

Received at NIC 14-DEC-73  
RFC589  
NIC #20268

Robert T. Braden  
UCLA/CCN  
November 26, 1973

CCN NETRJS SERVER  
MESSAGES TO REMOTE USER

A. INITIAL CONNECTION, SIGNON, AND SIGNOFF

1. If CCN refuses an ICP to a NETRJS socket, it means either that there is no free core within the NCP region, or that CCN's software is crashing.
2. Once ICP is completed, CCN might send the user one of the following messages and close the Telnet connections:

NRJ110I NETRJS PORTS BUSY. TRY LATER

This may be expected occasionally; frequent occurrence should be reported to CCN User Relations (825-7548), or to BELL@CCN.

NRJ111I RJS NOT UP, TRY LATER

3. Normally, however, the user will receive a READY message:

NRJ876R CCN NETRJS READY. ENTER SIGNON

If the user sends no operator input for 3 minutes, CCN will send:

NRJ308R SIGNON TIMEOUT EXCEEDED

NRJ205R NETRJS SESSION TERMINATED

and close the Telnet connection. If he sends an invalid SIGNON command, he will receive the message:

NRJ307R INVALID SIGNON, RE-ENTER

\0337           Finally, a valid signon will be acknowledged by RJS with the message:

RJS750I TERMINAL -termid- HAS SIGNED ONTO RJS

4. If the user terminates the session by entering a SIGNOFF command, NETRJS will wait until all data transfer has completed before sending the message:

NRJ205R NETRJS SESSION TERMINATED

and closing the Telnet connection.

#### B. REMOTE SITE OR NETWORK FAILURES

1. During data transfer, the user must be reasonably responsive. If not, CCN will close the data transfer connection and send the remote operator message:

NRJ504I DATA TRANSFER TIMEOUT FOR THE -device-, -termid-

- a) if -device- is PRINTER or PUNCH, user site stopped accepting bits (sending "allocates") for over 5 minutes.
  - b) if -device- is READER, user site left reader connection open without sending any bits for 5 minutes.
2. During data transfer on the CR connection, CCN may detect an incorrect header or record, presumably due to user site software or Network transmission error. The following messages beginning with the word "BAD" will follow an NRJ512I message containing the faulty header in hex:

NRJ505I BAD HEADER SEQUENCE FOR NETRJS READER

Sequence number in transaction header does not match internal counter of records passed.

NRJ506I BAD HEADER LENGTH FOR NETRJS READER

Length given in header exceeds 880 bytes.

\0337

NRJ507I BAD HEADER TYPE FOR NETRJS READER

Type code in header is not X'FF' (data) or X'FE'  
(end-of-data)

NRJ511I BAD FILL BIT COUNT FOR NETRJS READER

The filler bit count in header is not a multiple of  
8.

3. If the header is correct but a data record is faulty, the following message will be sent to a remote user:

NRJ602I line STREAM ERROR - READER, -code-

A protocol error was detected in the READER stream. CCN will close the stream and ready it to be reopened so the remote user may retry the data transfer operation. The valid -code- values are:

<u>CODE</u>	<u>ERROR</u>
1	Device id byte has high bit off.
2	End of transaction in the middle of a data line.
3	Truncated input line longer than 255 bytes.
4	In compressed text, string control byte has high bit off.
5	In compressed text, duplicate blank string extends line longer than 255 bytes.
6	In compressed text, duplicate character string extends line longer than 255 bytes.
7	In compressed text, character string extends line longer than 255 bytes.

4. Finally, if the user aborts his data transfer, he receives the message:

NRJ502I NETRJS -device- DATA TRANSFER ABORTED BY USER  
-termid-.

\0337C. CCN FAILURES

1. The CCN operator can cancel a NETRJS session, aborting any open data transfer streams and sending the message:

NRJ204I NETRJS SESSION ABORTED BY CENTRAL OPERATOR, TERM=-termid-

2. Any of the following messages indicate a serious CCN Network software problem, and will cause the session to be aborted:

NRJ106A NETRJS DEAD - EXCHANGE INOPERATIVE

NRJ201A NETRJS DT SOCKET ERROR - BAD LISTEN

NRJ208A NETRJS PROGRAM CHECK IN -device-, code=ccc

NRJ209A NETRJS LOAD FAILED FOR -device-, code=xx

NRJ304I RJS LINE HANDLER DEAD

NRJ401I RJS LINE HANDLER DEAD

NRJ402I RJS LINE HANDLER DEAD

Any of these should be reported to CCN.

3. Besides global catastrophes like these above, the user might encounter a failure of a particular data transfer process. These do not terminate the session, only cause the data connection to be refused or terminated; the user can try again to open the data connection. Repeated failure should be reported to CCN.

NRJ501I NO CORE FOR DATA TRANSFER BUFFER -device-

NRJ503I NO CORE FOR DATA TRANSFER WORKAREA -device-

NRJ207I NO CORE FOR-device-DATA TRANSFER MODULE

Due to core memory limitations in CCN's NCP, -device- cannot be started now. The data transfer connection indicated by -device- will be refused. This may happen occasionally during active periods, but repeated occurrences should be reported to CCN.

\0337

NRJ509I -device- DATA TRANSFER DEAD

NRJ510I -device- DATA TRANSFER DEAD

NRJ602I line STREAM ERROR - PRINTER, -code-

NRJ602I line STREAM ERROR - PUNCH, -code-

CCN data transfer failed, but recovery may be possible. User may try again.

[ This RFC was put into machine readable form for entry ]  
[ into the online RFC archives by Tony Hansen 10/98 ]

