MASSACHUSETTS INSTITUTE OF TECHNOLOGY

PROJECT MAC

To: Robert Scott, Director
         Information Processing Services

From: J. Saltzer

Date: April 5, 1975

Subject: Multics operation plan

        From recent newspaper stories about the financial situation
within Honeywell, the prospects for negotiating a lower price for the
Multics equipment seems to me very unpredictable. In the case that
those negotiations fail to produce any important change, some alternate
plan (other than either status quo or giving up completely) is needed.
This memorandum is intended to suggest the outlines of such a plan,
based on belt-tightening and aggressive marketing.

        As I understand the current financial projections, they look
like this for FY1976:

Hardware cost	$1,400K
Operations and Administrative	700K
	$2,100K
Anticipated revenue	1,500K
Anticipated deficit	$ 600K

From my earlier memo to you, in January and February 1975, revenue
use was 18% and 15%, respectively, of capacity, and I understand that
monthly revenues were $144K and $130K. On that basis, each 1% of
revenue usage at current prices produces about $8.4K of monthly revenue
or $100K of yearly revenue.

My proposal then runs something like this:

A. <u>Belt tightening</u>

1. Ruthlessly eliminate all professional programming support for Multics beyond the minimum needed to install two re- leases per year. Given the high quality and close proxi- mity of the HISI development team, it is hard to believe that more than one full time equivalent programmer would be required. (At the same time pursue a contract with HISI for explicit support <u>including</u> <u>overhead</u> <u>and</u> <u>machine</u> <u>time</u> for more frequent installations and other programming jobs.)

2. Reduce user support services to a minimum "hold the fort" level. This means, for example, no attempts to write new documentation beyond reports of the implications of the two releases per year. Again, one full-time staff member should be able to take care of the most pressing user consultation/hand-holding activities; at the same time performing user registration and account administration.

3. Rearrange the impact of amortization of software expenses for previous years. Ideally, this amortization should be delayed until years when Multics is running a profit, or the year after Multics is removed, so that the impact of this old incorrect decision does not continue to confuse the question of whether or not Multics is currently viable.

From my reading of the figures you have presented, those three items together would reduce the "Operation and Administration" figure for FY 1976 to about $500K, and the total cost to $1,900K.

B. <u>Marketing</u>

1. Immediately reduce <u>all</u> prices by a factor of two from their current level. The purpose of such a drastic change is to provide convincing evidence to the potential user community that it is worth their while to re-examine the possibility of using Multics. On this new price basis, each 2% of usage would generate about $100K of yearly revenue.

2. Increase the operations staff sufficiently to permit re- storation of full four-shift operation. The off shifts, while not such large revenue producers themselves, make the overall service more attractive, and are essential for some marginal users, who may themselves attract or become larger users later. This staff increase would probably add about $100K to costs, bringing total yearly cost to $2,000K.

3.   Mount an aggressive marketing campaign to acquire more
     revenue users, from both inside and outside the M.I.T.
     community. The goal is to sell something above 40% of
     capacity, the new break-even point. This marketing
     campaign would have the following foci:

     a.   on old users, to encourage them to continue their
          old budgets and possibly increase them.

     b.   on new users within M.I.T. Project MAC is probably
          the largest potential user of Multics time, but there
          are also many small potential users, such as academic
          departments and small research projects. There are
          probably a fair number of potential customers of
          MACSYMA within M.I.T.

     c.   on outside users. The most promising potential user
          community is the ARPANET community, since members of
          that community all have convenient access to Multics
          via the ARPANET, and a relatively low-impedance fund-
          ing source. The National Science Foundation is a
          conceivable purchaser of bulk time for its many
          diverse contractors. [The argument, by the way, for
          pursuing outside markets is the following: Multics
          is a necessary and important tool to M.I.T. research,
          but the amount of Multics service needed internally
          at present appears to be insufficient to take advan-
          tage of the economies of scale which Multics can
          provide.]

The dollar value of new revenue needed to eliminate the deficit
under this plan is about $500K/year, assuming that old revenue
stays in place.

If, after a year or so, the aggressive marketing campaign caused
revenue use of Multics to climb above 40% of capacity, after paying
off the old software amortization costs, I would recommend lowering
prices still further in order to generate still more usage, since there
should be further economies of scale available with larger configurations.

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