Software Product Description

PRODUCT NAME: VAX ISDN, Version 1.1 **SPD 31.23.01**

DESCRIPTION

The VAX ISDN communication software product allows suitably configured VMS systems to connect to ISDN networks based on the corresponding CCITT recommendations via a Basic Rate Access. Connections are established using the circuit-switched access of the ISDN networks. Tables 1 and 2 list those public networks on which VAX ISDN is supported and tested.

VAX ISDN is a VMS layered product that provides circuit-switched call control functions. This allows data transfers over one or two B-channels provided by the ISDN network at a Basic Rate Access, using the following protocols:

- DECnet-VAX Phase IV:
  VAX ISDN allows using DECnet-VAX "circuits" to remote DECnet nodes across the ISDN network.

  Note: A DECnet license is required to communicate with other DECnet nodes over such circuits.
- VAX P.S.I.:
  VAX ISDN also allows using X.25 network protocol (VAX P.S.I.) for communication across the ISDN network.
- Specific protocols:
  VAX ISDN also allows using specific network protocols (DDCMP and HDLC) for communication across the ISDN network.

VAX ISDN provides the following functions at the VAX node physically connected to the ISDN network:

- The ability to support three modes of operation at the controller level:
  - — Simple mode: Calls are set up and cleared whenever explicitly requested either by a system operator or an application program.
  - — Authorized mode: The only difference between this mode and simple mode is that incoming calls that pass the incoming setup information filter are accepted only after they have been explicitly authorized by an application program.
  - — Time-cutting mode: To establish a circuit-switched connection to a predefined destination automatically and to minimize circuit usage cost by clearing a communication automatically when no user or network management data has been transferred for a user-specified length of time.
- The ability for user-written programs running under VMS to control incoming and outgoing calls. The following programming languages are supported:
  - — VAX C
  - — VAX Pascal

  An ISDN Network Control Program (ISDN$NCP) is provided for management of VAX ISDN. This interface allows establishing outgoing calls, specifying ISDN addressing information and incoming call filters, accessing statistical information, requesting options or facilities, and performing maintenance functions (such as setting the operating mode).

  Problem solving is facilitated by the ability to trace and analyze data transferred between the ISDN network and the various layers of the VAX ISDN software over the D-channel of the Basic Rate Access.
- The options and network facilities supported by VAX ISDN vary according to the local ISDN network in use. Table 3 lists the options that VAX ISDN is capable of supporting.

Note: A VAX ISDN ACCESS (SPD 31.24.xx) license is required for controlling incoming and outgoing calls from remote VMS user programs and for managing the VAX ISDN product from a remote ISDN Network Control Program.

INSTALLATION

Digital recommends that a customer's first purchase of this software product include Digital Installation Services. These services provide for installation of the software product by an experienced Digital Software Specialist.

Customer Responsibilities

In some cases, the ISDN network supplier imposes restrictions, limitations, or requirements on the proposed Digital network configuration, options, and facilities. The customer must understand and adhere to these requirements for each and every ISDN network used.

Before installation of the software, the customer must:

- Previously have installed all requisite software and hardware, including terminals.

Digital's Installation Services also require that the customer must:

- Have an ISDN Basic Rate Access (SO) line already installed.
- Make available for a reasonable period of time, as mutually agreed by Digital and the customer, all hardware, communication facilities, and terminals that are to be used during installation.

HARDWARE REQUIREMENTS

VAX, MicroVAX, VAXstation, or VAXserver configuration as specified in the System Support Addendum (SSA 31.23.01-x).

SOFTWARE REQUIREMENTS

VMS Operating System

Refer to the System Support Addendum (SSA 31.23.01-x) for availability and required versions of prerequisite/optional software.

ORDERING INFORMATION

Software Licenses: QL-VZ9A*-**
Software Media: QA-VZ9A*-**
Software Documentation: QA-VZ9AA-GZ
Software Product Services: QT-VZ9A*-**

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

SOFTWARE LICENSING

This software is furnished under the licensing provisions of Digital Equipment Corporation's Standard Terms and Conditions. For more information about Digital's licensing terms and policies, contact your local Digital office.

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.

SOFTWARE PRODUCT SERVICES

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

Public Networks Supported

The list below describes public ISDN networks, which are supported with VAX ISDN only in the countries shown. Connections to public networks outside this list are customer supported only.

Since the publication of this SPD, other configurations may have been tested. Please consult your local Digital office with any questions concerning other public ISDN networks that are not listed below.

Table 1—Public ISDN Networks Supported

Country	Network/switch	Supplier	Mnemonic
France	NUMERIS–VN2	France Télécom	NUM
Japan	INS-NET–V2	Nippon T&T Corp.	NTT
United Kingdom	ISDN 2	British Telecom	BT
United States	5ESS–5E4	AT&T®	ATT
West Germany	1TR6	Deutsche Bündespost	DBP

Table 2—Public ISDN Networks Tested

Switzerland	SwissNet1—tested only with 1TR6 Access.

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Options and Facility Support

VAX ISDN support for any given ISDN option or facility depends on support for it in the corresponding ISDN network. Generally, VAX ISDN is designed to include restrictions on the use of options or network facilities and prevents the use of facilities not supported by the local ISDN network.

Therefore, Table 3 shows what VAX ISDN is capable of using, rather than what it will do when used on any particular ISDN network. The product documentation describes specific options, restrictions, and facilities available for the supported public ISDN networks.

Table 3 - Options/Facilities
ISDN NETWORK

Description	NUM	ATT	DBP	BT	NTT
charging information at end of call	yes	no	yes	no	yes
incoming address	yes	no	yes	no	yes
sub-address	yes	no	yes	yes	yes
reverse charging	no	no	no	no	no
user-to-user signaling during call establishment	yes	no	no	no	yes
Semi-permanent Service	no	no	yes	no	no

SOFTWARE WARRANTY

Digital has designed or adapted this software product to operate with the public ISDN networks in the associated countries listed in Table 1.

The presence of a network/country combination in Table 1 indicates Digital's commitment to support VAX ISDN when using that public ISDN service. It does not necessarily imply that network certification by the particular networking authority has been granted for all or any hardware devices supported by the VAX ISDN software product. Please contact your local Digital office for up-to-date information regarding supported configurations and certification status.

Warranty for this software product is provided by Digital with the purchase of a license for the product as defined in the Software Warranty Addendum of this SPD.

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