Software Product Description

PRODUCT NAME: **DECnet/SNA VMS 3270 Terminal Emulator, Version 1.5** **SPD 26.84.06**

DESCRIPTION

The DECnet/SNA VMS 3270 Terminal Emulator (3270 TE) is a layered software product that allows users of a VTxxx terminal (or other DIGITAL terminal or personal computer in VT100, VT200 or VT300 mode) on suitably configured VMS systems within a DECnet network to interactively access IBM® host-based applications. These applications have been originally developed for IBM 3270 display stations in a Systems Network Architecture (SNA) networking environment. Access to the IBM host-based applications system from VMS systems is via the DECnet/SNA Gateway or via VMS/SNA software.

In normal operation, an IBM system transfers a formatted screen, much like a "form", to the 3270 block mode terminal and the user fills in any data required by the "form". When complete, the form is transmitted to the IBM host as a single unit. This mechanism is emulated with a Digital character mode terminal by buffering the "form" in the DECnet host's memory and displaying it on the terminal. When the screen "form" is complete, it is sent to the IBM host system via the DECnet/SNA Gateway or VMS/SNA.

Translation tables on the respective systems convert ASCII terminal input (either DIGITAL Multinational Character Set or National Replacement Character Set) to a subset of IBM multinational EBCDIC code for transfer through either the DECnet/SNA Gateway or VMS/SNA software. These translation tables may be modified to fit non-standard character sets.

Users invoke the 3270 utility using the local VMS system's command language, including qualifiers to specify the IBM system and system resources with which the user wishes to connect. While the emulation utility is operating, the terminal screen will be formatted in a fashion similar to a 3270 display. When the user has finished work on the IBM system, the 3270 emulator is dismissed and the terminal is "restored" as a VMS command terminal.

The 3270 Terminal Emulator supports emulation of the following features of an IBM 3270 Display Station when attached to an IBM 3274 1C controller with the following features:

- Category A terminal adapter (for 32 terminals)
- Configuration support D
- Common communications adapter
- External modem interface

- IBM 3178 Display station with the following features:
  - 87-key keyboard with 24 program function (PF) keys and 3 program assist (PA) keys
  - Audible alarm
  - Up to 1920 characters
  - Protected and unprotected fields
  - Local and host copy and printer order FF (formfeed)
  - Alphanumeric and numeric data
  - Intensified display, display, and non-display characters
  - Auto-repeat keys (as available as a VT100 keyboard SET-UP feature)
  - Click and ALT CURSR (as available through the VT100 SET-UP feature)
  - SYS REQ (Allows user to switch between SSCP-LU and LU-LU sessions)
- Unsupported features of the IBM 3178 display station are:
  - Selector pen, Security lock, magnetic strip card and operator identification card reader
  - <-! (new line) as auto-repeat keys
  - <!<! (fast left) and !>!> (fast right) keys
  - TEST REQ or TEST, IDENT, DEV CNCL and CURSR BLINK functions
  - Structured fields
  - Local function keys (keys that when operated, do not transmit any interface codes to the host applications) other than those supported as VT100/VT200/VT300 SET-UP features

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- IBM 3180 display station with the following features:

- 87-key keyboard with 24 program function (PF) keys and 3 program assist (PA) keys
- Audible alarm
- Up to 3564 characters
- Protected and unprotected fields
- Local and host copy and printer order FF (formfeed)
- Alphanumeric and numeric data
- Intensified display, display and non-display characters
- Auto-repeat keys (as available, as a VT keyboard SET-UP feature)
- Click and ALT CURSR (as available, as a VT keyboard SET-UP feature)
- SYS REQ (Allows user to switch between SSCP-LU and LU-LU sessions)

- Unsupported features of the IBM 3180 display:

- Selector pen, security lock, magnetic strip card and operator
- <-! (new line) as an auto-repeat key
- <!<! (fast left) and !>!> (fast right) keys
- TEST REQ or TEST, IDENT, DEV CNCL and CURSR BLINK functions
- Structured fields
- 3270 Extended Data Stream
- Local function keys (keys that when operated, do not transmit any interface codes to the host applications) other than those supported as VT100/VT200/VT300 SET-UP features

- IBM 3278 display station Models 1, 2, 3, 4, and 5 with the following features:

- 87-key keyboard with 24 program function (PF) keys and 3 program assist (PA) keys
- Audible alarm
- Protected and unprotected fields
- Local and host copy and printer order FF (formfeed)
- Alphanumeric and numeric data
- Intensified display, display and non-display characters
- Auto-repeat keys (as available as a VT keyboard SET-UP feature)
- Click and ALT CURSR (as available, as a VT keyboard SET-UP feature)
- SYS REQ (Allows user to switch between SSCP-LU and LU-LU sessions)

- Screen sizes supported by the various models of 3278 are:

Model 1 - Up to 960 characters
Model 2 - Up to 1920 characters
Model 3 - Up to 2560 characters
Model 4 - Up to 3440 characters
Model 5 - Up to 3564 characters

- Unsupported features of the IBM 3278 display station models 1, 2, 3, 4, 5 are:

- Selector pen, security lock, magnetic strip card and operator identification card reader
- <! (new line) as an auto-repeat key
- <!<! (fast left) and !>!> (fast right) keys
- TEST REQ or TEST, IDENT, DEV CNCL and CURSR BLINK functions
- Structured fields
- Local function keys (keys that when operated, do not transmit any interface codes to the host applications) other than those supported as VT100/VT200/VT300 SET-UP features
- Field inherit keys
- Programmed symbol selection keys

This product has been designed such that it can be used with most IBM applications, however, those applications written using features not supported by the emulator (e.g. 3270 Extended Data Stream) must be modified.

A readily available on-line HELP facility provides information on keys with altered 3270-oriented functions. The status line as implemented on an actual 3270 display is not supported, however much of the same information is reported on a special status line which may be overlaid on the VT200's 24th line. In addition, the VMS system manager has the ability to re-map certain IBM key functions onto different locations on the DIGITAL keyboard.

Features of Version 1.5

- VMS 3270 TE v1.5 will allow, on supported DECnet/ SNA gateways and VMS/SNA systems, secured LUs (Logical Units) to be accessed via a password.
- VMS 3270 TE v1.5 will allow up to 16 alphanumeric characters to be coded in the ACCESSNAME parameter.
- VMS 3270 TE v1.5 will provide the ability to display status information on the hardware status line when using a VT device (or VT emulator) that supports the hardware status line.
- VMS 3270 TE v1.5 will support Digital's License Management Facility.

SOURCE CODE

Sources of message files are available only for translation to languages other than English. Source code will not be distributed for general purposes.

INSTALLATION

Customer Responsibilities

Before DIGITAL installation of the software the customer must:

- Have previously installed all requisite hardware including terminals and DECnet/SNA gateway products.
- Obtain, install, and demonstrate as operational any modems and other equipment and facilities necessary to interface to DIGITAL's communications equipment.
- Have generated, to DIGITAL's satisfaction, any necessary IBM host software that will be communicating with the DECnet/SNA gateway or with VMS/SNA and VMS 3270 TE.
- Make available for a reasonable period of time, as mutually agreed by DIGITAL and the customer, all hardware, communications facilities, and terminals that are to be used during installation.

Delays caused by any failure to meet these responsibilities will be charged at the prevailing rate for time and materials.

Successful use of this product requires that:

- The customer must be prepared to work with both DIGITAL and IBM systems personnel to coordinate the pre-installation activities.
- The customer should be capable of modifying IBM component generation parameters to support either the DECnet/SNA gateway or VMS/SNA software and the 3270 TE software.

Only experienced customers should attempt installation of this product. DIGITAL recommends that all other customers purchase DIGITAL's Installation Services. These services provide for installation of the software product by an experienced DIGITAL Software Specialist.

WARRANTY LIMITATIONS

IBM Supported Configurations

This software has been tested and is warranted against IBM System/370 (includes 30xx and 43xx series) class processor systems configured with the following IBM software. While this software may function correctly with other IBM software and equipment, and with software other than that supported by IBM, DIGITAL cannot offer its standard warranty for this software unless it has been tested with such equipment and software configurations.

The following list shows the configurations with which the software has been tested and is warranted:

Software Product	**Version**	**Release**
IBM MVS Environment		
MVS/SP	1	3.6 3.7
	2	1.3 1.5 1.7 2.0
TSO/E/XA		3.0 4.0
ISPF/MVS	2	2.0 3.0
ISPF/PDF	2	2.0 3.0
IMS	2	1.0 3.0
CICS/OS/MVS	1	6.1 7.0
NCCF	2	2.0
NETVIEW	1	1.0 2.0
IBM VM Environment		
VM/SP	1	4.1 5.0
CMS		4.1 5.0
ISPF/VM	2	2.0
ISPF/PDF	2	2.0
NCCF	2	1.0
NETVIEW	1	1.0 2.0
IBM DOS/VSE Environment		
VSE/SP	2	1.6
VSE/ICCF	2	1.0
ISPF/VSE	1	1.0
ISPF/PDF	1	1.0
CICS/DOS/VS	1	6.0
NCCF	2	2.0

Since the introduction of this software, other configurations may have been tested. Please contact your local DIGITAL office for up-to-date information regarding listed configurations.

PREREQUISITE SUPPORT

A Network Profile and a DECnet Customer Support Plan (where appropriate) covering all VMS nodes that wish to access the IBM host based applications environment must be prepared jointly by DIGITAL and the customer.

For DECnet/SNA 3270 Terminal Emulator to be DIGITAL supported, the customer must have a DIGITAL supported DECnet/SNA gateway or VMS/SNA configuration.

To have a DIGITAL supported DECnet/SNA gateway or VMS/SNA configuration, purchase of the Gateway Orientation/Installation Service (QSF0x-SZ) is REQUIRED in conjunction with the customer's first purchase of the DECnet/SNA gateway.

HARDWARE REQUIREMENTS

- VAX, MicroVAX, or VAXstation configuration as specified in the System Support Addendum (SSA 26.84.06-x).
- Any properly configured DECnet/SNA gateway or VMS/SNA system as specified in the System Support Addendum (SSA 26.84.06-x).

SOFTWARE REQUIREMENTS*

In a DECnet/SNA Gateway Environment:

- VMS Operating System
- DECnet-VAX

In a VMS/SNA environment:

- VMS Operating System
- VMS/SNA Software

The DECnet/SNA VMS 3270 Terminal Emulator software requires one of the following products:

Refer to the respective SPDs for prerequisite hardware and software.

- VMS/SNA (SPD 27.01.xx)
- DECnet/SNA Gateway-CT (SPD 29.76.xx)
- DECnet/SNA Gateway-ST (SPD 25.C6.xx)
- DECnet/SNA Gateway (SPD 30.15.xx)

* Refer to the System Support Addendum for availability and required versions of prerequisite/optional software (SSA 26.84.06-x).

ORDERING INFORMATION

Software Licenses: QL-454A*-**
Software Media: QA-454A*-**
Software Documentation: QA-454AA-GZ
Software Product Services: QT-454A*-**

* 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's 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.

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

SOFTWARE PRODUCT SERVICES

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

SOFTWARE WARRANTY

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.