Software Product Description

PRODUCT NAME: Data Cartridge Server Component for OpenVMS, Version 3.3
SPD 33.59.07

DESCRIPTION

The Data Cartridge Server Component (DCSC) for OpenVMS software provides control path access for OpenVMS VAX, OpenVMS AlphaServer, and OpenVMS Integrity server system users to tape cartridges located in a StorageTek® Automated Cartridge System (ACS) Library. DCSC can be installed on either a single OpenVMS system or a VMScluster.

DCSC provides control path access by establishing communications with the StorageTek® Unix® server and software that controls the resources within an ACS Library. The StorageTek® server software is known as Automated Cartridge System Library Software (ACSLS). DCSC can be configured to communicate with up to sixteen StorageTek® library servers.

DCSC manages the library resources within an OpenVMS system. This includes managing the allocation of ACS transports, locking and unlocking both cartridge and transport resources to accommodate user tape function requests, and recovering any unused resources (caused by a user mounting a tape and logging out before dismounting it).

When a user requests a tape function such as mount, DCSC checks for the existence of the requested cartridge, selects an available transport, and locks the required resources. DCSC ensures the tape cartridge is physically loaded onto a StorageTek® transport and, if requested, executes an OpenVMS tape mount function.

On a VMScluster consisting of several nodes, DCSC must be installed on each node requiring access to the StorageTek® library server. DCSC on one node must be configured as the Master server. The DCSC Master server fields requests from the other nodes on the VMScluster, which are called DCSC Virtual server nodes. Communication between DCSC Master and Virtual server nodes is via DECnet. Communication between the DCSC Master server node and the StorageTek® library server is via HP TCP/IP Services for OpenVMS. Alternatively, DCSC can be configured as a Master Server on multiple nodes in the cluster.

DCSC provides a variety of sample programs and a sample tape management system. These are provided for demonstration purposes only. The use of HP's Archive/Backup System or Storage Library System tape automated backup solutions is recommended.

The DCSC kit includes the following:

- DCSC Run-Time Library (RTL) routines—A set of tools that let programmers design applications specific to their system and users.
- DCSC DCL Interface - lets users request tape cartridge functions (to request a mount of a specific tape cartridge, for example) from the OpenVMS DCL interface.
- Configuration File Editor - A menu-driven interface that lets system managers create the configuration file used to describe the transport and ACS environment to DCSC. DCSC reads this file when it starts up and uses it to determine operation, network, and transport resource allocations.
- DCSC Server—A set of processes that manage user requests by allocating transport resources to users on an OpenVMS system.

The following documentation is available:

- *Data Cartridge Server Component Installation Guide* – Explains how to install the DCSC and provides a sample installation log file.

- *Data Cartridge Server Component System Manager's Guide* – Describes the DCSC, how it works with the robotic tape library, configuration tasks, how to use the Configuration File Editor system, and DCSC-specific system maintenance tasks.
- *Data Cartridge Server Component Programmer's Reference Guide* – Describes the DCSC RTL routines and describes how to use them by providing examples of C code fragments.
- *Data Cartridge Server Component User's Reference Guide* – Summarizes the main functions of the DCSC, highlighting the functions performed by general users, such as mounting and dismounting tapes. In addition, it describes how to use the DCSC cartridge DCL commands.

INSTALLATION

HP recommends that a customer's first purchase of this software product include DCSC Startup Services. These services provide for installation and configuration of the software product by an experienced HP Software Specialist.

For subsequent purchases of this product only experienced customers should attempt installation. HP recommends that all other customers purchase DCSC Startup Services.

HARDWARE REQUIREMENTS

System Requirement:

- OpenVMS systems that can achieve data path connectivity to StorageTek® ACS SCSI tape transports through an OpenVMS supported SCSI or FC interface.
- Legacy OpenVMS systems with data path connectivity to StorageTek® ACS FIPS tape transports through TC44-AA, TC44-BA, or KCM44 controllers.

Systems Supported:

DCSC runs on Integrity server, AlphaServer, and VAX systems supported on OpenVMS. For a detailed list of systems supported on OpenVMS, refer to the *HP OpenVMS Operating System for Alpha Version 7.3-1 and 7.3-2 and VAX Version 7.3 Software Product Description* (SPD 25.01.xx) or the *HP OpenVMS for Integrity Servers Versions 8.2-1 and 8.2, and HP OpenVMS Alpha Version 8.2 Software Product Description* (SPD 82.35.xx).

Processor Restrictions:

The processor used must be sufficiently capable of handling both the installation and daily operations of the Data Cartridge Server Component (DCSC), the HP TCP/IP Services for OpenVMS product, and any customized applications software.

A CD-ROM reader is required for DCSC installation.

An Ethernet connection is required for each processor that uses the DCSC. That processor must support the Ethernet boards supported by HP TCP/IP Services for OpenVMS (V2.0 thru V5.0)

Other Hardware Required:

DCSC requires a terminal such as a VT220, VT240, VT320, or VT340 or any equivalent terminal emulation package.

DCSC also requires a StorageTek® Automated Cartridge System, including tape drives and associated software.

DCSC has been tested with the StorageTek® 9410 and L700 libraries. DCSC is also compatible with the StorageTek® 4400/4410 ACS, Powderhorn 9310, and WolfCreek 9360, TimberWolf 9740, 9730, and 9710 libraries when they are controlled via Automated Cartridge System Software (ACSLS). DCSC neither provides nor guarantees data path access to StorageTek® tape drives. Drive types (e.g. Ultra-SCSI; 36-track, read 18-track; helical-scan; DLT) must be compatible with and qualified for the designated OpenVMS operating system, processor and hardware controller.

Disk Requirements (Block Cluster Size = 1):

The following counts refer to the disk space required on the I64 system disk. Notice that the sizes listed are approximate; actual sizes may vary depending on your system environment, configuration, and software options.

Disk space required for installation:	26,000 blocks (13 Mbytes)
Disk space required for use (permanent):	25000 blocks (12.5 Mbytes)

The following counts refer to the disk space required on the Alpha system disk. Notice that the sizes listed are approximate; actual sizes may vary depending on your system environment, configuration, and software options.

Disk space required for installation:	15,000 blocks (7.7 Mbytes)
Disk space required for use (permanent):	14,000 blocks (7.2 Mbytes)

The following counts refer to the disk space required on the VAX system disk. Notice that the sizes listed are approximate; actual sizes may vary depending on your system environment, configuration, and software options.

Disk space required for installation:	8,000 blocks (4.1 Mbytes)
Disk space required for use (permanent):	7,500 blocks (3.8 Mbytes)

The minimum memory supported is 32 Mbytes. However, increasing the memory capability improves the performance of this software. The memory size suggested for most typical hardware configurations is *at least* 32 Mbytes.

SOFTWARE REQUIREMENTS

For All Systems:

OpenVMS I64 Operating System (V8.2-1 and V8.2)
OpenVMS Alpha Operating System (V7.3-2 and V8.2)
OpenVMS VAX Operating System (V7.3)
HP TCP/IP Services for OpenVMS (V5.4)

For DCSC Master/Virtual Configurations:

DECnet for OpenVMS (Phase IV, DECnet-Plus, or DECnet Phase V)

OpenVMS Tailoring:

The following OpenVMS classes are required for full functionality of this layered product:

- OpenVMS Required Saveset
- Network Support
- Programming Support
- Utilities

For more information on OpenVMS classes and tailoring, refer to the *HP OpenVMS Operating System for Alpha Version 7.3-1 and 7.3-2 and VAX Version 7.3 Software Product Description* (SPD 25.01.xx) or the *HP OpenVMS for Integrity Servers Versions 8.2-1 and 8.2, and HP OpenVMS Alpha Version 8.2 Software Product Description* (SPD 82.35.xx).

StorageTek® Server Software:

StorageTek® Server Software must be at the following minimum level:

- For UNIX® based server : ACSLS (V6.1 thru V7.1, Packet Version 4 only)

SOFTWARE LICENSING INFORMATION

This software is furnished under the licensing provisions of Hewlett-Packard's Standard Terms and Conditions.

LICENSE MANAGEMENT FACILITY SUPPORT

This layered product supports the OpenVMS License Management Facility.

DCSC uses a traditional license.

For more information on the License Management Facility, refer to the *HP OpenVMS Operating System for Alpha Version 7.3-1 and 7.3-2 and VAX Version 7.3 Software Product Description* (SPD 25.01.xx) or the *HP OpenVMS for Integrity Servers Versions 8.2-1 and 8.2, and HP OpenVMS Alpha Version 8.2 Software Product Description* (SPD 82.35.xx), or the License Management Facility manual of the OpenVMS Operating System documentation set.

For more information about OpenVMS licensing terms and policies, contact your local HP sales office, or find HP software licensing information on the World Wide Web at:

http://h18000.www1.hp.com/products/software/info/terms/swl_sld.html

CLUSTER ENVIRONMENT

This layered product is fully supported when installed on any valid and licensed VMScluster* configuration. DCSC requires that a data path to the transports be available. The *HARDWARE REQUIREMENTS* sections of this product's Software Product Description detail any special hardware required by this product.

* VMScluster configurations are fully described in the VMScluster Software Product Description (29.78.xx) and include CI, Ethernet, and Mixed Interconnect configurations.

GROWTH CONSIDERATIONS

The minimum hardware and software requirements for any future version of this product may be different from the minimum requirements for the current version.

DISTRIBUTION MEDIA

CD-ROM.

This product is also available as part of the OpenVMS Consolidated Software Distribution on CDROM.

ORDERING INFORMATION

For DCSC on OpenVMS I64:
Software License:
Per Processor: BA353AC

Software Media: BA353AA (on DVD)

For DCSC on OpenVMS Alpha and VAX:
Software License: QL-4EUA9-AA (OpenVMS Alpha Traditional License)

Software License: QL-YWNA9-AA (OpenVMS VAX Traditional License)

Software Media: QA-YWNAA-H8 (on CD_ROM)
Software Documentation: QA-YWNAA-GZ
DCSC Startup Services: YR-DCSC2-SU

SOFTWARE PRODUCT SERVICES

A variety of service options are available from HP. For more information, contact your local HP account representative or distributor. Information is also available from http://www.hp.com/hps/software.

SOFTWARE WARRANTY

This software product is provided by HP with a 90-day conformance warranty in accordance with the HP warranty terms applicable to the license purchase.