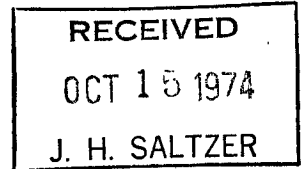


J. Saltzer



MASSACHUSETTS INSTITUTE OF TECHNOLOGY
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CAMBRIDGE, MASSACHUSETTS 02139



11 October 1974

Mr. Michael Luck
10-277

Dear Michael,

I enclose a brief description of the joint research activities undertaken by MIT and Honeywell directed at the development of the Multics system.

Please let me know if additional information would be useful to you for your upcoming trip to Honeywell.

Sincerely yours,

Robert H. Scott
Director

RHS:ssw
Enclosure

cc: W. C. Smalzel

Project MAC began operation in 1963 focused around the Compatible Time-Sharing System (CTSS) that had been developed earlier in the MIT Computation Center. Shortly after the establishment of Project MAC, plans were initiated to develop a computer time-sharing system of far greater function and flexibility based on the research experience gained with CTSS. While CTSS had been based upon sharing hardware resources, the goal of this new system was to facilitate dispersed access to a large information base. This new system, to be known as Multics, was designed during the period from 1964 to 1965. Participants in the design process included Project MAC, the Bell Telephone Laboratories, and, after hardware selection in mid-1964, staff from General Electric. Papers were published in 1965 describing the total design effort and were presented at the Fall Joint Computer Conference that year (see attached).

During the period from 1965 to 1967, the hardware was designed and developed. The hardware was based on a modification of the GE 635 processor that became known as the GE 645. In addition, a high-speed bulk memory paging device and an input/output controller were designed especially for this system. Primary responsibility for hardware design rested with General Electric, with major inputs from MIT and Bell.

During the period 1965 through 1969, the software was designed under the direction of Professors Corbato, Glaser, and others at MIT. Leadership of the software effort rested with MIT, with major inputs from the Bell Telephone Laboratories until 1969 when Bell participation in the project ceased, and during the entire period from the Cambridge Information Systems Laboratory of the General Electric Company. The system became operational in the fall of 1969 when responsibility for its operation and maintenance was transferred to the Information Processing Center.

Development continued after 1969 with the leadership focus shifting from Project MAC to the Cambridge Information Systems Laboratory. With the announcement in January 1973 of Multics as a commercial product by Honeywell, which had assumed General Electric's computer interests, the Cambridge Information Systems Laboratory became the central focus for the development of the Multics system. Project MAC continues to cooperation in the system research and development, but the Project's work is now directed at research in the area of computer system security. Multics now operates at MIT on the new 6180 generation hardware and ten Multics sites are in place around the world.

Robert H. Scott
11 October 1974