hardware
TCP        Transmission Control Protocol                     7  793
ICMP       Internet Control Message Protocol                 5  792
IP         Internet Protocol                                 5  791
UDP        User Datagram Protocol                            6  768
```

   [Note: an asterisk at the end of a line indicates a change from the
   previous edition of this document.]

3.3. Draft Standard Protocols

```
Mnemonic    Title                                                RFC#
-----------------------------------------------------------------------
RADIUS      Remote Authentication Dial In User Service (RADIUS)  2865
INTERGRMIB  The Interfaces Group MIB                             2863
--------    Host Resources MIB                                   2790
--------    HTTP Authentication: Basic and Digest Access         2617
               Authentication
HTTP        Hypertext Transfer Protocol -- HTTP/1.1              2616
VACM-SNMP   View-based Access Control Model (VACM) for           2575
               the Simple Network Management Protocol (SNMP)
USM-SNMPV3  User-based Security Model (USM) for version          2574
               3 of the Simple Network Management Protocol (SNMPv3)
SNMP-APP    SNMP Applications                                    2573
MPD-SNMP    Message Processing and Dispatching for the           2572
               Simple Network Management Protocol (SNMP)
ARCH-SNMP   An Architecture for Describing SNMP Management       2571
               Frameworks
ICMPv6      Internet Control Message Protocol (ICMPv6)           2463
               for the Internet Protocol Version 6 (IPv6)
               Specification
IPV6-AUTO   IPv6 Stateless Address Autoconfiguration             2462
IPV6-ND     Neighbor Discovery for IP Version 6 (IPv6)           2461
IPV6        Internet Protocol, Version 6 (IPv6) Specification    2460
URI-GEN     Uniform Resource Identifiers (URI): Generic Syntax   2396
IARP        Inverse Address Resolution Protocol                  2390
TN3270E     TN3270 Enhancements                                  2355
TFTP-Opt    TFTP Timeout Interval and Transfer Size Options      2349
TFTP-Blk    TFTP Blocksize Option                                2348
TFTP-Ext    TFTP Option Extension                                2347
UTF-8       UTF-8, a transformation format of ISO 10646          2279
DHCP-BOOTP  DHCP Options and BOOTP Vendor Extensions             2132
DHCP        Dynamic Host Configuration Protocol                  2131
FRAME-MIB   Management Information Base for Frame Relay           2115
               DTEs Using SMIv2
IP-HIPPI    IP over HIPPI                                        2067
MIME-CONF   Multipurpose Internet Mail Extensions (MIME)         2049
               Part Five: Conformance Criteria and Examples
MIME-MSG    MIME (Multipurpose Internet Mail Extensions)         2047
               Part Three: Message Header Extensions for
               Non-ASCII Text
MIME-MEDIA  Multipurpose Internet Mail Extensions (MIME)         2046
               Part Two: Media Types
MIME        Multipurpose Internet Mail Extensions (MIME)         2045
               Part One: Format of Internet Message Bodies
PPP-CHAP    PPP Challenge Handshake Authentication Protocol (CHAP) 1994
PPP-MP      The PPP Multilink Protocol (MP)                      1990
```

```
PPP-LINK   PPP Link Quality Monitoring                         1989
SNMPv2-MIB Management Information Base for Version 2            1907
              of the Simple Network Management Protocol (SNMPv2)
TRANS-MIB  Transport Mappings for Version 2 of the Simple      1906
              Network Management Protocol (SNMPv2)
OPS-MIB    Protocol Operations for Version 2 of the Simple     1905
              Network Management Protocol (SNMPv2)
CON-MD5    The Content-MD5 Header Field                        1864
OSPF-MIB   OSPF Version 2 Management Information Base          1850
XDR        XDR: External Data Representation Standard          1832
---------  The String Representation of Standard Attribute     1778
              Syntaxes
---------  Lightweight Directory Access Protocol               1777
BGP-4-APP  Application of the Border Gateway Protocol          1772
              in the Internet
BGP-4      A Border Gateway Protocol 4 (BGP-4)                 1771
PPP-DNCP   The PPP DECnet Phase IV Control Protocol (DNCP)     1762
802.5-MIB  IEEE 802.5 MIB using SMIv2                          1748
RIP2-MIB   RIP Version 2 MIB Extension                         1724
SIP-MIB    Definitions of Managed Objects for SMDS Interfaces  1694
              using SMIv2
--------   Definitions of Managed Objects for Parallel-        1660
              printer-like Hardware Devices using SMIv2
--------   Definitions of Managed Objects for RS-232-          1659
              like Hardware Devices using SMIv2
--------   Definitions of Managed Objects for Character        1658
              Stream Devices using SMIv2
BGP-4-MIB  Definitions of Managed Objects for the Fourth       1657
              Version of the Border Gateway Protocol (BGP-
              4) using SMIv2
---------  SMTP Service Extension for 8bit-MIMEtransport       1652
OSI-NSAP   Guidelines for OSI NSAP Allocation in the Internet  1629
ISO-TS-ECH An Echo Function for CLNP (ISO 8473)                1575
DECNET-MIB DECnet Phase IV MIB Extensions                      1559
--------   Clarifications and Extensions for the Bootstrap     1542
              Protocol
DHCP-BOOTP Interoperation Between DHCP and BOOTP               1534
BRIDGE-MIB Definitions of Managed Objects for Bridges          1493
IP-X.25    Multiprotocol Interconnect on X.25 and ISDN         1356
              in the Packet Mode
NTPV3      Network Time Protocol (Version 3) Specification,    1305
              Implementation
FINGER     The Finger User Information Protocol                1288
IP-MTU     Path MTU discovery                                  1191
--------   Proposed Standard for the Transmission of           1188*
              IP Datagrams over FDDI Networks
```

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TOPT-LINE   Telnet Linemode Option                             1184
NICNAME     NICNAME/WHOIS                                       954
BOOTP       Bootstrap Protocol                                  951
```

   [Note: an asterisk at the end of a line indicates a change from the
   previous edition of this document.]

3.4. Proposed Standard Protocols

```
Mnemonic    Title                                                   RFC#
------------------------------------------------------------------------------
--------    Mobile IP Vendor/Organization-Specific Extensions       3115*
--------    DNS Security Extension Clarification on Zone Status      3090*
COPS-PR     COPS Usage for Policy Provisioning (COPS-PR)             3084*
--------    Mapping the BEEP Core onto TCP                           3081*
BEEP        The Blocks Extensible Exchange Protocol Core             3080*
--------    A Link-Layer Tunneling Mechanism for Unidirectional      3077*
               Links
--------    XML-Signature Syntax and Processing                     3075*
--------    DHC Load Balancing Algorithm                            3074*
L2TP-FR     Layer Two Tunneling Protocol (L2TP) over Frame Relay    3070*
BGP-ASC     Autonomous System Confederations for BGP                3065*
--------    LDAP Password Modify Extended Operation                 3062*
CIM         Policy Core Information Model -- Version 1               3060*
               Specification
SLPv2       Attribute List Extension for the Service Location        3059*
               Protocol
--------    ISDN Q.921-User Adaptation Layer                        3057*
--------    Connection of IPv6 Domains via IPv4 Clouds              3056*
--------    Management Information Base for the PINT Services        3055*
               Architecture
--------    TN3270E Service Location and Session Balancing          3049*
--------    RTP Payload Format for ITU-T Recommendation G.722.1     3047*
--------    DHCP Relay Agent Information Option                     3046*
--------    Enhancing TCP's Loss Recovery Using Limited Transmit    3042*
--------    Privacy Extensions for Stateless Address                3041*
               Autoconfiguration in IPv6
--------    Internet X.509 Public Key Infrastructure Qualified      3039*
               Certificates Profile
--------    VCID Notification over ATM link for LDP                 3038*
--------    LDP Specification                                       3036*
--------    MPLS using LDP and ATM VC Switching                     3035*
--------    Use of Label Switching on Frame Relay Networks          3034*
               Specification
--------    The Assignment of the Information Field and Protocol    3033*
               Identifier in the Q.2941 Generic Identifier
               and Q.2957 User-to-user Signaling for the Internet
               Protocol
--------    MPLS Label Stack Encoding                               3032*
MPLS        Multiprotocol Label Switching Architecture              3031*
--------    SMTP Service Extensions for Transmission of Large       3030*
               and Binary MIME Messages
--------    Sieve: A Mail Filtering Language                        3028*
--------    Reverse Tunneling for Mobile IP, revised                3024*
--------    XML Media Types                                         3023*
```

```
--------   Using 31-Bit Prefixes on IPv4 Point-to-Point Links   3021*
--------   Definitions of Managed Objects for Monitoring and    3020*
              Controlling the UNI/NNI Multilink Frame Relay
              Function
--------   IP Version 6 Management Information Base for The      3019*
              Multicast Listener Discovery Protocol
--------   XML DTD for Roaming Access Phone Book                 3017*
--------   RTP Payload Format for MPEG-4 Audio/Visual Streams    3016*
MEGACO     Megaco Protocol Version 1.0                           3015*
--------   Notification Log MIB                                  3014*
--------   Mobile IPv4 Challenge/Response Extensions             3012*
--------   The IPv4 Subnet Selection Option for DHCP             3011*
NFSV4      NFS version 4 Protocol                                3010*
--------   Registration of parityfec MIME types                 3009*
DNSSEC     Domain Name System Security (DNSSEC) Signing Authority 3008*
--------   Secure Domain Name System (DNS) Dynamic Update        3007*
--------   Integrated Services in the Presence of Compressible   3006*
              Flows
--------   The User Class Option for DHCP                        3004*
--------   The audio/mpeg Media Type                             3003*
--------   Specification of the Null Service Type                2997*
--------   Format of the RSVP DCLASS Object                      2996*
--------   Computing TCP's Retransmission Timer                  2988*
--------   Registration of Charset and Languages Media Features  2987*
              Tags
--------   Use of the CAST-128 Encryption Algorithm in CMS       2984*
--------   Distributed Management Expression MIB                 2982*
--------   Event MIB                                             2981*
--------   The SIP INFO Method                                   2976*
--------   IMAP4 ID extension                                    2971*
--------   HTTP State Management Mechanism                       2965*
--------   Stream Control Transmission Protocol                  2960*
--------   Real-Time Transport Protocol Management Information   2959*
              Base
--------   Definitions of Managed Objects for Monitoring and     2955*
              Controlling the Frame Relay/ATM PVC Service
              Interworking Function
FR-MIB     Definitions of Managed Objects for Frame Relay        2954*
              Service
--------   Telnet Encryption: CAST-128 64 bit Cipher Feedback    2950*
--------   Telnet Encryption: CAST-128 64 bit Output Feedback    2949*
--------   Telnet Encryption: DES3 64 bit Output Feedback        2948*
--------   Telnet Encryption: DES3 64 bit Cipher Feedback        2947*
--------   Telnet Data Encryption Option                         2946*
--------   The SRP Authentication and Key Exchange System        2945*
--------   Telnet Authentication: SRP                            2944*
--------   TELNET Authentication Using DSA                       2943*
--------   Telnet Authentication: Kerberos Version 5             2942*
```

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TOPT-AUTH   Telnet Authentication Option                     2941*
--------    Definitions of Managed Objects for Common Open   2940*
                Policy Service (COPS) Protocol Clients
--------    Identifying Composite Media Features             2938*
--------    The Name Service Search Option for DHCP          2937*
IOTP-HTT    Internet Open Trading Protocol (IOTP) HTTP Supplement  2935*
--------    Internet Group Management Protocol MIB           2933*
--------    IPv4 Multicast Routing MIB                       2932*
--------    DNS Request and Transaction Signatures ( SIG(0)s )  2931*
TKEY-RR     Secret Key Establishment for DNS (TKEY RR)       2930*
--------    Definitions of Managed Objects for Remote Ping,  2925*
                Traceroute, and Lookup Operations
--------    Route Refresh Capability for BGP-4               2918*
--------    E.164 number and DNS                             2916*
NAPTR       The Naming Authority Pointer (NAPTR) DNS Resource  2915*
                Record
--------    MIME Content Types in Media Feature Expressions  2913*
--------    Indicating Media Features for MIME Content       2912*
IPP-M-S     Internet Printing Protocol/1.1: Model and Semantics  2911*
IPP-E-T     Internet Printing Protocol/1.1: Encoding and Transport  2910*
--------    MADCAP Multicast Scope Nesting State Option      2907*
RMON-MIB    Remote Network Monitoring MIB Protocol Identifier  2895*
                Reference
--------    Router Renumbering for IPv6                      2894
TRANS-IPV6  Transition Mechanisms for IPv6 Hosts and Routers  2893
--------    LDAP Control Extension for Server Side Sorting   2891
                of Search Results
--------    Key and Sequence Number Extensions to GRE        2890
SACK        An Extension to the Selective Acknowledgement (SACK)  2883
                Option for TCP
--------    Content Feature Schema for Internet Fax (V2)     2879
PPP-BCP     PPP Bridging Control Protocol (BCP)              2878
--------    Diffie-Hellman Proof-of-Possession Algorithms    2875
--------    DNS Extensions to Support IPv6 Address Aggregation  2874
                and Renumbering
--------    TCP Processing of the IPv4 Precedence Field      2873
--------    Application and Sub Application Identity Policy   2872
                Element for Use with
--------    The Inverted Stack Table Extension to the Interfaces  2864
                Group MIB
--------    RTP Payload Format for Real-Time Pointers         2862
MEXT-BGP4   Multiprotocol Extensions for BGP-4               2858
--------    The Use of HMAC-RIPEMD-160-96 within ESP and AH  2857
SNMP        Textual Conventions for Additional High Capacity  2856
                Data Types
--------    DHCP for IEEE 1394                               2855
--------    Generic Security Service API Version 2 : Java Bindings  2853
--------    Deliver By SMTP Service Extension                2852
```

```
--------  Definitions of Managed Objects for WWW Services      2594
--------  Definitions of Managed Objects for the Delegation    2592
             of Management Script
--------  Definitions of Managed Objects for Scheduling        2591
             Management Operations
--------  Transmission of IPv6 Packets over Frame Relay Networks 2590*
             Specification
LDAPv3    Lightweight Directory Access Protocol (v3): Extensions 2589
             for Dynamic Directory Services
--------  Internet X.509 Public Key Infrastructure LDAPv2 Schema 2587
--------  Internet X.509 Public Key Infrastructure Operational  2585
             Protocols: FTP and HTTP
--------  Definitions of Managed Objects for APPN/HPR in        2584
             IP Networks
TCP-CC    TCP Congestion Control                                2581
SNMP      Coexistence between Version 1, Version 2, and Version 2576
             3 of the Internet-standard Network Management
             Framework
APP-MIB   Application Management MIB                            2564
--------  DHCP Option to Disable Stateless Auto-Configuration   2563
             in IPv4 Clients
TN3270E-R Definitions of Protocol and Managed Objects for       2562
             TN3270E Response Time Collection Using SMIv2
             (TN3270E-RT-MIB)
--------  Base Definitions of Managed Objects for TN3270E       2561
             Using SMIv2
PKIX      X.509 Internet Public Key Infrastructure Online       2560
             Certificate Status Protocol - OCSP
--------  Internet X.509 Public Key Infrastructure Operational  2559
             Protocols - LDAPv2
--------  Definitions of Managed Objects for the SONET/SDH      2558
             Interface Type
MHTML     MIME Encapsulation of Aggregate Documents, such       2557
             as HTML (MHTML)
--------  SMTP Service Extension for Authentication             2554
--------  Use of BGP-4 Multiprotocol Extensions for IPv6        2545
             Inter-Domain Routing
SIP       SIP: Session Initiation Protocol                      2543
DHK-DNS   Storage of Diffie-Hellman Keys in the Domain Name     2539
             System (DNS)
SC-DNS    Storing Certificates in the Domain Name System (DNS)  2538
--------  RSA/MD5 KEYs and SIGs in the Domain Name System (DNS) 2537
--------  DSA KEYs and SIGs in the Domain Name System (DNS)     2536
DNS-SECEXT Domain Name System Security Extensions               2535
--------  Media Features for Display, Print, and Fax            2534
--------  A Syntax for Describing Media Feature Sets            2533
--------  Extended Facsimile Using Internet Mail                2532
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ESPDES-CBC The ESP DES-CBC Cipher Algorithm With Explicit IV    2405
--------   The Use of HMAC-SHA-1-96 within ESP and AH           2404
--------   The Use of HMAC-MD5-96 within ESP and AH             2403
IP-AUTH    IP Authentication Header                             2402
IPSEC      Security Architecture for the Internet Protocol      2401
DATA-URL   The "data" URL scheme                                2397
IPCOMP     IP Payload Compression Protocol (IPComp)             2393
CIDMID-URL Content-ID and Message-ID Uniform Resource Locators  2392
--------   Feature negotiation mechanism for the File Transfer  2389
              Protocol
--------   Returning Values from Forms: multipart/form-data     2388
MIME-RELAT The MIME Multipart/Related Content-type              2387
--------   Protection of BGP Sessions via the TCP MD5 Signature 2385
              Option
POP-URL    POP URL Scheme                                       2384
--------   Interoperation of Controlled-Load Service and        2381
           Guaranteed Service with ATM
--------   RSVP over ATM Implementation Requirements            2380
--------   An IPv6 Aggregatable Global Unicast Address Format   2374
--------   IP Version 6 Addressing Architecture                 2373
TIPV3      Transaction Internet Protocol Version 3.0            2371
OSPF-LSA   The OSPF Opaque LSA Option                           2370
--------   The Use of URLs as Meta-Syntax for Core Mail List    2369
              Commands and their Transport through Message
              Header Fields
URLMAILTO  The mailto URL scheme                                2368
PPP-AAL    PPP Over AAL5                                        2364
PPP-FUNI   PPP Over FUNI                                        2363
IMAP4UIDPL IMAP4 UIDPLUS extension                              2359
IMAP4NAME  IMAP4 Namespace                                      2342
VRRP       Virtual Router Redundancy Protocol                   2338
NHRP-SCSP  A Distributed NHRP Service Using SCSP                2335
SCSP       Server Cache Synchronization Protocol (SCSP)         2334
--------   NHRP Protocol Applicability Statement                2333
NHRP       NBMA Next Hop Resolution Protocol (NHRP)             2332
UNI-SIG    ATM Signalling Support for IP over ATM - UNI Signalling 2331
              4.0 Update
SDP        SDP: Session Description Protocol                    2327
RTSP       Real Time Streaming Protocol (RTSP)                  2326
IPOA-MIB   Definitions of Managed Objects for Classical IP      2320
              and ARP Over ATM Using SMIv2 (IPOA-MIB)
DNS-NCACHE Negative Caching of DNS Queries (DNS NCACHE)         2308
SMFAX-IM   A Simple Mode of Facsimile Using Internet Mail       2305
MINFAX-IM  Minimal FAX address format in Internet Mail          2304
MIN-PSTN   Minimal PSTN address format in Internet Mail         2303
TIFF       Tag Image File Format (TIFF) - image/tiff MIME       2302
              Sub-type Registration
FFIF       File Format for Internet Fax                         2301
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RIP2-MD5   RIP-2 MD5 Authentication                            2082
RIPNG-IPV6 RIPng for IPv6                                       2080
URI-ATT    Definition of an X.500 Attribute Type and an Object 2079
              Class to Hold Uniform Resource Identifiers (URIs)
MIME-MODEL The Model Primary Content Type for Multipurpose      2077
              Internet Mail Extensions
IMAPV4     Internet Message Access Protocol - Version 4rev1     2060
URLZ39.50  Uniform Resource Locators for Z39.50                 2056
SNANAU-APP Definitions of Managed Objects for APPC using SMIv2  2051*
PPP-SNACP  The PPP SNA Control Protocol (SNACP)                 2043
SMTP-ENH   SMTP Service Extension for Returning Enhanced Error  2034
              Codes
RTP-H.261  RTP Payload Format for H.261 Video Streams           2032
RTP-CELLB  RTP Payload Format of Sun's CellB Video Encoding     2029
SPKM       The Simple Public-Key GSS-API Mechanism (SPKM)       2025
DLSW-MIB   Definitions of Managed Objects for Data Link Switching 2024
              using SMIv2
MULTI-UNI  Support for Multicast over UNI 3.0/3.1 based ATM     2022
              Networks
RMON-MIB   Remote Network Monitoring Management Information     2021
              Base Version 2 using SMIv2
802.12-MIB IEEE 802.12 Interface MIB                            2020
TCP-ACK    TCP Selective Acknowledgement Options               2018
URL-ACC    Definition of the URL MIME External-Body Access-Type 2017
MIME-PGP   MIME Security with Pretty Good Privacy (PGP)         2015
MIB-UDP    SNMPv2 Management Information Base for the User      2013
              Datagram Protocol using SMIv2
MIB-TCP    SNMPv2 Management Information Base for the           2012
              Transmission Control Protocol using SMIv2
MIB-IP     SNMPv2 Management Information Base for the Internet  2011
              Protocol using SMIv2
MOBILEIPMI The Definitions of Managed Objects for IP Mobility   2006
              Support using SMIv2
--------   Applicability Statement for IP Mobility Support      2005
MINI-IP    Minimal Encapsulation within IP                     2004
IPENCAPIP  IP Encapsulation within IP                          2003
MOBILEIPSU IP Mobility Support                                  2002
BGP-COMM   BGP Communities Attribute                           1997
DNS-NOTIFY A Mechanism for Prompt Notification of Zone Changes  1996
              (DNS NOTIFY)
DNS-IZT    Incremental Zone Transfer in DNS                    1995
SMTP-ETRN  SMTP Service Extension for Remote Message Queue      1985
              Starting
SNA        Serial Number Arithmetic                            1982
MTU-IPV6   Path MTU Discovery for IP version 6                 1981
PPP-FRAME  PPP in Frame Relay                                  1973
PPP-ECP    The PPP Encryption Control Protocol (ECP)           1968
GSSAPI-KER The Kerberos Version 5 GSS-API Mechanism            1964
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PPP-CCP    The PPP Compression Control Protocol (CCP)          1962
GSSAPI-SOC GSS-API Authentication Method for SOCKS Version 5   1961
AUTH-SOCKS Username/Password Authentication for SOCKS V5       1929
SOCKSV5    SOCKS Protocol Version 5                            1928
WHOIS++M   How to Interact with a Whois++ Mesh                 1914
WHOIS++A   Architecture of the Whois++ Index Service          1913
DSN        An Extensible Message Format for Delivery Status    1894
              Notifications
EMS-CODE   Enhanced Mail System Status Codes                  1893
MIME-RPT   The Multipart/Report Content Type for the Reporting 1892
              of Mail System Administrative Messages
SMTP-DSN   SMTP Service Extension for Delivery Status          1891
              Notifications
RTP-AV     RTP Profile for Audio and Video Conferences with    1890
              Minimal Control
RTP        RTP: A Transport Protocol for Real-Time Applications 1889
DNS-IPV6   DNS Extensions to support IP version 6             1886
MIME-Sec   MIME Object Security Services                       1848
MIME-Encyp Security Multiparts for MIME: Multipart/Signed      1847
              and Multipart/Encrypted
WHOIS++    Architecture of the WHOIS++ service                1835
ONC-RPC    Binding Protocols for ONC RPC Version 2            1833
RPC        RPC: Remote Procedure Call Protocol Specification   1831
              Version 2
--------   The ESP DES-CBC Transform                          1829
--------   IP Authentication using Keyed MD5                  1828
--------   Requirements for IP Version 4 Routers              1812
URL        Relative Uniform Resource Locators                 1808
CLDAP      Connection-less Lightweight X.500 Directory Access  1798
              Protocol
OSPF-DC    Extending OSPF to Support Demand Circuits          1793
OSI-Dir    Using the OSI Directory to Achieve User Friendly    1781
              Naming
MIME-EDI   MIME Encapsulation of EDI Objects                 1767
XNSCP      The PPP XNS IDP Control Protocol (XNSCP)           1764
BVCP       The PPP Banyan Vines Control Protocol (BVCP)       1763
Print-MIB  Printer MIB                                        1759
ATM        ATM Signaling Support for IP over ATM              1755
IPNG       The Recommendation for the IP Next Generation Protocol 1752
802.5-SSR  IEEE 802.5 Station Source Routing MIB using SMIv2   1749
SDLCSMIv2  Definitions of Managed Objects for SNA Data Link    1747
              Control (SDLC) using SMIv2
BGP4/IDRP  BGP4/IDRP for IP---OSPF Interaction                1745
AT-MIB     AppleTalk Management Information Base II            1742
MacMIME    MIME Encapsulation of Macintosh Files - MacMIME    1740
URL        Uniform Resource Locators (URL)                    1738
POP3-AUTH  POP3 AUTHentication command                        1734
IMAP4-AUTH IMAP4 Authentication Mechanisms                    1731
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RDBMS-MIB Relational Database Management System (RDBMS)   1697
              Management Information Base (MIB) using SMIv2
MODEM-MIB Modem Management Information Base (MIB) using SMIv2   1696
TMUX   Transport Multiplexing Protocol (TMux)   1692
SNANAU-MIB Definitions of Managed Objects for SNA NAUs using   1666
              SMIv2
PPP-TRANS PPP Reliable Transmission   1663
--------   Postmaster Convention for X.400 Operations   1648
UPS-MIB   UPS Management Information Base   1628
PPP-ISDN   PPP over ISDN   1618
DNS-R-MIB DNS Resolver MIB Extensions   1612
DNS-S-MIB DNS Server MIB Extensions   1611
PPP-X25   PPP in X.25   1598
OSPF-NSSA The OSPF NSSA Option   1587
OSPF-Multi Multicast Extensions to OSPF   1584
RIP-DC   Extensions to RIP to Support Demand Circuits   1582
TOPT-ENVIR Telnet Environment Option   1572
PPP-LCP   PPP LCP Extensions   1570*
CIPX   Compressing IPX Headers Over WAN Media (CIPX)   1553
IPXCP   The PPP Internetworking Packet Exchange Control   1552
              Protocol (IPXCP)
SRB-MIB   Definitions of Managed Objects for Source Routing   1525
              Bridges
CIDR-STRA Classless Inter-Domain Routing (CIDR): an Address   1519
              Assignment and Aggregation Strategy
CIDR-ARCH An Architecture for IP Address Allocation with CIDR 1518
CIDR   Applicability Statement for the Implementation   1517
              of Classless Inter-Domain Routing (CIDR)
--------   Definitions of Managed Objects for IEEE 802.3 Medium 1515
              Attachment Units (MAUs)
--------   Token Ring Extensions to the Remote Network Monitoring 1513
              MIB
FDDI-MIB   FDDI Management Information Base   1512
KERBEROS   The Kerberos Network Authentication Service (V5)   1510
--------   X.400 Use of Extended Character Sets   1502
HARPOON   Rules for downgrading messages from X.400/88 to   1496
              X.400/84 when MIME content-types are present
              in the messages
--------   Equivalences between 1988 X.400 and RFC-822 Message   1494
              Bodies
IDPR   Inter-Domain Policy Routing Protocol Specification: 1479
              Version 1
IDPR-ARCH An Architecture for Inter-Domain Policy Routing   1478
PPP/Bridge The Definitions of Managed Objects for the Bridge   1474
              Network Control Protocol of the Point-to-Point
              Protocol
PPP/IPMIB The Definitions of Managed Objects for the IP Network 1473
              Control Protocol of the Point-to-Point Protocol

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IS-IS      Use of OSI IS-IS for routing in TCP/IP and dual       1195
                environments
IP-CMPRS   Compressing TCP/IP headers for low-speed serial links 1144
TOPT-XDL   Telnet X display location option                      1096
TOPT-TERM  Telnet terminal-type option                           1091
TOPT-TS    Telnet terminal speed option                          1079
TOPT-NAWS  Telnet window size option                             1073
TOPT-X.3   Telnet X.3 PAD option                                 1053
TOPT-DATA  Telnet Data Entry Terminal option: DODIIS             1043*
                implementation
TOPT-3270  Telnet 3270 regime option                             1041
NNTP       Network News Transfer Protocol                         977
TOPT-TLN   Telnet terminal location number option                 946
TOPT-OM    Output marking Telnet option                           933
TOPT-TACAC TACACS user identification Telnet option               927
TOPT-EOR   Telnet end of record option                            885
TOPT-SNDL  Telnet send-location option                            779
TOPT-SUPO  Telnet SUPDUP-Output option                            749
TOPT-SUP   Telnet SUPDUP option                                   736
TOPT-BYTE  Revised Telnet byte macro option                       735
TOPT-LOGO  Telnet logout option                                   727
TOPT-REM   Remote Controlled Transmission and Echoing Telnet      726
                option
TOPT-EXT   Telnet extended ASCII option                           698
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   [Note: an asterisk at the end of a line indicates a change from the
   previous edition of this document.]

3.5. Experimental Protocols

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Mnemonic    Title                                                    RFC#
-----------------------------------------------------------------------------
--------    OpenLDAP Root Service An experimental LDAP referral      3088*
              service
--------    Notification and Subscription for SLP                    3082*
--------    MPLS Loop Prevention Mechanism                           3063*
--------    Internet X.509 Public Key Infrastructure Data            3029*
              Validation and Certification Server Protocols
--------    Unified Memory Space Protocol Specification              3018*
SAP         Session Announcement Protocol                            2974*
--------    Protocol Independent Multicast MIB for IPv4              2934*
MASC        The Multicast Address-Set Claim (MASC) Protocol          2909*
--------    Generic AAA Architecture                                 2903*
--------    TCP Congestion Window Validation                         2861
TSWTCM      A Time Sliding Window Three Colour Marker (TSWTCM)        2859
--------    OSPF over ATM and Proxy-PAR                              2844*
PPP-SDL     PPP over Simple Data Link (SDL) using SONET/SDH           2823
              with ATM-like framing
--------    Diffie-Helman USM Key Management Information Base         2786
              and Textual Convention
--------    An HTTP Extension Framework                              2774
--------    Encryption using KEA and SKIPJACK                        2773
--------    GLOP Addressing in 233/8                                 2770
--------    Sampling of the Group Membership in RTP                  2762
--------    Definitions of Managed Objects for Service Level         2758
              Agreements Performance Monitoring
HTCP        Hyper Text Caching Protocol (HTCP/0.0)                   2756
--------    RTFM: New Attributes for Traffic Flow Measurement        2724
--------    PPP EAP TLS Authentication Protocol                      2716
--------    SPKI Certificate Theory                                  2693
--------    SPKI Requirements                                        2692
--------    QoS Routing Mechanisms and OSPF Extensions               2676
--------    The Secure HyperText Transfer Protocol                   2660
--------    Security Extensions For HTML                             2659
--------    LDAPv2 Client vs. the Index Mesh                         2657
--------    Registration Procedures for SOIF Template Types          2656
--------    CIP Index Object Format for SOIF Objects                 2655
--------    A Tagged Index Object for use in the Common Indexing      2654
              Protocol
--------    An LDAP Control and Schema for Holding Operation          2649
              Signatures
--------    Script MIB Extensibility Protocol Version 1.0            2593
--------    The NewReno Modification to TCP's Fast Recovery           2582
              Algorithm
--------    Mapping between LPD and IPP Protocols                    2569
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IPP-RAT     Rationale for the Structure of the Model and Protocol  2568
               for the Internet Printing Protocol
IPP-DG      Design Goals for an Internet Printing Protocol         2567
DNS-INFO    Detached Domain Name System (DNS) Information          2540
PHOTURIS-E  Photuris: Extended Schemes and Attributes              2523
PHOTURIS-S  Photuris: Session-Key Management Protocol              2522
ICMP-SEC    ICMP Security Failures Messages                        2521
NHRP-MNHCS  NHRP with Mobile NHCs                                  2520
--------    URI Resolution Services Necessary for URN Resolution   2483
ECN-IP      A Proposal to add Explicit Congestion Notification     2481
               (ECN) to IP
--------    IPv6 Testing Address Allocation                        2471
MARS-SCSP   A Distributed MARS Service Using SCSP                  2443
TCP-WIN     Increasing TCP's Initial Window                        2414
PIM-SM      Protocol Independent Multicast-Sparse Mode (PIM-       2362
               SM): Protocol Specification
--------    Domain Names and Company Name Retrieval                2345
RTP-MPEG    RTP Payload Format for Bundled MPEG                    2343
--------    Intra-LIS IP multicast among routers over ATM          2337
               using Sparse Mode PIM
--------    The Safe Response Header Field                         2310
LDAP-NIS    An Approach for Using LDAP as a Network Information    2307
               Service
HTTP-RVSA   HTTP Remote Variant Selection Algorithm -- RVSA/1.0    2296
TCN-HTTP    Transparent Content Negotiation in HTTP                2295
TOPT-COMPO  Telnet Com Port Control Option                         2217
--------    Core Based Trees (CBT) Multicast Routing Architecture  2201
--------    Core Based Trees (CBT version 2) Multicast Routing     2189
--------    A Trivial Convention for using HTTP in URN Resolution  2169
--------    Resolution of Uniform Resource Identifiers using       2168
               the Domain Name System
MAP-MAIL    MaXIM-11 - Mapping between X.400 / Internet mail       2162
               and  Mail-11 mail
MIME-ODA    A MIME Body Part for ODA                               2161
OSPF-DIG    OSPF with Digital Signatures                           2154
IP-SCSI     Encapsulating IP with the Small Computer System       2143
               Interface
X.500-NAME  Managing the X.500 Root Naming Context                 2120
GKMP-ARCH   Group Key Management Protocol (GKMP) Architecture      2094
GKMP-SPEC   Group Key Management Protocol (GKMP) Specification     2093
TFTP-MULTI  TFTP Multicast Option                                  2090
IP-Echo     IP Echo Host Service                                   2075
TOPT-CHARS  TELNET CHARSET Option                                  2066
URAS        Uniform Resource Agents (URAs)                         2016
GPS-AR      GPS-Based Addressing and Routing                       2009
ETFTP       Experiments with a Simple File Transfer Protocol       1986
               for Radio Links using Enhanced Trivial File
               Transfer Protocol (ETFTP)
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BGP-RR      BGP Route Reflection An alternative to full mesh IBGP   1966
SMKD        Scalable Multicast Key Distribution                     1949
SNMPV2SM    User-based Security Model for SNMPv2                     1910
SNMPV2AI    An Administrative Infrastructure for SNMPv2             1909
SNMPV2CB    Introduction to Community-based SNMPv2                   1901
--------    OSI NSAPs and IPv6                                       1888
DNS-LOC     A Means for Expressing Location Information in           1876
               the Domain Name System
SGML-MT     SGML Media Types                                        1874
CONT-MT     Message/External-Body Content-ID Access Type           1873
UNARP       ARP Extension - UNARP                                    1868
BGP-IDRP    A BGP/IDRP Route Server alternative to a full           1863
               mesh routing
ESP3DES     The ESP Triple DES Transform                            1851
--------    SMTP 521 Reply Code                                      1846
--------    SMTP Service Extension for Checkpoint/Restart           1845
ST2         Internet Stream Protocol Version 2 (ST2) Protocol       1819
               Specification - Version ST2+
--------    Communicating Presentation Information in Internet       1806
               Messages: The Content-Disposition Header
--------    Schema Publishing in X.500 Directory                    1804
--------    MHS use of the X.500 Directory to support MHS Routing   1801
--------    Class A Subnet Experiment                               1797
TCP/IPXMIB  TCP/IPX Connection Mib Specification                    1792
--------    TCP And UDP Over IPX Networks With Fixed Path MTU       1791
ICMP-DM     ICMP Domain Name Messages                               1788
CLNP-MULT   Host Group Extensions for CLNP Multicasting             1768
OSPF-OVFL   OSPF Database Overflow                                  1765
RWP         Remote Write Protocol - Version 1.0                     1756
NARP        NBMA Address Resolution Protocol (NARP)                 1735
DNS-ENCODE  DNS Encoding of Geographical Location                   1712
TCP-POS     An Extension to TCP : Partial Order Service             1693
T/TCP       T/TCP -- TCP Extensions for Transactions Functional     1644
               Specification
MIME-UNI    Using Unicode with MIME                                 1641
FOOBAR      FTP Operation Over Big Address Records (FOOBAR)         1639
X500-CHART  Charting Networks in the X.500 Directory                1609
X500-DIR    Representing IP Information in the X.500 Directory      1608
SNMP-DPI    Simple Network Management Protocol Distributed          1592
               Protocol Interface Version 2.0
CLNP-TUBA   Use of ISO CLNP in TUBA Environments                    1561
REM-PRINT   Principles of Operation for the TPC.INT Subdomain:      1528
                Remote Printing -- Technical Procedures
DASS        DASS - Distributed Authentication Security Service     1507
EHF-MAIL    Encoding Header Field for Internet Messages             1505
RAP         RAP: Internet Route Access Protocol                     1476
TP-IX       TP/IX: The Next Internet                                1475
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--------   Routing Coordination for X.400 MHS Services Within    1465
              a Multi Protocol / Multi Network Environment
              Table Format V3 for Static Routing
--------   Using the Domain Name System To Store Arbitrary        1464
              String Attributes
IRCP       Internet Relay Chat Protocol                           1459
SIFT       SIFT/UFT: Sender-Initiated/Unsolicited File Transfer   1440
DIR-ARP    Directed ARP                                           1433
TEL-SPX    Telnet Authentication: SPX                             1412
TEL-KER    Telnet Authentication: Kerberos Version 4              1411
TRACE-IP   Traceroute Using an IP Option                          1393
DNS-IP     An Experiment in DNS Based IP Routing                  1383
RMCP       Remote Mail Checking Protocol                          1339
MSP2       Message Send Protocol 2                                1312
DSLCP      Dynamically Switched Link Control Protocol             1307
--------   X.500 and Domains                                      1279
IN-ENCAP   Scheme for an internet encapsulation protocol:         1241
               Version 1
CLNS-MIB   CLNS MIB for use with Connectionless Network Protocol  1238
              (ISO 8473) and End System to Intermediate
              System (ISO 9542)
CFDP       Coherent File Distribution Protocol                    1235
IP-AX.25   Internet protocol encapsulation of AX.25 frames        1226
ALERTS     Techniques for managing asynchronously generated       1224
              alerts
MPP        Message Posting Protocol (MPP)                         1204
SNMP-BULK  Bulk Table Retrieval with the SNMP                     1187
DNS-RR     New DNS RR Definitions                                 1183
IMAP2      Interactive Mail Access Protocol: Version 2            1176
NTP-OSI    Network Time Protocol (NTP) over the OSI Remote        1165
              Operations Service
--------   Message Send Protocol                                  1159
DMF-MAIL   Digest message format                                  1153
RDP        Version 2 of the Reliable Data Protocol (RDP)          1151
--------   Standard for the transmission of IP datagrams          1149
              on avian carriers
TCP-ACO    TCP alternate checksum options                         1146
--------   The Q Method of Implementing TELNET Option Negotiation 1143
IP-DVMRP   Distance Vector Multicast Routing Protocol             1075
VMTP       VMTP: Versatile Message Transaction Protocol           1045
COOKIE-JAR Distributed-protocol authentication scheme             1004
NETBLT     NETBLT: A bulk data transfer protocol                   998
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IRTP        Internet Reliable Transaction Protocol functional      938
               and interface specification
LDP         Loader Debugger Protocol                               909
RDP         Reliable Data Protocol                                 908
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   [Note: an asterisk at the end of a line indicates a change from the
   previous edition of this document.]

3.6. Historic Protocols

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Mnemonic    Title                                                  RFC#
-------------------------------------------------------------------------
IP-MAC      IP Authentication using Keyed SHA1 with Interleaved    2841*
               Padding (IP-MAC)
L2F         Cisco Layer Two Forwarding (Protocol) "L2F"            2341
IPV6-UNI    An IPv6 Provider-Based Unicast Address Format          2073
HTML-INT    Internationalization of the Hypertext Markup Language  2070
--------    A Proposed Extension to HTML : Client-Side Image Maps  1980*
HTML-TBL    HTML Tables                                            1942
IPV6-Addr   IP Version 6 Addressing Architecture                   1884
--------    Form-based File Upload in HTML                         1867
HTML        Hypertext Markup Language - 2.0                        1866
--------    Definitions of Managed Objects for the Ethernet-       1623*
               like Interface Types
--------    Manager-to-Manager Management Information Base         1451
--------    Party MIB for version 2 of the Simple Network          1447
               Management Protocol (SNMPv2)
--------    Security Protocols for version 2 of the Simple         1446
               Network Management Protocol (SNMPv2)
--------    Administrative Model for version 2 of the Simple       1445
               Network Management Protocol (SNMPv2)
TOPT-ENVIR  Telnet Environment Option                              1408
SNMP-PARTY  Definitions of Managed Objects for Administration      1353*
               of SNMP Parties
SNMP-SEC    SNMP Security Protocols                                1352*
SNMP-ADMIN  SNMP Administrative Model                              1351*
--------    Application of the Border Gateway Protocol in          1268
               the Internet
BGP3        Border Gateway Protocol 3 (BGP-3)                      1267
OSI-UDP     OSI connectionless transport services on top of        1240*
               UDP: Version 1
802.4-MIP   IEEE 802.4 Token Bus MIB                               1230
SNMP-MUX    SNMP MUX protocol and MIB                              1227
OIM-MIB-II  OSI internet management: Management Information Base   1214
IMAP3       Interactive Mail Access Protocol: Version 3            1203
CMOT        Common Management Information Services and Protocols   1189
               for the Internet (CMOT and CMIP)
--------    Application of the Border Gateway Protocol in          1164
               the Internet
BGP         Border Gateway Protocol (BGP)                          1163
MIB-I       Management Information Base for network management     1156
               of TCP/IP-based internets
--------    Mapping between full RFC 822 and RFC 822 with          1137
               restricted encoding
--------    Privacy enhancement for Internet electronic mail:      1115
               Part III - algorithms, modes, and identifiers
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--------   Privacy enhancement for Internet electronic mail:      1114
              Part II - certificate-based key management
--------   Privacy enhancement for Internet electronic mail:      1113
              Part I - message encipherment and authentication
              procedures
IPSO       U.S. Department of Defense Security Options for         1108
              the Internet Protocol
RIP        Routing Information Protocol                            1058
---------  Standard for the transmission of IP datagrams          1051
              and ARP packets over ARCNET networks
SUN-RPC    RPC: Remote Procedure Call Protocol specification      1050
CONTENT    Content-type header field for Internet messages        1049
NFILE      NFILE - a file access protocol                         1037
SGMP       Simple Gateway Monitoring Protocol                     1028
HEMS       High-level Entity Management System (HEMS)             1021
--------   Requirements for Internet gateways                     1009
STATSRV    Statistics server                                       996
HOSTNAME   Hostname Server                                         953
POP2       Post Office Protocol: Version 2                         937
HFEP       Proposed Host-Front End Protocol                        929
RATP       Reliable Asynchronous Transfer Protocol (RATP)          916
THINWIRE   Thinwire protocol for connecting personal computers     914
              to the Internet
SFTP       Simple File Transfer Protocol                           913
EGP        Exterior Gateway Protocol formal specification          904
HMP        Host Monitoring Protocol                                869
GGP        DARPA Internet gateway                                  823
RTELNET    Remote User Telnet service                              818
CLOCK      DCNET Internet Clock Service                            778
MPM        Internet Message Protocol                               759
NETRJS     NETRJS Protocol                                         740
SUPDUP     SUPDUP Protocol                                         734
TOPT-OLD   Telnet output linefeed disposition                      658
TOPT-OVTD  Telnet output vertical tab disposition option           657
TOPT-OVT   Telnet output vertical tabstops option                  656
TOPT-OFD   Telnet output formfeed disposition option               655
TOPT-OHTD  Telnet output horizontal tab disposition option         654
TOPT-OHT   Telnet output horizontal tabstops option                653
TOPT-OCRD  Telnet output carriage-return disposition option        652
NETED      NETED: A Common Editor for the ARPA Network             569
RJE        Remote Job Entry Protocol                               407
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   [Note: an asterisk at the end of a line indicates a change from the
   previous edition of this document.]

4. Security Coniderations

   This memo does not affect the technical security of the Internet, but
   it does cite a number of important security specifications.

5. Editors' Addresses

   Joyce K. Reynolds
   USC/Information Sciences Institute
   4676 Admiralty Way
   Marina del Rey, CA 90292

   Phone: +1 310-822-1511
   Fax: +1 310-823-6714
   EMail: JKRey@ISI.EDU

   Robert Braden
   USC/Information Sciences Institute
   4676 Admiralty Way
   Marina del Rey, CA 90292

   Phone: +1 310-822-1511
   Fax: +1 310-823-6714
   EMail: Braden@ISI.EDU

   Sandy Ginoza
   USC/Information Sciences Institute
   4676 Admiralty Way
   Marina del Rey, CA 90292

   Phone: +1 310-822-1511
   Fax: +1 310-823-6714
   EMail: Ginoza@ISI.EDU

6. Full Copyright Statement

Acknowledgement