Digital Cartridge Server Component Installation Guide

Order Number: AA-PEBXA-TE

This guide describes how to install the Digital Cartridge Server Component on a VMS operating system. It describes the required hardware and software, installation procedure, what to do after installation, and how to run the Installation Verification Procedure.

Revision Update Information: This is a new guide.
Operating System and Version: VMS Version 5.4
Software Version: DCSC Version 1.0

Digital Equipment Corporation

February, 1991

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This document is available on CDROM.

This document was prepared using VAX DOCUMENT, Version 1.2

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Preface

The Digital Cartridge Server Component (DCSC) software provides VAX computer users with access to 18-track tape cartridges. Access is provided by the DCSC server software which, in turn, accesses the Storage Technology Automated Cartridge Server (StorageTek ACS) system. Tape storage is provided by the StorageTek ACS system.

This guide describes how to install the DCSC software on a VAX computer running VMS operating software, Version 5.4. It describes the required hardware and software, installation procedure, what to do after installation, and how to run the Installation Verification Procedure.

Audience

This guide is for anyone who needs to install the DCSC software on a VMS operating system.

To get the greatest benefit from this guide, you should be familiar with the following:

- The VMS Installation Procedure (VMSINSTAL)
- How to set the parameters for your system
- How to set the process quotas for your system

In addition, you must have SYSTEM PRIVILEGES (SYSPRV) to install the software.

Document Structure

This guide is structured as follows

- Chapter 1, Preparing to Install the Digital Cartridge Server Component, describes requirements for installing the Digital Cartridge Server Component software, VAXcluster considerations, and software, and hardware prerequisites.
- Chapter 2, Installing Digital Cartridge Server Component, explains how to install the Digital Cartridge Server Component. It also contains a description of each installation procedure question.
- Chapter 3, After Installing the Digital Cartridge Server Component, describes the various tasks that you need to perform after installation the Digital Cartridge Server Component.
- Chapter 4, Installation Verification Procedure, explains how to run the Installation Verification Procedure.
- Appendix A, Sample Installation, contains a sample installation of Digital Cartridge Server Component. This sample was run on a system that had no previous version of Digital Cartridge Server Component installed.

- Appendix B, Files and Logical Names Installed on Your System, lists the files installed on your system and the logicals that are defined.

Related Documentation

The following guides together with this guide, comprise the Digital Cartridge Server Component documentation set:

- *Digital Cartridge Server Component System Manager's Guide*—This guide describes how to manage a system after the Digital Cartridge Server Component is installed. It describes its environment, how to use the Configuration File Editor to configure the system, and tips for troubleshooting and handling errors.
- *Digital Cartridge Server Component Programmer's Reference Guide*—This guide provides a reference for programmers who need to use RTL routines to create applications for the DCSC. It also provides an overview of the routines and VAX C examples.
- *Digital Cartridge Server Component User's Reference Guide*—This guide summarizes the main functions of the DCSC, highlighting the functions performed by the computer operator, such as mounting and dismounting tapes. In addition, it describes how to use the DCSC Menu System and provides a command description section.

The following guides provide information on the StorageTek ACS and the VMS ULTRIX connection software.

- *TC44-AA/BA STI to StorageTek 4400 ACS Interconnect Hardware Installation Guide*
- *VMS ULTRIX Connection System Manager's Guide*

Conventions

Convention	Meaning
Enter	The word *enter* means to type information at your keyboard, and then press the Return key.
Return key	The Return key is not shown in formats and examples. Assume that you must press Return after typing a command or other input to the system unless instructed otherwise.
Ctrl/*x*	This is a key sequence that is sometimes provided in an instruction. It means to press the letter key while holding down the Ctrl key. For example, Ctrl/y means press the Ctrl key and the letter y simultaneously.
`$ SHOW TIME` `08-AUG-90 11:55:22`	Command examples are in monospaced type, and show all user-entered commands in bold letters. Displays or output lines of prompting characters that the system prints are shown in regular type.
RUN AUTHORIZE	Uppercase words in examples represent commands. Enter all uppercase words exactly as they are displayed in this guide.
filename	Lowercase words in examples tell you to supply an input value, not enter the literal word.

1

Preparing to Install the Digital Cartridge Server Component

This chapter discusses the preparations and requirements necessary for installing the Digital Cartridge Server Component (DCSC) for VMS.

Your Bill of Materials (BOM) and indented bills report (BIL) specify the number and contents of your media. Be sure to verify the contents of your kit with this information. If your kit is damaged or if you find that parts of it are missing, contact your Digital representative.

DCSC provides online Release Notes. Digital strongly recommends that you read the Release Notes before proceeding with the installation. For information on accessing the online Release Notes, see Section 2.1.

1.1 Prerequisite Hardware

Table 1–1 describes the hardware items needed to install the DCSC software.

Table 1–1 Hardware Requirements for Installing DCSC

Item	Purpose
TC44-AA or TC44-BA	Provides the data conversion between the Digital Standard Tape Interconnect (STI) and the Federal Information Processing Standard (FIPS) interface through an HSC40 or HSC70 to the StorageTek ACS.
K.SI card	Provides the connection to the TC44-AA/BA. It is located inside a HSC40 or HSC70.
STI Cables	Connects the TC44 to the K.SI card. The STI cable part numbers are BC26V-*xx* (*xx* = length in feet).
FIPS60 Cables	Connects the TC44 to the StorageTek ACS hardware.

1.2 Prerequisite and Optional Software

Table 1–2 provides information on the software you must have installed on your system before installing DCSC. The table also includes information about optional software that you can use together with DCSC. The System Software Addendum (SSA) contains a complete list of the prerequisite and optional software and their required version numbers.

Table 1–2 Prerequisite and Optional Software

Prerequisite Products	Purpose
VMS ULTRIX Connection Version 1.3	Communication between DCSC and StorageTek ACS software

Optional Products	Purpose
VAX C Version 3.0	Application development

1.3 License Registration

Before you install and run DCSC Version V1.0 on a newly-licensed node or VAXcluster, you must first register a License Product Authorization Key (License PAK) using the License Management Facility (LMF). The License PAK may be shipped along with the kit if you ordered the license and media together; otherwise, it is shipped separately to a location based on your license order. If you are installing DCSC as an update on a node or VAXcluster already licensed for this software, you have already completed the License PAK registration requirements.

You must register and load your license, and configure and start up the Digital Cartridge Server Component *before* you run the Installation Verification Procedure (IVP) and use the software.

To register a license under VMS, first log in to the system manager's account, SYSTEM. You then have a choice of two ways to perform the registration, described as follows:

- Invoke the SYS$UPDATE:VMSLICENSE.COM procedure. When it prompts you for information, respond with data from your License PAK.

  OR

- At the DCL prompt, enter the LICENSE REGISTER command with the appropriate qualifiers that correspond to License PAK information.

If you plan to use DCSC on more than one node in a VAXcluster, you will need to perform a license load on the other nodes after you complete this installation. See Section 3.4 for more information.

For complete information on using LMF, see the *VMS License Management Utility Manual*.

1.4 Special Requirements for Installing the Digital Cartridge Server Component

See the *TC44-AA/BA STI to StorageTek 4400 ACS Interconnect Hardware Installation Guide* for details on the hardware configuration required before installing the DCSC software.

1.5 VAXcluster Considerations

After your Digital Cartridge Server Component installation is complete, additional procedures must be performed before DCSC can be used from the other nodes in the VAXcluster. (See Section 3.4 for more information.)

1.6 Installation Procedure Requirements

The installation takes approximately 5 to 20 minutes, depending on your type of media and system configuration. This includes running the Installation Verification Procedure (IVP) and editing the start up and configuration files on a standalone VAX 6000 system.

The following sections discuss the various requirements for installing the DCSC.

1.6.1 Privileges and Disk Space

To install DCSC, you must log in to an account that has SETPRV or at least the following privileges:

- CMKRNL
- SYSPRV
- WORLD

Note that VMSINSTAL turns off BYPASS privilege at the start of the installation.

DCSC requirements for free disk storage space are different during installation and after installation. Table 1–3 summarizes the storage requirements.

Table 1–3 Disk Space Requirements

Kit	Blocks During Installation	Blocks After Installation
DCSC Version V1.0		
Server files	6,200	6,200
Run-time Library files	800	800
DCL interface and UI components	900	900
Miscellaneous[1] files	1,100	100

[1]Such as the log files generated during installation.

To determine the number of free disk blocks on the current system disk, enter the following command at the DCL prompt:

```
$ SHOW DEVICE SYS$SYSDEVICE
```

1.6.2 System Parameters

Installing DCSC requires certain system parameter settings. Table 1–4 lists the minimum required system parameter values for the installation.

Table 1–4 Minimum Required System Parameter Values

System Parameter	Minimum Required Value
GBLPAGES[1]	n + 2500

[1]For a successful installation of this product, you must ensure that the value for this parameter is 2500 or greater. Add 2500 to the current value for this parameter to get the new system value with which to update SYSGEN.

(continued on next page)

Table 1–4 (Cont.) Minimum Required System Parameter Values

System Parameter	Minimum Required Value
GBLPAGFIL[1]	n + 2500
GBLSECTIONS[2]	n + 1

[1]For a successful installation of this product, you must ensure that the value for this parameter is 2500 or greater. Add 2500 to the current value for this parameter to get the new system value with which to update SYSGEN.

[2]For a successful installation of this product, you must ensure that the value for this parameter is 1 or greater. Add 1 to the current value for this parameter to get the new system value with which to update SYSGEN.

The following sections show you how to:

- Check the current system parameter values
- Calculate values for the GBLPAGES and GBLSECTIONS system parameters
- Change parameter values with the VMS AUTOGEN command procedure utility (AUTOGEN)

Checking System Parameter Values

To check the values of your system parameters, enter the following command at the DCL prompt to invoke SYSGEN:

```
$ RUN SYS$SYSTEM:SYSGEN
SYSGEN>
```

At the SYSGEN> prompt, enter the SHOW command to display the current value of a system parameter.

```
SYSGEN> SHOW GBLPAGES
```

After checking the parameters with the SHOW command, enter the EXIT command at the SYSGEN> prompt to RETURN to DCL level.

```
SYSGEN> EXIT
```

If you do need to increase these parameters, see the next section for a description of how to use AUTOGEN.

Changing System Parameter Values with AUTOGEN

Use the AUTOGEN command procedure to change system parameters. AUTOGEN automatically adjusts values for parameters that are associated with the values you reset manually. To change system parameters with AUTOGEN, use an editor to access the following file:

```
SYS$SYSTEM:MODPARAMS.DAT
```

To modify any of the parameter values it contains, delete the current value associated with that parameter and enter the new value.

To add a new parameter, add a line to the file that includes both the name of the parameter and its value. For example:

```
GBLPAGFIL = 10240     !Minimum global pages needed
```

To modify incremental parameters such as GBLPAGES and GBLSECTIONS, use the MIN_. The following example limits the the global page setting to 12740, which is the 10240 minimum value required by the system (shown in the previous example) plus the 2500 required by DCSC.

```
MIN_GBLPAGES = 12740    !Minimum global pages needed including 2500
```

```
!                           !required by DCSC
```

Do not use a value that exceeds the amount of page file space available on the system when setting the page file quota.

After you make all your changes, exit from the editor and execute the AUTOGEN procedure to recalculate your system parameters. To do this, enter the following command at the DCL ($) prompt:

```
$ @SYS$UPDATE:AUTOGEN GETDATA REBOOT
```

When you specify REBOOT, AUTOGEN performs an automatic system shutdown and then reboots the system. Any users logged in to the system are immediately disconnected during the shutdown. The automatic reboot puts the new parameter values into effect.

AUTOGEN will automatically adjust some of the SYSGEN parameters based on the consumption of resources since the last reboot, if the SAVE option was chosen at system shutdown time. If you do not want to take advantage of this automatic adjustment, include the NOFEEDBACK qualifier on the AUTOGEN command line.

```
$ @SYS$UPDATE:AUTOGEN GETDATA REBOOT NOFEEDBACK
```

For more information about using AUTOGEN, see the VMS System Management Subkit.

1.6.3 Process Account Quotas

The account you use to install DCSC must have sufficient quotas to enable you to perform the installation.

No extra quotas are required for installing DCSC other than those normally provided with the standard VMS SYSTEM account.

User account quotas are stored in the file SYSUAF.DAT. Use the VMS AUTHORIZE Utility (AUTHORIZE) to verify and change user account quotas. Log in to a privileged account, then set your directory to SYS$SYSTEM, and run AUTHORIZE:

```
$ SET DEFAULT SYS$SYSTEM
$ RUN AUTHORIZE
UAF>
```

At the UAF> prompt, enter the SHOW command with an account name to check a particular account. For example:

```
UAF> SHOW SYSTEM
```

To change a quota, enter the MODIFY command. The following example changes the FILLM quota for the SYSTEM account and then exits from the utility:

```
UAF> MODIFY SYSTEM/FILLM=20
UAF> EXIT
```

After you exit from the AUTHORIZE utility, the system displays messages indicating whether or not changes were made. Once the changes have been made, you must log out and log in again before the new quotas take effect.

For more information on modifying account quotas, see the description of the VMS AUTHORIZE Utility in the VMS System Management Subkit.

1.6.4 VMSINSTAL Requirements

When you invoke VMSINSTAL, it checks the following:

- Whether you have set your default device and directory to SYS$UPDATE
- Whether you are logged in to a privileged account
- Whether you have adequate quotas for installation
- Whether DECnet is currently running on your system
- Whether any users are logged in to the system

Notice that VMSINSTAL requires the installation account have a minimum of the following quotas:

ASTLM = 24
BIOLM = 18
BYTLM = 18,000
DIOLM = 18
ENQLM = 30
FILLM = 20

If VMSINSTAL detects any problems during the installation, it notifies you and asks if you want to continue the installation. In some instances, you can enter YES to continue. To stop the installation process and correct the situation, enter NO or press the Return key. Then, correct the problem and restart the installation.

1.6.5 Backing Up Your System Disk

At the beginning of the installation, VMSINSTAL asks if you have backed up your system disk. Digital recommends that you perform a system disk BACKUP before installing any software product.

Use the BACKUP procedures that are established at your site. For details on performing a system disk BACKUP, see the section on the BACKUP Utility in the VMS System Management Subkit.

1.6.6 DCSC Requirements

The installation procedure also checks the following:

- Whether you are running the required version of the VMS operating system
- Whether you are running the required version of VMS ULTRIX Connection
- Whether you have installed the license for DCSC
- Whether you have enough disk space to install the product, as specified by Table 1–3
- Whether you have the minimum required system parameter values, as specified by Table 1–4

2
Installing Digital Cartridge Server Component

This chapter explains how to install the DCSC. Section 2.1 contains a step-by-step description of the installation procedure.

2.1 The Installation Procedure

The DCSC installation procedure consists of a series of questions and informational messages. See Appendix A for a sample installation.

To abort the installation procedure at any time, press Ctrl/y. When you press Ctrl/y, the installation procedure deletes all the files it has created up to that point and exits. You can then start the installation again.

1. **Invoke VMSINSTAL.**

   $ @SYS$UPDATE:VMSINSTAL saveset-name device-name OPTIONS N

   To start the installation, invoke the VMSINSTAL command procedure from a privileged account, such as the SYSTEM account. VMSINSTAL is in the SYS$UPDATE directory. The following list defines the elements of the VMSINSTAL command procedure:

   saveset-name
   The installation name for the component. For DCSC, use the following installation name:

   ```
   DCSC010
   ```

   device-name
   The name of the device on which you plan to mount the media. For example, MTA0: is the device name for a tape drive. It is not necessary to use the console drive for this installation. However, if you do use the console drive, you should replace any media you removed once the installation is complete.

   OPTIONS N
   An optional parameter that indicates you want to see the question on release notes. If you do not include the OPTIONS N parameter, VMSINSTAL does not ask you about the release notes. You should review the release notes before proceeding with the installation in case they contain additional information about the installation.

   Note

   If you are restarting the installation and have already reviewed the release notes, you do not need to specify OPTIONS N.

Notice that there are several other options you can select when you invoke VMSINSTAL. They are as follows:

- A—Auto-answer option: Initially creates a file that contains your answers to VMSINSTAL questions and prompts. You can then use the option (and the answer file) to save time during a reinstallation (typically after upgrading your system).
- G—Get saveset option: Lets you store product savesets temporarily on a magnetic tape or in a disk directory.
- L—File log option: Logs all activity on the terminal during installation.
- R—Alternate root option: Lets you install the product to a system root other than that of the running system.

See the VMS documentation on software installation in the VMS System Management Subkit for detailed information on these options. If you specify more than one option, separate the options with commas, for example:

```
$ @SYS$UPDATE:VMSINSTAL saveset-name device-name OPTIONS N,A
```

The following example invokes VMSINSTAL to install DCSC from tape drive MTA0: and shows the system response. This example uses the OPTIONS N release notes parameter.

```
$ @SYS$UPDATE:VMSINSTAL DCSC010 MTA0: OPTIONS N

      VAX/VMS Software Product Installation Procedure V5.4-0A


It is 21-JAN-1991 at 12:57.
Enter a question mark (?) at any time for help.
```

If you do not supply either the product name or the device name, VMSINSTAL prompts you for this information later in the installation procedure.

2. **Confirm system backup.**

```
* Are you satisfied with the backup of your system disk [YES]?
```

VMSINSTAL asks if you are satisfied with your system BACKUP. You should always back up your system disk before performing an installation. If you are satisfied with the BACKUP of your system disk, press Return. Otherwise, enter NO to discontinue the installation. After you back up your system disk, you can restart the installation.

3. **Mount the media.**

```
Please mount the first volume of the set on MTA0:.
* Are you ready? YES
%MOUNT-I-MOUNTED, DCSC MOUNTED ON _$$MTA0:  (NODE1)
The following products will be processed:
  DCSC V1.0

    Beginning installation of DCSC V1.0 at 13:01

%VMSINSTAL-I-RESTORE, Restoring product saveset A...
```

You should now mount the first distribution volume on the device you specified when you invoked VMSINSTAL. The device name appears in the line preceding the question. VMSINSTAL then asks you if you are ready to continue with the installation.

If you respond YES to indicate that you are ready, VMSINSTAL displays a message that the media containing the Digital Cartridge Server Component has been mounted on the specified device and that the installation has begun.

If you entered the wrong device name when you invoked VMSINSTAL and need to restart the installation, enter NO in response to the ''Are you ready?'' question. To abort the installation for other reasons, press Ctrl/y.

4. **Mount additional media volumes.**

```
%BACKUP-I-READYREAD, mount volume 2 on _MTA0: for reading

Enter "YES" when ready:
```

If your installation kit contains more than one volume, VMSINSTAL prompts you to mount the additional volumes and then asks you to indicate that you are ready for the installation to proceed.

5. **Select a release notes option.**

```
Release notes included with this kit are always copied to SYS$HELP.

Additional Release Notes Options:

 1.  Display release notes
 2.  Print release notes
 3.  Both 1 and 2
 4.  None of the above

* Select option [2]:
```

If you specified OPTIONS N when you invoked VMSINSTAL, you are now asked to choose one of the four options for reviewing the release notes.

If you select option 1, VMSINSTAL displays the release notes immediately on the console terminal. You can terminate the display at any time by pressing Ctrl/c.

If you select option 2, VMSINSTAL prompts you for the name of the print queue that you want to use:

```
* Queue name [SYS$PRINT]:
```

You can press Return to send the file to the default output print device or you can enter another queue name.

If you select option 3, VMSINSTAL displays the release notes immediately on the console terminal and then prompts you for a queue name for the printed version.

You should select option 4 if you have already reviewed the release notes and are restarting the installation.

Hardcopy release notes are included with the documentation set for the Digital Cartridge Server Component.

Next, VMSINSTAL displays the following question:

```
* Do you want to continue the installation [N]?: YES
%VMSINSTAL-I-RELMOVED, The product's release notes have been
                                    successfully moved to SYS$HELP.
```

To continue the installation, enter YES. Otherwise, press Return. In either case, the release notes are copied to a file in SYS$HELP:

```
SYS$HELP:DCSC010.RELEASE_NOTES
```

After the installation, you can enter the following command to review the release notes:

```
$ TYPE SYS$HELP:DCSC010.RELEASE_NOTES
```

Note

The name of the release notes file installed by VMSINSTAL consists of the current product name and version number. Do not delete the release notes for the previous versions of DCSC.

6. **Verify existence of prerequisite software.**

```
******************************************************

   Before you install the DCSC software, verify that the
   following software is installed.

       VMS Version 5.4 or later
       UCX Version 1.3 or later

******************************************************

* Do you want to continue [YES]?
```

The installation procedure displays a list of the required software and then asks if you want to continue.

If you do not have the listed software installed on your system, you must answer NO to this question. You should stop the installation here, install the prerequisite software, and then restart the DCSC installation. The installation procedure checks to make sure the software is installed, and will fail if this has not been done.

7. **Respond to license registration queries.**

```
Product:       CARTRIDGE-SERVER-V
Producer:      DEC
Version:       1.0
Release Date:  28-JAN-1991

* Does this product have an authorization key registered and loaded?
```

The installation procedure displays license information about your product and then asks if you have registered and loaded your PAK.

If you have not registered and loaded your PAK, you must answer NO to this question. You must register and load your PAK to successfully complete the installation. If you have not done so, you should stop the installation, register and load your PAK, and then restart the installation. The installation procedure will fail if this has not been done.

8. **Purge files.**

```
    During this installation, new files will be provided to replace existing
    versions.  You may purge these older versions to save disk space, or keep
    them if you feel they may be of use.  Purging is recommended.
* Do you want to purge files replaced by this installation [YES]?
```

You have the option of purging files from previous versions of the Digital Cartridge Server Component that are superseded by this installation. Purging is recommended; however, if you need to keep the files from the previous version, enter NO in response to this question.

9. **Choose the Installation Verification Procedure (IVP) option.**

```
* Do you want to run the IVP after the installation [YES]?
```

The installation procedure now asks if you want to run the IVP. The IVP for Digital Cartridge Server Component checks to be sure that the installation is successful. It is recommended that you run the IVP.

After Digital Cartridge Server Component is installed, you can run the IVP independently to verify that the software is available on your system. You might need to run the IVP after a system failure to make sure that users can access Digital Cartridge Server Component.

10. **Read informational messages.**

At this point, the installation procedure displays a number of informational messages that report on the progress of the installation. There are no further questions. If the installation procedure has been successful up to this point, VMSINSTAL moves the new or modified files to their target directories, updates help files, and updates the DCL tables, if necessary. If you chose to have the files from previous versions purged, that work is done now. The following messages are displayed:

```
%DCSCFT-I-INSBEG, Beginning installation....
%VMSINSTAL-I-SYSDIR, This product creates system
                                directory [DCSC$SERVER.IMAGES].
%VMSINSTAL-I-SYSDIR, This product creates system
                                directory [DCSC$SERVER.LOGS].
%VMSINSTAL-I-SYSDIR, This product creates system disk
                                directory VMI$ROOT:[SYSHLP.EXAMPLES.DCSC$SERVER].

%DCSC-I-INSCONT, Continuing installation....
%DCSC-I-FILEPROT, Setting protection on product files....
%DCSC-I-INSDCL, Installing DCL command....
%DCSC-I-INSHELP, Installing DCL help....

      ******************************************************

         A list of DCSC V1.0 files installed
         on your VMS system can be found in
         SYS$COMMON:[DCSC$SERVER]DCSC$FILE_LIST.TXT.

      ******************************************************

%VMSINSTAL-I-MOVEFILES, files will now be moved to their target
                                directories...
```

11. **Execute DCSC$STARTUP command procedure.**

```
(LNM$SYSTEM_TABLE)

  "DCSC$CONFIG_FILE" = "DCSC$FILES:DCSC$CONFIG.DAT"
  "DCSC$DIR" = "SYS$COMMON"
  "DCSC$ERROR_LOG" = "DCSC$FILES:DCSC$ERROR.LOG"
  "DCSC$EXE" = "DCSC$DIR:[DCSC$SERVER.IMAGES]"
  "DCSC$FILES" = "DCSC$DIR:[DCSC$SERVER.LOGS]"
  "DCSC$LOGS" = "DCSC$DIR:[DCSC$SERVER.LOGS]"
  "DCSC$PRINT_FILE" = "DCSC$FILES:DCSC$CONFIG.LIS"
  "DCSC$SPVSR_LOG" = "DCSC$FILES:DCSC$SPVSR.LOG"
  "DCSC$TRACE_LOG" = "DCSC$FILES:DCSC$TRACE.LOG"

%DCSC-S-STARTUP - Logical names have been established
```

The installation procedure now executes the DCSC$STARTUP.COM procedure using the SETUP parameter. This parameter causes the startup procedure to only define the system logicals used by the product. These logicals must be defined for the IVP to complete successfully.

12. **Run IVP, if IVP option was chosen.**

    A sample of the IVP is provided in Chapter 4.

13. **End the installation procedure.**

```
Installation of DCSC V1.0 completed at 13:04
Enter the products to be processed from the next distribution volume set.
* Products:

VMSINSTAL procedure done at 13:04
```

The previous messages indicate that the entire installation procedure is complete.

You can now log out of the privileged account:

```
$ LOGOUT
SYSTEM     logged out at  28-JAN-1991 13:15:15.15
```

Notice that VMSINSTAL deletes or changes entries in the process symbol tables during the installation. Therefore, if you are going to continue using the system manager's account and you want to restore these symbols, you should log out and log in again.

2.2 Error Recovery

If errors occur during the installation, VMSINSTAL displays failure messages. If the installation fails, you see the following message:

```
%VMSINSTAL-E-INSFAIL, The installation of DCSC V1.0 has failed.
```

Errors can occur during the installation if any of the following conditions exist:

- The operating system version is incorrect.
- A prerequisite software version is incorrect.
- Quotas necessary for successful installation are insufficient.
- System parameter values for successful installation are insufficient.
- The VMS help library is currently in use.
- The product license has not been registered and loaded.

For descriptions of the error messages generated by these conditions, see the VMS documentation on system messages, recovery procedures, and VMS software installation. If you are notified that any of these conditions exist, you should take the appropriate action as described in the message. For information on installation requirements, see Chapter 1.

3

After Installing the Digital Cartridge Server Component

The following tasks take place after installing the DCSC:

- Editing the system start up and shut down files
- Editing the DCSC configuration file
- Making the product usable on a VAXcluster
- Setting user account quotas and user identifiers
- Reporting problems

3.1 Editing the System Files

You must edit the system start up and shut down files to provide for automatic start up and shut down of DCSC when your system is rebooted.

Add the command line that starts DCSC to the system start up file, SYS$STARTUP:SYSTARTUP_V5.COM.

```
$ @SYS$STARTUP:DCSC$STARTUP.COM
```

Add the following command line to the system shut down file, SYS$STARTUP:SYSHUTDWN.COM:

```
$ @SYS$MANAGER:DCSC$SHUTDOWN.COM
```

3.2 Editing the DCSC Configuration File

The DCSC requires that you set certain parameters before you can run it. These parameters are kept in a configuration file which must be edited before you start up the software. The DCSC software includes a menu-driven system called the Configuration File Editor. This editor lets you configure your system and create the configuration file used by the software at startup.

Before you can invoke the Configuration File Editor however, you need to define various DCSC logicals on your system. Run the DCSC$STARTUP command procedure located in the SYS$STARTUP directory with the SETUP parameter to define DCSC-specific logicals. To do this, enter the following command line from the SYSTEM account:

```
$ @SYS$STARTUP:DCSC$STARTUP SETUP
```

Note

Make sure you enter the SETUP parameter which ensures that only the logical definitions portion of the DCSC$STARTUP command procedure not the full startup command procedure is executed.

After running the startup command procedure, you can invoke the Configuration File Editor. See the *Digital Cartridge Server Component System Manager's Guide* for information on how to use the Configuration File Editor.

3.3 Starting Up the System

After you edit the configuration file with the required information about your particular configuration, run the DCSC$STARTUP.COM procedure with the COLD parameter to fully start up the software, allocate all the resources identified in the configuration file to the DCSC server, and make it ready to accept user requests. To start up the DCSC for the first time, enter the following:

```
$ @SYS$STARTUP:DCSC$STARTUP COLD
```

3.4 VAXcluster Post Installation Procedures

To enable the DCSC software to run on the other members of the VAXcluster, you must complete the following tasks:

1. Load the DCSC license PAK on the other VAXcluster members.
2. Replace the old DCLTABLES.EXE with the updated DCLTABLES.EXE in the INSTALL utility on the other VAXcluster members.
3. Start up the DCSC software on the other VAXcluster members.

3.4.1 Loading the DCSC License on the Other VAXcluster Members

To load the DCSC license on other VAXcluster members, first log in to the system manager's account, SYSTEM. You then have a choice of two ways to perform the LICENSE LOAD:

1. Invoke the SYSMAN utility and use the DO command to execute the LICENSE LOAD command on the other VAXcluster members:

```
$ MCR SYSMAN
SYSMAN> SET ENVIRONMENT/CLUSTER
SYSMAN> DO LICENSE LOAD CARTRIDGE-SERVER-V
SYSMAN> EXIT
$ LOGOUT
```

Note

You will have to issue the DO LICENSE LOAD command only once, and it will execute on all the VAXcluster members.

2. Issue the LICENSE LOAD command from the DCL ($) prompt on each VAXcluster member:

```
$ LICENSE LOAD CARTRIDGE-SERVER-V
$ LOGOUT
```

Note

You will have to log in to the SYSTEM account on each VAXcluster member node, and issue the LICENSE LOAD command.

3.4.2 Replacing the DCLTABLES.EXE on the Other VAXcluster Members

To replace the DCLTABLES.EXE image installed in memory on the other VAXcluster members, first log in to the system manager's account, SYSTEM. You then have a choice of two ways to perform the replace:

- Invoke the SYSMAN Utility and use the DO command to execute the INSTALL REPLACE command on the other VAXcluster members:

```
$ MCR SYSMAN
SYSMAN> SET ENVIRONMENT/CLUSTER
SYSMAN> DO INSTALL REPLACE SYS$SHARE:DCLTABLES.EXE/OPEN/HEAD/SHARE
SYSMAN> EXIT
$ LOGOUT
```

Note

You will have to issue the DO INSTALL REPLACE command only once, and it will execute on all the VAXcluster members.

- Issue the INSTALL REPLACE command from the DCL ($) prompt on each VAXcluster member:

```
$ INSTALL REPLACE SYS$SHARE:DCLTABLES.EXE/OPEN/HEAD/SHARE
$ LOGOUT
```

Note

You will have to log in to the SYSTEM account on each VAXcluster member node, and issue the INSTALL REPLACE command.

3.4.3 Starting Up the DCSC Software on the Other VAXcluster Members

To start up the DCSC software on the other members of a VAXcluster, first log in to the system manager's account, SYSTEM. You then have a choice of two ways to perform the start up:

- Invoke the SYSMAN utility and use the DO command to execute the SYS$STARTUP:DCSC$STARTUP command file on all members of the VAXcluster as follows:

```
$ MCR SYSMAN
SYSMAN> SET ENVIRONMENT/CLUSTER
SYSMAN> DO @SYS$STARTUP:DCSC$STARTUP
SYSMAN> EXIT
$ LOGOUT
```

Note

You will only have to issue the DO @SYS$STARTUP:DCSC$STARTUP command once, and it will execute on all the VAXcluster members.

- Issue the @SYS$STARTUP:DCSC$STARTUP command from the DCL ($) prompt on each VAXcluster member as follows:

```
$ @SYS$STARTUP:DCSC$STARTUP
$ LOGOUT
```

Note

You will have to log in to the SYSTEM account on each VAXcluster member node and issue the @SYS$STARTUP:DCSC$STARTUP command.

3.5 User Account Requirements

To work with DCSC, user accounts on your system must have certain privileges and quotas. The next two sections contain information on these requirements.

3.5.1 Privileges

To use DCSC, each account must have at least the TMPMBX and NETMBX privileges. Use the VMS AUTHORIZE utility (AUTHORIZE) to determine whether users have the privileges they require.

3.5.2 User Account Quotas

You must make sure that the appropriate user accounts have sufficient quotas to be able to use DCSC. Table 3–1 summarizes the required user account quotas.

Table 3–1 User Account Quotas for Using DCSC

Account Quota	Value
WSDEF	1024[1]
WSQUOTA	2048

[1]The values for WSEXT and WSQUO must be equal to or greater than the WSDEF value.

See Section 1.6.3 for a description of how to verify and change account quotas.

3.6 Determining and Reporting Problems

If you encounter a problem while using the Digital Cartridge Server Component, report it to Digital Equipment Corporation. Depending on the nature of the problem and the type of support you have, you can take one of the following actions:

- Call Digital if your software contract or warranty agreement entitles you to telephone support.
- Submit a Software Performance Report (SPR).
- Fill out and submit a Reader's Comments form if the problem has to do with the DCSC documentation. There are Reader's Comments forms at the back of each guide. Use the form from the guide in which you found the error. Include the section and page number.

Review the Software Product Description (SPD) and Warranty Addendum for an explanation of warranty. If you encounter a problem during the warranty period, report the problem as previously indicated or follow alternate instructions provided by Digital for reporting SPD nonconformance problems.

4
Installation Verification Procedure

Before you run the Installation Verification Procedure (IVP), make sure you complete the following:

- Registered and loaded the CARTRIDGE-SERVER-V license PAK.

  Note

  If you are installing on a VAXcluster, you must load the license on each of the other VAXcluster member nodes. See Section 3.4 for more information detail on loading the license on the other VAXcluster member nodes.

- Started up the DCSC software, using the DCSC$STARTUP.COM file in SYS$STARTUP. The IVP will fail unless the DCSC system logical names have been defined. This can be done by using the SETUP parameter passed to the startup procedure, or by doing a complete startup using the WARM or COLD parameters.

The Installation Verification Procedure (IVP) is usually run at the end of the installation procedure, but it can also be run stand-alone.

To run the IVP stand-alone, execute the following command:

```
$ @SYS$TEST:DCSC$IVP.COM
```

The following is a sample of the output generated by the IVP:

```
$ @SYS$TEST:DCSC$IVP

*****************************************************************************
             Beginning Digital Cartridge Server Component V1.0
             Installation Verification Procedure (IVP)
*****************************************************************************

    Installation verification begun at 21-JAN-1991 13:08:56.19

    Initializing the IVP...

    Testing for correct version of VMS...
            ...VMS version OK.

    Testing for required license...
            ...product license OK.

    Testing for prerequisite software...

            ...prerequisite software found.
```

Installation Verification Procedure

```
    Testing for DCSC directories in SYS$COMMON...
            ...DCSC directories found.

    Testing for system-wide logical names...
            ...logical names defined.

    Testing for DCSC V1.0 files...
            ...DCSC files found.

    Testing for correct version of DCSC...
            ...DCSC version OK.

    * * *  All tests have completed successfully. * * *
    Installation verification finished at 21-JAN-1991 13:09:09.33

    Initializing the IVP...

    Testing for correct version of VMS...
             ...VMS version OK.

    Testing for required license...
             ...product license OK.

    Testing for prerequisite software...
             ...prerequisite software found.

    Testing for DCSC directories in SYS$COMMON...
            ...DCSC directories found.

    Testing for system-wide logical names...
            ...logical names defined.

    Testing for DCSC V1.0 files...
            ...DCSC files found.

    Testing for correct version of DCSC...
            ...DCSC version OK.

    * * *  All tests have completed successfully. * * *
    Installation verification finished at 21-JAN-1991 13:10:09.33

****************************************************************************

               Successful Installation Verification of
               Digital Cartridge Server Component V1.0

****************************************************************************
```

A
Sample Installation

This appendix contains a sample installation of DCSC. This sample was run on a system that had no previous version of DCSC installed.

```
 Welcome to VAX/VMS V5.4-0A

Username: SYSTEM
Password:
 Welcome to VAX/VMS version V5.4-0A on node NODE1
    Last interactive login on Wednesday, 16-JAN-1991 12:00

$ @SYS$UPDATE:VMSINSTAL DCSC010

 VAX/VMS Software Product Installation Procedure V5.4-0A

It is 21-JAN-1991 at 12:57.

Enter a question mark (?) at any time for help.

%VMSINSTAL-W-ACTIVE, The following processes are still active:
 _RTA7:
    SMITH
    JONES

* Do you want to continue anyway [NO]? YES

* Are you satisfied with the backup of your system disk [YES]? Y

Please mount the first volume of the set on MTA0:.
* Are you ready? YES
%MOUNT-I-MOUNTED, DCSC MOUNTED ON _$$MTA0:  (NODE1)
The following products will be processed:
  DCSC V1.0

The following products will be processed:
  DCSC V1.0

 Beginning installation of DCSC V1.0 at 13:01

%VMSINSTAL-I-RESTORE, Restoring product save set A ...
%VMSINSTAL-I-RELMOVED, Product's release notes have been moved to SYS$HELP.

 ******************************************************
 *       *
 *   Digital Cartridge Server Component for VMS, V1.0    *
 *       *
 *  Installation Procedure   *
 *       *
 *    Copyright 1991,  Digital Equipment Corporation *
 *       *
 ******************************************************

   ******************************************************
      Before you install the DCSC software, verify that the
      following software is installed.
```

Sample Installation

```
           VMS Version 5.4 or later
           UCX Version 1.3 or later
   ******************************************************

* Do you want to continue [YES]? Y

        Product:      CARTRIDGE-SERVER-V
        Producer:     DEC
        Version:      0.0
        Release Date: 28-JAN-1991

* Does this product have an authorization key registered and loaded? YES

    During this installation, new files will be provided to replace existing
    versions.  You may purge these older versions to save disk space, or keep
    them if you feel they may be of use.  Purging is recommended.

* Do you want to purge files replaced by this installation [YES]? Y

    Most products provide an Installation Verification Procedure (IVP)
    which verifies the completeness and accuracy of the installation.
    You may wish to run the IVP immediately after installation.
* Do you want to run the IVP after the installation [YES]? Y
      ******************************************************

         All questions regarding the installation have now
         been asked.  The installation of DCSC V1.0
         will take approximately 10 minutes.

      ******************************************************

%DCSC-I-INSBEG, Beginning installation....
%VMSINSTAL-I-SYSDIR, This product creates system directory [DCSC$SERVER.FILES].
%VMSINSTAL-I-SYSDIR, This product creates system directory [DCSC$SERVER.IMAGES].
%VMSINSTAL-I-SYSDIR, This product creates system directory [DCSC$SERVER.LOGS].
%VMSINSTAL-I-SYSDIR, This product creates system disk directory  VMI$ROOT:[SYSHLP.EXAMPLES.DCS
%DCSC-I-INSCONT, Continuing installation....
%DCSC-I-FILEPROT, Setting protection on product files....
%DCSC-I-INSDCL, Installing DCL command....
%DCSC-I-INSHELP, Installing DCL help....
      ******************************************************

         A list of DCSC V1.0 files installed
         on your VMS system can be found in
         SYS$COMMON:[DCSC$SERVER]DCSC$FILE_LIST.TXT.

      ******************************************************

%VMSINSTAL-I-MOVEFILES, Files will now be moved to their target directories...

(LNM$SYSTEM_TABLE)

"DCSC$CONFIG_FILE" = "DCSC$FILES:DCSC$CONFIG.DAT"
"DCSC$DIR" = "SYS$COMMON"
"DCSC$ERROR_LOG" = "DCSC$LOGS:DCSC$ERROR.LOG"
"DCSC$EXE" = "DCSC$DIR:[DCSC$SERVER.IMAGES]"
"DCSC$FILES" = "DCSC$DIR:[DCSC$SERVER.FILES]"
"DCSC$LOGS" = "DCSC$DIR:[DCSC$SERVER.LOGS]"
"DCSC$PRINT_FILE" = "DCSC$FILES:DCSC$CONFIG.LIS"
"DCSC$SPVSR_LOG" = "DCSC$LOGS:DCSC$SPVSR.LOG"
"DCSC$TRACE_LOG" = "DCSC$LOGS:DCSC$TRACE.LOG"

%DCSC-S-STARTUP - Logical names have been established

************************************************************************
             Beginning Digital Cartridge Server Component V1.0
             Installation Verification Procedure (IVP)

************************************************************************
```

```
Installation verification begun at 21-JAN-1991 13:08:56.19

Initializing the IVP...

Testing for correct version of VMS...
        ...VMS version OK.

Testing for required license...
        ...product license OK.

Testing for prerequisite software...

        ...prerequisite software found.

Testing for DCSC directories in SYS$COMMON...
        ...DCSC directories found.

Testing for system-wide logical names...
        ...logical names defined.

Testing for DCSC V1.0 files...
        ...DCSC files found.

Testing for correct version of DCSC...
        ...DCSC version OK.

* * *  All tests have completed successfully. * * *
Installation verification finished at 21-JAN-1991 13:09:09.33

Initializing the IVP...

Testing for correct version of VMS...
         ...VMS version OK.

Testing for required license...
         ...product license OK.

Testing for prerequisite software...
         ...prerequisite software found.

Testing for DCSC directories in SYS$COMMON...
        ...DCSC directories found.

Testing for system-wide logical names...
        ...logical names defined.

Testing for DCSC V1.0 files...
        ...DCSC files found.

Testing for correct version of DCSC...
        ...DCSC version OK.

* * *  All tests have completed successfully. * * *
```

Sample Installation

```
    Installation verification finished at 21-JAN-1991 13:10:09.33

*****************************************************************************

               Successful Installation Verification of
               Digital Cartridge Server Component V1.0

*****************************************************************************

    Installation of DCSC V1.0 completed at 13:10

    VMSINSTAL procedure done at 13:10

$ LOGOUT
  SYSTEM       logged out at 21-DEC-1991 13:10:01.20
```

B

Files and Logical Names Installed on Your System

The DCSC installation procedure installs a number of files on your system and defines some logical names.

The complete list of files installed can be found in the directory SYS$COMMON:[DCSC$SERVER] in the file DCSC$FILE_LIST.TXT.

The following logical names are entered into the system logical name table when DCSC is installed. These names are stored in the product's start up file, SYS$STARTUP:DCSC$STARTUP.COM. They are automatically entered into the system logical name table whenever the system reboots or whenever the software is invoked.

- DCSC$CONFIG_FILE
- DCSC$DIR
- DCSC$ERROR_LOG
- DCSC$EXE
- DCSC$FILES
- DCSC$LOGS
- DCSC$PRINT_FILE
- DCSC$SPVSR_LOG
- DCSC$TRACE_LOG