COMPAQ

Software Product Description

PRODUCT NAME: Compaq SNA 3270 Terminal Emulator for OpenVMS, Version 1.7 **SPD 26.84.10**

This SPD describes *Compaq SNA 3270 Terminal Emulator for OpenVMS*, which is available for the OpenVMS VAX and OpenVMS Alpha platforms. All information applies to both platforms unless otherwise indicated.

DESCRIPTION

The *Compaq SNA 3270 Terminal Emulator for OpenVMS* (3270 TE) is a layered software product that allows users of a VT™xxx terminal (or other terminal or personal computer in VT100, VT200, or VT300 mode) on suitably configured OpenVMS systems within a DECnet or TCP/IP 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 OpenVMS systems is via one of the following SNA server or gateway products:

TCP/IP or DECnet connections

- *Compaq SNA Peer Server*
- *Compaq SNA Domain Gateway*
- *Compaq SNA Access Server for Windows NT®*
- *Compaq SNA Server for OpenVMS Alpha*, a layered product that supports local access as well as TCP/IP and DECnet clients

DECnet only connections

- *Compaq DECnet SNA Gateway for Synchronous Transport*
- *Compaq DECnet Gateway for Channel Support*
- *Compaq SNA Server for OpenVMS VAX*, an OpenVMS VAX layered product that supports local access as well as remote DECnet clients

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. The completed form is sent to the IBM host as a single unit. This mechanism is emulated with a character mode terminal by buffering the form in the 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 SNA server or gateway product.

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 the SNA server or gateway product. These translation tables may be modified to fit nonstandard character sets.

Users invoke the 3270 utility using the local OpenVMS system's command language, including qualifiers to specify the target IBM system and system resources. While the emulation utility is operating, the terminal screen is formatted like a 3270 display. When the user has finished work on the IBM system, the 3270 emulator is dismissed and the terminal is "restored" as an OpenVMS command terminal.

Features

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
- 3270 TE allows, on supported SNA servers and gateways, secured LUs (Logical Units) to be accessed via a password.
- 3270 TE allows up to 16 alphanumeric characters to be coded in the ACCESS-NAME parameter.
- 3270 TE provides 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.
- 3270 TE supports Compaq's License Management Facility.

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 (form-feed)
- Alphanumeric and numeric data
- Intensified display, display, and nondisplay 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
- Blinking 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

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 (form-feed)
- Alphanumeric and numeric data
- Intensified display, display and nondisplay 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
- Blinking 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 (form-feed)
- Alphanumeric and numeric data
- Intensified display, display, and nondisplay 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
- Blinking 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 (for example, 3270 Extended Data Stream) must be modified.

A readily available online 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 that may be overlaid on the VT200's twenty-fourth line. In addition, the OpenVMS system manager has the ability to remap certain IBM key functions onto different locations on the VT keyboard.

INSTALLATION

Only experienced customers should attempt installation of this product. Installation services from Compaq are recommended for all other customers. These services provide for installation of the software product by an experienced software specialist.

PREREQUISITE SUPPORT

For *Compaq SNA 3270 Terminal Emulator for OpenVMS* to be Compaq-supported, the customer must have a support agreement for the selected preprequisite SNA server or gateway product.

HARDWARE REQUIREMENTS

Processors Supported

For information about supported processors, refer to the OpenVMS Operating System for Alpha and VAX Software Product Description (SPD 25.01.xx).

Processors Not Supported

The 3270 TE product is not supported on VAX-11/730, VAX-11/750, VAX-11/780, and VAX-11/785 processors.

Disk Space Requirements (Block Cluster Size = 1)

For Alpha-Based Systems:

Disk space required for installation	1518 blocks (759 KB)
Disk space required for use (permanent)	684 blocks (342 KB)

For VAX-Based Systems:

Disk space required for installation	1179 blocks (590 KB)
Disk space required for use (permanent)	345 blocks (173 KB)

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

Terminal Requirements

- A digital terminal capable of VT100, VT200, VT300, or VT400 compatibility (such as VT102, VT2xx, and VT3xx). Refer to the Optional Hardware section of this Software Product Description for more information.
- The Advanced Video Option (AVO) is required on the VT100 and the equivalent on other terminals for some 3270 Terminal Emulation features.

OPTIONAL HARDWARE

The following is a list of Compaq-supplied terminals that have been tested and are supported in VT100 mode by the 3270 Terminal Emulator Software:

- VT100 with Advanced Video Option (AVO)
- VT102
- VT220, VT240, VT241
- VT320, VT330, VT340, VT341
- VT400

The following is a list of Compaq-supplied terminals that have been tested and are supported in VT200 mode by the 3270 Terminal Emulator Software:

- VT220, VT240, VT241

The following is a list of Compaq-supplied terminals that have been tested and are supported in VT300 mode by the 3270 Terminal Emulator Software (emulation status information will be displayed on the hardware status line):

- VT320, VT330, VT340, VT341

SOFTWARE REQUIREMENTS

OpenVMS Operating System for Alpha and VAX, Version 6.2, 7.1 (VAX), 7.1-2 (Alpha), 7.2, 7.2-1 (Alpha), or 7.3 (SPD 25.01.xx).

Using *Compaq SNA 3270 Terminal Emulator* software requires a networking product appropriate for the version of OpenVMS, plus one of the SNA server or gateway products listed below. Networking options include:

- TCP/IP Services for OpenVMS (SPD 46.46.xx)
- DECnet for OpenVMS (Phase IV, SPD 48.48.xx)
- DECnet-Plus (Phase V, SPD 50.45.xx for Alpha, SPD 25.03.xx for VAX).

Choose a networking option appropriate for OpenVMS Versions 6.2, 7.1 (VAX), 7.1-2 (Alpha), 7.2, 7.2-1 (Alpha), or 7.3 from the following table:

OpenVMS	TCP/IP	DECnet IV	DECnet V
6.2	4.2	6.2	6.3
7.1	5.1	7.1	7.1
7.1-2	5.1	7.1-2	7.1
7.2	5.1	7.2	7.2
7.2-1	5.1	7.2-1	7.2-1
7.3	5.1	7.3	7.3

Choose *one* of the following SNA server or gateway options:

- *Compaq DECnet SNA Gateway for Channel Support (SPD 29.76.xx)*
- *Compaq DECnet SNA Gateway for Synchronous Transport (SPD 25.C6.xx)*
- *Compaq SNA Domain Gateway (SPD 38.69.xx)* 25.01.xx)
- *Compaq SNA Peer Server (SPD 51.08.xx)*
- *Compaq SNA Server for OpenVMS Alpha (SPD 70.89.xx)*
- *Compaq SNA Server for OpenVMS VAX (SPD 27.01.xx)*

Cluster Environment

This layered product is fully supported when installed on any valid and licensed VMScluster™* configuration without restrictions. The Hardware Requirements section of this SPD details any special hardware required by this product.

OpenVMS Tailoring Classes

The following OpenVMS classes are required for full functionality of this layered product:

- OpenVMS Required Saveset
- Network Support
- Utilities

For more information on OpenVMS classes and tailoring, refer to the OpenVMS Operating System for Alpha and VAX 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 minimum requirements for the current version.

DISTRIBUTION MEDIA

This product is available as part of the OpenVMS Alpha and VAX Software Product Libraries on CD-ROM. The software documentation for this product is available as part of the OpenVMS Alpha and VAX Online Documentation Libraries on CD-ROM. Documentation in hard-copy format can be ordered separately.

* VMScluster configurations are fully described in the VMScluster Software Product Description (42.18.xx) and include CI™, Ethernet, and Mixed Interconnect configurations.

SOFTWARE WARRANTY

This software is provided by Compaq with a 90-day conformance warranty in accordance with the Compaq warranty terms applicable to the license purchase.

WARRANTY LIMITATIONS

IBM Supported Configurations

This product is warranted with the IBM software configurations listed in the following table.

Table 1
IBM Software Configurations

Software Product	Version	Release
CICS/ESA	4	1.0
CICS/VSE	2	3.0
CMS/ESA	2	All
IMS/ESA	All	All
NetView	3	1.0, 2.0
Tivoli TIME 10 NetView	1	2.0, 3.0
Transaction Server	All	All
TSO/E	All	All
z/OS	1	1.0

Refer to SNA server or gateway Software Product Descriptions for additional information on supported IBM operating systems, access methods, and communications front-end software.

Note: Compaq will support IBM software configurations, version and release numbers, as long as support for such configurations is generally available from IBM. Other configurations may have been tested since this SPD was published. Please contact your local Compaq office for up-to-date information regarding listed configurations.

ORDERING INFORMATION

For OpenVMS Alpha systems:

Software Licenses: QL-10ZA*-**
Software Documentation: QA-454AA-GZ

For OpenVMS VAX systems:

Software Licenses: QL-454A*-**
Software Documentation: QA-454AA-GZ

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

SOFTWARE LICENSING

This software is furnished only under a license. For more information about Compaq's licensing terms and policies, contact your local Compaq office.

License Management Facility Support

This layered product supports the OpenVMS 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 OpenVMS Operating System for Alpha and VAX Software Product Description (SPD 25.01.xx) or the License Management Facility manual of the OpenVMS Operating System documentation set.

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

SOFTWARE PRODUCT SERVICES

Installation

Installation provides comprehensive installation and of Compaq and non-Compaq hardware, software, and networks products. These products include systems, servers, upgrades, workstations, terminals, PCs, peripherals, network equipment, operating systems, and layered products. Optional pieces of the Installation offer include site planning and preparation, orientation, and other projects which are based on the installation of computer equipment (e.g. relocation services).

License Subscription

License Subscription provides the license rights to use all new versions of those products, which are released during the contract period. Also included are the rights to use certain server-resident products whose license is included in a corresponding client license.

Telephone Software Support

Software Support provides software problem identification and resolution and operational support for system managers, technical support/helpdesk personnel who manage Compaq and popular multivendor server software in either a standalone or networked environment. This service provides access both to technical resources to assist in problem diagnosis and resolution and to Compaq's information database. This combination of support resources will address system management questions and inquiries on a wide variety of topics including information on the latest product features, known problems and available solutions, and operational advice and assistance to help the system manager, system administrator better manage its information technology environment.

Please contact your local Compaq office for additional information on specific services in your area.

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