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SOURCE: Compaq Computer Corporation INFORMATION BLITZ

INFORMATION BLITZ TITLE: Magtape problems in OpenVMS Alpha V7.2

DATE: April 19, 1999

INFORMATION BLITZ #: TD 2640-CR

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PRODUCT NAME(S) IMPACTED: OpenVMS Alpha V7.2

PRODUCT FAMILY(IES): {Check all that apply} PRODUCT NUMBERS:

Storage _____
Systems _____
Networks _____
PC _____
Software _X_ _____
Other (specify) _____

PROBLEM STATEMENT: In the process of adding multiple tape density support for OpenVMS Alpha V7.2, several problems were introduced into magtape behavior.

PROBLEM SYMPTOM:

The symptoms vary, and may fall into any of several categories:

- Tapes drives may operate at a density which differs from what the user requested on the command line via the /DENSITY qualifier. This can happen in the context of such commands as INIT, MOUNT and BACKUP. Also, the Density field in the SHO DEV/FULL display might not always reflect the actual operating density.
- Use of the /MEDIA=[NO]COMPACTION qualifier may return an error status, or may fail to set the drive to the requested compaction state as reflected in the SHO DEV/FULL display. These problems may or may not occur, depending on whether the tape is local or served, whether the tape is mounted /FOREIGN or not, and what type of media is being used.

- BACKUP can return an access violation error during a continuation volume switch.
- The write-back cache characteristic is not set properly for the TA90 series of tape drives, which can cause a degradation in tape write performance.
- INIT or MOUNT of an Exabyte 8200 tape drive results in a fatal drive error.

SOLUTION: OpenVMS Engineering is in the process of creating a means by which the fixes can be released as soon as they become available.

In the meantime, as a workaround for the density problems mentioned above, customers are advised to avoid the /DENSITY qualifier in OpenVMS Alpha V7.2. Also, some problems with the /MEDIA=[NO]COMPACTION qualifier can be avoided by using only locally attached tape drives, or by switching to a different type of media.

A more conservative workaround, which addresses all of the problems above, is to confine Alpha tape operations to a pre-V7.2 system; or, in a mixed version OpenVMS cluster (i.e., including both OpenVMS Alpha V7.2 and pre-V7.2 nodes), tape operations can be confined to the pre-V7.2 nodes, and usage can be confined to tape drives that are locally attached to the pre-V7.2 nodes. Note: "Pre-V7.2" also includes the OpenVMS Alpha V7.1-2 release, which does not exhibit the above problems.

A note on VAX: Some OpenVMS VAX V7.2 documentation erroneously implies that multiple tape density support was added to OpenVMS VAX V7.2, when in fact it was not. However, tape operations which were supported on OpenVMS VAX prior to V7.2 should continue to function correctly on OpenVMS VAX V7.2. Therefore, in a mixed architecture OpenVMS cluster (i.e., containing both VAX and Alpha nodes), it is also possible to work around the above problems by confining tape operations to the VAX nodes, and by confining usage to tape drives that are locally attached to those VAX nodes.

ADDITIONAL COMMENTS:

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