Software Product Description

PRODUCT NAME: **VAX Distributed File Service, Version 1.2** **SPD 28.78.02**

DESCRIPTION

The VAX Distributed File Service (DFS) is a DECnet-VAX layered product that provides VMS users with the ability to use remote VAX disks as if they were directly attached to the local VAX system.

DFS provides users and applications with transparent, high performance file access while using less CPU resources than standard DECnet-VAX file access.

DFS systems can act as "servers" or "clients" or both. Servers make file resources available to clients. The resources can vary in scope from a master file directory with all of the subordinate directories and files on a disk volume to an individual file. The DFS server gives the resource a unique name and registers it with the VAX Distributed Name Service (DNS).

The DFS client can then use the resource by means of the DFS MOUNT command. This command specifies the DNS name by which the resource was registered, enables communication between the client and the server, and creates a pseudodevice on the client system. This pseudodevice makes the remote resouce appear to the local system like a local disk. Users can then perform operations on the pseudodevice, and DFS handles all of the network access and translation.

VAX Distributed Name Service is a prerequisite product. In order to use DFS, there must be at least one DNS server in the network. DNS allows the name of the resource to be independent of its physical location on the network. DFS systems throughout the network can continue accessing a resource even if the resource location is changed.

A DFS license is required on each VAX server node that registers available directories or files and on each client node that uses the directories or files.

Features

The features of VAX Distributed File Service software are:

- High performance access to remote disks
- Applications require no modifications to use remote disks, since the disks appear to be local
- Uses less CPU resources than standard DECnet-VAX file access
- Supports all VMS file types
- Supports the following VMS file operations:
  - Shared access (read)
  - Exclusive access (read & write)
  - All VMS Directory operations, including the creation and deletion of directories
  - Virtual I/O
  - Mapped I/O
- DFS access is transparent to most of the standard VMS DCL commands (those commands which neither manipulate identifiers nor use logical, physical or write-shared I/O).
- Uses the VAX Distributed Name Service to provide location independence of data.
- DFS can be used in any DECnet environment. Both Local Area Networks and Wide Area Networks are supported. DFS is optimized for line speeds of 56,000 bits per second and above.
- File security provided through standard VMS proxy mechanism. The system manager on the server controls all file access.
- Optional end-to-end checksum provided to guard against network faults.
- Management utility allows the user to control DFS components and to display statistical and error information.

Restrictions

- Files opened for write are opened exclusively
- Logical I/O is not supported
- Installed files are not supported

HARDWARE REQUIREMENTS

VAX, MicroVAX, or VAXstation configuration as specified in the System Support Addendum (SSA 28.78.02-x)

SOFTWARE REQUIREMENTS*

At least one DNS server must be installed and accessible in the DECnet network. Refer to VAX Distributed Name Service (SPD 28.79.xx) for further recommendations on DNS.

VMS or MicroVMS Operating System

DECnet-VAX

* Refer to the System Support Addendum for availability and required versions of prerequisite/optional software (SSA 28.78.01-x).

ORDERING INFORMATION

Software Licenses: QL-VEQA*-**
Software Media: QA-VEQA*-**
Software Documentation: QA-VEQAA-GZ
Software Product Services: QT-VEQA*-**

* Denotes variant fields. For additional information on available licenses, services and media, refer to the appropriate price book.

SOFTWARE LICENSING

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LICENSE MANAGEMENT FACILITY SUPPORT

This layered product supports the VMS 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 VMS Operating System Software Product Description (SPD 25.01.xx) or the VMS Operating System documentation set.

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