Software Product Description

DESCRIPTION

The DECxpress 100 VMS Client Software provides users with the ability to access a VMS system from a terminal in a Datakit® Wide Area Network (WAN). Users can also do VMS host to VMS host communications using DECnet facilities across the Datakit WAN.

The Client Software can manage up to 511 Datakit channel connections through the DECxpress 100 Gateway to and from the Datakit network. The actual number supported on a specific VAX is limited by the number of users and applications the VAX can support and by the number of Datakit channels being used by other VMS hosts using the same DECxpress 100.

The DECxpress 100 gateway connects to a VMS host via Ethernet and directly to an AT&T Datakit Virtual Circuit Switch (VCS)® fiber optic interface. The fiber optic connection provides high speed communication to the virtual circuit switch.

Operating software for the gateway is downline loaded from the VMS host. The gateway and the software are IEEE 802.3 compliant.

The gateway software performs protocol conversion between the Digital and AT&T™ environments with guaranteed data delivery (Grade of Service 5). Statistics on the operation of the gateway and the client are available via System Manager commands, and LEDs on the gateway indicate status and level of operation.

Gateway installation is step-by-step, with checks at each stage, to insure existing networks are not disrupted. The hardware can be easily maintained by the customer.

For the most part, the environment provided by the DECxpress 100 Gateway is identical to what the user would experience if attached directly to the VAX host CPU. The VMS Client Software communicates with the gateway using a protocol designed especially for character response and throughput.

Features

Terminal Access (Datakit in-calls)

Users with asynchronous terminals connected to Datakit are able to access VMS facilities on a VAX host running the VMS Client Software using the same commands used to access any other Datakit service. XON/XOFF flow control is implemented.

Support For Network Services

A DECnet network line device (KMK) is provided and supported as a point-to-point circuit device. Standard DECnet functionality is supported.

Application Ports (Datakit out-calls)

Applications programs on a VMS host running the VMS Client Software can connect through the Datakit network to devices, such as printers or terminals. Application software can access these devices using the terminal driver QIO interface.

Multi-Client Support

Up to 31 VMS systems on an Ethernet can be running the VMS Client Software and sharing the DECxpress 100 gateway to the Datakit network. Performance will depend on the mix of systems and applications. Each client must be licensed.

Load Balancing

Load Balancing provides a management facility for distribution of incoming call requests from the Datakit II Virtual Circuit Switch (VCS). The VMS Client and the gateway can be set up to automatically distribute calls to clients (hosts) based upon each client's ability to handle more Datakit connections efficiently.

The DECxpress 100 software handles up to 10 unique alias server channels, each with the maximum number of VMS clients registered to use them. The gateway distributes calls to the least busy client offering the requested service.

System Management Features

The VMS System Manager or users with the appropriate privileges may:

- Start/stop/reset the VMS Client Software and the Gateway.

- Create (START) and delete (STOP) application ports, servers, and Terminal Access channels.

- Display (SHOW) software characteristics and status.

- Define/List/Purge DECnet related information.

- Start/stop DECnet circuits.

- Set/reset Client Load Ratings to be static or dynamic.

- Start a Login Server to be load balanced.

DECxpress 100 Gateway Environment

- Supports up to 511 user channels.

- The Common Supervision Channel uses channel 1. It is shared by all the VMS hosts connected to the same DECxpress 100.

- Each Terminal Access uses one channel.

- Each DECnet circuit uses one channel.

- Each Application Port uses one channel.

- Each unique Client Login Server (required to support Terminal Access) uses one channel.

- If the Load Balancing feature is being employed, the first Client starts a server on the Datakit II Virtual Circuit Switch (VCS). Successive clients that request connections to the same service name will be assigned the same channel number as the original client provider of the DECxpress 100.

- Each DECnet Server (required to support the DECnet line device, KMK) uses one channel.

The number of Terminal Access users that can access a VMS system running the VMS Client Software is limited by the number of interactive users licensed on that system and the type of application load on the system.

The number of Application Ports that can be used is dependent on the mix of processor types and application load.

HARDWARE REQUIREMENTS

VAX, MicroVAX, or VAXstation configuration as specified in the System Support Addendum (SSA 29.69.02-x).

SOFTWARE REQUIREMENTS

VMS Operating System

DECnet-VAX Phase IV

At least one VMS system must be assigned as a Load Host for the DECxpress 100. If the Load Host will use the VMS Client DECnet network device (KMK), then it must be a routing node.

Refer to the System Support Addendum (SSA 29.69.02-x) for availability and required versions of prerequisite software.

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 License Management Facility manual of the VMS Operating System documentation set.

Purchase of the DECxpress 100 Gateway includes an unlimited use license for the gateway software itself, and one VMS Client Software license. Additional VMS Client Software licenses are required for use of the Multi-Client feature.

SOFTWARE WARRANTY

Currently, AT&T is the exclusive distributor for the Digital DECxpress 100 products and any and all warranty or support service options associated with DECxpress 100 products are offered directly by AT&T.

DIGITAL DISCLAIMS ALL WARRANTIES INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

®   Datakit and Datakit VCS are registered trademarks of American Telephone & Telegraph Company.

™   AT&T is a trademark of American Telephone and Telegraph Company.

™   The DIGITAL Logo, DECxpress, VAX, VMS, MicroVAX, VAXstation, VAXserver, VAXcluster and DECnet are trademarks of Digital Equipment Corporation.

System Support Addendum

PRODUCT NAME: DECxpress 100 VMS Client Software, Version 3.0   **SSA 29.69.02-A**

HARDWARE REQUIREMENTS

Processors Supported

VAX: VAX 4000 Model 300,
           VAX 6000 Model 200 Series,
           VAX 6000 Model 300 Series,
           VAX 6000 Model 400 Series,
           VAX 6000 Model 500 Series

           VAX 9000-210
           VAX 8200, VAX 8250, VAX 8300, VAX 8350,
           VAX 8500, VAX 8530, VAX 8550, VAX 8600,
           VAX 8650, VAX 8700, VAX 8800, VAX 8810,
           VAX 8820, VAX 8830, VAX 8840

           VAX-11/730, VAX-11/750, VAX-11/780, VAX-11/785

MicroVAX: MicroVAX II, MicroVAX 2000,
            MicroVAX 3100, MicroVAX 3300,
            MicroVAX 3400, MicroVAX 3500,
            MicroVAX 3600, MicroVAX 3800,
            MicroVAX 3900

VAXstation: VAXstation II, VAXstation 2000,
            VAXstation 3100 Series, VAXstation 3200,
            VAXstation 3500, VAXstation 3520,
            VAXstation 3540

Processors Not Supported

            VAX-11/725, VAX-11/782, VAXft 3000-310,
            VAX 9000-410

MicroVAX: MicroVAX I

VAXstation: VAXstation I, VAXstation 8000

VAXserver: VAXserver 3100, VAXserver 3300,
            VAXserver 3400, VAXserver 3500,
            VAXserver 3600, VAXserver 3602,
            VAXserver 3800, VAXserver 3900

            VAXserver 6000-210, VAXserver 6000-220,
            VAXserver 6000-310, VAXserver 6000-320,
            VAXserver 6000-410, VAXserver 6000-420,
            VAXserver 6000-510, VAXserver 6000-520

Minimum System Configuration

- 2MB Memory

- 9-track 1600 BPI Magtape drive or network access to a supported processor so equipped.

- An Ethernet controller supported by the VMS Operating System (SPD 25.01.xx).

- AT&T Datakit II VCS® with CPM-HS fiber interface card with Datakit II VCS Release 2.0 software.

Block Space Requirements (Block Cluster Size = 1):

Disk space required for installation:	3,000 blocks (1,536K bytes)
Disk space required for use (permanent):	1,100 blocks (563K bytes)

These counts refer to the disk space required on the system disk. The sizes are approximate; actual sizes may vary depending on the user's system environment, configuration, and software options.

CLUSTER ENVIRONMENT

This layered product is fully supported when installed on any valid and licensed VAXcluster* configuration without restrictions. The *HARDWARE REQUIREMENTS* sections of this product's Software Product Description and System Support Addendum detail any special hardware required by this product.

* V5.x VAXcluster configurations are fully described in the VAXcluster Software Product Description (29.78.xx) and include CI, Ethernet and Mixed Interconnect configurations.

SOFTWARE REQUIREMENTS

VMS Operating System V5.3 - V5.4
DECnet-VAX V5.3 - V5.4

VMS Tailoring

For VMS V5.x, the following VMS classes are required for full functionality of this layered product:

- VMS Required Saveset
- Network Support
- Programming Support
- System Programming Support

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

OPTIONAL SOFTWARE

None

GROWTH CONSIDERATIONS

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

DISTRIBUTION MEDIA

Tape: 9-track 1600 BPI Magtape (PE), TK50 Streaming Tape

The above information is valid at time of release. Please contact your local Digital office for the most up-to-date information.

®   Datakit and Datakit VCS are registered trademarks of American Telephone & Telegraph Company.

™   AT&T is a trademark of American Telephone & Telegraph Company.

™   The DIGITAL Logo, DECxpress, DECnet, VAX, VMS, MicroVAX, VAXstation, VAXserver, VAXcluster and DECnet are trademarks of Digital Equipment Corporation.