COMPAQ

Software Product Description

PRODUCT NAME: Compaq DECwindows SNA 3270 Terminal Emulator for OpenVMS, Version 2.1 **SPD 31.58.04**

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

DESCRIPTION

The *Compaq DECwindows SNA 3270 Terminal Emulator for OpenVMS* (DECwindows TE) is a software product that allows users of supported, OpenVMS based Compaq workstations and servers in a DECnet or TCP/IP network to access and use applications running on an IBM mainframe.

The product runs in the DECwindows Motif® 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*, an OpenVMS layered product that supports local access as well as remote DECnet clients

DECnet Only Connections

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

Communicating Between IBM and Compaq Systems

In normal operation, IBM systems transfer a formatted screen much like a "form" or "panel" to the IBM 3270 block mode terminal. Terminal users fill in required data and the 3270 terminal transmits the completed form to the IBM host as a single unit. In contrast to this "block-mode" approach, Compaq terminals and workstations send data to OpenVMS host systems one character at a time. Using the DECwindows TE enables Compaq's character-mode terminals to emulate IBM's block-mode style of computing by buffering outbound IBM data in the host system's memory before displaying it, as a single block, on the Compaq terminal. The Compaq terminal then transmits the screen form to the IBM host system via an SNA server or gateway.

Translating ASCII and EBCDIC Data

Compaq systems use ASCII code to represent data, while IBM systems use EBCDIC. DECwindows TE contains built-in translation tables that convert ISO Latin character input (given in ASCII code) to IBM multinational EBCDIC code for transfer through the SNA server or gateway. Users of DECwindows TE can modify these translation tables to fit most language needs.

Starting the DECwindows TE

Users can invoke the DECwindows TE from the OpenVMS command line or choose a custom menu selection on FileView or Session Manager.

Users invoking DECwindows TE from an OpenVMS command line use the SNATERM command, along with DECwindows qualifiers to specify the IBM system and system resources to which they want to connect. While the DECwindows TE utility is running, its display window is formatted in the same style as a 3270 display station with the option of 3270, 3279-S3G, or 3192-G terminal types. Exiting DECwindows TE returns control to the OpenVMS Operating System.

Features

- Provides a DECwindows Motif style graphical user interface (GUI). This GUI complies with The Open Group™ Motif specification for both an open graphical user interface and an application programming interface (API).
- Copy and Paste support of text within the current DECwindows session and to and from other DECwindows applications
- Provides default keyboard maps for LK201, Mac X, and IBM enhanced PC keyboards
- Equipped with a Record and Playback feature that enables users to save and replay up to 127 keystrokes to a selected function key
- Graphics printing support
- Graphics packages support:
  - — IBM's GDDM (Graphical Data Display Manager)
  - — SAS Institutes's SAS/Graph

The DECwindows TE emulates the following IBM Display Stations:

- 3178
- 3180M1-5
- 3278M1-5
- 3279-S3G
- 3179-G
- 3192-G

Supported IBM 3270 Terminal Features

- Protected and unprotected fields
- Up to 1,920 characters (exception is 3278 Model 1 where applicable)
- Alphanumeric and numeric data
- Audible alarm and blinking cursor option
- Intensified display, normal display, and nondisplay characters
- Alphanumeric cursor (block cursor only)
- Numeric lock override
- Auto-repeat keys (as available on workstation keyboard SET-UP feature)
- SYS REQ (allows user to switch between SSCP-LU and LU-LU sessions)
- Local Function Keys supported:

- Erase to End of Field	- Cursor Left and Right
- Erase Input	- Delete Character
- Print	- Duplicate
- Backtab	- Field Mark
- Cursor Up and Down	- Insert Mode
- Cursor Home	

- Base color by data stream and structured fields
- Local and host initiated copy and printer order FF (form feed) (black and white only)
- 3270 Extended Attributes Supported:
  - — Foreground and background colors (blue, red, pink, green, turquoise, yellow, white, black)
  - — Extended highlighting (reverse video and underscoring)
  - — Programmed symbols/character set

IBM 3278 and 3180 Display Station Models 1, 2, 3, 4, and 5 Features:

Screen Size Support:

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

IBM 3179-G and 3192-G Display Station Features:

- Vector-to-raster graphics
- Mouse support
- Trimming function as provided in DECwindows environment
- Graphic cursor (only white cross cursor)
- Programmed Symbol Set A and B
- Up to 2560 characters (32 x 80)

IBM 3279-S3G Display Station Features:

- Programmed Symbol Set A-F
- Up to 2560 characters (32 x 80)

3270 Terminal Features Unsupported

- Selector light pen, security lock, magnetic strip card, and operator identification card reader

- <-! (new line) as auto-repeat keys
- Field inherit keys
- Programmed symbol selection keys
- Magnetic slot reader
- Keyboard Definition function
- Entry Assist function
- Key functions (DELETE WORD, NEXT WORD, and PREVIOUS WORD)
- APL character set
- Handscanner

HELP Feature

A readily available online help facility provides information on key functions. The operator information area as implemented on an actual 3270 display is not supported. However, much of the same information is reported by means of status indicators where the status line is displayed. In addition, the user has the ability to redefine certain IBM key functions to different keys of the workstation keyboard.

INSTALLATION

Installation services from Compaq are recommended for a customer's first purchase of this software product. These services provide for installation of the software by an experienced Compaq software specialist.

PREREQUISITE SUPPORT

For *Compaq DECwindows SNA 3270 Terminal Emulator for OpenVMS* to be supported by Compaq, the customer must have a support agreement for the SNA server or gateway prerequisite 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

DECwindows TE is not supported on the following processors: VAX-11/730, VAX-11/750, VAX-11/780, and VAX-11/785.

Disk Space Requirements (Block Cluster Size = 1)

Disk space required for installation:

OpenVMS Alpha	5,110 blocks (2.56 MB)
OpenVMS VAX	4,195 blocks (2.11 MB)

Disk space required for use (permanent) on client system:

OpenVMS Alpha	163 blocks (82 KB)
OpenVMS VAX	143 blocks (72 KB)

Disk space required for use (permanent) on server system:

OpenVMS Alpha	2,915 blocks (1.47 MB)
OpenVMS VAX	2,000 blocks (1.01 MB)

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.

Memory Requirements for DECwindows Support

The minimum supported memory for this application running in a stand-alone DECwindows environment with both the client and server executing on that same system is 4 MB.

The performance and memory usage of DECwindows applications are particularly sensitive to system configuration. Less memory may be required on the client system (the system where the software is installed and executed) if the server (the component that displays the application) resides on another system. More memory may be required on a system with several applications running or may be desirable to improve the performance of an application.

The minimum memory supported is 4 MB. However, additional memory improves performance. The memory size suggested for most typical hardware configurations is a minimum of 6 MB.

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), 7.3 (SPD 25.01.xx).
- *Compaq DECwindows Motif for OpenVMS* (SPD 42.19.xx)
- One of the following networking options:
  - *Compaq TCP/IP Services for OpenVMS* (SPD 46.46.xx)
  - *Compaq DECnet for OpenVMS* (Phase IV, SPD 48.48.xx)
  - *Compaq DECnet-Plus* (Phase V, SPD 50.45.xx for Alpha, SPD 25.03.xx for VAX)
- One of the following SNA server or gateway products:
  - *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)
  - *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)
  - *Compaq SNA Access Server for Windows NT* (SPD 64.79.xx)

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

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

The OpenVMS portions of this software product support the OpenVMS License Management Facility.

License units for this product are allocated on an Unlimited Use 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.

CLUSTER ENVIRONMENT

This layered product is fully supported when installed on any valid and licensed VMScluster™* configuration without restrictions.

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

OpenVMS TAILORING CLASSES

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

- OpenVMS Required Saveset
- Network Support
- Secure User's Environment
- Utilities
- RMS Journaling Files
- BLISS Require Files
- Example Files
- User Environment Test Package
- OpenVMS Workstation Support

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).

OPTIONAL SOFTWARE

None

GROWTH CONSIDERATIONS

The minimum hardware and software requirements for any future version of this product may be different from the 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 hardcopy format can be ordered separately.

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:

Software Licenses: QL-10WA*-**
Software Documentation: QA-VXBAA-GZ

For OpenVMS VAX:

Software Licenses: QL-VXBA*-**
Software Documentation: QA-VXBAA-GZ

Media and documentation for this product are available on the OpenVMS Alpha and OpenVMS VAX Software Product Libraries and Online Documentation Libraries on CD-ROM. Documentation in hardcopy format can be ordered separately.

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

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

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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