Software Product Description

PRODUCT NAME: HP SNA APPC/LU6.2 Programming Interface for OpenVMS, Version 2.6

This SPD describes the HP SNA APPC/LU6.2 Programming Interface for OpenVMS, which is available for the OpenVMS Operating System for OpenVMS I64, OpenVMS Alpha and OpenVMS VAX platforms. All information applies to all the platforms unless otherwise indicated.

DESCRIPTION

The HP 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 HP and IBM applications is via one of the following products:

TCP/IP or DECnet Connections

- HP SNA Peer Server
- HP SNA Domain Gateway
- HP SNA Access Server for Windows NT®
- HP SNA Server for OpenVMS Alpha, a layered product that supports local access as well as remote DECnet clients
- HP 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 HP 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
- 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:

- MC_Allocate
- MC_Commit
- MC_Confirm
- 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 HP 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
For information about supported processors, refer to the OpenVMS Operating System for I64, Alpha and VAX Software Product Description (SPD 82.35.xx and 25.01.xx).

Disk Space Requirements (Block Cluster Size = 1)

<table>
<thead>
<tr>
<th>OpenVMS</th>
<th>TCP/IP</th>
<th>DECnet IV</th>
<th>DECnet V</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.3 (I64)</td>
<td>5.6</td>
<td>8.3</td>
<td>8.3</td>
</tr>
<tr>
<td>8.2-1 (I64)</td>
<td>5.5</td>
<td>8.2-1</td>
<td>8.2-1</td>
</tr>
<tr>
<td>8.3 (Alpha)</td>
<td>5.6</td>
<td>8.3</td>
<td>8.3</td>
</tr>
<tr>
<td>8.2 (Alpha)</td>
<td>5.5</td>
<td>8.2</td>
<td>8.2</td>
</tr>
<tr>
<td>7.3 (VAX)</td>
<td>5.3</td>
<td>7.3</td>
<td>7.3</td>
</tr>
</tbody>
</table>

Choose one of the following SNA options:

• HP DECnet SNA Gateway for Channel Support (SPD 29.76.xx)
• HP DECnet SNA Gateway for Synchronous Transport (SPD 25.66.xx)
• HP SNA Domain Gateway (SPD 38.69.xx)
• HP SNA Peer Server (SPD 51.08.xx)
HP SNA APPC/LU6.2 Programming Interface for OpenVMS, Version 2.6

- HP SNA Server for OpenVMS Alpha (SPD 70.89.xx)
- HP SNA Server for OpenVMS VAX (SPD 27.01.xx)
- HP SNA Access Server for Windows NT (SPD 64.79.xx)

OPTIONAL SOFTWARE
This HP OpenVMS SNA access routine has been qualified and tested to run over the Data Access Incorporated (DAI) Mainframe Gateway for OpenVMS (MGO). Questions and issues related to the DAI MGO product are managed by DAI and are not an HP OpenVMS obligation.

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 I64, Alpha and VAX Software Product Libraries on CD-ROM.

The software documentation for this product is available as part of the OpenVMS I64, Alpha and VAX Online Documentation Libraries on CD-ROM. Documentation in hardcopy format can be ordered separately.

SOFTWARE LICENSING
License Management Facility Support
HP APPC/LU6.2 Programming Interface for OpenVMS supports the OpenVMS License Management Facility (LMF). This facility allocates license units as follows:
- For OpenVMS Integrity, each Per Core License (PCL) allows any number of individuals to use the product at the same time, with one PCL license required for each processor core running OpenVMS.
- For OpenVMS Alpha and VAX, the Unlimited license allows any number of individuals to use the product at the same time.

ORDERING INFORMATION

Licenses
License types vary by platform.

HP OpenVMS Integrity Licenses

<table>
<thead>
<tr>
<th>License Type</th>
<th>License Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>SNA APPC/LU6.2 PI Per Core License (PCL)</td>
<td>BA477AC</td>
</tr>
</tbody>
</table>

1Update licenses not offered; updates available through SW Updates Service.
2Order one PCL license for each active processor core running OpenVMS.

HP OpenVMS Alpha Licenses

<table>
<thead>
<tr>
<th>License Type</th>
<th>License Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>SNA APPC/LU6.2 PI Unlimited Use License</td>
<td>QL-10SA*-AA1</td>
</tr>
<tr>
<td>SNA APPC/LU6.2 PI Unlimited Use Update License</td>
<td>QL-10SA*-RA1</td>
</tr>
</tbody>
</table>

1Asterisk denotes system tier. E=workgroup tier, G=departmental tier, Q=enterprise tier.

HP OpenVMS VAX Licenses

<table>
<thead>
<tr>
<th>License Type</th>
<th>License Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>SNA APPC/LU6.2 PI Unlimited Use License</td>
<td>QL-022A*-AA1</td>
</tr>
<tr>
<td>SNA APPC/LU6.2 PI Unlimited Use Update License</td>
<td>QL-022A*-RA1</td>
</tr>
</tbody>
</table>

1Asterisk denotes system tier. B=workgroup tier, 2=departmental tier, 5=enterprise tier.

Media and Documentation
Product binary kits and online documentation are delivered on consolidated media libraries. Delivery model varies by platform.

HP OpenVMS Integrity Media and Online Documentation

<table>
<thead>
<tr>
<th>Platform</th>
<th>License Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foundation Operating Environment</td>
<td>BA322AA#AJR</td>
</tr>
<tr>
<td>Enterprise Operating Environment</td>
<td>BA323AA#AJR</td>
</tr>
<tr>
<td>Mission Critical Operating Environment</td>
<td>BA324AA#AJR</td>
</tr>
</tbody>
</table>

1Product ships on Layered Products Library media included in all Operating Environment media kits, available with initial OpenVMS OE order.

HP OpenVMS Alpha Media and Online Documentation

<table>
<thead>
<tr>
<th>Platform</th>
<th>License Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Software Layered Products Library Package</td>
<td>QA-03XAA-H8</td>
</tr>
<tr>
<td>Software Layered Products and Operating System Library Package</td>
<td>QA-5G98A-H8</td>
</tr>
</tbody>
</table>

1Quarterly Software Updates Service is available.