TELNET TERMINAL LOCATION NUMBER OPTION

Status of this Memo

    This RFC proposes a new option for Telnet for the ARPA-Internet
    community, and requests discussion and suggestions for improvements.
    Distribution of this memo is unlimited.

Overview

    In a community of users that share a large degree of common
    facilities, it is often advantageous to use some common feature to
    improve software performance and reduce initial implementation costs.

    In March of 1982, CMU designed and implemented based on the growing
    CMU PUP-based network a terminal location database and modified
    existing network software to handle a 64-bit number which some call
    the Terminal Location Number or TTYLOC for short. The number can be
    efficiently stored in operating systems tables and can be passed
    between various levels of operating system and network layering with
    minimum modifications to existing software. An initial evaluation of
    changing software to communicate an unfixed or reasonable length
    terminal location string indicated it would be expensive.

    CMU now wishes to extend this mechanism into the TCP-based networking
    support that is replacing the existing PUP-based software. The
    mechanism is not viewed as a replacement for the Telnet Terminal
    Location (SEND-LOCATION) Option but as a shorthand mechansim for
    communicating hosts in the same community.

TTYLOC Number

    The TTYLOC number is a 64-bit number composed of two (2) 32-bit
    numbers: The 32-bit official ARPA Internet host address (may be any
    one of the addresses for multi-homed hosts) and a 32-bit number
    representing the terminal on the specified host. The host address of
    [0.0.0.0] is defined to be "unknown", the terminal number of FFFFFFFF
    (hex, r or-1 in decimal) is defined to be "unknown" and the terminal
    number of FFFFFFFE (hex, or -2 in decimal) is defined to be
    "detached" for processes that are not attached to a terminal.

1. Command Name and Option Code

   TTYLOC 28

2. Command Meanings

   IAC WILL TTYLOC

      The sender offers to send the TTYLOC information or confirms that
      it can send the TTYLOC information.

   IAC WON'T TTYLOC

      The sender refuses to send the TTYLOC information.

   IAC DO TTYLOC

      The sender requests to receive the TTYLOC information or confirms
      that it will receive the TTYLOC information.

   IAC DON'T TTYLOC

      The sender refuses to receive the TTYLOC information.

   IAC SB TTYLOC <format> <TTYLOC number with IAC doubling> IAC SE

      The sender is transmitting the TTYLOC information. The 64-bit
      TTYLOC number has format 0. The first 32-bits is the Internet host
      number and the second 32-bits is the line on the specified
      Internet host. The bytes are in most significant 8-bit byte to
      least significant byte order.

3. Default Specification

   WON'T TTYLOC

      TTYLOC information will not be sent.

   DON'T TTYLOC

      TTYLOC information will not be received.

4. Motivation

   Many systems provide a mechanism for finding out where a user is
   logged in from usually including information about telephone
   extension and office occupants names. The information is useful for
   physically locating people and/or calling them on the phone.

   For incoming network connections to a host, only the remote host's
   name is available. This option and the Telnet Terminal Location
   option (RFC-779) provide the information to the system so it in turn
   can provide the information to the various mechanisms (FINGER, WHOIS,
   etc.).

5. Description of the Option

   When the user Telnet connects to a remote host, it can attempt to
   send the terminal location number information by doing a
   IAC WILL TTYLOC command. If the Telnet server can use the
   information, it replies with a IAC DO TTYLOC command. The user Telnet
   then sends the TTYLOC number in the subnegotiation.

   It is recommended that if sending the TTYLOC number is refused then
   the Telnet Terminal Location (SEND-LOCATION in RFC-779) should be
   attempted.

   The following are two example usage scenarios:

      User Side First:

         (User) Host1: IAC WILL TTYLOC

            Host1 is asking if it can send the 64-bit terminal location
            number (I will send...).

         (Server) Host2: IAC DO TTYLOC

            Host2 indicates to Host1 that it will accept the 64-bit
            terminal location number in a subnegotiation (You please do
            ...).

         (User) Host1: IAC SB TTYLOC 0 <64-bit number> IAC SE

            Host1 is sending the location number to Host2 which can
            communicate the number to the operating system or other
            system components.

    Server Side First:

        (Server) HostA: IAC DO TTYLOC

            HostA indicates to HostB that it would like to know the
            64-bit terminal location number (You please do ...).

        (User) HostB: IAC WILL TTYLOC

            HostB agrees to send the 64-bit terminal location number to
            HostA in a subnegotiation (I will send...).

        (User) HostB: IAC SB TTYLOC 0 <64-bit number> IAC SE

            HostB is sending the location number to HostA which can
            communicate the number to the operating system or other
            system components.