



# CHARON™ - AXP GS80 for Windows

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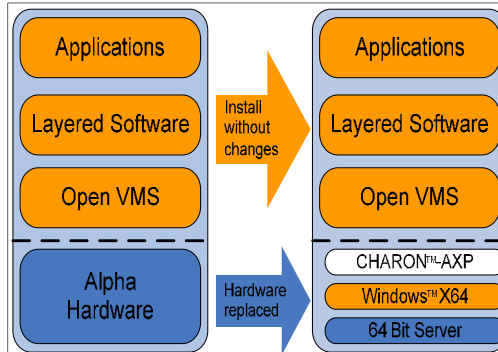
[www.winvms.com/alpha](http://www.winvms.com/alpha)

### Functionality

CHARON-AXP FAMILY for Windows can be used to replace aging Alpha hardware. Your unmodified application code and the Alpha operating system still 'sees' the Alpha CPU, memory and peripherals recreated in real-time by the HAL software layer.

CHARON-AXP FAMILY for Windows can in principle execute any Alpha operating system or binary application that runs on the equivalent hardware Alpha configuration. The version 1.0 is tested with OpenVMS, only. For efficiency reasons, the HAL software 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-AXP FAMILY for Windows is an Alpha hardware abstraction layer (HAL) designed for the complete replacement of Alpha system hardware. When executed on a fast dual CPU Windows 2003 X64 server, CHARON-AXP FAMILY for Windows provides the functional equivalent of an DEC3000 model 600 computer system hardware. CHARON-AXP FAMILY for Windows is designed to allow the substitution of the DEC3000/300, DEC3000/400, DEC3000/500,

DEC3000/600, DEC3000/700 or DEC3000/800 systems with industry-standard Windows servers. This substitution does not require any changes to either the Alpha Operating System nor the layered software utilities or the binary application code.

### Features

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/GS80 for Windows is a virtual implementation of a data center Alpha GS80 server running on a 64 bit Windows host system. The virtual Alpha provides full binary compatibility with the GS80 hardware. It is designed to replace a large Alpha server with industrial standard Intel or AMD multi-core servers without any software conversion.

CHARON-AXP/GS80 has passed the original hardware qualification tests and is recognized by the Hewlett-Packard Company (HP) as a valid platform to run OpenVMS or Tru64. HP provides transfer licenses for the Alpha operating system and layered products to the virtual GS80, 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.

While providing identical system behavior, virtual systems offer advantages. The virtual Alpha can be installed on multiple host systems, and moving the license key from one host system to another allows activation on another host system in just seconds. As virtual systems are purely software, complete system configurations, including user software and databases, can be archived with existing backup procedures and restored in a few minutes.

The virtual Alpha uses commodity host server items, thereby significantly reducing energy consumption and maintenance costs.

Two levels of optional software support service are available:  
GOLD: Monday thru Friday, 8 AM to 5 PM (EST)  
Platinum: 24X7, 365/year.

### Host system requirements

A dedicated 64-bit Windows 2003 Server system with a dual CPU of at least 3 GHz, 4 GB main memory, a CD-ROM, minimum one (1) dedicated Ethernet adapter, a USB port for the license key and enough storage space for the Alpha disks.

### Recommended tools

A commercially available X-terminal emulator, in case graphical feature is needed.

### Product contents

- ◆ Distribution CD, containing the product executables and the documentation.
- ◆ License key.

### 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.

### Warranty

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

### Typical applications

- ◆ Replacing up to 133 MHz Alpha systems running OpenVMS.
- ◆ Replacing aging Alpha systems by industry standard servers to reduce maintenance, space and operating costs.

### Features Matrix

#### BASE PRODUCT DETAILS

- The CHARON-AXP/GS80 base license provides an eight CPU virtual Alpha system with 4 GB of memory. Console microcode upgrades are not required. The CD-ROM or DVD of the host system provides a fully compatible virtual Alpha optical drive. The host memory is used as virtual Alpha memory.
- The virtual GS80 has uniform low memory latency; memory optimization procedures as required on hardware GS80 systems are not necessary.
- Disk and tape storage are virtual, using container files on the host system or on a storage server, allowing backup with standard tools. The number of such container files is essentially unlimited.
- Alternatively, physical SCSI tapes and disks can be connected via a host SCSI controller (virtual KZPBA).
- Industry standard Ethernet adapters are used for Local Area Network connection (virtual DE500BA).
- System configuration supports a maximum of 32 external SCSI and Ethernet adapters.

#### PRODUCT EXTENSIONS

A simple license upgrade is available for the following options (no re-installation required):

- Additional virtual Alpha CPUs up to a total of 16.
- Additional virtual Alpha memory up to a total of 32 GB.

### Ordering information CHARON-AXP GS80 for Windows

#### Options:

- ◆ Unlimited run time license
- ◆ Initial (one year) license
- ◆ License extension for one year
- ◆ Back-up key
- ◆ GOLD Support (Monday thru Friday, 8 hours per day)
- ◆ PLATINUM Support (24 X 7, 365 days per year)

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