

# CHARON™ -VAX/6660 Plus for OpenVMS/Alpha



Version 1.0.52

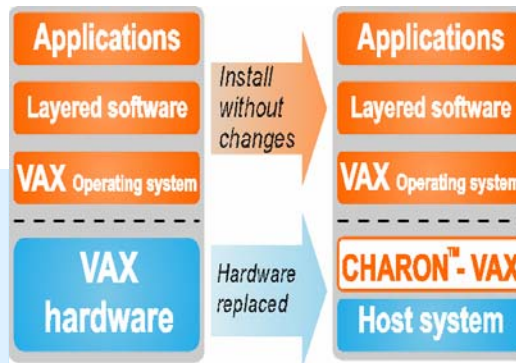
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## Functionality

CHARON-VAX/6660 Plus for OpenVMS/Alpha is designed to prolong the use of the VAX/VMS operating system, layered products and user applications. The hardware components emulated by CHARON-VAX/6660 Plus for OpenVMS/Alpha are designed to operate like their hardware equivalents.

CHARON-VAX/6660 Plus for OpenVMS/Alpha can in principle execute any VAX operating system or binary application that runs on its equivalent hardware VAX configuration. It is designed to replace mid-to-high range SMP VAX systems or clusters in administrative environments and with terminals connected via terminal servers.

The emulated functionality does not include diagnostic or maintenance modes or delays to simulate mechanical device behavior. For a list of emulated components please see the Features Matrix. To replace real time process control applications with PLCs connected via serial lines, see CHARON-VAX/Industrial.



**CHARON-VAX/6660 Plus for OpenVMS/Alpha** is a third generation VAX system emulator. By emulating a three- CPU VAX 6000-660 computer with Symmetrical Multiprocessing (SMP), CHARON-VAX/6660 Plus for OpenVMS/Alpha can replace a mid to large size VAX server such as a VAX 6000 model 640 with a modern Alpha server running CHARON-VAX/6660 as an OpenVMS/Alpha application

CHARON-VAX/6660 Plus for OpenVMS/Alpha provides an exact model of the emulated VAX 6000-660 six-CPU computer, on which VAX/VMS, layered software and user applications execute unmodified. No conversion of binary VAX code is required. CHARON-VAX/6660 Plus for OpenVMS/Alpha uses a proprietary VAX CPU instruction execution algorithm (ACE).

The compatibility of the emulator with VAX hardware is tested with the original VAX hardware design tools and diagnostics.

## Features

- Provides the functionality of a VAX 6000-660 with 2 GB memory, disks, tapes and Ethernet.
- Does not require VAX application code conversion nor application sources. VMS, layered software and applications can be directly installed on CHARON-VAX/6660 Plus for OpenVMS/Alpha and do not require any modifications. The application binaries, user interface and functionality remain unchanged.
- The emulated VAX follows the characteristics of the original VAX 6000-660 hardware, requires the corresponding level of VAX/VMS license units and supports the peripherals particular to that VAX model. See the Features Matrix on the next page.
- Installs and runs the standard VAX/VMS and other standard VAX operating systems.
- CHARON-VAX/6660 Plus for OpenVMS/Alpha can be run as a batch job.
- VAX/VMS and layered product transfer licenses from an existing VAX system to CHARON-VAX/6660 Plus for OpenVMS/Alpha are available from HP.
- Passes HP's AXE architecture test for VAX instruction compatibility.
- The Ethernet adapter(s) emulator supports 10 or 100 (\*) Mbps network connections to other systems, terminal servers and X-terminal (emulators). Emulation is transparent to DECnet and/or TCP/IP network protocols.
- CHARON-VAX/6660 Plus for OpenVMS/Alpha can be configured as a VMS NI-cluster member or as a cluster member with shared disk clustering.
- Upgrading to a faster host system provides an immediate emulator performance increase.
- Provides a choice between one year (extendable) or perpetual usage licenses.
- Two levels of optional software support service.

### Advanced CPU Emulation (ACE)

ACE is a proprietary algorithm that significantly accelerates VAX instruction execution. As the optimization takes place below the emulated hardware level, the emulator remains fully VAX hardware compatible and is completely transparent to VAX operating systems and applications.

### Host system requirements

An eight-CPU EV6 (or later) Alpha host with OpenVMS/Alpha 7.3 or later, 1 GHz minimum CPU frequency, a CD-ROM, minimum one (1) dedicated Ethernet adapter and enough storage space for the VAX disks. The minimum host memory requirement is reflected in the Features Matrix. For a list of emulated components please see the Features Matrix.

### Product contents

Distribution CD  
License key

### Warranty

The three months standard warranty for this product is the readability of the distribution media.

## Typical applications

- Replacing any mid-to-high range VAX platform requiring up to 2 GB of VAX memory with an OpenVMS/Alpha host system while using unmodified VAX application software.
- Replacing departmental or corporate VAX computers by modern host systems to reduce maintenance, space and operating costs.

## Features Matrix

	<b>VAX 6660</b>
<b>Emulated VAX CPU</b>	Three KA66-A CPUs with SMP
<b>Earliest VMS version supported</b>	5.5-2H4
<b>Maximum VAX memory emulated</b>	2 GB
<b>SCSI Subsystem</b>	n/a
<b>Emulated VAX disk controller</b>	KDM70 (**) (MSCP)
<b>Emulated VAX tape controller</b>	Modified KDM70 Tapes can be used for data exchange. Not for booting.
<b>Ethernet</b>	Multiple emulated DEMNA Ethernet adapters up to the available maximum slots on the emulated XMI bus. Nominal connection speed on the emulated VAX level is 100 Mbps (*).
<b>VAX/VMS clustering</b>	NI Clusters or Shared Disk Clustering with simulated MSCP disk controllers.
<b>Asynchronous serial line emulation</b>	n/a All terminal connections are via Ethernet except the emulated VAX console.
<b>Qbus subsystem</b>	n/a
<b>Host memory requirement</b>	4 GB

(\*) The effective aggregate throughput depends on the host system's performance.

(\*\*) VAX disks are represented on OpenVMS/Alpha storage media as container files, i.e. images created with the LD driver. In addition, physical CD, floppy drive and hardware disks are supported.

## Ordering information

### CHARON-VAX/6660 Plus for

#### OpenVMS/Alpha

Unlimited run time license	CHVX-260-PH-OV
Initial (one year) license	CHVX-260-BH-OV
License extension for one year	CHVX-260-EH-OV
GOLD Support	CHVX-260-UH-OV
PLATINUM Support (***)	CHVX-260-TH-OV

(\*\*\*) Subject to geographical availability.