



CHARON™-ECP for Windows

Enterprise-Class Alpha Hardware Virtualization Software

Software Concepts
International, LLC
402 Amherst Street
Suite 300
Nashua, NH 03063 USA
Tel: 603.879.9022
Fax: 603.879.9023
Web: www.sciinc.com
scitechinfo@sciinc.com

Replaces:

AlphaServer DS10
AlphaServer DS20
AlphaServer ES40
AlphaServer ES80
AlphaServer GS60
AlphaServer GS80
AlphaServer GS140
AlphaServer GS160

HP Transfer Licenses

Hewlett-Packard (HP) recognizes CHARON-ECP as a valid Alpha replacement platform to run OpenVMS, and CHARON-ECP has passed the original Alpha hardware qualification tests. HP provides transfer licenses for the OpenVMS & Tru64 Unix operating systems and layered products, so that customers can continue to use their HP software and support contracts without modification.



CHARON-ECP software is the next generation of AlphaServer virtualization products offered by Stromasys. CHARON-ECP products allow customers to replace enterprise-class Alpha systems, including:

- AlphaServer DS10
- AlphaServer DS20
- AlphaServer ES40
- AlphaServer GS80
- AlphaServer GS160

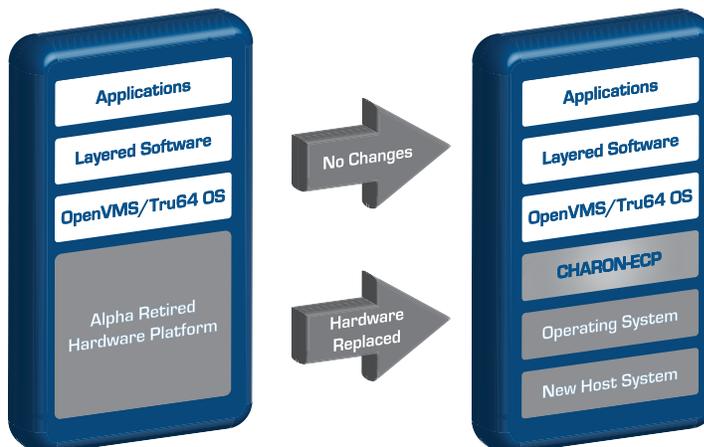
With this addition, CHARON software products are able to offer a virtual platform for all of the original Alpha systems. HP retired the Alpha in 2007, but CHARON-ECP provides a quick, low-risk, and inexpensive method of replacing your legacy enterprise-class Alpha hardware with a modern, industry-standard system, without making changes to the existing OpenVMS or Tru64 operating system and software applications. Using CHARON-ECP, the transition takes place in a matter of days, rather than weeks or months.

Cross-platform virtualization allows software created for one hardware platform to run on different host systems, without making modifications to the software. Using this technology, CHARON-ECP creates a virtual enterprise-class Alpha on a modern computer system, which is typically faster than the hardware platform it replaces. The availability of faster processors and computer memory, as well as much faster I/O channels, contribute to this performance improvement. CHARON-ECP also supports the operating system version and devices that were included with the original Alpha system. CHARON-ECP combines your existing enterprise-class system with the benefits of newer, faster hardware models, offering owners of Alpha systems equal or better performance at installation.

The rapid introduction of newer, faster hardware, as well as the additional modules Stromasys produces with the CHARON-ECP products will further shift the balance in favor of cross-platform virtualization. The following table shows performance measurements of the original Alpha hardware and the CHARON-ECP solution, using the standard SPEC2000 benchmark.

	SPEC2000	
	INT	FP
(results are per CPU)		
AlphaServer 4100 5/533	176	176
AlphaServer DS10 6/500	300	383
AlphaServer DS20 6/667	425	455
AlphaServer ES40 6/500	299	382
AlphaServer GS80 6/731	352	405
CHARON-ECP Products *	325	470

* When run on a Xeon 5580 (3.2 GHz) host



Software Product Description CHECP-800*-WI

CHARON-ECP Cross-platform Virtualization Software is designed to closely resemble the Alpha hardware it replaces. This means that when support for a certain adapter is included in a specific Alpha system, it is also included in its virtual equivalent (preloaded adapter). The operating system version support on a certain CHARON-ECP product is the same as on the original Alpha hardware.

Host System Requirements

In order to achieve performance levels comparable to your original AlphaServer system, Stromasys recommends the following hardware for the host system that runs CHARON-ECP:

HP ProLiant MLxxx, DLxxx or BLxxx system with:

- Intel Xeon 5580, 3.2 GHz CPU or better
- Reserve 1 host CPU-core for every virtual Alpha CPU
- Additionally reserve 1 host CPU-core for every 2 virtual Alpha CPU's
- Do not use hyperthreading
- Host memory: 2 GB + amount of virtual Alpha memory
- Windows x64 2003 Server (64-bit Windows OS)
- Sufficient disk space to store the Alpha disk content

Features Matrix

	CHARON-ECP				
	DS10	DS20	ES40	GS80	GS160
Virtualized Hardware	DS10	DS20	ES40	GS80	GS160
# of Alpha CPUs in Base License	1	1	2	4	8
Additional Alpha CPUs	No	Yes	Yes	Yes	Yes
Maximum # of Alpha CPUs supported	1	2	4	8	16
Alpha Memory in Base License	4 GB	4 GB	4 GB	4 GB	4 GB
Maximum supported Alpha Memory	32 GB	32 GB	32 GB	32 GB	32 GB
Ethernet (DE500) support	Yes (2 preloaded)	Yes	Yes	Yes	Yes
SCSI Adapter (KZPBA) support	Yes	Yes (2 preloaded)	Yes	Yes (1 preloaded)	Yes (1 preloaded)
FibreChannel Adapter (KGPSA) support*	Yes	Yes	Yes	Yes	Yes
Maximum # of adapters supported (Ethernet, SCSI, FibreChannel)	6	8	10	28	28
IDE support	Yes	Yes	Yes	Yes	Yes
FDDI support	Yes	Yes	Yes	Yes	Yes
Earliest OpenVMS Version	7.1-2	7.1-2	7.1-2	7.2-1h1	7.2-1h1
Earliest Tru64 Version	4.0F	4.0F	4.0F	4.0G	4.0G

* For FibreChannel support, the installation of an Emulex Fibrechannel adapter is required (LPe1105 or LPe11002)

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.

Product Contents

Distribution CD
USB license key dongle
Installation instructions
Online documentation

License Key

The CHARON hardware license key is permanently connected to the host system running the software. 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 (mean time between failures) 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 3 months standard warranty for this product is the readability of the distribution media.

**Software Concepts
International, LLC**
402 Amherst Street
Suite 300
Nashua, NH 03063 USA
Tel: 603.879.9022
Fax: 603.879.9023
Web: www.sciinc.com
scitechinfo@sciinc.com