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SOURCE: Compaq Computer Corporation INFORMATION BLITZ

INFORMATION BLITZ TITLE:

OpenVMS ODS-1 USERS need to Install VAX ODS1 kits to get Y2K changes

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INFORMATION BLITZ #: TD 2735-CR

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DEPARTMENT: OpenVMS Sustaining Engineering

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PRODUCT NAME(S) IMPACTED:

PRODUCT FAMILY(IES):

PRODUCT NUMBERS:

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

PROBLEM STATEMENT:

As a result of the ODS-1 file format changes made for Y2K compliance, ODS-1 date conversion algorithms are not compatible with the PDP11/RSX methodology.

That is, RSX encodes the decades since the years since 1900 into the ASCII date items. On OpenVMS, this decade information was not properly encoded. RSX/ODS-1 dates (on files and volumes) is stored or read as an ASCII string:

DDMMYYHHMMSS

To properly include the years past the year 2000, the decades field has the number of centuries since 1900 encoded into it. For the years 1900 to 1999, this value is seen (in ASCII) as '00' to '99'. For the

years 2000 to 2009, this has the value ':0' to ':9'. 2010 to 2019 appear as ;0 to ;9. This encoding method is valid through the year 3979.

The encoding of this decade is:

$$(\text{year}/10) - 190 + '0'$$

where 'year' is the binary value current year divided by 10. For example

$$\begin{aligned} 2011 / 10 &= 201 \\ 201 - 190 &= 11 \\ '0' + 11 &= ';' \end{aligned}$$

Prior to this kit, the dates that OpenVMS used were to encode the dates based on '57' to '99' were for the 1900's. Dates from '00' to '56' were for the 2000's.

- o Attempting to mount the second volume of a two-volume RMU backup results in %MOUNT-F-MEDOFL and %MOUNT-F-FILACCERR errors.

These problems occur under OpenVMS VAX V7.1, V6.2 and V5.5-2. ODS-1 formatted files are not supported under OpenVMS ALPHA.

PROBLEM SYMPTOM:

Customers that read or writes dates from files or volumes using ODS-1 style date attributes (ie ATR\$C_ASCDATES, ATR\$C_EXPDAT) may experience the following problems after January 1, 2000.

- o The 64 bit internal time is not formatted to an RSX-11 compatible ASCII string.

RSX, on ODS-1 volumes, actually stores the ASCII string (DDMMYYHHMMSS) not a 64 bit binary time. ODS-2 and ODS-5 volumes store all date information as a 64 bit binary time.

SOLUTION:

If you are a VAX user of ODS-1 formatted files, install the appropriate ODS-1 kit:

- o VAXODS1_01_071
- o VAXODS1_01_062
- o VAXODS1_01_U2055

ADDITIONAL COMMENTS:

*****< NOTE >*****
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