VSI OpenVMS
VSI OSAP/H1 Version 4.1
Cover Letter

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VSI OSAP/H1 Version 4.1 for OpenVMS Cover Letter

VMS Software, Incorporated (VSI) is pleased to introduce VSI OSAP/H1 for OpenVMS. OSAP is a VSI product implementing the Siemens SINEC Automation Protocols (SINEC-H1). OSAP stands for OMNI Services for SINEC Automation Protocols.

SINEC-H1 is a Siemens proprietary protocol that specifies the syntax and semantics for communication between applications running on computers and those running on the Siemens programmable logical controllers.

Intended Audience

This document is intended for all users of VSI OSAP/H1 Version 4.1 for OpenVMS, especially network managers responsible for the configuration and management of the environment. Please read this document before you upgrade to or use VSI OSAP/H1 Version 4.1.

Release Notes

The release notes, included as part of the product kit, describe restrictions, incompatibilities, and problems that have been fixed. You can print the release notes during installation. Refer to the *VSI OSAP/H1 Installation Guide* for information about how to access and read the release notes.

OpenVMS Layered Products

While this VSI version of OSAP/H1 is a new version, its functionality is the same as the existing HPE application that it replaces.

Branding

Copyright notices have been modified from HP to VSI. However, the text that appears in some help files, display screens, or other areas may still say HP. This will be modified in a future release.

Licenses

VSI OSAP/H1 has been modified to check for a VSI license PAK. You must have a VSI license for this VSI layered product. An existing HPE license will not work. Only PAKs with a producer value of "VSI" will load on VSI OpenVMS versions. An attempt to load a non-VSI PAK will result in an informational message.

Overview

VSI OSAP/H1 for OpenVMS is a software environment for the development of OpenVMS applications that access and handle SINEC AP and SINEC H1 devices, using the facilities of the OMNI high-level application programming interface. VSI OSAP/H1 allows interconnection of HPE Integrity servers and HPE AlphaServer systems with factory automation devices that support the Siemens SINEC H1 protocols.

VSI OSAP/H1 adopts the programming and management facilities of VSI OMNI, which is the implementation of MMS for OpenVMS systems. OMNI is an implementation of the 9506 ISO/OSI Manufacturing Message Specifications (MMS); it provides a common Application Programming Interface (API) and a unique architecture for device connection products.

The OMNI API procedures have been extended to implement the SINEC-H1 application services. VSI OSAP/H1 defines the additional abstract syntax that SINEC-H1 requires and adds that to the OMNI run-time library. This leads to:

- Programming uniformity: the same application programming interface and the same configuration and management tools are used in the SINEC-H1 and MMS environments.
- System interoperability: an application using the OMNI API can communicate with both SINEC-H1 and MMS devices.

VSI OSAP/H1 supplies application programmers with a set of high-level facilities to develop OpenVMS applications that control and monitor a production plant. OSAP applications are programs written in any of the languages supported by OpenVMS; they invoke the OMNI API procedures to implement automation tasks. This can contain a wide range of SINEC-H1 Programmable Logical Controllers (PLCs).

VSI OSAP/H1 allows transparent communications between OSAP applications running on an OpenVMS system and applications running on any other vendor hardware that supports the SINEC-H1 protocol stacks. Transparent communication is made possible by the VSI OMNI API. This supplies OSAP applications with a set of high-level procedures to create associations (logical connections with remote applications) and request or fulfill AP and H1 services.

H1 service requests are passed from the API to the OSAP Services component, which is the software layer that implements the H1 protocol. It supplies all the services for the management of associations and the formatting and exchange of messages generated by the H1 service request. This component guarantees transparent handling of the application requests, sparing the programmer the task of dealing with aspects regarding protocol, plant topology and any communication problems.

The high speed and reliability of the IEEE 802.3 Ethernet Local Area Network guarantees efficient communication between OpenVMS systems and SINEC-H1 devices. This communication conforms to the architecture and rules of the ISO/OSI 8073

Class 4 protocol, and it is implemented by the OSI Transport Communications Services component provided by VSI DECnet Phase V.

For more information about VSI OSAP/H1 for OpenVMS, refer to the *VSI OSAP/H1 Version 4.1 for VSI OpenVMS Software Product Description* (SPD) as well as the *VSI OSAP/H1 Installation Guide*.