Software Product Description

PRODUCT NAME: VAX ISDN Primary Rate Access SPD 33.53.02
D Channel Interface for VMS, Version 1.1

DESCRIPTION

VAX ISDN Primary Rate Access D Channel Interface for VMS provides telephony applications with a primary rate access (PRA) D-channel communications path to a Northern Telecom® SL-100 Automatic Call Distributor (ACD). The product provides the ACD interface via a 64 Kbit DSV11 synchronous interface connected to the WAN driver kit. The applications interface is made via the product's LAPD (level 2) and a subset of Q.931 /Q.932 protocols with a defined QIO interface. The product will allow applications on a VAX to:

- Establish signaling connections with peer ACD applications

- Send and receive call control signaling information via signaling connections to and from the ACD

Major product components are:

- VAX PRA pseudo driver

- QIO applications interface

- Configuration program

Features

VAX ISDN Primary Rate Access D Channel Interface for VMS has the following features:

- Up to eight 64 Kbit lines are supported per CPU server.

- LAPD (per "ISDN Primary Rate Access Specification Section C" Northern Telecom, Ltd. (AB01) March 1987):

  — Establishment of data link connections

  — Error-protected transmission of data

  — Notification of unrecoverable data link errors

  — Release of data link connections

  — Notification of data link failures

- Q.931/Q.932 layer 3 RESTART, RESTART ACK, REGISTER, RELEASE, RELEASE COMPLETE, and FACILITY messages.

- A configuration program that provides:

  — Help on available CP commands

  — Start and stop tracing of LAPD packets on a per-line basis

  — Ability to request device information

  — Start and stop synchronous communications devices

  — Get and clear LAPD statistics

  — Get and clear Q.931/Q.932 statistics

  — Allows for a controllable "firewall" protection environment against incoming message overruns.

- Application QIO interface:

  — Assign/Deassign VAX VMS channel

  — Start LAPD per assigned channel

  — Receive unsolicited information

  — Read incoming data packets

  — Write outgoing data packets

  — Request Q.931/Q.932 REGISTER

  — Request Q.931/Q.932 RELEASE complete

PERFORMANCE LIMITATIONS

The product is able to support operations over four DSV11s (eight lines) but performance is guaranteed on up to two DSV11s (four lines) only.

Performance, using up to two DSV11s (four lines) on a MicroVAX 3800 is 4.75 ms on average per incoming (or outgoing) packet (260 byte HDLC frame). Performance is restricted to the product, that is, the performance assumes:

- For transmissions, measurement is from the application issuing the QIO to the packet being sent over the physical line. For receptions, measurement is from reception of the packet from the line to the application receiving the packet via a read QIO.

- Other activity not related to the reception and transmission of packets is not occurring. Such activity includes:

    — LAPD tracing

    — Application or other system software running and slowing down the MicroVAX

HARDWARE REQUIREMENTS

Processors Supported

MicroVAX: MicroVAX 3800, MicroVAX 3900

Processors Not Supported

MicroVAX: MicroVAX I, MicroVAX II,
                MicroVAX 2000, MicroVAX 3100,
                MicroVAX 3300, MicroVAX 3400,
                MicroVAX 3500, MicroVAX 3600

VAX, VAXstation, and VAXserver processors

Processor Restrictions

Not more than four DSV11s can be installed on a system.

Other Hardware Required

DSV11-SA Module (two are required)

Disk Space Requirements (Block Cluster Size = 1):

Disk space required for installation:	1000 blocks (512 Kbytes)
Disk space required for use (permanent):	750 blocks (384 Kbytes)

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.

OPTIONAL HARDWARE

Up to two additional DSV11 Programmable Communications Controllers can be added to the host system to form a maximum of four DSV11 hardware units per system.

SOFTWARE REQUIREMENTS

Operating System

VMS Operating System V5.3 - V5.4

DECnet–VAX V5.3 - V5.4

Layered Product

VAX Wide Area Network Device Drivers V1.1

LICENSE MANAGEMENT FACILITY

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.

For more information about Digital's licensing terms and policies, contact your local Digital office.

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 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.

VMS Tailoring

For VMS V5.x systems, 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).

GROWTH CONSIDERATIONS

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

DISTRIBUTION MEDIA

TK50 Streaming Tape

ORDERING INFORMATION

This software can be ordered only through a packaged system solution where a hardware/software integrated system is available. These systems are available by custom quotation only through the Telecom and Networks EIC. Contact your local sales representative for more information.

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