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Planning Group

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SUBJECT • Justification for keeping the DS-10

TO: Leo J. Ryan

FROM: J. W. Gintell

There are two reasons for keeping a DS-10 in the Multics configuration temporarily. In both cases it is recommended that the DS-10 be retained for backup reasons; as a consequence its potential availability is more important than having it powered up and running today.

The two potential uses for the DS-10 are as follows:

- 1) The current Fortran compiler is maintained using GECOS. There is no currently available version of GECOS which can run on a GE-645 without a DS-10. A new Fortran implementation is underway which should produce a replacement for the current Fortran during the first quarter of 1971.


Until this compiler is completed or close to completion it would be inadvisable to cut off the only means for maintenance since there are users who are dependent upon Fortran.

- 2) 15 DS-270's make 37.5 million words of storage available to Multics users; approximately 25 million words are currently used. The plans are to use the DS-170/2314 to increase the current capacity. This requires both the development of new software and the integration and checkout of new hardware (a DS-170/2314 has never been tried on a GE-645). It is dangerous to count on completion of all checkout within a short period of time, for if anything goes wrong a considerable delay may occur.

The plans drafted by Grochow and Gintell state that the earliest availability of the DS-170/2314 would be in November; it is likely that this device cannot be counted on until first quarter next year. Should our user needs increase beyond 37.5 million words prior to completion of the DS-170/2314 installation, a working DS-10 would be a temporary solution to our storage needs. (Although Multics does not currently

contain the DS-10 software it is a simple change to reinstall the DS-10 software; however it would presumably not be a simple feat to reinstall a DS-10.)

For these reasons I strongly recommend that we keep the DS-10 until both the Fortran and DS-170/2314 "projects" are either completed or close to completion. This probably means that the DS-10 would remain until January of next year.



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