Software Product Description

PRODUCT NAME: DECnet/SNA VMS APPC/LU6.2 Programming Interface, Version 2.2 **SPD 26.88.06**

DESCRIPTION

The DECnet/SNA VMS Advanced Program-to-Program Communications/LU6.2 Programming Interface (APPC) is a layered software product that allows user-written applications running on suitably configured VMS systems either within a DECnet network or running VMS/SNA software to exchange messages with cooperating applications in an IBM® host. The APPC software exists in the VMS system as a shareable image. Access between the cooperating Digital and IBM applications is via the DECnet/SNA Gateway or VMS/SNA software.

The APPC product is a set of subroutines which are called by VMS programs which act as Logical Unit 6.2 (LU6.2) transaction application programs. These subroutines allow a VMS 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

Features

The APPC product provides features to assist the user in writing and executing the VMS 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 bother 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 VMS LU6.2 programs.

The APPC product implements both the basic and mapped conversation verb set using the same procedure calls. The VMS 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 multi-threaded 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 DECnet/SNA VMS APPC/LU6.2 product should be experienced VMS application programmers. They can use any of the VMS programming languages which conform to the VMS Calling Standard to create application programs which interact with application programs on an IBM system. The user documentation provides example programs written in the following languages:

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

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

INSTALLATION

Digital requires that a customer's first purchase of this software product include Digital Installation Services. These services provide for installation of the software product by an experienced Digital Software Specialist.

For subsequent purchases of this product, only experienced customers should attempt installation. Digital recommends that all other customers purchase Digital's Installation Services.

Customer Responsibilities

Before installation of the software, the customer must:

- Previously have installed all requisite hardware including terminals.
- Obtain, install, and demonstrate as operational any modems and other equipment and facilities necessary to interface to Digital's communications equipment.
- Demonstrate equivalency of operation for modems other than Bell™ System 201C, 208A or 209A, AT&T™ 2596, 2556, Data Phone™ II (2096A, Digital 2500, or equivalent) type modems or, in Europe, PTT approved modems.
- Have generated, to Digital's satisfaction, any necessary IBM host software that will be communicating with the DECnet/SNA Gateway or VMS/SNA and the APPC Programming Interface.
- 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 the DECnet/SNA Gateway or VMS/SNA and the APPC Programming Interface.

HARDWARE REQUIREMENTS

VAX, MicroVAX, VAXserver or VAXstation configuration as specified in the System Support Addendum (SSA 26.88.06-x).

OPTIONAL HARDWARE

None

SOFTWARE REQUIREMENTS*

In a DECnet/SNA Gateway or VMS/SNA environment:

- VMS Operating Systems

In a DECnet/SNA Gateway environment:

- DECnet-VAX

In a VMS/SNA environment:

- VMS/SNA

OPTIONAL SOFTWARE*

- DECnet/SNA VMS Gateway Management

* Refer to the System Support Addendum for availability and required versions of prerequisite/optional software (SSA 26.88.06-x).

ORDERING INFORMATION

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

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

PREREQUISITE SUPPORT

A Network Profile and a DECnet Customer Support Plan (where applicable) covering all intended VMS nodes that wish to access the APPC Programming Interface must be prepared jointly by Digital and the customer.

In order for APPC/LU6.2 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 configuration, purchase of Digital's Gateway Orientation/Installation Service is REQUIRED in conjunction with the customer's first purchase of the Gateway. Refer to the DECnet/SNA Gateway SPDs (SPD 30.15.xx, SPD 29.C6.xx, SPD 29.76.xx) for further details.

To have a Digital supported VMS/SNA system configuration, purchase of Digital's VMS/SNA Orientation/Installation Service is REQUIRED in conjunction with with the customer's first purchase of the VMS/SNA software. Refer to VMS/SNA (SPD 27.01.xx) for further details.

SOFTWARE LICENSING

This software is furnished under the licensing provisions of Digital Equipment Corporation's Standard 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.

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.

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 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
ACF/VTAM	3	1.2
	3	2.0
	3	2.1
	3	3
MVS/SP	2	1.5
	2	1.7
	2	2.0
	3	1.0
CICS/OS/VS	1	6.1
	-	7
VSE/SP	3	2.0

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