OFFICIAL PROTOCOLS

This RFC identifies the documents specifying the official protocols used in the Internet. Annotations identify any revisions or changes planned.

To first order, the official protocols are those in the "Internet Protocol Transition Workbook" (IPTW) dated March 1982. There are several protocols in use that are not in the IPTW. A few of the protocols in the IPTW have been revised. Notably, the mail protocols have been revised and issued as a volume titled "Internet Mail Protocols" dated November 1982. Telnet and the most useful option protocols were issued by the NIC in a booklet entitled "Internet Telnet Protocol and Options" (ITP), dated June 1983. Some protocols have not been revised for many years, these are found in the old "ARPANET Protocol Handbook" (APH) dated January 1978. There is also a volume of protocol related information called the "Internet Protocol Implementers Guide" (IPIG) dated August 1982.

This document is organized as a sketchy outline. The entries are protocols (e.g., Transmission Control Protocol). In each entry there are notes on status, specification, comments, other references, dependencies, and contact.

   The status is one of: required, recommended, elective, or experimental.

   The specification identifies the protocol defining documents.

   The comments describe any differences from the specification or problems with the protocol.

   The other references identify documents that comment on or expand on the protocol.

   The dependencies indicate what other protocols are called upon by this protocol.

   The contact indicates a person who can answer questions about the protocol.

In particular, the status may be:

required

- all hosts must implement the required protocol,

recommended

- all hosts are encouraged to implement the recommended
protocol,

elective

- hosts may implement or not the elective protocol,

experimental

- hosts should not implement the experimental protocol unless
they are participating in the experiment and have coordinated
their use of this protocol with the contact person, and

- this is not a protocol.

Overview

Catenet Model --

STATUS: None

SPECIFICATION: IEN 48 (in IPTW)

COMMENTS:

Gives an overview of the organization and principles of the
Internet.

Could be revised and expanded.

OTHER REFERENCES:

RFC 871 - A Perspective on the ARPANET Reference Model

DEPENDENCIES:

CONTACT: Postel@USC-ISIF

Network Level

   Internet Protocol (IP) --

      STATUS: Required

      SPECIFICATION: RFC 791 (in IPTW)

      COMMENTS:

         This is the universal protocol of the Internet. This datagram
         protocol provides the universal addressing of hosts in the
         Internet.

         A few minor problems have been noted in this document.

         The most serious is a bit of confusion in the route options.
         The route options have a pointer that indicates which octet of
         the route is the next to be used. The confusion is between the
         phrases "the pointer is relative to this option" and "the
         smallest legal value for the pointer is 4". If you are
         confused, forget about the relative part, the pointer begins
         at 4.

         Another important point is the alternate reassembly procedure
         suggested in RFC 815.

         Note that ICMP is defined to be an integral part of IP. You
         have not completed an implementation of IP if it does not
         include ICMP.

      OTHER REFERENCES:

         RFC 815 (in IPIG) - IP Datagram Reassembly Algorithms

         RFC 814 (in IPIG) - Names, Addresses, Ports, and Routes

         RFC 816 (in IPIG) - Fault Isolation and Recovery

         RFC 817 (in IPIG) - Modularity and Efficiency in Protocol
         Implementation

      DEPENDENCIES:

      CONTACT: Postel@USC-ISIF

Internet Control Message Protocol (ICMP) --------------------------

    STATUS: Required

    SPECIFICATION: RFC 792 (in IPTW)

    COMMENTS:

        The control messages and error reports that go with the
        Internet Protocol.

        A few minor errors in the document have been noted.
        Suggestions have been made for additional types of redirect
        message and additional destination unreachable messages.

        Note that ICMP is defined to be an integral part of IP. You
        have not completed an implementation of IP if it does not
        include ICMP.

    OTHER REFERENCES:

    DEPENDENCIES: Internet Protocol

    CONTACT: Postel@USC-ISIF

Host Level

    User Datagram Protocol (UDP) ---

    STATUS: Recommended

    SPECIFICATION: RFC 768 (in IPTW)

    COMMENTS:

        Provides a datagram service to applications. Adds port
        addressing to the IP services.

        The only change noted for the UDP specification is a minor
        clarification that if in computing the checksum a padding octet
        is used for the computation it is not transmitted or counted in
        the length.

    OTHER REFERENCES:

    DEPENDENCIES: Internet Protocol

    CONTACT: Postel@USC-ISIF

   Transmission Control Protocol (TCP) --------------------------------

      STATUS: Recommended

      SPECIFICATION: RFC 793 (in IPTW)

      COMMENTS:

         Provides reliable end-to-end data stream service.

         Many comments and corrections have been received for the TCP
         specification document. These are primarily document bugs
         rather than protocol bugs.

         Event Processing Section: There are many minor corrections and
         clarifications needed in this section.

         Push: There are still some phrases in the document that give a
         "record mark" flavor to the push. These should be further
         clarified. The push is not a record mark.

         Listening Servers: Several comments have been received on
         difficulties with contacting listening servers. There should
         be some discussion of implementation issues for servers, and
         some notes on alternative models of system and process
         organization for servers.

         Maximum Segment Size: The maximum segment size option should
         be generalized and clarified. It can be used to either
         increase or decrease the maximum segment size from the default.
         The default should be established more clearly. The default is
         based on the default maximum Internet Datagram size which is
         576 octets counting the IP and TCP headers. The option counts
         only the segment data. For each of IP and TCP the minimum
         header is 20 octets and the maximum header is 60 octets. So the
         default maximum data segment is could be anywhere from 456 to
         536 octets. The current proposal is to set it at 536 data
         octets.

         Idle Connections: There have been questions about
         automatically closing idle connections. Idle connections are
         ok, and should not be closed. There are several cases where
         idle connections arise, for example, in Telnet when a user is
         thinking for a long time following a message from the server
         computer before his next input. There is no TCP "probe"
         mechanism, and none is needed.

         Queued Receive Data on Closing: There are several points where
         it is not clear from the description what to do about data

received by the TCP but not yet passed to the user,
particularly when the connection is being closed. In general,
the data is to be kept to give to the user if he does a RECV
call.

Out of Order Segments: The description says that segments that
arrive out of order, that is, are not exactly the next segment
to be processed, may be kept on hand. It should also point out
that there is a very large performance penalty for not doing
so.

User Time Out: This is the time out started on an open or send
call. If this user time out occurs the user should be
notified, but the connection should not be closed or the TCB
deleted. The user should explicitly ABORT the connection if he
wants to give up.

OTHER REFERENCES:

RFC 813 (in IPIG) - Window and Acknowledgement Strategy in TCP

RFC 814 (in IPIG) - Names, Addresses, Ports, and Routes

RFC 816 (in IPIG) - Fault Isolation and Recovery

RFC 817 (in IPIG) - Modularity and Efficiency in Protocol
Implementation

DEPENDENCIES: Internet Protocol

CONTACT: Postel@USC-ISIF

Host Monitoring Protocol (HMP) ---------------------------------------

    STATUS: Elective

    SPECIFICATION: IEN 197

    COMMENTS:

        This is a good tool for debugging protocol implementations in
        small remotely located computers.

        This protocol is used to monitor Internet gateways and the
        TACs.

    OTHER REFERENCES:

    DEPENDENCIES: Internet Protocol

    CONTACT: Hinden@BBN-UNIX

Cross Net Debugger (XNET) ---

    STATUS: Elective

    SPECIFICATION: IEN 158

    COMMENTS:

        A debugging protocol, allows debugger like access to remote
        systems.

        This specification should be updated and reissued as an RFC.

    OTHER REFERENCES:

        RFC 643

    DEPENDENCIES: Internet Protocol

    CONTACT: Postel@USC-ISIF

Exterior Gateway Protocol (EGP) ------------------------------------

STATUS: Experimental

SPECIFICATION: RFC 827

COMMENTS:

The gateway protocol now under development.

Please discuss any plans for implementation or use of this
protocol with the contact.

OTHER REFERENCES:

DEPENDENCIES: Internet Protocol

CONTACT: Mills@USC-ISID

Gateway Gateway Protocol (GGP) ------------------------------------

STATUS: Experimental

SPECIFICATION: RFC 823

COMMENTS:

The gateway protocol now used in the core gateways.

Please discuss any plans for implementation or use of this
protocol with the contact.

OTHER REFERENCES:

DEPENDENCIES: Internet Protocol

CONTACT: Brescia@BBN-UNIX

Multiplexing Protocol (MUX) ---

    STATUS: Experimental

    SPECIFICATION: IEN 90

    COMMENTS:

        Defines a capability to combine several segments from different
        higher level protocols in one IP datagram.

        No current experiment in progress. There is some question as
        to the extent to which the sharing this protocol envisions can
        actually take place. Also, there are some issues about the
        information captured in the multiplexing header being (a)
        insufficient, or (b) over specific.

        Please discuss any plans for implementation or use of this
        protocol with the contact.

    OTHER REFERENCES:

    DEPENDENCIES: Internet Protocol

    CONTACT: Postel@USC-ISIF

Stream Protocol (ST) ---

    STATUS: Experimental

    SPECIFICATION: IEN 119

    COMMENTS:

        A gateway resource allocation protocol designed for use in
        multihost real time applications.

        The implementation of this protocol has evolved and may no
        longer be consistent with this specification. The document
        should be updated and issued as an RFC.

        Please discuss any plans for implementation or use of this
        protocol with the contact.

    OTHER REFERENCES:

    DEPENDENCIES: Internet Protocol

    CONTACT: Forgie@BBN

Network Voice Protocol (NVP-II) ------------------------------------

   STATUS: Experimental

   SPECIFICATION: RFC xxx

   COMMENTS:

      Defines the procedures for real time voice conferencing.

      The specification is an ISI Internal Memo which should be
      updated and issued as an RFC.

      Please discuss any plans for implementation or use of this
      protocol with the contact.

   OTHER REFERENCES:

   DEPENDENCIES: Internet Protocol, Stream Protocol

   CONTACT: Casner@USC-ISIB

Application Level

   Telnet Protocol (TELNET) --------------------------------------

   STATUS: Recommended

   SPECIFICATION: RFC 854 (in "Internet Telnet Protocol and
   Options")

   COMMENTS:

      The protocol for remote terminal access.

      This has been revised since the IPTW. RFC 764 in IPTW is now
      obsolete.

   OTHER REFERENCES:

   DEPENDENCIES: Transmission Control Protocol

   CONTACT: Postel@USC-ISIF

   Telnet Options (TELNET-OPTIONS) -------------------------------------

      STATUS: Elective

      SPECIFICATION: General description of options: RFC 855
      (in "Internet Telnet Protocol and Options")

      Number   Name   RFC   NIC   ITP APH USE
      ------   ----------------------------------- --- ----- --- --- ---
         0   Binary Transmission   856 ----- yes obs yes
         1   Echo   857 ----- yes obs yes
         2   Reconnection   ... 15391   no yes no
         3   Suppress Go Ahead   858 ----- yes obs yes
         4   Approx Message Size Negotiation   ... 15393   no yes no
         5   Status   859 ----- yes obs yes
         6   Timing Mark   860 ----- yes obs yes
         7   Remote Controlled Trans and Echo   726 39237   no yes no
         8   Output Line Width   ... 20196   no yes no
         9   Output Page Size   ... 20197   no yes no
        10   Output Carriage-Return Disposition   652 31155   no yes no
        11   Output Horizontal Tabstops   653 31156   no yes no
        12   Output Horizontal Tab Disposition   654 31157   no yes no
        13   Output Formfeed Disposition   655 31158   no yes no
        14   Output Vertical Tabstops   656 31159   no yes no
        15   Output Vertical Tab Disposition   657 31160   no yes no
        16   Output Linefeed Disposition   658 31161   no yes no
        17   Extended ASCII   698 32964   no yes no
        18   Logout   727 40025   no yes no
        19   Byte Macro   735 42083   no yes no
        20   Data Entry Terminal   732 41762   no yes no
        21   SUPDUP   734 736 42213   no yes no
        22   SUPDUP Output   749 45449   no no no
        23   Send Location   779 -----   no no no
       255   Extended-Options-List   861 ----- yes obs yes

                                                        (obs = obsolete)

      The ITP column indicates if the specification is included in the
      Internet Telnet Protocol and Options. The APH column indicates if
      the specification is included in the ARPANET Protocol Handbook.
      The USE column of the table above indicates which options are in
      general use.

      COMMENTS:

         The Binary Transmission, Echo, Suppress Go Ahead, Status,
         Timing Mark, and Extended Options List options have been
         recently updated and reissued. These are the most frequently
         implemented options.

   The remaining options should be reviewed and the useful ones
   should be revised and reissued. The others should be
   eliminated.

   The following are recommended: Binary Transmission, Echo,
   Suppress Go Ahead, Status, Timing Mark, and Extended Options
   List.

OTHER REFERENCES:

DEPENDENCIES: Telnet

CONTACT: Postel@USC-ISIF

File Transfer Protocol (FTP) --

STATUS: Recommended

SPECIFICATION: RFC 765 (in IPTW)

COMMENTS:

   The protocol for moving files between Internet hosts. Provides
   for access control and negotiation of file parameters.

   There are a number of minor corrections to be made. A major
   change is the deletion of the mail commands, and a major
   clarification is needed in the discussion of the management of
   the data connection. Also, a suggestion has been made to
   include some directory manipulation commands (RFC 775).

   Even though the MAIL features are defined in this document,
   they are not to be used. The SMTP protocol is to be used for
   all mail service in the Internet.

   Data Connection Management:

      a.   Default Data Connection Ports: All FTP implementations
      must support use of the default data connection ports, and
      only the User-PI may initiate the use of non-default ports.

      b.   Negotiating Non-Default Data Ports: The User-PI may
      specify a non-default user side data port with the PORT
      command. The User-PI may request the server side to
      identify a non-default server side data port with the PASV
      command. Since a connection is defined by the pair of
      addresses, either of these actions is enough to get a
      different data connection, still it is permitted to do both

commands to use new ports on both ends of the data
connection.

c. Reuse of the Data Connection: When using the stream
mode of data transfer the end of the file must be indicated
by closing the connection. This causes a problem if
multiple files are to be transfered in the session, due to
need for TCP to hold the connection record for a time out
period to guarantee the reliable communication. Thus the
connection can not be reopened at once.

   There are two solutions to this problem. The first is to
   negotiate a non-default port (as in (b) above). The
   second is to use another transfer mode.

   A comment on transfer modes. The stream transfer mode is
   inherently unreliable, since one can not determine if the
   connection closed prematurely or not. The other transfer
   modes (Block, Compressed) do not close the connection to
   indicate the end of file. They have enough FTP encoding
   that the data connection can be parsed to determine the
   end of the file. Thus using these modes one can leave
   the data connection open for multiple file transfers.

   Why this was not a problem with the old NCP FTP:

      The NCP was designed with only the ARPANET in mind.
      The ARPANET provides very reliable service, and the
      NCP counted on it. If any packet of data from an NCP
      connection were lost or damaged by the network the NCP
      could not recover. It is a tribute to the ARPANET
      designers that the NCP FTP worked so well.

      The TCP is designed to provide reliable connections
      over many different types of networks and
      interconnections of networks. TCP must cope with a
      set of networks that can not promise to work as well
      as the ARPANET. TCP must make its own provisions for
      end-to-end recovery from lost or damaged packets.
      This leads to the need for the connection phase-down
      time-out. The NCP never had to deal with
      acknowledgements or retransmissions or many other
      things the TCP must do to make connection reliable in
      a more complex world.

LIST and NLST:

   There is some confusion about the LIST an NLST commands, and
   what is appropriate to return. Some clarification and

           motivation for these commands should be added to the
           specification.

      OTHER REFERENCES:

         RFC 678 - Document File Format Standards

      DEPENDENCIES: Transmission Control Protocol

      CONTACT: Postel@USC-ISIF

   Trivial File Transfer Protocol (TFTP) -----------------------------

      STATUS: Elective

      SPECIFICATION: RFC 783 (in IPTW)

      COMMENTS:

         A very simple file moving protocol, no access control is
         provided.

         No known problems with this specification. This is in use in
         several local networks.

      OTHER REFERENCES:

      DEPENDENCIES: User Datagram Protocol

      CONTACT: Postel@USC-ISIF

   Simple Mail Transfer Protocol (SMTP) ------------------------------

      STATUS: Recommended

      SPECIFICATION: RFC 821 (in "Internet Mail Protocols")

      COMMENTS:

         The procedure for transmitting computer mail between hosts.

         This has been revised since the IPTW, it is in the "Internet
         Mail Protocols" volume of November 1982. RFC 788 (in IPTW) is
         obsolete.

         There have been many misunderstandings and errors in the early
         implementations. Some documentation of these problems can be
         found in the file [ISIF]<SMTP>MAIL.ERRORS.

Some minor differences between RFC 821 and RFC 822 should be resolved.

OTHER REFERENCES:

RFC 822 - Mail Header Format Standards

This has been revised since the IPTW, it is in the "Internet Mail Protocols" volume of November 1982. RFC 733 (in IPTW) is obsolete. Further revision of RFC 822 is needed to correct some minor errors in the details of the specification.

DEPENDENCIES: Transmission Control Protocol

CONTACT: Postel@USC-ISIF

Remote Job Entry (RJE) ---

STATUS: Elective

SPECIFICATION: RFC 407 (in APH)

COMMENTS:

The general protocol for submitting batch jobs and retrieving the results.

Some changes needed for use with TCP.

No known active implementations.

OTHER REFERENCES:

DEPENDENCIES: File Transfer Protocol
              Transmission Control Protocol

CONTACT: Postel@USC-ISIF

Remote Job Service (NETRJS) --

    STATUS: Elective

    SPECIFICATION: RFC 740 (in APH)

    COMMENTS:

        A special protocol for submitting batch jobs and retrieving the results used with the UCLA IBM OS system.

        Please discuss any plans for implementation or use of this protocol with the contact.

        Revision in progress.

    OTHER REFERENCES:

    DEPENDENCIES: Transmission Control Protocol

    CONTACT: Braden@USC-ISIA

Remote Telnet Service (RTELNET) -------------------------------------

    STATUS: Elective

    SPECIFICATION: RFC 818

    COMMENTS:

        Provides special access to user Telnet on a remote system.

    OTHER REFERENCES:

    DEPENDENCIES: Telnet, Transmission Control Protocol

    CONTACT: Postel@USC-ISIF

Graphics Protocol (GRAPHICS) ---

    STATUS: Elective

    SPECIFICATION: NIC 24308 (in APH)

    COMMENTS:

        The protocols for vector graphics.

        Very minor changes needed for use with TCP.

        No known active implementations.

    OTHER REFERENCES:

    DEPENDENCIES: Telnet, Transmission Control Protocol

    CONTACT: Postel@USC-ISIF

Echo Protocol (ECHO) --

    STATUS: Recommended

    SPECIFICATION: RFC 862

    COMMENTS:

        Debugging protocol, sends back whatever you send it.

    OTHER REFERENCES:

    DEPENDENCIES: Transmission Control Protocol
                  or User Datagram Protocol

    CONTACT: Postel@USC-ISIF

Discard Protocol (DISCARD) ---

   STATUS: Elective

   SPECIFICATION: RFC 863

   COMMENTS:

      Debugging protocol, throws away whatever you send it.

   OTHER REFERENCES:

   DEPENDENCIES: Transmission Control Protocol
                 or User Datagram Protocol

   CONTACT: Postel@USC-ISIF

Character Generator Protocol (CHARGEN) ----------------------------

   STATUS: Elective

   SPECIFICATION: RFC 864

   COMMENTS:

      Debugging protocol, sends you ASCII data.

   OTHER REFERENCES:

   DEPENDENCIES: Transmission Control Protocol
                 or User Datagram Protocol

   CONTACT: Postel@USC-ISIF

   Quote of the Day Protocol (QUOTE) ----------------------------------

      STATUS: Elective

      SPECIFICATION: RFC 865

      COMMENTS:

         Debugging protocol, sends you a short ASCII message.

      OTHER REFERENCES:

      DEPENDENCIES: Transmission Control Protocol
                    or User Datagram Protocol

      CONTACT: Postel@USC-ISIF

   Active Users Protocol (USERS) -------------------------------------

      STATUS: Elective

      SPECIFICATION: RFC 866

      COMMENTS:

         Lists the currently active users.

      OTHER REFERENCES:

      DEPENDENCIES: Transmission Control Protocol
                    or User Datagram Protocol

      CONTACT: Postel@USC-ISIF

   Finger Protocol (FINGER) --

      STATUS: Elective

      SPECIFICATION: RFC 742 (in APH)

      COMMENTS:

         Provides information on the current or most recent activity of
         a user.

         Some extensions have been suggested.

         Some changes are are needed for TCP.

OTHER REFERENCES:

DEPENDENCIES: Transmission Control Protocol

CONTACT: Postel@USC-ISIF

NICNAME Protocol (NICNAME) --

STATUS: Elective

SPECIFICATION: RFC 812 (in IPTW)

COMMENTS:

Accesses the ARPANET Directory database. Provides a way to
find out about people, their addresses, phone numbers,
organizations, and mailboxes.

OTHER REFERENCES:

DEPENDENCIES: Transmission Control Protocol

CONTACT: Feinler@SRI-NIC

HOSTNAME Protocol (HOSTNAME) ---

STATUS: Elective

SPECIFICATION: RFC 811 (in IPTW)

COMMENTS:

Accesses the Registered Internet Hosts database (HOSTS.TXT).
Provides a way to find out about a host in the Internet, its
Internet Address, and the protocols it implements.

OTHER REFERENCES:

RFC 810 - Host Table Specification

DEPENDENCIES: Transmission Control Protocol

CONTACT: Feinler@SRI-NIC

Host Name Server Protocol (NAMESERVER) ----------------------------

    STATUS: Experimental

    SPECIFICATION: IEN 116 (in IPTW)

    COMMENTS:

        Provides machine oriented procedure for translating a host name
        to an Internet Address.

        This specification has significant problems: 1) The name
        syntax is out of date. 2) The protocol details are ambiguous,
        in particular, the length octet either does or doesn't include
        itself and the op code. 3) The extensions are not supported by
        any known implementation.

        Work is in progress on a significant revision. Further
        implementations of this protocol are not advised.

        Please discuss any plans for implementation or use of this
        protocol with the contact.

    OTHER REFERENCES:

    DEPENDENCIES: User Datagram Protocol

    CONTACT: Postel@USC-ISIF

CSNET Mailbox Name Server Protocol (CSNET-NAMESERVER) --------------

    STATUS: Experimental

    SPECIFICATION: CS-DN-2

    COMMENTS:

        Provides access to the CSNET data base of users to give
        information about users names, affiliations, and mailboxes.

        Please discuss any plans for implementation or use of this
        protocol with the contact.

    OTHER REFERENCES:

    DEPENDENCIES: Transmission Control Protocol

    CONTACT: Solomon@UWISC

Daytime Protocol (DAYTIME) ---

   STATUS: Elective

   SPECIFICATION: RFC 867

   COMMENTS:

      Provides the day and time in ASCII character string.

   OTHER REFERENCES:

   DEPENDENCIES: Transmission Control Protocol
                 or User Datagram Protocol

   CONTACT: Postel@USC-ISIF

Time Server Protocol (TIME) --

   STATUS: Recommended

   SPECIFICATION: RFC 868

   COMMENTS:

      Provides the time as the number of seconds from a specified
      reference time.

   OTHER REFERENCES:

   DEPENDENCIES: Transmission Control Protocol
                 or User Datagram Protocol

   CONTACT: Postel@USC-ISIF

   DCNET Time Server Protocol (CLOCK) ---------------------------------

      STATUS: Elective

      SPECIFICATION: RFC 778

      COMMENTS:

         Provides a mechanism for keeping synchronized clocks.

      OTHER REFERENCES:

      DEPENDENCIES: Internet Control Message Protocol

      CONTACT: Mills@USC-ISID

   SUPDUP Protocol (SUPDUP) ---

      STATUS: Elective

      SPECIFICATION: RFC 734 (in APH)

      COMMENTS:

         A special Telnet like protocol for display terminals.

      OTHER REFERENCES:

      DEPENDENCIES: Transmission Control Protocol

      CONTACT: Admin.MRC@SU-SCORE

   Internet Message Protocol (MPM) -------------------------------------

      STATUS: Experimental

      SPECIFICATION: RFC 759

      COMMENTS:

         This is an experimental multimedia mail transfer protocol. The
         implementation is called a Message Processing Module or MPM.

         Please discuss any plans for implementation or use of this
         protocol with the contact.

      OTHER REFERENCES:

         RFC 767 - Structured Document Formats

DEPENDENCIES: Transmission Control Protocol

CONTACT: Postel@USC-ISIF

Network Standard Text Editor (NETED) -------------------------------

STATUS: Elective

SPECIFICATION: RFC 569

COMMENTS:

Describes a simple line editor which could be provided by every
Internet host.

OTHER REFERENCES:

DEPENDENCIES:

CONTACT: Postel@USC-ISIF

Appendices

Assigned Numbers ---

STATUS: None

SPECIFICATION: RFC 870

COMMENTS:

Describes the fields of various protocols that are assigned
specific values for actual use, and lists the currently
assigned values.

Issued October 1983, replaces RFC 790 in IPTW, and RFC 820 of
January 1983.

OTHER REFERENCES:

CONTACT: JKReynolds@USC-ISIF

Pre-emption --

   STATUS: Elective

   SPECIFICATION: RFC 794 (in IPTW)

   COMMENTS:

      Describes how to do pre-emption of TCP connections.

   OTHER REFERENCES:

   CONTACT: Postel@USC-ISIF

Service Mappings ---

   STATUS: None

   SPECIFICATION: RFC 795 (in IPTW)

   COMMENTS:

      Describes the mapping of the IP type of service field onto the
      parameters of some specific networks.

      Out of date, needs revision.

   OTHER REFERENCES:

   CONTACT: Postel@USC-ISIF

Address Mappings ---

   STATUS: None

   SPECIFICATION: RFC 796 (in IPTW)

   COMMENTS:

      Describes the mapping between Internet Addresses and the
      addresses of some specific networks.

      Out of date, needs revision.

   OTHER REFERENCES:

   CONTACT: Postel@USC-ISIF

Internet Protocol on X.25 Networks --------------------------------

    STATUS: Recommended

    SPECIFICATION: RFC 877

    COMMENTS:

        Describes a standard for the transmission of IP Datagrams over
        Public Data Networks.

    OTHER REFERENCES:

    CONTACT: jtk@PURDUE