



CHARON™-AXP/SMA Plus for Windows



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Functionality

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

The **CHARON AXP** family of products allows you to replace your existing Alpha computer systems with a general purpose computer without making changes to your software. It provides a very quick, low risk, and inexpensive method of replacing your Alpha systems now that they have been retired by Hewlett-Packard. The benefit of CHARON AXP solutions is that you can continue using your valuable applications with no change, maintain your existing operating procedures, cut down on operational costs, and reduce energy consumption. The CHARON AXP family can replace almost every Alpha computer that has ever been manufactured.

CHARON-AXP/SMA PLUS for Windows is designed to replace the higher end of the **Small** and **Medium** Alpha product range. CHARON AXP/SMA PLUS is typically suited to replace the following Alpha systems:

AlphaStation 500 & 600
AlphaStation XP900 & XP1000
Digital Personal Workstation (DPW)
AlphaServer 800
AlphaServer 1000
DMCC & Flexor (OEM-systems)

CHARON-AXP/SMA PLUS has passed the original hardware qualification tests and is recognized by Hewlett-Packard as a valid AlphaServer replacement platform to run OpenVMS or Tru64. HP provides transfer licenses for the Alpha operating system and layered products, so that customers can continue their HP software support contracts without modification.

The Alpha operating system procedures, user interface, network functionality and clustering are indistinguishable from a hardware-based Alpha environment. The virtual system has been extensively tested with the standard OpenVMS and Tru64 software, without software modification of any kind. There is no need for application sources; binary code and data can be copied in the usual manner.

Base product details

- ◆ Runs on a standard Intel/AMD based system with Windows x64 2003 Server or XP professional installed
- ◆ The CHARON-AXP/SMA PLUS base license provides a virtual Alpha system with 1 CPU and 4 GB of memory.
- ◆ Disk and tape storage are virtual, using container files or physical drives on the host system or on a storage server allowing backup with standard tools.
- ◆ Industry standard Ethernet adapters are used for Local Area Network connection.

PRODUCT LICENSE KEY

The CHARON USB-type 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.



Salem Automation
System Integration

Host system requirements

A dedicated Windows 2003 Server Standard Edition or XP host system with two (2) or more hardware 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*
 ♦ *Windows file copy*

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.

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



VIRTUALIZED HW	VAX4000-108	VAX3100-98	VAX3600/3900	MicroVAX II
Virtualized CPU	KA54-A	KA56-A	KA650-A/B KA655-A/B	KA630-A
Earliest VMS version	5.5-2	5.5-2	4.6	4.6
Max. virtual memory	128 MB	128 MB	128 MB	16 MB
SCSI subsystem	2 Controllers, each supporting 7 addresses. Using LUN's each address supports 8 similar devices	2 Controllers, each supporting 7 addresses. Using LUN's each address supports 8 similar devices	No	No
SCSI Disks	Physical SCSI disks or image files	Physical SCSI disks or image files	No	No
SCSI Tapes	SCSI tape drives via a SCSI port	SCSI tape drives via a SCSI port	No	No
Ethernet	Up to 5 Ethernet controllers in total. Connections up to 100 Mbps with the PLUS version. The Standard version supports 10 Mbps	1 Ethernet controller. Connections up to 100 Mbps with the PLUS version. The Standard version supports 10 Mbps	Up to 4 Ethernet controllers in total. Connections up to 100 Mbps with the PLUS version. The Standard version supports 10 Mbps	1 Ethernet controller. Connections up to 100 Mbps with the PLUS version. The Standard version supports 10 Mbps
VAX/VMS clustering	NI cluster or Shared Disk Cluster with simulated M SCP controllers	NI Cluster	NI cluster or Shared Disk Cluster with simulated M SCP controllers	No
Asynchronous Serial Lines	CXA16, CXB16, CXY08, DHQ11, DHV11, DHW42-AA, -BA, -CA	DHW42-AA, -BA, -CA	CXA16, CXB16, CXY08, DHQ11, DHV11	CXA16, CXB16, CXY08, DHQ11, DHV11

SALEM AUTOMATION CUSTOMERS' TESTIMONIALS:

LARGE MID-WEST MUNICIPALITY SENT APRIL 16, 2009

Salem Automation Incorporated provided excellent value, and that the expertise of the engineer who helped us was amazing. I would not want to do another migration without their support. By implementing this solution I'm convinced we avoided significant downtime of key systems (courts and police records) for which no other effective solution was available.

MANUFACTURING FACILITY: EMAIL SENT FEBRUARY 17, 2009

I wanted to take this opportunity to express my gratitude for Salem's considerable effort in making the Alpha System swap-over a success. Your extensive knowledge allowed for a smooth transition to the virtual server, and provided us with the correct way to backup our system in the event a restore should be required. It was a pleasure working with you.

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