COMPAQ

Software Product Description

PRODUCT NAME: Compaq DECnet™ SNA Gateway for Channel Transport Version 2.2 **SPD 29.76.06**

DESCRIPTION

Compaq DECnet SNA Gateway for Channel Transport (DECnet SNA Gateway-CT) is a member of the DECnet SNA Transport product family. This family consists of hardware and software products that allow users to exchange information and share resources between suitably configured Compaq systems in a DECnet environment and IBM systems in a Systems Network Architecture (SNA) environment.

Users on one or more Compaq systems can simultaneously perform functions such as accessing IBM application programs or other system resources, act as a 3270 display station, perform data transfer between Compaq and IBM file systems, exchange electronic documents and mail messages, submit jobs to IBM batch subsystems acting as a Remote Job Entry workstation, and implement distributed, task-to-task application programs that run between Compaq and IBM systems.

The DECnet SNA Transport product set provides a means of connecting DECnet and SNA networks that can be used by a wide variety of Compaq-supplied access routines running on OpenVMS Alpha, OpenVMS VAX, and Tru64 UNIX operating environments. The Gateway-CT is managed and configured using the DECnet SNA gateway management software that is part of *Compaq DECnet SNA Gateway-CT*. For additional information on the various access routines and their capabilities, see the Optional Software section of this Software Product Description.

Compaq DECnet SNA Gateway-CT is part of both the DECnet and the SNA networks. Architecturally, it is a DECnet Phase IV end node implementation to DECnet and a Physical Unit (PU) Type 2.0 node to SNA. It provides bidirectional access between DECnet and SNA networks.

The DECnet SNA Gateway-CT software is supported on two hardware platforms: the DEC ChannelServer (DESNA-Ax) and DEC ChannelServer II (DESNB-Ax). Both systems connect directly to an Ethernet local area network (LAN) and an IBM S/370 Byte Multiplexor, Block Multiplexor, or Selector channel. When used with DECnet SNA Gateway-CT, both systems provide SNA connectivity to any DECnet system in a DECnet network.

Note: In this document, the term "DEC ChannelServer" refers to either hardware device. The DEC ChannelServer hardware devices are no longer available from Compaq, but are still supported. For details, please contact your local Compaq representative.

This product can be used in networks currently using other DECnet SNA Gateway systems and can share access routines, Ethernet LANs, and load host resources with those systems.

Compaq DECnet SNA Gateway-CT software is downline loaded into the DEC ChannelServer or DEC ChannelServer II system. The gateway management software, which is part of *Compaq DECnet SNA Gateway-CT*, is required for the OpenVMS node desiganted as the load host for *Compaq DECnet SNA Gateway-CT*. Other DECnet systems wishing access to the SNA environment through the DEC ChannelServer or DEC ChannelServer II should be configured with the appropriate DECnet SNA access routine(s).

Compaq DECnet SNA Gateway-CT and the DEC ChannelServer support a single set of Bus and Tag connectors to an IBM S/370 Byte Multiplexor, Block Multiplexor, or Selector channel. The channel type and address may

be configured according to specifications listed in both the hardware and software user documentation.

Loading *Compaq DECnet SNA Gateway-CT* Software

The DEC ChannelServer requires software to be loaded into memory before DECnet SNA Gateway operation. *Compaq DECnet SNA Gateway-CT* software is downline loaded into the hardware across the Ethernet LAN from an OpenVMS Alpha or OpenVMS VAX system acting as a DECnet load host system.

Most Alpha and VAX systems running OpenVMS software are supported as Ethernet load hosts for *Compaq DECnet SNA Gateway-CT*. Supported OpenVMS configurations are described in the OpenVMS Operating System for Alpha and VAX Software Product Description (SPD 25.01.xx).

DECnet SNA Gateway Management Software

DECnet SNA gateway management software, which is part of the DECnet SNA Gateway-CT, provides configuration and management functions for use with *Compaq DECnet SNA Gateway for Channel Transport*. This management software allows the gateway administrator to configure the software executing in the DECnet SNA Gateway-CT system. The administrator can set up parameters relating to lines, circuits, physical units, logical units, and other key variables necessary for network-to-network communications between the DECnet and SNA networks. In addition, the software allows the administrator to manage and diagnose problems related to the *Compaq DECnet SNA Gateway-CT*.

DECnet SNA gateway management software is required on the Compaq load host node for *Compaq DECnet SNA Gateway-CT*. It must also be present on any other OpenVMS node where users want to manage a *Compaq DECnet SNA Gateway-CT* and the DEC ChannelServer. It is strongly recommended that the software also be installed on OpenVMS systems in order to facilitate debugging functions where IBM Interconnect application programs are developed using any of the DECnet SNA Programming Interface products.

Gateway management software includes DECnet style network management tools for configuring, controlling, monitoring, and troubleshooting the DECnet SNA Gateway product. These activities are generally performed by the Compaq system manager responsible for the designated load host node. Most management functions are performed from a node on the Compaq network rather than at or on the Gateway itself.

Management of the DECnet SNA Gateway should be viewed as part of the Compaq environment, while management of the lines and/or channel connecting the DECnet SNA Gateway to the IBM system is a joint responsibility of the IBM and Compaq system managers.

DECnet SNA gateway management software allows a Compaq system operator to bootstrap or restart a DECnet SNA Gateway remotely and provide configuration and initialization facilities for the DECnet SNA Gateway.

Problem Isolation and Determination Tools for the Gateway

In addition to event logging and error counters, a wide range of fault isolation tools are included.

Trace capabilities SNATRACE and NETTRACE for OpenVMS are provided with *Compaq DECnet SNA Gateway-CT* to help debug application programs as well as assist in identifying system problems. An operator can run a trace at the Circuit, Physical Unit (PU), or Session level, and then format the data on a specified Compaq system. The trace features are helpful in identifying an error for remedial action.

A snapshot monitoring utility is provided to display on a Compaq host-controlled terminal the status of the Gateway's buffer availability, the number of SNA sessions currently in progress, and other information that pertains to both the DECnet and SNA networks.

If an irrecoverable error should occur during operation of the DECnet SNA Gateway system, a memory image may be dumped to a designated Ethernet attached Alpha or VAX host. This memory image may then be provided to your Compaq support personnel for problem diagnosis.

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 installation specialist.

HARDWARE REQUIREMENTS

In Ethernet LANs

- Alpha or VAX system configuration as specified in the OpenVMS Operating System for Alpha and VAX Software Product Description (SPD 25.01.xx) to act as a load host
- DEC ChannelServer (DESNA-Ax) or DEC ChannelServer II (DESNB-Ax) as described in the Communications Hardware Requirements section of this Software Product Description
- S/370 Bus and Tag cables (with terminators, if appropriate)
- VT series terminal for diagnostic use

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

MicroVAX I, VAXstation I, VAX-11/730, VAX-11/750, VAX-11/780, VAX-11/782, VAX-11/785, VAXstation 8000

Disk Space Requirements (Block Cluster Size = 1)

Disk space required for installation:

OpenVMS Alpha	7,151 blocks (3,576 KB)
OpenVMS VAX	7,151 blocks (3,576 KB)

Disk space required for use (permanent):

OpenVMS Alpha	5,047 blocks (2,526 KB)
OpenVMS VAX	4,191 blocks (2,096 KB)

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.

In addition to disk space allocated to the DECnet SNA Gateway-CT software, some disk space (approximately 8K to 10K blocks) should be reserved for any dump files that may be generated by *Compaq DECnet SNA Gateway-CT*. The location of these dump files is determined by the system administrator. In addition, each Gateway-CT configured will require additional disk space (at least 40 blocks (20 KB)) for configuration scripts.

Communications Hardware Requirements

Compaq DECnet SNA Gateway-CT software runs on the DEC ChannelServer or DEC ChannelServer II, which are supported in the following forms:

- DESNA-AA for use with 120V AC power supplies
- DESNA-A3 for use with 240V AC power supplies
- DESNB-AA for use with 120V AC power supplies
- DESNB-A3 for use with 240V AC power supplies

The DEC ChannelServer and DEC ChannelServer II have built-in Ethernet LAN controllers, but need a suitable connection to connect to the customer's Ethernet LAN along with any extension cables.

S/370 Bus and Tag cables (with terminators, if appropriate) are required for connection into the S/370 system.

Note: A raised-floor environment is required for installation of a DEC ChannelServer II system.

IBM Hardware Support

The DEC ChannelServer hardware has been tested and warranted with the following IBM and PCM hardware configurations:

IBM 9370 Models 40 to 90
IBM 4381 All models
IBM 3081 D,G,K
IBM 3083 B,E,J,C
IBM 3084
ES/3090 All models
ES/9000 All models

Amdahl 5860
Amdahl 5870
Amdahl 5990-700
Amdahl 5990-1400

NAS AS/XL-V60
NAS 8083
NAS 6650

IBM 3044 Channel-Extender Model 1*
IBM ESCON Converter 9034 connected to ESCON Compatible ES/9000 or ES/3090*

* Supported only with IBM mainframes.

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 SNA Gateway-CT software requires a networking product appropriate for the version of OpenVMS.

Networking options include:

- 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	DECnet IV	DECnet V
6.2	6.2	6.3
7.1	7.1	7.1
7.1-2	7.1-2	7.1
7.2	7.2	7.2
7.2-1	7.2-1	7.2-1
7.3	7.3	7.3

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 OpenVMS Cluster Software Product Description (29.78.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

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

The following table lists the optional DECnet SNA access routines available for use with *Compaq DECnet SNA Gateway-CT*. For information on these products, consult the respective Software Product Descriptions.

Table 1
Access Routines

Supported on OpenVMS Alpha Systems
Compaq SNA 3270 Terminal Emulator for OpenVMS (SPD 26.84.xx)
Compaq SNA APPC/LU6.2 Programming Interface for OpenVMS (SPD 26.88.xx)
Compaq SNA Data Transfer Facility for OpenVMS (SPD 27.85.xx)
Compaq DECnet SNA Application Programming Interface for OpenVMS (SPD 26.86.xx)
Compaq DECwindows™ DECnet SNA 3270 Terminal Emulator for OpenVMS (SPD 31.58.xx)
Compaq SNA 3270 Data Stream Programming Interface for OpenVMS (SPD 26.87.xx)
Compaq SNA Printer Emulator for OpenVMS (SPD 26.70.xx)
Compaq SNA Remote Job Entry for OpenVMS (SPD 26.85.xx)
Supported on OpenVMS VAX Systems
Compaq SNA 3270 Terminal Emulator for OpenVMS (SPD 26.84.xx)
Compaq SNA APPC/LU6.2 Programming Interface for OpenVMS (SPD 26.88.xx)
Compaq SNA Data Transfer Facility for OpenVMS (SPD 27.85.xx)
Compaq DECnet SNA Application Programming Interface for OpenVMS (SPD 26.86.xx)
Compaq DECwindows DECnet SNA 3270 Terminal Emulator for OpenVMS (SPD 31.58.xx)
Compaq SNA 3270 Data Stream Programming Interface for OpenVMS (SPD 26.87.xx)
Compaq SNA Printer Emulator for OpenVMS (SPD 26.70.xx)
Compaq SNA Remote Job Entry for OpenVMS (SPD 26.85.xx)
Supported on Tru64 UNIX Systems
Compaq SNA APPC/LU6.2 Programming Interface for Tru64 UNIX (SPD 56.11.xx)
Compaq SNA LUA Programming Interface for Tru64 UNIX (SPD 70.69.xx)

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 to 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 2
IBM Software Configurations

Software Product	Version	Release
ACF/NCP/VS (for the 3745)	5	4.0
	6	3.0
	7	3.0, 4.0, 5.0, 6.0, 7.0, 8.0
ACF/VTAM	4	3.0, 4.0
MVS/ESA SP	4	2.0, 3.0
NetView	3	1.0, 2.0
OS/390	2	7.0, 8.0, 9.0, 10.0
VM/ESA	2	3.0, 4.0
VSE/SP	3	2.0
z/OS	1	1.0

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

Note: The license, media, and documentation for this product are the same for both the OpenVMS Alpha and OpenVMS VAX platforms.

Software License: QL-VC9A9-AA
Software Documentation: QA-VC9AA-GZ

Media and documentation for this product are also 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.

SOFTWARE LICENSING

Users need a separate license for each DEC ChannelServer or DEC ChannelServer II unit on which they will be using *Compaq DECnet SNA Gateway-CT* (except as otherwise specified by Compaq).

The *Compaq DECnet SNA Gateway for Channel Transport* license applies to the DEC ChannelServer or DEC ChannelServer II unit on which the software executes.

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 Nonsupport

This product does not provide support for the OpenVMS License Management Facility. A Product Authorization Key (PAK) is not required for installation or use of this version of the product.

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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