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Cover Letter for OpenVMS™ VAX™ Version 5.5–2H4

AV–PXL5A–RE

Release Description

Digital Equipment Corporation is pleased to announce the release of OpenVMS VAX Version 5.5–2H4. OpenVMS VAX V5.5–2H4 is a limited hardware release. The software functionality of OpenVMS VAX Version 5.5–2H4 is identical to the generally available OpenVMS VAX V5.5-2 release. In addition, Version 5.5–2H4 contains support for the following new hardware:

SYSTEMS:

- VAX 4000 Model 100A
- VAX 4000 Model 500A
- VAX 4000 Model 600A
- VAX 4000 Model 700A
- Support for a second SCSI adapter, KZDDA, on MicroVAX 3100 Model 90

ADAPTERS:

- DEFTA - FDDI to TURBOchannel adapter
- DEFQA - FDDI to Q–bus adapter

STORAGE SUBSYSTEM:

- Tagged Command Queueing (TCQ) support for the StorageWorks RAID Array 110 Subsystem

OpenVMS VAX Quality Initiatives

Digital is dedicated to improving software quality and is continuously developing and testing software improvements. This software has been rigorously tested within Digital and at customer test sites. Between releases, a number of patches are available through normal Digital support channels. Please contact your Digital support channel for detailed information concerning these individual patches and refer to the Release Notes Addendum attached to this letter for a complete list of Version V5.5–2 patches included in Version 5.5–2H4.

Special Installation Kit

Included with each of the previously listed systems is both an OpenVMS VAX Version 5.5–2H4 installation kit, commonly referred to as a Remastered kit, and an Update Kit. The remastered Version allows the VAX processors to boot from a new system disk. Upgrades from previous Versions of OpenVMS are not allowed using the OpenVMS VAX Remastered Version 5.5–2H4 kit.

OpenVMS VAX Version 5.5–2H4 Kit Contents

The OpenVMS VAX Version 5.5–2H4 kit consists of:

- OpenVMS VAX Version 5.5–2H4 software (on TK50 and/or CD–ROM)

- A printed copy of the *VMS Version 5.5 Upgrade and Installation Manual*

- A printed copy of the *OpenVMS VAX Version 5.5–2H4 Release Notes and Update Procedures*

- A printed copy of the *VMS Version 5.5–2 Release Notes*

- A printed copy of the OpenVMS VAX Version 5.5–2 Software Product Description (SPD)

- A printed copy of the *VMS Upgrade and Installation Supplement: VAXstation 3100, 4000 and MicroVAX 3100 Series*

- A printed copy of the *VMS Upgrade and Installation Supplement: VAX 4000 Series and MicroVAX, VAXstation, and VAXserver 3200, 3300/3400, 3500/3600, 3800/3900 Series*

Digital recommends that you review the release notes before you proceed with the OpenVMS VAX Version 5.5–2H4 installation procedure.

With the exception of the SPD, the documentation contained on the compact disc distribution kit is provided in ASCII text format, readable on your terminal, and also in .DECW$BOOK format, readable with the VMS DECwindows Bookreader. The SPD is available in ASCII text format only.

Installation Procedures

To install OpenVMS VAX Version 5.5–2H4 on a standalone system, use the Remastered OpenVMS VAX Version 5.5–2H4 installation media titled *OpenVMS Remastered Version 5.5–2H4*. Refer to the *VMS Version 5.5 Upgrade and Installation Manual* and your system-specific installation supplement for details on installing the OpenVMS VAX operating system.

You can install the OpenVMS Remastered V5.5–2H4 kit only on the previously listed new VAX systems supported by this OpenVMS VAX V5.5-2H4 release. You should not install this kit on other VAX systems.

When using the InfoServer to boot from the remastered CD–ROM, the installation procedure prompts you for a file name that contains an initial system load (ISL) boot program, instead of a VMB program. At that prompt, enter ISL_SVAX_U2H4055.

When following the instructions in the *VMS Version 5.5 Upgrade and Installation Manual*, note that the OpenVMS VAX Remastered Version 5.5–2H4 kit contains save sets VMS2H4055.A through VMS2H4055.D. The VMS DECwindows save sets provided with the remastered kit are DECW2H4055.C through DECW2H4055.H. When installing OpenVMS VAX Version 5.5–2H4, specify these save set names instead of the names supplied in the *VMS Version 5.5 Upgrade and Installation Manual*.

VERSION 6.0 INSTALLATION RESTRICTION

OpenVMS VAX Version 6.0 does NOT support any of the new hardware introduced in Version 5.5–2H4. You should not attempt to install OpenVMS VAX Version 6.0 on any of the previously listed new systems nor attempt to boot these systems from another system disk that has OpenVMS VAX Version 6.0 installed on it. Any attempts to do so will result in the following error:

```
SYSBOOT-F-Unknown processor
```

All hardware support included in Version 5.5–2H4 will be reintegrated into a future Version of the OpenVMS VAX operating system.

Update Procedures

Before performing an update, please note the following:

- To update the operating system to OpenVMS VAX Version 5.5–2H4, your system must currently be running OpenVMS VAX Version V5.5–2.

- If your system is running any Version prior to OpenVMS VAX Version V5.5–2, you must update to OpenVMS VAX Version V5.5–2 (with the new queueing manager) before applying the OpenVMS VAX Version 5.5-2H4 update.

- You cannot update your system from OpenVMS VAX Version A5.5–2. You can invoke a command procedure to convert from Version A5.5-2 to Version V5.5-2 by entering the following command:

      $ @SYS$UPDATE:VMS$UPGRADE_A55_V55.COM

  The command procedure displays the following questions:

      "Do you wish to convert queues now? (YES,NO,ABORT) "

  Enter YES. Refer to page 17 of the *VMS Version 5.5–2 Update Procedures Manual* or Section 9 of the *VMS Version 5.5 Upgrade and Installation Manual* for additional information regarding the new queue manager.

- Follow instructions in the *OpenVMS VAX Version 5.5–2H4 Release Notes and Update Procedures* to update your system to Version 5.5–2H4.

Release Notes Addendum

DECnet/OSI Version 5.6A for OpenVMS VAX required for OpenVMS VAX V5.5-2H4

The required version of DECnet/OSI for OpenVMS VAX running in conjunction with OpenVMS VAX V5.5–2H4 is DECnet/OSI Version 5.6A. DECnet/OSI Version 5.6A must be installed (or reinstalled) AFTER the installation of, or update to, OpenVMS VAX Version 5.5–2H4.

Remedial Solutions

Table 1 below contains descriptions of the OpenVMS VAX remedial solutions (software ECO kits) that have been integrated into the OpenVMS VAX Version 5.5–2H4 release.

Table 1: Remedial Kits Included in Version 5.5–2H4

Engineering Number	CSCPAT Number	Applies to OpenVMS VAX Version:	Summary
VAXSYSL09_ U2055	CSCPAT_ 1079	V5.5–2	Correction to SYS$SCS.EXE. Prevents pool loss in SCS remote polling; occurs only in dual-architecture environments.
VAXLAVC02_ U2055	CSCPAT_ 1081	V5.5–2	Miscellaneous corrections to PEDRIVER.EXE and SDA.EXE. Will fix open loop congestion control to PEDRIVER. It will prevent virtual circuit timeouts and CLUEXIT crashes.
VAXTTDR03_ U2055	CSCPAT_ 1075	V5.5–2	Corrects transmit time out or fatal bugcheck crash problems when setting DMA on DHW41/DHW42 ports. It also has miscellaneous fixes for unusual problems when enabling the ports to modem control.

Table 1 (Cont.): Remedial Kits Included in Version 5.5–2H4

Engineering Number	CSCPAT Number	Applies to OpenVMS VAX Version:	Summary
VAXTTDR04_ U2055	CSCPAT_ 1075	V5.5–2	Corrects transmit time out or fatal bugcheck crash problems when setting DMA on DHW41/DHW42 ports. It also has miscellaneous fixes for unusual problems when enabling the ports to modem control.
MKDRVR$02_ U2055	CSCPAT_ 1074	V5.5–2	Miscellaneous SCSI tape class driver fixes.
VAXDRIV03_ U2055	CSCPAT_ 1074	V5.5–2	Miscellaneous SCSI port and class driver fixes.
VAXDRIV01_ U2055	CSCPAT_ 1072	V5.5–2	Miscellaneous SCSI port driver fixes.
VAXDRIV02_ U2055	CSCPAT_ 1072	V5.5–2	Miscellaneous SCSI port driver fixes.

Potential Lost Connections During Boot

During the boot phase of the VAX 4000 model 500A, 600A, and 700A systems you might encounter the following lost connection messages:

```
%MSCPLOAD-I-LOADMSCP, loading the MSCP disk server
%CNXMAN,  Re-established connection to system <nodename>
%CNXMAN,  Re-established connection to system <nodename>
```

If you encounter the previous messages, the VAX 4000 system will reestablish the connection with the server without any impact to later system operations. For additional information on how to avoid these messages, please contact your local Digital representative.

SYSGEN Parameter LRPSIZE Must Be Increased for FDDI Equipped VAX Systems

Problem: There is a high probability that VAX systems running VMS Version 5.4-3 through 5.5-2H4 and equipped with an FDDI adapter(s) are running with an incorrect LRPSIZE parameter value. The result is receive buffers are allocated from a general pool rather than from the LRP lookaside list, which results in a degradation of system performance.

If the LRPSIZE parameter value is not large enough for the data structures holding the incoming messages, the buffers in the data link driver's receive ring will be carved out of a nonpaged pool rather than LRPs. Allocation from a nonpaged pool is much more expensive than from the LRP lookaside list, and the nonpaged pool allocation is done at IPL 11 while the data link drivers do most of their work at IPL 8.

The release notes for VMS 5.4-3 specify a value for the LRPSIZE parameter of 4474 for VAX systems equipped with an FDDI. This value must be increased by 131 (4605) for VMS Version 5.4-3 and 67 (4541) for VMS Versions 5.5 thru 5.5-2H4. This is ONLY required for FDDI equipped VAX systems running VMS Versions 5.4-3 through 5.5-2H4.

Resolution: All FDDI equipped VAX systems running VMS Version 5.4-3 should have the LRPSIZE parameter set to a minimum of 4605. All FDDI equipped VAX systems running VMS Versions 5.5 through 5.5-2H4 should have the LRPSIZE parameter set to a minimum of 4541. This SYSGEN parameter change requires that the system be rebooted.

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Additional Comments: This adjustment may require an increase in LRPCOUNT as more LRPs will be consumed. This can be determined by monitoring the LRP lookaside list using the SHOW MEMORY/POOL/FULL command.

Autogen should be run with the feedback option if the current size for the LRP lookaside list has increased beyond the initial size.