Discussion on RCTE

The following is the significant portion of a dialog on RCTE that has
followed the publication of RFC 718.

15-Jul-76 Nancy Mimno (BBN-NET)

    Jon,
    I've read RFC718 and have got some comments, in particular with
    respect to the "third problem" or clearing the input buffer part.

    1) I believe the stated implementation is backwards: in the normal
    case of the RCTE mode negotiation, the server sends "WILL RCTE" and
    the user sends ,"DO RCTE"; the reverse case is thus the server sending
    "DO RCTE" and the user "WILL RCTE" Also, it is probably wise to say
    explicitly that the server's sending "DO RCTE" requires the user
    process to respond "WILL (or WON'T) RCTE" and that this response is
    the synchronizing mark.

    2) The problem is a real one and I think the RCTE protocol would be
    better with a "clear input, reset counters" function. The question is
    Ill now to do it. In talking with Rav yesterday, I learned that he had
    this in mind as a general function, not restricted to RCTE; in fact,
    TENEX sends the "reverse RCTE" option for "clear your input buffer"
    whether or not the connection is in RCTE mode. In this case, the
    statement about "cannot be confused with the normal use of the RCTE
    option" will not always be true. I think we both agreed that the
    current solution should just be an interim one.

    3) I suggest a different way of performing this function, using the
    synch-datamark sequence. First, the RCTE option would have to
    explicitly require that this function reset the counters and cause a
    "clear your input buffer (of data)", all synchronized with the
    datamark of course. This is pretty much what it is now except for
    the reset counters; receiving Synch-data mark when in RCTE probably
    needed defining anyhow. Because RCTE won't work unless both sides
    agree, the "clear input and reset counters" meaning for
    synch-data mark would have to be a mandatory part of the RCTE option.
    Second, since the Synch-data mark is a "one-way" function, there needs
    to be a way for one side of the connection to tell the other side to
    "send me a Synch-data mark". The New Telnet protocol spec implied that
    Abort Output could be used for that purpose; if hot, then perhaps a
    new function could be defined. Again, the RCTE option should make
    some explicit statement requiring (or very strongLy recommending)
    this interpretation of AO. For non-RCTE mode, it's a nice idea but
    probably not required. Ray has tentatively agreed- thinks it could
    work on Tenex (server side). I would like your comments and Doug
    Dodds' (Tenex user RCTE). I don't know of any other existing RCTE
    implementations that would have to change. I also don't know what it

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takes to extend official protocols these days, but maybe it's easier
to do that than define a new option (ie reverse RCTE).

Regards,
Nancy

15-Jul-76 Doug Dodds (BBN-RCC)

Nancy,

Your suggestion for the RCTE-clear function being performed by the Au
command (when RCTE is on) is a good one. I see no problem with it
from the side of the Tenex User Telnet (NTELNET). At present NTELNET
is ignoring AO (and some other commands) entirely; this is a good
opportunity to implement it in general.

Doug

21-Jul-76 Jon Postel (SRI-ARC)

I met with Ray Tomlinson for a few minutes to discuss the RCTE-clear
function and other RCTE features. We agreed that Nancy's suggestion
for using the AO command for the clear function made sense. We also
determined that the RCTE document should say something about the
state some other options should be in when using RCTE. For example we
believe that GO-AHEAD must be suppressed while RCTE is in use, that
when one quits RCTE the ECHO mode must be restored to what it was at
the time of entering RCTE,, and that BINARY and RCTE do not make sense
as a combination because every byte would have to be assumed to be a
break character. We also determined that it is unworkable to use
RCTE and no break characters since there is no way to get out of that
state.

22-Jul-76 Jon Postel (SRI-ARC)

As a result of the above discussion I will prepare a revised RCTE
specification document. A draft will be distributed to interested
parties for comments and the final document will be published as an
RFC.