

# CHARON™ -VAX/AXP *Plus* for OpenVMS/Alpha



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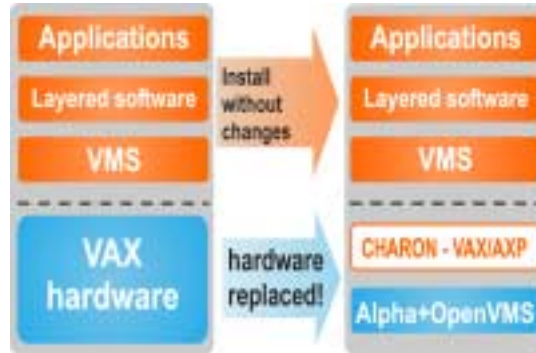
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***No VAX code conversion is required.***

VMS, layered software and applications can be directly installed on CHARON-VAX/AXP *Plus* and do not require any modifications.

***Emulated components***

VAX 3100-98 CPU (DIT)  
Quad asynch console port  
512 MB Memory  
Two SCSI controllers, with  
*max. 7 SCSI disks each*  
One Ethernet adapter



**CHARON-VAX/AXP *Plus* for OpenVMS/Alpha** is a third generation VAX system emulator with 512 MB memory address space. Using a technology known as Dynamic Instruction Translation (DIT), the emulator dynamically optimizes the emulation of the VAX instructions, providing an improvement of 3 to 5 times over

the versions without DIT. By emulating a VAX 3100 Model 98, CHARON-VAX/AXP *Plus* can replace large and mid-range VAX server hardware with modern AXP (Alpha) hardware running the OpenVMS operating system. It runs the standard VAX/VMS operating system and the unmodified user applications without conversion. Using modern fast CPUs and high-performance I/O systems with SCSI disks, the user application in general will perform better than on the original VAX. The actual performance will depend on the host system's configuration.

Multiple CHARON-VAX/AXP *Plus* systems can be interconnected to form a VMS SCSI cluster.

**Features**

- Does not require VAX application code conversion nor application sources. The application binaries, user interface and functionality remain unchanged.
- Installs and runs the standard VAX/VMS operating system.
- VMS and layered product transfer licenses from an existing VAX system to CHARON-VAX/AXP *Plus* are available from Compaq.
- Passes Compaq's AXE architecture test for VAX instruction compatibility.
- Emulates 512 MB VAX memory
- Supports up to two (2) SCSI controllers with up to seven (7) SCSI disks each. SCSI disks can be shared in a VMS SCSI or NI cluster with other CHARON-VAX, VAX/VMS or Alpha/OpenVMS systems.
- The embedded Ethernet adapter emulator supports 10/100 Mbps network connections to other systems, NI clusters, terminal servers and terminals. Emulation is transparent for DECnet and/or TCP/IP network protocols.
- Provides growing performance with the capacity of the host system. Upgrading to a faster host system provides an immediate emulator performance increase.
- Provides a choice between one year (extendable) or permanent usage licenses
- Optionally offers two levels of Support arrangement.

### ***Dynamic Instruction Translation (DIT)***

The Dynamic Instruction Translation (DIT) for the VAX CPU emulation dynamically optimizes the VAX instruction interpretation. This does not require code pre-processing and provides its full capability instantly. 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***

EV6 based Alpha host  
(Dual CPU recommended)

OpenVMS/Alpha 7.3 or later

One free SCSI disk

Host memory required for emulated VAX memory size:  
1 GB: 128 MB VAX memory  
2 GB: 512 MB VAX memory

One free Ethernet adapter

### ***Product contents***

User manual  
Distribution CD  
License key

### ***Warranty***

The readability of the distribution media is warranted for three months.

### ***Typical applications***

- Replacing any VAX platform running CPU-bound user applications that require a reliable and fast CPU, clustering, large memory, high speed disks and Ethernet capability
- Replacing departmental or corporate VAX computers by modern host systems, in general significantly reducing maintenance, space and operating costs.

### ***Functionality***

CHARON-VAX/AXP *Plus* is designed to prolong the use of the VAX/VMS operating system, layered product and user applications. The hardware components emulated by CHARON-VAX/AXP *Plus* are designed to operate like their hardware equivalents. The emulated functionality does not include diagnostic or maintenance modes, nor delays to simulate mechanical device behavior.

CHARON-VAX/AXP *Plus* can in principle execute any VAX operating system or binary application within the scope of its emulated components. Its main application is the replacement of larger single CPU and clustered VMS servers; it has been tested to work with VAX/VMS V5.5-2 and later (i.e. VAX/VMS versions supporting the VAX 3100 model 98).

*Note: CHARON-VAX/AXP Plus is not designed to replace VAX systems in real-time process control applications. For replacing real time process control applications, please see the CHARON-VAX/Industrial products.*

### ***Ordering information***

#### **CHARON-VAX/AXP *Plus* for OpenVMS/Alpha**

CHVX-221-PF-OV	Unlimited run time license
CHVX-221-BF-OV	Initial (one year) license
CHVX-221-EF-OV	License extension for one year
CHVX-221-UF-OV	GOLD Support
CHVX-221-TF-OV	PLATINUM Support