



CHARON™-VAX 6630 Plus for Windows

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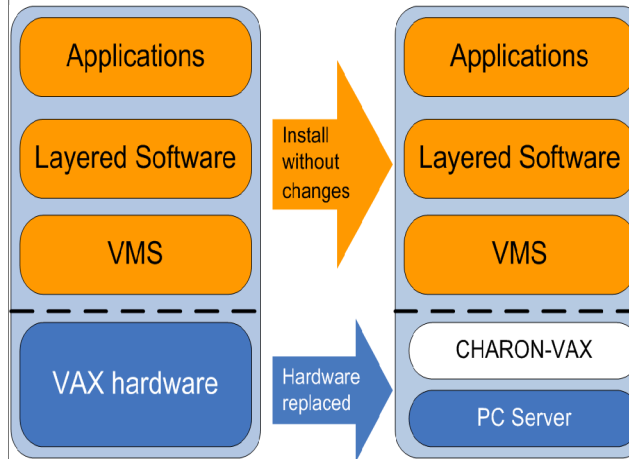
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Functionality

CHARON-VAX/6630 Plus for Windows is designed to prolong the use of the VAX/VMS operating system, layered products and user applications. The hardware components emulated by CHARONVAX/6630 Plus for Windows are designed to operate like their hardware equivalents. CHARON-VAX/6630 Plus for Windows can in principle execute any VAX operating system or binary application that runs on its equivalent hardware VAX configuration. It is designed to replace large single CPU VAX machines that may run in 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.



CHARON-VAX/6630 Plus for Windows is a third generation VAX system emulator. By emulating a dual CPU VAX 6000-6630 computer with Symmetrical Multiprocessing (SMP), CHARON-VAX/6630 Plus for Windows can replace a large VAX server with a modern Windows server running CHARON-VAX/6630 Plus for Windows as a Windows application. CHARON-VAX/6630 Plus for Windows provides an exact model of the emulated VAX 6000-6630 dual CPU computer, on which VAX/VMS, layered software and user applications execute unmodified. No conversion of binary VAX code is required. CHARON-VAX/6630 Plus for Windows includes Stromasys' Advanced CPU Emulation feature (ACE). The compatibility of the emulator with VAX hardware is tested with the original VAX hardware design tools and diagnostics.

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Features

- ◆ Provides the emulation of a VAX 6000-6630 dual CPU computer with Symmetrical Multiprocessing.
- ◆ Does not require VAX application code conversion nor application sources. VMS, layered software and applications can be directly installed on CHARON-VAX/6630 Plus for Windows 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 6000-6630 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/6630 Plus for Windows can operate as an unattended Windows service.
- ◆ VMS and layered product transfer licenses from an existing VAX system to CHARONVAX/6630 Plus for Windows are available from HP.
- ◆ Passes HP's AXE architecture test for VAX instruction compatibility.
- ◆ CHARON-VAX/6630 Plus for Windows emulates 2 GB VAX memory.
- ◆ 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/6630 Plus for Windows can be configured as a VMS NI-cluster member or as a cluster member with shared disk clustering.
- ◆ Upgrading to a faster host system gives an immediate emulator performance increase.
- ◆ Provides a choice between one year (extendable) or perpetual usage licenses.



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Legacy Systems Virtualization

Advanced CPU Emulation

ACE 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

A dedicated Windows 2003 /2008 Server Standard Edition or XP or higher host system with minimum 4 CPUs of at least 2 GHz, a CD-ROM, minimum one (1) dedicated Ethernet adapter, a USB port for the license key 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.

Recommended tools

HP Pathworks 32:

- VT525 terminal emulator
- X-terminal emulator

License key

The CHARON hardware license key is permanently connected to the host system running the emulator. It preserves the customer specific license parameters, allows remote electronic updates and enables rapid change of host systems as the CHARON executable itself can be installed on multiple systems. The MTBF of the key is more than 100 years.

For mission critical applications a backup key containing 720 hours execution time can be ordered to meet any disaster recovery plan that requires replacement hardware.

Typical applications

- ◆ Replacing any mid-range or large VAX platform requiring up to 2 GB of VAX memory with a Windows host system while using unmodified VAX application software.
- ◆ Improving VAX system performance for CPU- or I/O-intensive workloads while replacing the hardware with a Windows platform providing up to 338 VUPS of virtual VAX performance.
- ◆ Replacing departmental or corporate VAX computers by modern host systems to reduce maintenance, space and operating costs.

Features Matrix

Emulated VAX CPU	CHARON VAX 6630
Earliest VMS version supported	Three KA66-A CPUs with SMP
Maximum VAX memory emulated	5.5-2H4
SCSI Subsystem	2 GB
Emulated VAX disks	n/a
Emulated VAX tapes	KDM70 XMI disks
	KDM70 XMI tapes
	Tapes can only be used for data exchange. Booting from tape is not possible.
Ethernet	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, giving an aggregate throughput ~20 Mbps*.
VAX/VMS clustering	NI Clusters or Shared Disk Clustering with simulated MSCP disk controllers.
Asynchronous serial line emulation	n/a
	All terminal connections are via Ethernet except the emulated VAX console.
Qbus subsystem	n/a
Host memory requirement	4 GB

* Running on a 2.4 GHz four CPU Opteron, Windows 2003 Server Standard Edition.

Ordering information

CHARON-VAX/6630 Plus for Windows

- Unlimited run time license
- Initial (one year) license
- License extension for one year
- GOLD Support 8 AM - 5 PM Monday - Friday
- PLATINUM Support 24 hours x 7 days

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