Software Product Description

PRODUCT NAME: HP SNA Server   **SPD 70.89.04**
                                for OpenVMS Alpha, Version 1.3

DESCRIPTION

HP SNA Server for OpenVMS Alpha (SNA Server) is a layered software product that allows suitably configured OpenVMS Alpha systems to directly participate in an IBM Systems Network Architecture (SNA) networking environment. After installing the SNA Server and one or more SNA access routines, users can perform functions such as accessing IBM application programs or other system resources, act as a 3270 display station, exchange data files and documents with an IBM host, and implement distributed application programs that run between the OpenVMS Alpha and IBM systems.

Architecturally, an OpenVMS Alpha system running the SNA Server appears to the SNA network as a Physical Unit Type 2.0 node, and is attached to the SNA network through synchronous communications devices or an X.25 network to an IBM 37xx Communications Controller. The SNA server software supports a maximum of 255 concurrent SNA logical unit sessions per PU. Your total session limit and line speed will depend on the memory and communications options installed on the Alpha CPU on which the SNA Server is running. Both local and remote (DECnet or TCP/IP) connections are supported from the HP SNA Server into the IBM SNA network, using switched or leased lines in point-to-point or multipoint environments. *HP SNA Server for OpenVMS Alpha* also supports connections over X.25 switched virtual circuits using Qualified Logical Link Control (QLLC). The *X.25 for OpenVMS Alpha* product is required for SNA over X.25 connections.

Users on one or more systems with SNA access routines can simultaneously perform functions such as accessing IBM application programs or other system resources, act as a 3270 display station, perform data transfer between HP 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 HP and IBM systems.

HP SNA Server supports connections via Synchronous Data Link Control (SDLC). SDLC circuits can be set full duplex. Data can be sent and received simultaneously on full-duplex lines. This setting corresponds to DATMODE=FULL in the IBM ACF/NCP PU macro.

The functions provided by the SNA server software are comparable to those provided by the DECnet SNA Gateway-ST product. Systems wishing access to the SNA environment must be configured with the appropriate SNA access routines. For additional information about which access routines are supported, see the Optional Software section of this Software Product Description.

HP SNA Server for OpenVMS Alpha supports connections over X.25 switched virtual circuits (QLLC) as well as SDLC circuits. The QLLC circuit can be configured to use either incoming or outgoing X.25 switched virtual circuits (SVCs). HP SNA Server does not support X.25 permanent virtual circuits (PVCs). HP SNA Server requires the IBM Network Packet Switched Interface (NPSI) in order to use QLLC circuits. The IBM NPSI software should be generated to support "Boundary Network Node, Qualified Logical Link control" (BNN QLLC) type-3 switched virtual circuits.

HP SNA Server also supports the following optional facilities for QLLC circuits:

- Flow Control Negotiation

- Closed User Groups

- Reverse Charging

Management Utilities

The *HP SNA Server for OpenVMS Alpha* provides the management utilities SNANCP and SNAEVL. SNANCP is used to manage and monitor SNA server components such as line, circuit, physical unit (PU), and logical unit (LU). SNANCP provides the human interface for the HP System Manager to monitor, control, and troubleshoot the SNA Server and its IBM SNA environment. All management functions pertaining to SNA Server software are performed on Alpha systems. The SNANCP commands allow users to display and modify information pertaining to the line, circuit, PU, LUs, and access names. Online help is provided. SNAEVL is used to log events generated by these components.

Management of the HP SNA node should be viewed as part of the HP environment; the management of the line connecting the OpenVMS Alpha system to the IBM system is a joint responsibility of the IBM and HP system managers.

Problem Isolation and Determination Tools

The Common Trace Facility (CTF) is the problem-determination tool that provides frame-level tracing of a circuit to help in debugging application programs and identifying system problems. A privileged DECnet-Plus user can run a trace at the PU level, SDLC level, or session level. The trace feature is helpful for identifying an error for remedial action.

The Installation Verification Procedure (IVP) for the *HP SNA Server for OpenVMS Alpha* V8.2 and V8.3, SNAVMS$IVP, is also useful for problem isolation. SNAVMS$IVP is run separately from any access routine, and can be used to verify connectivity to specific IBM applications over specific LU sessions. In failure cases, SNAVMS$IVP displays an expanded error text that attempts to diagnose the cause of the failure.

INSTALLATION

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

HARDWARE REQUIREMENTS

Processors Supported

The *HP SNA Server for OpenVMS Alpha* supports a maximum of 255 sessions via local user connections and DECnet connections. Restrictions are based on processor memory, line speeds, and CPU. For information about supported processors, refer to the OpenVMS Operating System for Alpha Software Product Description (SPD 25.01.xx).

Users can configure their IBM line to activate up to 255 logical units (LUs) per PU. See the release notes for recommended concurrent session requirements.

Minimum Recommended Configuration

A minimum hardware system configuration includes:

- One system disk

- A load device (CD-ROM)

- 64 MB memory

- Modems or modem eliminators

- A supported synchronous device as described in the *HP X.25 for OpenVMS Alpha* Software Product Description (SPD 417.37.xx)

Disk Space Requirements (Block Cluster Size = 1)

Disk space required for installation:	8000 blocks
Disk space required for use (permanent):	6500 blocks

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.

OPTIONAL HARDWARE

None

SOFTWARE REQUIREMENTS

HP SNA Server for OpenVMS Alpha, Version 1.3 requires:

- OpenVMS Operating System for Alpha (SPD 25.01.xx)

- For SDLC Data Links

    WANDD portion of HP X.25 for OpenVMS Alpha (SPD 47.37.xx), no license required

- For QLLC Data Links

    HP X.25 for OpenVMS Alpha (SPD 47.37.xx), license required

- For remote DECnet client access

    DECnet-Plus for OpenVMS Alpha (SPD 50.45.xx), license required

- For remote TCP/IP client access

    HP TCP/IP Services for OpenVMS (SPD 46.46.xx), license required

Choose networking options appropriate for the selected OpenVMS version from the following table:

OpenVMS	X.25	TCP/IP	DECnet-Plus
8.2	2.0	5.5	8.2
8.3	2.0	5.6	8.3

SOFTWARE LICENSING

This software is furnished under license from HP. For more information about HP's licensing terms and policies, contact your local HP office.

License Management Utility Support

This layered product supports the OpenVMS License Management Utility.

For more information on the License Management Utility, refer to the OpenVMS Operating System for Alpha Software Product Description (SPD 25.01.xx) or the License Management Utility manual of the OpenVMS Operating System documentation set.

CLUSTER ENVIRONMENT

This layered product is fully supported when installed on any valid and licensed OpenVMS Alpha Cluster* configuration with the following restrictions:

- The *HP SNA Server for OpenVMS* must be configured and run on each OpenVMS Alpha system containing a synchronous device connected to the SNA network.

OpenVMS Cluster configurations are fully described in the OpenVMS Cluster Software Product Description (SPD 42.18.xx).

OPTIONAL SOFTWARE

The following table lists the optional access routines available for use with *HP SNA Server for OpenVMS*. For information on these products, consult the respective Software Product Descriptions.

Table 1
Access Routines

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

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

Supported on Tru64 UNIX Systems

HP SNA Data Transfer Facility for Tru64 UNIX (SPD 60.54.xx)

HP SNA APPC/LU6.2 Programming Interface for Tru64 UNIX (SPD 56.11.xx)

HP 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

CD-ROM

This product is available as part of the OpenVMS Alpha Software Product Library on CD-ROM.

The software documentation for this product is also available as part of the OpenVMS Alpha Online Documentation Library on CD-ROM.

SOFTWARE WARRANTY

This software is provided by HP with a 90 day conformance warranty in accordance with the warranty terms applicable to the license purchase.

Warranty Limitations

IBM Supported Configurations

The *HP SNA Server for OpenVMS* 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)	6	3.0
	7	3.0, 4.0, 5.0, 6.0, 7.0, 8.0
OS/390	2	10.0
OS/390 Communications Server	All	All
Tivoli TIME 10 Netview	1	3.0, 4.0
z/OS	1	3.0, 4.0
z/OS Communications Server	All	All

Note: HP 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 HP office for up-to-date information regarding listed configurations.

For X.25 support the SNA Server for OpenVMS requires the IBM NPSI and NCP software configurations listed in the following table.

Table 3
IBM Software Required for X.25 Support

NPSI Version	Release	NCP Version	Release
3	4.0	5	4.0
3	6.0	6	3.0
3	8.0	7	8.0, 9.0

ORDERING INFORMATION

Software Licenses: QL-6CVA*-AA
Hardcopy Documentation: QA-6CVAA-GZ

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

Software Product Services

A variety of service options are available from HP Services. For more information, contact your local HP office.