                    TELNET OUTPUT LINEFEED DISPOSITION

1. Command name and code
   NAOLFD 16
      (Negotiate About Output Linefeed Disposition)

2. Command meanings
   In the following, we are discussing a simplex connection, as described in

   the NAOL and NAOP Telnet Options.
      IAC DO NAOLFD
         The data sender requests or agrees to negotiate about output
         linefeed disposition with the data receiver. In the case where
         agreement has been reached and in the absence of further
         subnegotiations, the data receiver is assumed to be handling output
         linefeed considerations.
      IAC DON'T NAOLFD
         The data sender refuses to negotiate about output linefeed
         disposition with the data receiver, or demands a return to the
         unnegotiated default mode.
      IAC WILL NAOLFD
         The data receiver requests or agrees to negotiate about output
         linefeed disposition with the sender. In the case where agreement
         has been reached and in the absence of further subnegotiations, the
         data receiver alone is assumed to be handling output linefeed
         considerations.
      IAC WON'T NAOLFD
         The data receiver refuses to negotiate about output linefeed
         disposition, or demands a return to the unnegotiated default mode.
      IAC SB NAOLFD DS <8-bit value> IAC SE
         The data sender specifies, with the 8-bit value, which party should

         handle output linefeeds and what their disposition should be. The
         code for DS is 1.
     IAC SB NAOLFD DR <8-bit value> IAC SE
         The data receiver specifies, with the 8-bit value, which party
         should handle output linefeeds and what their disposition should
         be. The code for DR is 0.

3. Default
   DON'T NAOLFD/WON'T NAOLFD.
      In the default absence of negotiations concerning which party, data
      under or data receiver, is handling output linefeed considerations,
      neither party is required nor prohibited from handling linefeeds; but
      it is appropriate if at least the data receiver handles them, albeit
      primitively.

4. Motivation for the Option
   Please refer to section 4 of the NAOL and of the NAOLFD Telnet option
   descriptions.

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5. Description of the Option
   The data sender and the data receiver use the 8-bit value along with DS
   and DR SB commands as follows:

       8-bit value        Meaning

       0                  Command sender suggests that he alone will handle
                          linefeeds, for the connection.
       1 to 250           Command sender suggests that the other party alone
                          should handle linefeeds, but suggests that a delay
                          of the indicated value be used.  The value is the
                          number of character-times to wait or number of
                          NULs to insert in the data stream before sending
                          the next data character.  (See qualifications, below.)
       251                Not allowed, in order to be compatible with
                          related Telnet options.
       252                Command sender suggests that the other party alone
                          handle linefeeds, but suggests that they be discarded.
       253                Command sender suggests that the other party alone
                          should handle linefeeds, but suggests that
                          linefeeds be simulated.
       254                Command sender suggests that the other party alone
                          should handle output linefeeds but suggests
                          waiting for a character to be transmitted (on the
                          other simplex connection) before sending more
                          data.  (See qualifications, below.) Note that, due
                          to the assynchrony of the two simplex connections,
                          phase problems can occur with this option.
       255                Command sender suggests that the other party alone
                          should handle output linefeeds and suggests
                          nothing about how it should be done.

   The guiding rules are that:

       1) if neither data receiver nor data sender wants to handle output
       linefeeds, the data receiver must do it, and
       2) if both data receiver and data sender want to handle output linefee
d
       disposition, the data sender gets to do it.

   The reasoning for the former rule is that if neither wants to do it, then
   the default in the NAOLFD option dominates.  If both want to do it, the
   sender, who is presumed to have special knowledge about the data, should
   be allowed to do it, taking into account any suggestions the receiver may
   make.  Simulation is defined as the replacement of the linefeed character
   by new-line (see following) and enough blanks to move the print head (or
   line pointer) to the same lateral position it occupied just prior to
   receiving the linefeed.  To avoid infinite recursion, such simulation is
   allowed only for linefeed characters that are not immediately preceded by
   carriage-returns (that is, part of a Telnet new-line combination).  It is
   assumed that linefeed simulation will be necessary for printers that do
   not have a separate linefeed (like the IBM 2741); in this case,
   end-of-line character padding can be specified through NAOCRD.  Any
   padding (0 < <8-bit-value> < 251) of linefeed characters is to be done
   for ALL linefeed characters.
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NOTE: Delays, controlled by the data sender, must consist of NUL
characters inserted immediately after the character. This is necessary
due to the assynchrony of network transmissions. Additionally, due to
the presence of the Telnet end-of-line convention, it may be necessary to
add carriage-return padding or delay after the associated linefeed (see
NAOCRD Telnet option). As with all option negotiations, neither party
should suggest a state already in effect except to refuse to negotiate;
changes should be acknowledged; and once refused, an option should not be
resuggested until "something changes" (e.g., another process starts). At
any time, either party can disable further negotiation by giving the
appropriate WON'T NAOLFD or DON'T NAOLFD command.