

Network Working Group
Request for Comments: 227
NIC: 7631
Updates: RFC [113](#)

J. Heafner
E. Harslem
September 17, 1971

DATA TRANSFER RATES (RAND/UCLA)

The attached memo indicates data rates typical of our use of RJS at UCLA CCN. Earlier timing tests (similar but more detailed) with UCSB showed that most of the time was lost because of: (1) channel contention with our disk drive access; (2) our NCP runs at a higher priority than batch jobs but lower than text editing and interactive graphics; (3) OS interrupt handling is very slow on both ends; (4) spooling time of the remote system.

MEMORANDUM

TO: John Heafner
FROM: Bob Hoffman
COPIES: Bob Mobley, Herb Shukiar

Here are some of the transmission rates I have noted over the network between Rand and UCLA. These were all taken at night when little else was happening on our 65.

SEND TO UCLA

| # Cards | Blocksize (bytes) | Time (secs) | Rate (bits/secs) |
|---------|-------------------|-------------|------------------|
| 642 | 80 | 50 | 8218 |
| 375 | 80 | 30 | 8000 |
| 509 | 800 | 20 | 16288 |

RECEIVE FROM UCLA

For all figures below, the receiving file has blocksize of 1330 bytes, and each line is assumed to contain 100 bytes. This last assumption is fairly accurate, since most of the lines were from PL/I for which this is a very good number. Thus, for each rate, the number of bytes is the # Lines * 100.

| # Lines | Time (secs) | Rate (bits/secs) |
|---------|-------------|------------------|
| 4900 | 200 | 19600 |
| 872 | 47 | 14843 |
| 3900 | 185 | 16865 |

As you can see from the send figures, blocking makes about a 2:1 difference. Memory also recalls a 2 or 3 to 1 advantage for blocking on receive when we were getting unblocked files from UCSB.

REH:gb

[This RFC was put into machine readable form for entry]
[into the online RFC archives by Kelly Tardif, ViagÃ©nie 10/99]