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MAY 12 1971

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DATE: May 12, 1971

SUBJECT: Supervisor Changes for Installation of NCP in Ring 1

In order for the Network Control Program for Multics to be fully operable in ring 1, several supervisor modifications must be made. One is needed for quits signalled by remote users to work; the other is essential for any operational use of the network.

- 1) Access to the entry `pxss$ips_wakeup` or an equivalent must be provided to ring 1.
- 2) A user process operating in the NCP in ring 1 must be guaranteed against preemption during critical periods during which it has a data base locked. One usable way of doing this is to provide the following kind of ring 0 gate call:

`call pguarantee (time);`

This call will not return until it can guarantee the calling process that it will have at least "time" seconds of ring 1 processor time before being preempted. The NCP probably would use a value of "time" = 100 ms.