vms Software

Software Product Description

PRODUCT NAME: VSI OSAP/H1 Version 4.1 for OpenVMS   **SPD   DO-DOSH11-01A**

DESCRIPTION

This document addresses VSI OSAP/H1 Version 4.1 for VSI OpenVMS.

VSI OSAP/H1 is a network communication product that connects VSI applications with shop floor devices based on the Siemens SINEC H1 communication protocol. SINEC H1 services are also identified as PG communication services in Siemens literature.

Siemens SINEC H1 is the recommended method of connecting PLCs and host computers on large configurations. It has been specified on top of the ISO/OSI Transport Layer and it is based on Ethernet to improve effectiveness (through higher performance) and efficiency (through lower costs per connection).

VSI OSAP/H1 fully supports the SINEC H1 communication protocol.

FEATURES

As the SINEC H1 communication protocol is defined on top of the ISO OSI Transport Layer, VSI OSAP relies upon VSI DECnet/OSI to complete the communication stack. For more information, refer to the DECnet-Plus Software Product Description (SPD DO-VIBHAA-023).

Because of the functional compatibility between Siemens SINEC H1 and MMS (Manufacturing Messaging Services), ISO International Standard 9506, Parts 1 and 2, VSI OSAP is integrated with the software architecture of the VSI OMNI API product to supply the Application Programming Interface (API). For more information, refer to the VSI OMNI API Software Product Description (SPD DO-DOMNI1-01A).

COMPONENTS

VSI OSAP/H1 Services. This component adds support for SINEC H1 functionality via the VSI OMNI API. Supported services are listed at the end of this Software Product Description and are divided into the following categories:

• Environmental Management
• Messages
• Device Management
• Variable Access

Configuration and Management Facilities. VSI OSAP/H1 uses the VSI OMNI API facility ODSCL. On OpenVMS platforms, the following VSI OMNI API facilities are supported:

• ODF (OMNI Definition Facility)
• OMNIView

Installation Verification Procedure (IVP)

The VSI OSAP IVP performs a series of tests to verify proper installation and operation.

VSI OSAP/H1

DOCUMENTATION

VSI OSAP includes the following documentation:

- A platform-specific *Network Manager's and Programmer's Guide* provides an overview of SINEC H1 and SINEC AP concepts and terminology. It includes a description of the services that are available through VSI OMNI API and the features of VSI OSAP. It also describes how to use the VSI OMNI API utility ODSCL. Also see the *VSI OSAP/AP Software Product Description* SPD DO-DOSAP1-01A.

- A platform-specific Installation Guide that explains how to prepare for installation, how to install the product, and what to do after VSI OSAP is installed.

INSTALLATION

Before attempting to install the software, you must have all pre-requisite hardware and software. VSI recommends that your first purchase include VSI Installation Services. Connectivity to all other nodes within the network is the responsibility of the customer.

WARRANTY LIMITATIONS

The SINEC H1 services supported by VSI OSAP/H1 are listed in Appendix A of the *System Warranty Addendum* of this SPD.

HARDWARE REQUIREMENTS

Processors Supported:

- Integrity: Any HPE Integrity system capable of running the VSI OpenVMS Integrity Operating System Version 8.4-1H1 or higher.

- Alpha: Any HPE AlphaServer system capable of running the VSI OpenVMS Alpha Operating System Version 8.4-2L1 or higher.

Refer to the latest VSI OpenVMS Integrity or Alpha Software Product Description for information about supported servers.

Disk Space Requirements

Requirement	Integrity	Alpha
Disk space required for kit installation	33MB	26 MB
Disk space required for permanent use	13MB	10 MB

These counts refer to the disk space required on the system disk; sizes are approximate. Actual sizes may vary depending on the user's system environment, configuration, and software options. A configuration with at least 16 MB of memory is recommended.

SOFTWARE REQUIREMENTS

On Integrity servers, VSI OpenVMS Integrity Version 8.4-1H1 or higher is the required operating system version for this product. On AlphaServer systems, VSI OpenVMS Alpha Version 8.4-2L1 or higher is the required operating system version for this product.

The following products are required when using VSI OSAP/H1 for OpenVMS:

- VSI DECnet-Plus for VSI OpenVMS
- VSI OMNI API for VSI OpenVMS
- Oracle RdB (only necessary if you are using VSI OMNI API with the ODF component)
- VSI DECwindows Motif for OpenVMS

VSI OSAP/H1

SOFTWARE LICENSING

A software license is required in order to use the VSI OSAP/H1 software product.

- For Integrity servers, the license is a per-socket license. Rights to use future revisions of VSI OSAP/H1 are available only through a Support Agreement or through a new license purchase.

- For AlphaServer systems, VSI OSAP/H1 for OpenVMS is included in the ALPHA-LP license bundle.

For more information about OpenVMS licensing terms and policies, contact your VSI account representative. Information is also available at the following website:
http://vmssoftware.com/services

LICENSE MANAGEMENT FACILITY SUPPORT

VSI OSAP/H1 for OpenVMS supports the *OpenVMS License Management Facility*.

For more information about the License Management Facility, refer to the *VSI OpenVMS License Management Utility Manual* in the OpenVMS documentation set.

CLUSTER ENVIRONMENT

This layered product is fully supported when installed on any valid and licensed OpenVMS Cluster configuration, which are fully described in the *OpenVMS Cluster Software Product Description* **(SPD DO-VIBHAA-032).** See the HARDWARE REQUIREMENTS section in this document for hardware requirements.

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.

ORDERING INFORMATION

For VSI OSAP/H1 on OpenVMS, licenses are available as electronic licenses (E-LTU) or physical licenses (P-LTU):

For VSI Integrity:

SL-LIOS1E-41V	VSI OSAP PSL 1 Core Server 1 E-LTU units
SL-LIOS1P-41V	VSI OSAP PSL 1 Core Server 1 P-LTU units
SL-LIOS2E-41V	VSI OSAP PSL 2 Core Server 2 E-LTU units
SL-LIOS2P-41V	VSI OSAP PSL 2 Core Server 2 P-LTU units
SL-LIOS4E-41V	VSI OSAP PSL 4 Core Server 4 E-LTU units
SL-LIOS4P-41V	VSI OSAP PSL 4 Core Server 4 P-LTU units
SL-LIOS8E-41V	VSI OSAP PSL 8 Core Server 8 E-LTU units
SL-LIOS8P-41V	VSI OSAP PSL 8 Core Server 8 P-LTU units

For VSI Alpha:
- VSI OSAP for OpenVMS is included in the ALPHA-LP license bundle

SOFTWARE PRODUCT SERVICES

A variety of service options are available from VSI. For more information, contact your VSI account representative or distributor. Information is also available at the following website:
http://vmssoftware.com/services

SOFTWARE WARRANTY

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

VSI OSAP/H1

APPENDIX A - SINEC H1 Functionality Cross Reference Tables

The tables that follow list the Conformance Building Block (CBB) services and parameters that are supported by VSI OSAP/H1 Version 3.1. They are compared to the services provided with the first version. The level of support depends upon the level of functionality provided by the target Siemens communication processors. In Table 1, these symbols apply:

- B = Client and Server
- C = Client only
- S = Server only

Supported Siemens communications processors (CP) are:

- CP535 for Simatic S5 PLC family
- CP143 for Simadyn S5 PLC family
- CP1430 for Simatic S5 PLC family
- CSH1 for Simadyn PLC family

Table 1: Siemens SINEC H1 CBB Services Cross Reference Table

Service	VSI OSAP/H1	CP535
Environment Management		
Initiate	B	B
Conclude	B	B
Abort	B	B
Cancel	C	N
VMD Support		
Status	C	S
Variable Access Services		
Read	B	B
Write	B	B
InformationReport	B	B
Domain Management Services		
InitiateDownload Sequence	C	S
DownloadSegment	C	S
TerminateDownload Sequence	C	S
UploadSegment	C	S
TerminateUpload Sequence	C	S
Program Invocation Services		
Start	C	S
Stop	C	S
Serial Transfer Services		
Send	B	B

Table 2: Siemens SINEC H1 CBB Parameters Cross Reference Table

Parameter	VSI OSAP/H1
STR1	TRUE
STR2	TRUE
NEST	10
VNAM	FALSE
VADR	TRUE
VALT	FALSE
DSCA	FALSE
TPY	FALSE
VLIS	FALSE
REAL	FALSE
AKEC	FALSE
CEI	FALSE