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Cover Letter for VMS Version 5.4

AV–EF56K–TE

Digital is pleased to provide VMS Version 5.4. This new version extends and enhances the VMS operating system by offering support for distributed transaction processing, increased data availability and integrity, and fault tolerant computing. VMS Version 5.4 also provides support for vector processing and new VAX systems.

For more information about these enhancements, see the *VMS Version 5.4 New Features Manual*.

NOTE

The information in this cover letter supersedes the information in other Digital publications.

Upgrade and Installation

The *VMS Version 5.4 Upgrade and Installation Manual* contains step-by-step instructions for upgrading and installing VMS Version 5.4 and VMS DECwindows.

To support the full VMS operating system, a system disk of greater than 100Mb is recommended. When a smaller disk is used, tailoring is required prior to installing some VMS options. Refer to the *VMS Version 5.4 Upgrade and Installation Manual* for information on tailoring.

Please note that the VMS Version 5.4 upgrade procedure will restore your site-specific files (for example, SYSTARTUP_V5.COM) during the last phase of the upgrade. However, there are two files, SYSHUTDWN.COM and SYSECURITY.COM, which are not restored. Your site-specific version will be the previous version of these files. Please take steps to preserve these files before starting the upgrade.

Kit Contents: Media

Enclosed is the VMS Version 5.4 media. For new customers, Version 5.4 is distributed on the following media:

- Nine-track, 1600-bpi magnetic tapes
- TK50 tape cartridges
- Compact disc

Kit Contents: Documentation

The complete VMS Version 5.4 Documentation Set contains over 100 manuals that describe every aspect of using the VMS operating system for daily operations, system management, and programming. The documentation set is organized into several kits to provide a wide range of choices about the level of information desired.

The Base Documentation Set provides users who do not require the complete documentation set with essential and frequently used reference information.

For users who need more extensive information, the Extended Documentation Kit provides introductory and reference information on every VMS resource. It contains three subkits—a subkit for each major type of user (general, system manager, programmer)—and an Obsolete Features Kit.

The Release Notes Kit includes the cover letters, Software Product Descriptions (SPDs), and release notes for VMS Version 5.0 through VMS Version 5.4, the *Overview of VMS Documentation*, and the *VMS Version 5.4 New Features Manual*.

The upgrade and installation supplements provide information on the features of VAX computers and step-by-step instructions for installing VMS software and for performing related system operations. The *VMS Version 5.4 Upgrade and Installation Manual* provides step-by-step installation and upgrade procedures for VMS Version 5.4 for all VAX computers. This manual must be used with the upgrade and installation supplement for individual VAX computers.

The VMS DECwindows Programming Kit is an optional kit that provides the information necessary to develop DECwindows applications.

New Manuals for VMS Version 5.4 The following manuals are new for VMS Version 5.4:

VMS Device Support Reference Manual
VMS Upgrade and Installation Supplement: VAX 9000 Series
VMS Upgrade and Installation Supplement: VAXft 3000 Series
VMS Volume Shadowing Manual
Display PostScript System Perspective for Software Developers
Display PostScript System Client Library Reference Manual
PostScript Language Extensions for the Display PostScript System
PostScript Language Color Extensions
Display PostScript System pswrap Reference Manual
PostScript Document Structuring Conventions Specification Version 2.1
VMS DECwindows Display PostScript System Programming Supplement
Introduction to the CDA Toolkit
Guide to Creating Compound Documents with CDA

Complete documentation for VMS is also available on the VMS Online Documentation Library Compact Disc for use with the VMS DECwindows Bookreader.

Documentation on the VMS Compact Disc The VMS Version 5.4 compact disc distribution kit includes the following two manuals along with the VMS Version 5.4 software: the *VMS Version 5.4 Release Notes* and the *VMS Version 5.4 Upgrade and Installation Manual*. Both manuals are in ASCII text format, readable on your terminal, and also in DECwindows Bookreader format, readable with the VMS DECwindows Bookreader.

VMS Volume Shadowing Phase I and Phase II

VMS Volume Shadowing Phase I provides for centralized shadowing on VMS systems that use Hierarchical Storage Controllers (HSCs) with identical DIGITAL Storage Architecture (DSA) disks.

Digital also provides VMS Volume Shadowing Phase II. VMS Volume Shadowing Phase II is not limited to HSC-controlled disks, but extends volume shadowing capabilities to all DSA disks, including those on local adapters, to all Digital Small Systems Interconnect (the DSSI RF series) disk drives on any VAX computer, and to VMS MSCP-served disks located anywhere in any supported VAXcluster configuration. Refer to the VMS Volume Shadowing SPD 27.29.07.

Initially, VMS Volume Shadowing Phase II is restricted for VMS Version 5.4 to VAXft 3000 standalone configurations, pending further qualification of the product. Digital expects to expand the range of supported configurations significantly after successful qualification.

Note that the special SYSGEN parameter VMSD3, described in the *VMS Version 5.4 Release Notes*, can be used only with VMS Volume Shadowing Phase II.

For VMS Volume Shadowing Phase II, the following user authorization file (UAF) parameter changes are recommended for your system account (these are the best minimum estimates for the shadow server):

Table 1: Recommended UAF Parameters for the System Account

BYTLM	SHADOW_MAX_COPY * 3KB
BIOLM	SHADOW_MAX_COPY + 10
DIOLM	SHADOW_MAX_COPY + 10
ASTLM	SHADOW_MAX_COPY * 2 + 20
TQELM	SHADOW_MAX_COPY * 2 + 10
WSQUO	SHADOW_MAX_COPY * 128 + 100
WSDEF	SHADOW_MAX_COPY * 128/2 + 100
ENQLM	SHADOW_MAX_COPY * 2
PGFLQUO	SHADOW_MAX_COPY *130 + 500

Make sure the SYSGEN parameter VIRTUALPAGECOUNT allows the server to develop 5000 pages (a small number for a large system) and that WSMAX will accommodate the working set. Again, the cost is minimal for a large system.

Note that VMS Volume Shadowing Phase II does not respond to the C command when you run the Interrupt Priority C (IPC) program to cancel mount verification. This command has no effect on a Phase II shadow set. (The IPC program is described in the *Guide to Maintaining a VMS System*.) This will be fixed in the next release of the VMS operating system.

If the only source disk in a Phase II shadow set becomes hardware write-protected and the first operation that detects the error is a shadow set state change, such as starting or completing a COPY operation, the system might hang or crash. As documented in the *VMS Volume Shadowing Manual*, make sure you do not write-protect shadow set members by pushing the WRITE-PROTECT button on any drive. A DSA disk can spontaneously become write-protected if there are so many errors on the disk that the Revector Cache Table overflows. Make sure you do not use a disk in this condition as the only source disk in a shadow set. This problem will be fixed in the next release of the VMS operating system (note that the correct behavior in this rare condition is for VMS to dissolve the shadow set automatically).

CI Architecture Extensions

Extensions to the computer interconnect (CI) architecture allow the application of multiple CI interfaces per CPU and multiple star couplers per VAXcluster system. These extensions make possible VAXcluster systems with many times the data throughput capacity of current VAXcluster systems with a single star coupler. Initially, VMS Version 5.4 will support up to four CI interfaces per VAX computer and two star couplers per VAXcluster system.

Corrections to the VAXcluster SPD 29.78.04 (AE-LS19E-TE)

Please note the following addition to the general configuration rules that apply to VAXcluster systems: the maximum number of CI-connected VAX computers in a VAXcluster is 16.

Table 2 in the VAXcluster SPD 29.78.04 (AE-LS19E-TE) shows the types of interfaces that can be supported by each CPU. There can only be one type of interface on a system and the maximum quantity of that type is indicated. Please note that the table has been corrected as follows:

Table 2: Quantity CI Interfaces Supported by CPUs

CPU Type	CI750	CI780	CIBI	CIBCA-A	CIBCA-B	CIXCD
11/750	1	-	-	-	-	-
11/780	-	1	-	-	-	-
11/785	-	1	-	-	-	-
6000-xxx	-	-	-	1	4	4
82xx	-	-	1	1	1	-
83xx	-	-	1	1	1	-
85xx	-	-	1	1	2	-
8700	-	-	1	1	2	-
86xx	-	2	-	-	-	-
9000-210	-	-	-	-	-	4
9000-410	-	-	-	-	-	4

DSF32 Support for the VAXft 3000 Computer

Support for the DSF32 synchronous DDCMP communications option specifically for the VAXft 3000 has been added with DECnet–VAX software and the VMS Version 5.4 operating system.

DECnet–VAX Device Support Information

Over the next 6 to 12 months, VMS, DECnet–VAX, and VAXcluster software support for the DEQNA Ethernet adapter will be withdrawn. For 24 months after that, the DEQNA adapter will be accessible only by user applications that use the $QIO interface to the Q-bus Ethernet device driver (XQDRIVER). During that time, when the XQDRIVER recognizes the device as a DEQNA adapter, a console message will be printed specifying that the DEQNA adapter is an unsupported device. However, these user applications will continue to work. At the end of the 24-month period, the DEQNA Ethernet adapter will no longer be accessible.

Digital recommends that customer implementations that use the DEQNA adapter upgrade as soon as possible to either the DELQA or the DESQA adapter, whichever is appropriate for the system. Customer upgrade options currently are available from DECdirect. Contact your local Digital sales office for more information.

Also, within the next 12 to 15 months, VMS and DECnet–VAX software will drop functional support for the DMV11 synchronous communications device. Customers can continue to use a customer-developed driver to access the DMV11 device. However, VMS and DECnet–VAX software will no longer use this device for any native communication operations. Service contracts for the hardware will be honored for 12 to 24 months after retirement of the software driver. Notification of retirement will be listed in the DECnet–VAX cover letter in a future release. See the VAX Wide Area Device Drivers SPD (29.64) and cover letter for more information.

Digital recommends that customer implementations that use the DMV11 device obtain the DSV11 synchronous communications device upgrade as soon as possible. Customer upgrade options currently are available from DECdirect. Contact your local Digital sales office for more information.

DECnet–VAX Version 5.4 does not support the CIXCD adapter. Support for this adapter is planned for a future release of DECnet–VAX software. Also, as of Version 5.4, CNDRIVER support for all other CI adapters is limited to a single adapter per VAX system. Multiport support is planned for a future release of DECnet–VAX software.

Phone Utility Update

The VMS Phone Utility (PHONE) will be removed from the base VMS operating system in a future major release, currently planned for 12 to 15 months from now. Digital intends to provide executable source code to the DECUS library at that time. Customers will receive support for PHONE for up to 12 months after the First Customer Ship of the release from which PHONE is removed. Digital recommends that customers plan accordingly.

SYSGEN Parameter Values and the VAX 9000 Series

In order to maximize the performance of the VMS file system caches on the VAX 9000 series, Digital recommends the following minimum SYSGEN parameter values:

ACP_HDRCACHE: 1500
ACP_DIRCACHE: 1500
ACP_DINDXCACHE: 300
ACP_MAPCACHE: 300

These caches are allocated from the systemwide paged pool. Therefore, in order to maintain the appropriate relationship among the various SYSGEN parameters, you should add the following records to SYS$SYSTEM:MODPARAMS.DAT:

MIN_ACP_HDRCACHE = 1500
MIN_ACP_DIRCACHE = 1500
MIN_ACP_DINDXCACHE = 300
MIN_ACP_MAPCACHE = 300

After adding these records, run AUTOGEN with feedback. For information on AUTOGEN, see Chapter 6 of the *Guide to Setting Up a VMS System*.

Be sure to read Section 3.53 of the *VMS Version 5.4 Release Notes* for more information on the VAX 9000 series.

Layered Product Caution for Remote System Manager Version 2.2 Server

VMS Version 5.4 corrects some previously inconsistent error returns to the Authorize Utility (AUTHORIZE). As a result, the MANAGE> INSTALL OPERATING_SYSTEM command fails when AUTHORIZE attempts to add a proxy account for the client a second time. The failure information is returned when you use the /NOTIFY qualifier. The failure will occur the second time an INSTALL OPERATING_SYSTEM command is issued for a new client.

If you have the RSM Server installed and use this facility, you can work around the problem by using the following command:

```
MCR AUTHORIZE REMOVE /PROXY client-name::RSM$CMANAGER
```

Use this command on the RSM server before you issue INSTALL OPERATING_SYSTEM commands. For a patch to this problem, contact Digital Support channels.

Layered Product Caution for PCSA

If you use PCSA, you must upgrade to PCSA Version 3.1 in order to run PCSA with VMS Version 5.4. Older PCSA versions and VMS Version 5.4 are incompatible.

Correction to *VMS Version 5.4 Release Notes*, Section 3.51.1.1: ALL-IN-1 Shareable Images Requirement for CDA Support

VMS Version 5.4 provides two new shareable images that are activated by the Compound Document Architecture (CDA) support for ALL-IN-1 Version 2.4. ALL-IN-1 is a privileged image; therefore, any images activated by ALL-IN-1 must also be installed as known images.

The new shareable images for VMS Version 5.4 are not installed as known images. If you require CDA support for ALL-IN-1 Version 2.4, you must install the two new shareable images as known images. If you do not require CDA support, no action is required.

To install the two shareable images for CDA support, add the following command lines to your ALL-IN-1 site startup file, OA$SITE_BUILD_SHARE:A1V24_SITE_START.COM:

```
$ INSTALL CREATE SYS$SHARE:XDPS$DPSLIBSHR.EXE
$ INSTALL CREATE SYS$SHARE:XDPS$DPSCLIENTSHR.EXE
```

Release Notes for the VAX 6000–500 Computer

When booting standalone BACKUP on a VAX 6000–500 system with 512Mb of memory, you must perform a conversational boot and change the SYSGEN parameter PHYSICALPAGES to 1047552 (less than 512Mb). For example:

```
>>>  B/R5:1 du0
SYSBOOT>  SET PHYSICALPAGES 1047552
SYSBOOT>  CONTINUE
```

This will be fixed in a future release of VMS.

After your system is up and running, you can change the SYSGEN parameter PHYSICALPAGES to 1047552 to avoid stopping in SYSBOOT during each reboot. For example:

```
$  RUN SYS$SYSTEM:SYSGEN
SYSGEN>  USE CURRENT
SYSGEN>  SET PHYSICALPAGES 1047552
SYSGEN>  WRITE CURRENT
SYSGEN>  EXIT
```

For Version 5.4, primary switching on the VAX 6000 series is not supported. When a STOP CPU command is issued on the primary CPU, the command will fail due to a lack of qualified CPUs to become the new primary one. This will be fixed in a future release of VMS.

Powerfail warm start functionality will not operate correctly under Version 5.4 for the VAX 6000–500 computer. This will be fixed in the next maintenance release of VMS.

For booting, the device code for the DEMNA Ethernet controller on the VAX 6000–200, 6000–300, and 6000–400 series is ET. The device code for the DEMNA Ethernet controller on the VAX 6000–500 is EX.

If you are installing the VMS operating system from a compact disc drive on an InfoServer 100, see Appendix A for more information.

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APPENDIX A

INFOSERVER 100 INFORMATION

An InfoServer 100 is a virtual disk server that efficiently transfers data between compact disc drives connected to the server and remote network client systems. A server consists of memory, an Ethernet interface, some number of compact disc drives, and software to control the server.

The VMS InfoServer Client software support, available in this release, allows a remote VMS network client to communicate with an InfoServer 100 virtual disk server. The VMS InfoServer Client (VIC) enables shared access to any compact disc drive connected to an InfoServer 100.

The VMS InfoServer Client software provides support for the following:

- Initial System Loading (ISL) through the Ethernet: This function lets you install the VMS operating system from a compact disc via the Ethernet. You place a VMS Version 5.4 compact disc distribution kit in an InfoServer 100 and then boot the VAX computer on which you want to install VMS.
- Compact disc access through the Ethernet: This function allows a VMS system to access compact disc volumes on an InfoServer 100.
- VMS layered product installation: By placing a VMS Software Consolidation Compact Disc in an InfoServer 100, a VMS system can install VMS layered products through the Ethernet.
- Online documentation access: By placing a VMS Online Documentation Library Compact Disc in an InfoServer 100, a VMS workstation can display the VMS and VMS DECwindows documentation.

Each compact disc that you insert in an InfoServer drive is available to a remote client system as a *service*. Each InfoServer service has a *service name*. A VMS compact disc is identified by its volume label. For example, the VMS Version 5.4 compact disc distribution kit has a volume label of VMS054. When you wish to access this compact disc, specify VMS054 as the service name. Service names are used by the InfoServer 100 to identify all disk volumes. For more information about changing service names, see the *InfoServer 100 Installation and Owner's Guide* and the *VMS LAD Control Program (LADCP) Manual*.

A.1 Initial System Loading (ISL)

Initial System Loading is a means of loading the operating system software onto your target system disk. The VMS InfoServer Client software supports the Initial System Loading on all VAX 6000 computers. Customer upgrade options are currently available from Digital. Contact your local Digital sales office for more information.

A.1.1 Installing VMS from an InfoServer 100

The VMS installation procedure asks you to enter the name of the device that holds the VMS distribution kit. If you are installing the VMS operating system from a compact disc drive on an InfoServer 100, enter DAD1 in response to this prompt. For example:

```
* Enter the name of the drive holding the VMS distribution media:  DAD1
```

A.1.2 Multiple Standalone BACKUP Operations from ISL Are Unsupported

When you use the Initial System Load function to install the operating system, you can successfully issue only one backup command at the standalone backup prompt. A second backup command will be ignored and is unsupported for this release. For details on the Initial System Load Function, see the *VMS Upgrade and Installation Supplement: VAX 6000 Series*.

A.1.3 Device Names

The device code for the DEMNA Ethernet controller on the VAX 6000-200, 6000-300, and 6000-400 series is ET. The device code for the DEMNA Ethernet controller on the VAX 6000-500 is EX.

A.1.4 Troubleshooting the LAN with MOP Downline Load Systems

When you are trouble shooting a Local Area Network (LAN) for failure of a downline load from the InfoServer 100 box, it is not necessary to check for a MOP partition on the InfoServer box. For Version 5.4, a MOP partition is not necessary for a successful downline loading of an Initial System Load image.

A.2 VMS InfoServer Client Installation: Startup and Use

After installing an InfoServer 100, you must activate the VMS InfoServer Client software to allow a remote VMS client system to access the InfoServer 100 hardware.

Once your system is up and running and you have logged into the SYSTEM account you can either start the InfoServer Client software or you can modify the system startup command file to always start the InfoServer Client software. The InfoServer Client software shares access to the Ethernet port on your system.

NOTE

If DECnet software is typically started on your system, be sure the InfoServer startup procedure is executed after your DECnet startup procedure has completed.

The InfoServer Client software requires that a node name be defined for the system it runs on. The InfoServer Client software will attempt to obtain the system node name from two locations. The first is the logical name SYS$NODE, which is defined when DECnet starts. The second is the SYSGEN parameter SCSNODE. If DECnet software is not used on your system, define the SYSGEN parameter SCSNODE before executing the InfoServer Client startup command procedure (ESS$STARTUP.COM). For more information on SYSGEN, see the *VMS System Generation Utility Manual*.

NOTE

If the node name of your system cannot be found, the InfoServer Client software will not start.

If you want the InfoServer Client software started on your system after each reboot, be sure your system has a node name defined and that you have removed the comment character (!) from the command lines in SYS$MANAGER:SYSTARTUP_V5.COM, which are used to call the ESS$STARTUP command procedure.

To manually start the InfoServer Client software, execute the InfoServer startup command procedure located in the SYS$STARTUP directory. This procedure can be executed only from a privileged account. Start the procedure by typing:

```
$ @SYS$STARTUP:ESS$STARTUP CLIENT
```

The ESS$STARTUP startup command procedure accepts one optional parameter, CLIENT. This parameter enables the loading of the InfoServer client driver, ESS$DADDRIVER.EXE, and the InfoServer transport driver, ESS$LASTDRIVER.EXE. If this parameter is omitted, only the InfoServer transport driver is loaded.

Other VMS layered products can make use of the InfoServer transport driver and do not require the InfoServer client driver. The startup command procedures for these layered products will call the InfoServer startup command procedure with the proper parameters specified for their product.

As the startup procedure executes, informational messages are displayed. The following sequence of messages results from a successful startup of the software:

```
%LASTCP-I-VERSION, LASTDRIVER X1.5 is stopped
%LASTCP-I-ADAINIT, Initializing adapter xxx for LASTDRIVER
%LASTCP-I-STARTED, LASTDRIVER X1.5 started on node yyyyyy
%NIC$STARTUP-I-LOADED, DADDRIVER loaded
```

For more information about solving problems that may occur during startup, see Section A.2.3

A.2.1 How to Bind to a Remote Disk

After the startup procedure has completed successfully you may bind to an InfoServer service. An InfoServer service is defined to be a drive and its volume connected to an InfoServer 100 system. An InfoServer service name is used in a BIND command to specify a InfoServer volume. For ODS-2 volumes, the InfoServer service name is defined as the volume label of the volume. For example, the service name for a VMS Version 5.4 compact disc distribution kit is VMS054. In order to bind to the VMS Version 5.4 compact disc distribution kit, the compact disc must be inserted into a compact disc drive that is connected to an InfoServer 100. To execute the BIND command for this volume, type the following commands:

```
$ RUN SYS$SYSTEM:ESS$LADCP
LADCP> BIND VMS054
%LADCP-I-BIND, service bound to logical unit DAD$VMS054 (_DADn:)
LADCP> EXIT
```

For more information about the BIND command, see the *VMS LAD Control Program (LADCP) Manual*.

A.2.2 Mounting a Remote InfoServer Disk

As a result of binding to a remote disk, a logical name and a local physical device name are displayed. When the logical name is created, DAD$ is used as a prefix to the volume label (service name) specified in a BIND command.

The local physical device name is DAD*n*, where *n* is the unit number for the device. The unit number is incremented with each successive BIND command.

To mount the device displayed by the BIND command, specify the logical name created by the BIND command. For example:

```
$ MOUNT DAD$VMS054 VMS054
```

A.2.3 Problems During Startup

If only the first informational message appears during the execution of the ESS$STARTUP command procedure, check to be sure that a node name is defined for your system.

A log file is created or appended to each time the ESS$STARTUP command procedure is executed. This log file is located in the SYS$MANAGER directory with a filename of ESS$LAST_STARTUP.LOG. If the ESS$STARTUP procedure is not successful starting the InfoServer, the information at the end of this file may help to determine why.

A.3 Release Notes for InfoServer 100 Software

The following release notes pertain to the InfoServer 100 and VMS Version 5.4.

A.3.1 Command Procedure to Test for DECnet Status Before Starting the InfoServer 100 Software

DECnet is not required for InfoServer 100 software usage. If you do not have DECnet installed, you can simply start the InfoServer 100 software with the startup procedure ESS$STARTUP.COM.

However, if DECnet is part of your system, you must make certain that DECnet is running before you start the InfoServer 100 startup command procedure.

The following is a sample command procedure that you can run to test whether DECnet is running. This command procedure is located in SYS$MANAGER. First, start DECnet. Then, run the command procedure from the site-specific startup file SYSTARTUP_V5.COM.

```
$!    ESS$CHECK.COM
$!    Sample Command Procedure to Check Status of DECnet
$!
$!  Check to see if the user has DECnet. DECnet is not necessary
$!  for the InfoServer 100;  however, if the user has DECnet, the
$!  InfoServer must be started AFTER DECnet.
$!
$!  If the user does not have DECnet running, but still wants to use
$!  this command procedure, the user can indicate that DECnet is not
$!  on the system by defining the logical name ESS$IGNORE_DECNET with
$!  the following DCL command:
$!
$!  $ DEFINE ESS$IGNORE_DECNET TRUE
$!
$!  This logical name can be defined in the SYSTARTUP_V5.COM procedure
$!  before the command line that invokes the InfoServer 100 startup file,
$!  ESS$STARTUP.COM.
$!
$ IF F$TRNLNM("ESS$IGNORE_DECNET") THEN GOTO ESS_CONTINUE
$!
$!  Check to see if DECnet is running.  If DECnet is not running,
$!  and the system is not running as a subprocess, loop for 10 minutes to
$!  give DECnet time to start up.
$!
$ decnet_cnt = 0
$net_loop:
$ IF .not. F$GETDVI("NET0","EXISTS") THEN GOTO wait_decnet
$ IF F$GETDVI("NET0","MNT") THEN GOTO decnet_running
$wait_decnet:
```

```
$ IF DECNET_CNT .EQ. 0 THEN -
WRITE sys$output "%ESS-I-WAITNET, InfoServer waiting for DECnet to start"
$ WAIT 00:00:10
$ decnet_cnt = decnet_cnt + 1
$ IF DECNET_CNT .GE. 6*10 THEN GOTO give_up_on_decnet
$ GOTO net_loop
$give_up_on_decnet:
$ WRITE sys$output "%ESS-F-NODECNET, InfoServer cannot start without DECnet"
$ EXIT
$!
$decnet_running:
$ WRITE sys$output "%ESS-I-INFO  DECnet detected as started"
$!
$ESS_CONTINUE:
$! The user can now start the InfoServer 100 software with the command:
$ @SYS$MANAGER:ESS$STARTUP.COM
$ EXIT
```

A.3.2 VMS Client Support for the InfoServer 100 Currently Supports Only Read Access to InfoServer Virtual Disks

The Client InfoServer 100 software on the VMS operating system supports only read access to virtual disks. Use of the VMS client InfoServer software to access any device other than the above is unsupported.

A.3.3 RSM Version 2.2 and Infoserver 100 Interaction

If you are installing RSM Version 2.2 on a system with a running Infoserver 100 client or if you already have RSM Version 2.2 installed and you decide to run the Infoserver 100 Client software, you must perform the following steps to avoid a system crash during your installation:

1. Place the RSM$SERVER_STARTUP.COM file after the ESS$STARTUP.COM file in your system startup files.
2. Replace your RSM$SERVER_STARTUP command file with the one provided for you in SYS$EXAMPLES. Use the following command:

   ```
   $  COPY SYS$EXAMPLES:ESS$RSM$SERVER_STARTUP.COM -
   _$  SYS$COMMON:[SYS$STARTUP]RSM$SERVER_STARTUP.COM
   ```

   Do this after an installation of RSM Version 2.2, and before any RSM configuration or startup.
3. If RSM Version 2.2 was already installed on your system, reboot your system before executing ESS$STARTUP.COM the first time.

These precautions are designed to prevent the possibility of a system crash during your installation. After these three steps are done in the order specified, you can proceed normally.

NOTE

ESS$STARTUP.COM checks for the presence of old driver files used by RSM Version 2.2 and will not start up until those files are deleted. You will need to delete the following files:

SYS$LOADABLE_IMAGES:LASTDRIVER.EXE
SYS$LOADABLE_IMAGES:LADDRIVER.EXE
SYS$LOADABLE_IMAGES:LASTCP.EXE

A.3.4 Configuring Hardware for InfoServer 100 Usage

All Ethernet controllers within a VAX computer must be connected to the Ethernet and operating properly. If two Ethernet controller boards are in a machine, but one is not connected to the wire, the ESS software may or may not work, depending on the hardware configuration.

A.3.5 ESS$LASTCP Quota Exceeded Message

The SYSGEN parameter MAXBUF must be set to 2300 bytes or above for the SHOW SERVERS command to operate properly from the ESS$LASTCP utility. When the parameter is set incorrectly, an error indicating "Quota Exceeded" is displayed.

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APPENDIX B

VAX 4000 MODEL 300 GENERAL INFORMATION GUIDE

This appendix describes Digital's new computer, the VAX 4000 Model 300 (VAX 4000–300) system. It also explains how the VAX 4000–300 differs from the MicroVAX, VAXstation, and VAXserver 3400, 3600, and 3900 series of systems. Finally, this appendix describes some of the information needed to install the VMS operating system on the VAX 4000–300, if it was not factory installed.

B.1 General Information

The VAX 4000 Model 300 system is the latest VAX computer in the MicroVAX, VAXstation, and VAXserver 3400, 3600, 3900 series of systems. Refer to the *VMS Installation and Operations: MicroVAX, VAXstation, and VAXserver 3400, 3600, 3900 Series* manual for basic system information. Keep this information with that manual for future reference.

B.2 Features of the VAX 4000–300 System

The differences between other members in the 3400, 3600, 3900 series and the VAX 4000–300 are described in the following sections.

B.2.1 The Compact Disc Drive

You can add an RRD40 compact disc drive to the VAX 4000–300 system. This read-only drive reads data stored on removable compact discs.

To determine the device name of an installed compact disc drive on your VAX 4000–300, enter the SHOW DEVICE command at the console-mode prompt (>>>). The device name appears on the line with RRD40.

Refer to Chapters 2 and 4 of the *VMS Installation and Operations: MicroVAX, VAXstation, and VAXserver 3400, 3600, 3900 Series* manual for additional information.

B.2.2 VAX 4000–300 Device Names

The VAX 4000–300 system can have the device names listed in Chapter 4 of the *VMS Installation and Operations: MicroVAX, VAXstation, and VAXserver 3400, 3600, 3900 Series* manual. It can also have the following device names:

Device	Device Name	Device Name for Booting
Integral Ethernet controller	EZA0	EZA0
RRD40 on a KZQSA	DKAu	DKAu

B.2.3 RF Drives

Some VAX 4000–300 systems include RF30 or RF71 drives. Each drive uses an integrated controller to communicate through the Digital Storage Systems Interconnect (DSSI) bus. The device names for RF drives are determined by the configuration of the two integral DSSI adapters on the CPU module.

The following table shows the device name formats for the RF drives on the VAX 4000–300 system:

Device Name Formats for Booting	VMS Device Name Formats
DIcu or x$DIcu	nDIAu or x$DIAu

where:
c = controller designation

A is the controller designation for the first DSSI bus
B is the controller designation for the second DSSI bus

u = unit number
x = DSSI node name
n = allocation class value (1 to 255)

Example device names for booting:

```
DIA0
DIB1
```

Example VMS device names:

```
$1$DIA1
BETTY$DIA0
```

To determine the boot device name of an RF drive on your VAX 4000–300, enter the SHOW DEVICE command at the console-mode prompt (>>>).

B.3 Installing the VMS Operating System on the VAX 4000–300

If you have received a VAX 4000 Model 300 system with the VMS operating system already loaded (factory installed) on the hard disk, you do not need to install this VMS operating system kit. Keep this media and documentation available, however, in case you encounter problems with the preinstalled software.

If you encounter problems with the preinstalled software and need to reinstall the VMS operating system, follow the instructions beginning in Chapter 1 of the *VMS Installation and Operations: MicroVAX, VAXstation, and VAXserver 3400, 3600, 3900 Series* manual.

Then refer to the *VMS Version 5.4 Upgrade and Installation Manual* for additional installation information.

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