

B O L T B E R A N E K A N D N E W M A N I N C

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Report No. 2055

Oct 15, 1970

Job 11400

QUARTERLY MANAGEMENT REPORT

INTERFACE MESSAGE PROCESSORS FOR THE ARPA COMPUTER NETWORK

PERIOD: 1 July 1970 - 30 September 1970

Serial

Principal Investigator: Mr. Frank E. Heart
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Sponsored by
Advanced Research Projects Agency
ARPA Order No. 1260

Contract No. DAHCl5-69-C-0179
Effective Date: 2 January 1969
Expiration Date: 31 December 1970
Contract Amount: \$2,195,736.00

Submitted to:

Director
Advanced Research Projects Agency
Washington, D.C. 20301

Attn: Dr. L.G. Roberts

BOLT BERANEK AND NEWMAN INC
CONSULTING DEVELOPMENT RESEARCH

50 MOULTON STREET
CAMBRIDGE, MASS. 02138
TELEPHONE (617) 491-1850

15 October 1970

Director
Advanced Research Projects Agency
Washington, D.C. 20301

Dear Sir:

This is the seventh in a series of management reports that Bolt Beranek and Newman Inc. submits quarterly to ARPA. The report outlines progress in the development of Interface Message Processors (IMPs) for the ARPA computer network under Contract No. DAHC15-69-C-0179. This report covers the period from 1 July 1970 through 30 September 1970. Within this period we have:

1. Received shipment from Honeywell of IMPs No. 13 and 14 at BBN-Cambridge.
2. Delivered IMP No. 10 to Lincoln Laboratory on 13 July 1970, and IMP No. 11 to Stanford University on 21 July 1970. IMP No. 12 for Illinois is being held for room testing of network program modification at BBN Cambridge until Illinois is ready for an IMP.
3. Began summary reporting from the Network Control Center. Monthly network trouble statistics are being forwarded to ARPA.
4. Continued discussions and interactions with the phone company with regard to trouble reports and trouble reporting procedures.
5. Continued operation and maintenance of the subnet, and worked with Host organizations to assist in implementation of Host connections.

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6. Completed retrofits of new control panels and auto re-start circuitry bringing all IMPs up to same level. Retrofits expanding Host interfaces and providing distant Host drivers will be completed during the next quarter.
7. Created a new version of the IMP operational program called IMPSYS 24 to be released in November.
8. Engaged in detailed discussions of Host protocol and participated in several Host protocol meetings.
9. Successfully operated two IMPs in a room circuit at 230.4-kilobit modem rate.
10. Began preliminary detailed design of the terminal controller for the terminal IMP to firm up terminal handling capabilities. Studied terminal processor program inner loop to check timing and feasibility.

For the next quarter, we plan to:

1. Ship and install IMP No. 13 at Carnegie-Mellon and IMP No. 14 at Case Institute.
2. Complete all retrofits to existing IMPs in the network.
3. Release a new version of the IMP operational program.
4. Begin work on 316 and 316 terminal IMPs under Contract Modification #P00005 to commence 1 October 1970.


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The fiscal status of this contract to date is:

Total funding to BBN to date —	\$2,195,736
Funds committed by BBN to date —	\$2,078,037
Estimated funds required to complete fourteen systems —	\$ 117,699

Very truly yours,

BOLT BERANEK AND NEWMAN INC.


Hawley K. Rising

HKR/nlg