COMPAQ

Software Product Description

PRODUCT NAME: Compaq SNA APPC/LU6.2 Programming Interface for OpenVMS, Version 2.4 **SPD 26.88.10**

This SPD describes the *Compaq SNA APPC/LU6.2 Programming Interface for OpenVMS*, which is available for the OpenVMS Operating System for Alpha and VAX platforms. All information applies to both platforms unless otherwise indicated.

DESCRIPTION

The *Compaq SNA Advanced Program-to-Program Communications/Logical Unit 6.2 (APPC/LU6.2) Programming Interface for OpenVMS* (the APPC product) is a layered software product that allows user-written applications running on suitably configured OpenVMS systems, either within a DECnet or TCP/IP network or on suitably configured OpenVMS systems within an OpenVMS SNA environment to exchange messages with cooperating applications in an IBM® host. The APPC software exists in the OpenVMS system as a shareable image. Access between the cooperating Compaq and IBM applications is via one of the following 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 SNA Gateway for Synchronous Transport*
- *Compaq DECnet SNA Gateway for Channel Transport*
- *Compaq SNA Server for OpenVMS VAX*, a layered product that supports local access as well as remote DECnet clients

The APPC product is a set of subroutines that are called by OpenVMS programs which act as LU6.2 transaction application programs. These subroutines allow an OpenVMS transaction application to:

- Activate and deactivate sessions
- Allocate and deallocate LU6.2 basic and mapped conversations
- Send and receive data
- Request confirmation and confirm transactions
- Send and receive error information
- Define and delete local LU names and TP names
- Supply program initialization parameters
- Supply session-level security and inbound conversation level security
- Allow outbound conversation allocation
- Notify the user application of session failure
- Notify the user application of conversation deallocation (not applicable to *Compaq SNA Access Server for Windows NT*)

Features

The APPC product provides features to assist the user in writing and executing the OpenVMS transaction program. The APPC product performs the SNA communications function on the programmer's behalf, allowing the user to concentrate on solving the application

problem rather than having to learn about the underlying communications medium. Because the APPC product performs all the SNA functions on the user's behalf, users are not required to have a knowledge of SNA.

The verbs comprising the APPC product are defined to make the individual subroutine calls correspond to the verbs defined in the IBM manual, *SNA Transaction Programmers Reference Manual* for Logical Unit 6.2. This makes it easier for IBM application-level programmers to code OpenVMS LU6.2 programs.

The APPC product implements both the basic and mapped conversation verb set using the same procedure calls. The OpenVMS programmer may choose which type of conversation is desired by specifying the appropriate symbolic code in the TYPE parameter of the SNALU62$ALLOCATE procedure.

Both sets of verbs can be synchronous or asynchronous. Asynchronous completion of verbs allows for multithreaded applications to use the LU6.2 interface without blockage.

The following sections describe the supported and unsupported verbs.

Supported Verbs

The following basic conversation verbs are supported:

- Allocate
- Confirm
- Confirmed
- Deallocate
- Flush
- Get_attributes
- Get_type[B
- Post_on_receipt
- Prepare_to_receive
- Receive_and_wait
- Receive_immediate
- Request_to_send
- Send_data
- Send_error
- Wait

The following mapped conversation verbs are supported:

- Get_type
- MC_Allocate
- MC_Confirm
- MC_Confirmed
- MC_Deallocate
- MC_Flush
- MC_Get_attributes
- MC_Post_on_receipt
- MC_Prepare_to_receive
- MC_Receive_immediate
- MC_Receive_and_wait
- MC_Request_to_send
- MC_Send_data
- MC_Send_error
- MC_Wait

The following control operator verbs are supported:

- Activate_session
- Deactivate_session
- Define_remote
- Define_tp
- Delete

Refer to the APPC product documentation for complete descriptions of the use of these verbs.

Unsupported Verbs

The following basic conversation verbs are not supported:

- Backout
- Syncpt
- Test

The following mapped conversation verbs are not supported:

- Backout
- Syncpt
- MC_Test

The APPC product supports single sessions only; parallel sessions are not supported. The following control operator verbs are not needed:

- Change_session_limit
- Define_local_lu
- Define_mode
- Display_local_lu
- Display_mode
- Display_remote_lu

- Display_tp
- Initialize_session_limit
- Process_session_limit
- Reset_session_limit

User Interface

Users of the APPC product should be experienced OpenVMS application programmers. They can use any of the OpenVMS programming languages that conform to the OpenVMS Calling Standard to create application programs that interact with application programs on an IBM system. The user documentation provides example programs written in the native form of the following languages:

- MACRO-32
- BASIC
- BLISS-32
- C
- COBOL
- FORTRAN
- PASCAL
- PL/I

Users of the APPC product are not required to have a knowledge of SNA.

INSTALLATION

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

HARDWARE REQUIREMENTS

Processors Supported

Alpha and VAX configurations as specified in the OpenVMS Operating System for Alpha and VAX Software Product Description (SPD 25.01.xx).

Disk Space Requirements (Block Cluster Size = 1)

Disk space required for installation:

OpenVMS Alpha	18,000 blocks (9.0 MB)
OpenVMS VAX	17,900 blocks (9.0 MB)

Disk space required for use (permanent):

OpenVMS Alpha	7,900 blocks (4.0 MB)
OpenVMS VAX	6,800 blocks (3.4 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.

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 Application Programming Interface for OpenVMS* software requires a networking product appropriate for the version of OpenVMS, plus one of the SNA 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 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)*
- *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)*

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.

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
ACF/VTAM	4	3.0, 4.0
CICS/ESA	4	1.0
CICS/VSE	2	3.0
Communications Server	All	All
Transaction Server	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-10SA*-**
Software Documentation: QA-022AA-GZ

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

For OpenVMS VAX

Software Licenses: QL-022A*-**
Software Media: QA-022A*-**
Software Documentation: QA-022AA-GZ

Media and documentation for this product are available on the OpenVMS VAX Software Product Library and Online Documentation Library 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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