COMPAQ

Software Product Description

PRODUCT NAME: DECdfs for OpenVMS Version 2.3-1 **SPD 28.78.07**

DESCRIPTION

DECdfs for OpenVMS is a DECnet for OpenVMS and DECnet-Plus layered product that provides OpenVMS users with the ability to use remote OpenVMS VAX and OpenVMS Alpha disks as if they were directly attached to the local OpenVMS system.

DECdfs software provides users and applications with transparent, high performance file access while using fewer CPU resources than standard DECnet for OpenVMS and DECnet-Plus file access.

Systems running DECdfs software can act as "servers" or "clients" or both. DECdfs servers make file resources available to systems running DECdfs client software. DECdfs clients are able to use file resources of systems running DECdfs server software. The file resources accessible through DECdfs can range in scope from a master file directory and all of its subordinate directories and files on a disk volume, to an individual file. The DECdfs server software assigns a unique name to the resource to be shared.

In configurations where DECdns (Distributed Name Service) is supported, the DECdfs server registers the resource name with DECdns. In configurations where DECdns is not supported, the DECdfs client must include the resource location name when issuing the command to use the resource.

DECdfs software uses DECdns on OpenVMS VAX configurations running DECnet for OpenVMS or DECnet-Plus, and on OpenVMS Alpha configurations running DECnet-Plus. In order for DECdfs to use DECdns, there must be at least one DECdns server in the network. DECdns allows the name of the resource to be independent of its physical location on the network. DECdfs systems throughout the network can continue accessing a resource even if the resource location is changed.

DECdns is not available on OpenVMS Alpha configurations running DECnet, but these configurations can use DECdfs by specifying the node name where the resource is located.

The DECdfs client uses the resource by means of the DFS$CONTROL MOUNT command. This command specifies the DECdns name by which the resource was registered, enables communication between the client and the server, and creates a pseudo-device on the client system. The pseudo-device makes the remote resource appear to the client system as a local disk. Users can then perform operations on the pseudo-device, and DECdfs handles all of the network access and translation.

Features

The features of DECdfs for OpenVMS Version 2.3-1 include:

- High performance access to remote disks
- Applications require no modifications to use remote disks, because the disks appear to be local
- Fewer CPU resources used than standard DECnet for OpenVMS and DECnet-Plus file access
- Supports all OpenVMS file types, including Extended File Specifications
- Supports the following OpenVMS file operations:
  - — Shared access (read)
  - — Exclusive access (read & write)
  - — All OpenVMS directory operations, including the creation and deletion of directories

  — Virtual I/O

  — Mapped I/O

- Transparent access to most of the standard OpenVMS DCL commands (those commands which neither manipulate identifiers nor use logical, physical or write-shared I/O)
- Operates in any DECnet for OpenVMS, DECnet-Plus, or DECnet over IP environment; both Local Area Networks and Wide Area Networks are supported
- Uses DECdns, if present, to provide location-independent data access
- File security provided through standard OpenVMS proxy mechanisms. The system manager on the server controls all file access
- Optional end-to-end checksum provided to guard against network faults
- The DECdfs Management utility allows the user to control DECdfs components and to display statistical and error information
- Supports 64-bit addresses for I/O buffers on OpenVMS Alpha Version 7.0 and later

Restrictions

- Files opened for write are opened exclusively
- Logical I/O is not supported
- Installed files are not supported
- The use of ACLs (Access Control Lists) on DECdfs client devices is not supported. ACLs on served files are not visible to a DECdfs client.

HARDWARE REQUIREMENTS

Processors Supported
DECdfs for OpenVMS Version 2.3-1 is supported on all systems running the versions of the OpenVMS operating system that are listed in the section "SOFTWARE REQUIREMENTS".

Memory Requirements

DECdfs for OpenVMS Version 2.3-1 will run properly with the minimum physical memory required by the OpenVMS operating system and DECnet for OpenVMS (Phase IV) or DECnet/OSI or DECnet-Plus (Phase V). Refer to the Software Product Descriptions for those products for memory requirements.

CLUSTER ENVIRONMENT

This layered product is fully supported when installed on any valid and licensed OpenVMS Cluster configuration. The OpenVMS Cluster configurations are fully described in the Software Product Description for OpenVMS Cluster Software (SPD 29.78.xx).

SOFTWARE REQUIREMENTS

The following software is required:

- One of the following versions of the OpenVMS operating system:
  - OpenVMS Alpha Version 6.2, 7.1, 7.2, or 7.3
  - OpenVMS VAX Version 5.5–2 (DECnet for OpenVMS only), 6.2, 7.1, 7.2, or 7.3
- One of the following network software products:
  - DECnet for OpenVMS
  - DECnet/OSI for OpenVMS
  - DECnet-Plus for OpenVMS

OpenVMS Tailoring

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

- OpenVMS Required Saveset
- Network Support

For more information on OpenVMS classes and tailoring, refer to the OpenVMS Operating System Software Product Description (SPD 25.01.xx).

DISK SPACE REQUIREMENTS

To install DECdfs for OpenVMS Version 2.3-1, you need the following free space on your system disk:

- 4000 free blocks for an OpenVMS Alpha system
- 1500 free blocks for an OpenVMS VAX system

This size is approximate; the actual size may vary depending on your system environment, configuration, and software options.

GROWTH CONSIDERATIONS

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

ORDERING INFORMATION

The software media and documentation ship on the layered product CD–ROM that is included in the OpenVMS Version 7.3 kit. DECdfs for OpenVMS Version 2.3-1 software and documentation are also included in the OpenVMS Software Product Library and the OpenVMS Online Documentation Library, respectively.

SOFTWARE LICENSING

A license is required for each OpenVMS system on which the DECdfs for OpenVMS software is to be installed and executed. A DECdfs license is required on:

- Each server node that registers available directories or files for access and use by DECdfs clients
- Each client node that accesses and uses the directories or files on a DECdfs server

Each OpenVMS system may be licensed to use the full functionality of DECdfs or the client functionality only. A full functionality license grants the right to use both the client capabilities and the server capabilities.

The following table lists the appropriate licenses.

System	Full Functionality	Client Only
OpenVMS Alpha	QL–37YA*–AA	QL–37ZA*–AA
OpenVMS VAX	QL–VEQA*–AA	QL–381A*–AA

This software is furnished only under a license. For more information about Compaq's licensing terms and policies, contact your local Compaq office.

License Management Facility Support

This layered product supports the OpenVMS License Management Facility. License units for this product are allocated on a CPU-capacity basis.

For more information on the License Management Facility, refer to the OpenVMS Operating System Software Product Description (SPD 25.01.xx) or the OpenVMS Operating System documentation set.

For more information on Compaq's licensing policies, contact your local Compaq office.

SOFTWARE PRODUCT SERVICES

A variety of service options are available from Compaq. For more information, contact your local Compaq office.

YEAR 2000 READINESS

This product is capable of accurately processing, providing, and/or receiving date data from, into, and between the twentieth and the twenty-first centuries, and the years 1999 and 2000, including leap year calculations, when used in accordance with the associated product documentation, and provided that all hardware, firmware, and software used in combination with the product properly exchange accurate date data with the product.

SOFTWARE WARRANTY

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

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