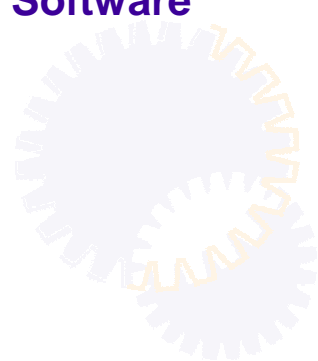




Alpha and VAX Hardware Virtualization Software



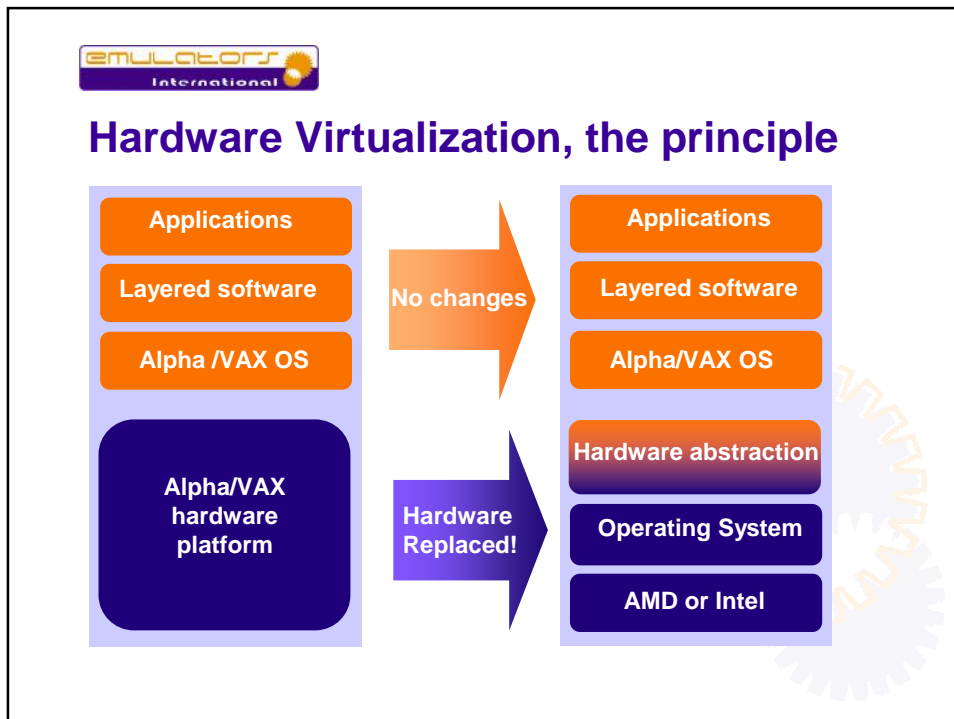
Situation / Solution

- Alpha or VAX Computer inhabits mission critical place
- Alpha/VAX End-Of-(Service)-Life status
- Important installation at risk
- Replacement imperative
- Migration expensive and demanding task, high risk operation

Alpha/VAX Hardware Virtualization Software offers:

- ü No changes to application software
- ü Computer platform replacement only
- ü Fast, low cost, low risk
- ü Hardware independency
- ü Adding 5-10 years to your installation's life





EMULATORS International

Alpha emulation

Help customers with:

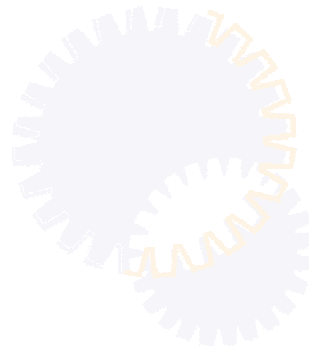
- Early Alpha systems
- Single CPU (unless)
- <1998

- DEC3000 AXP
- AlphaServer 300, 400
- AlphaServer 1000, 2x00
- AlphaServer 4x00



Emulated hardware Release 1.0

- CPU: Alpha 21064(A), 21164(A)
- 0.5, 1, 2, 4, 8 GB emulated Alpha memory (upgradeable)
- PCI-bus
- Ethernet adapters (DE500)
- SCSI adapter (KZPBA)
- Hard disk drives (physical and logical)
- Floppy drive
- CD-ROM drive
- Tape device
- Serial lines / COM-ports
- VT-type terminal (non graphics)



Alpha vs Emulation

Single CPU!

AlphaServer ES47 7/1300

AlphaServer DS15 7/1000

AlphaServer GS160 6/730

AlphaServer ES40 6/525

AlphaServer DS10/20 6/466

AlphaServer 4100 5/600

AlphaServer 4100 5/533

AlphaServer 4000 5/466

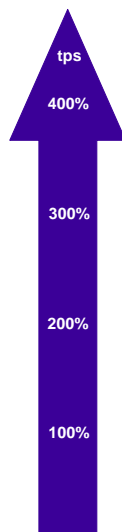
AlphaServer 800 5/500

AlphaServer 2100 5/375

AlphaServer 2000 5/300

AlphaServer 1000 4/200

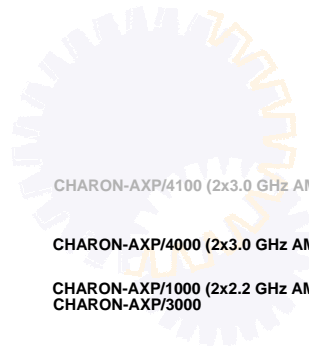
DEC3000/800



CHARON-AXP/4100 (2x3.0 GHz AMD)

CHARON-AXP/4000 (2x3.0 GHz AMD)

CHARON-AXP/1000 (2x2.2 GHz AMD)
CHARON-AXP/3000





Target platform architecture

- HP Workstation or Server
- Dual(-core) processor computer system
 - AMD: Opteron, Athlon (64)
 - Intel: EMT64
- Emulated memory + 1.5 GB
- 10/100/1000 MB Ethernet adapters
- IDE, SCSI or SATA disks
- CD-ROM / floppy
- Tape device
- Windows x64 operating system, XP / 2003



What platform to choose

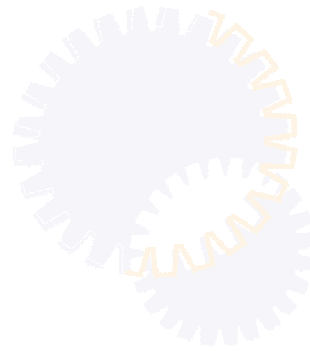
- HP hardware
 - Replacing HP hardware
 - O/S transfer license validation
 - Uniform platform
 - Worldwide support and warranty (3 years)
 - HP Proliants:
 - Reliable
 - Good longevity
- AMD for performance





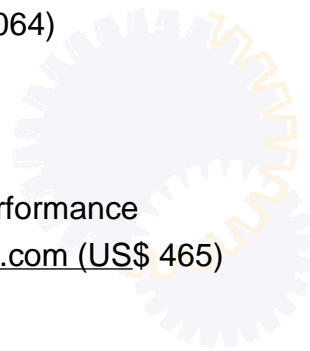
Preferred host platforms

- HP Proliant DL145
- HP Proliant DL385
- HP Proliant DL585
- HP xw9300
- HP xw6200/8200



PersonalAlpha

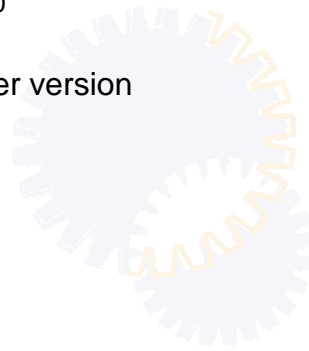
- Personal Alpha Hardware Virtualization Software
- Proof of concept
- Runs on 32-bit Windows platform
- DEC3000-400 emulation (Alpha 21064)
- 96 MB memory
- 2 Logical disks
- 1 Ethernet
- 15% of the CHARON-AXP/4000 performance
- Download from www.personalalpha.com (US\$ 465)





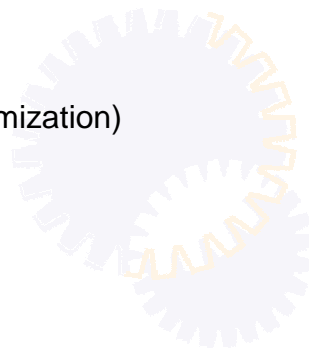
Portfolio

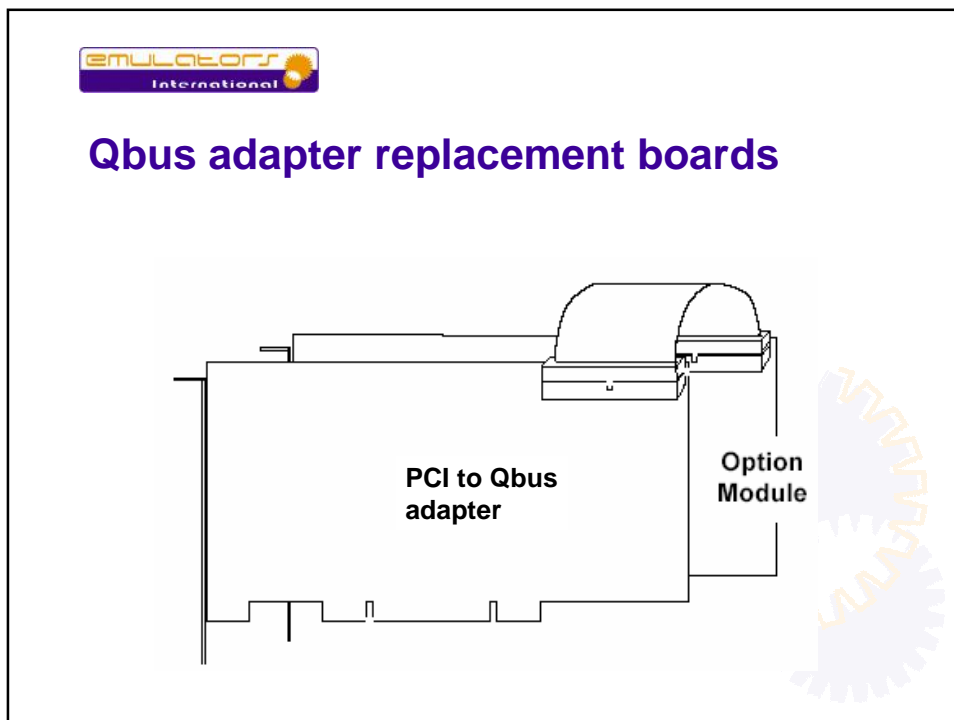
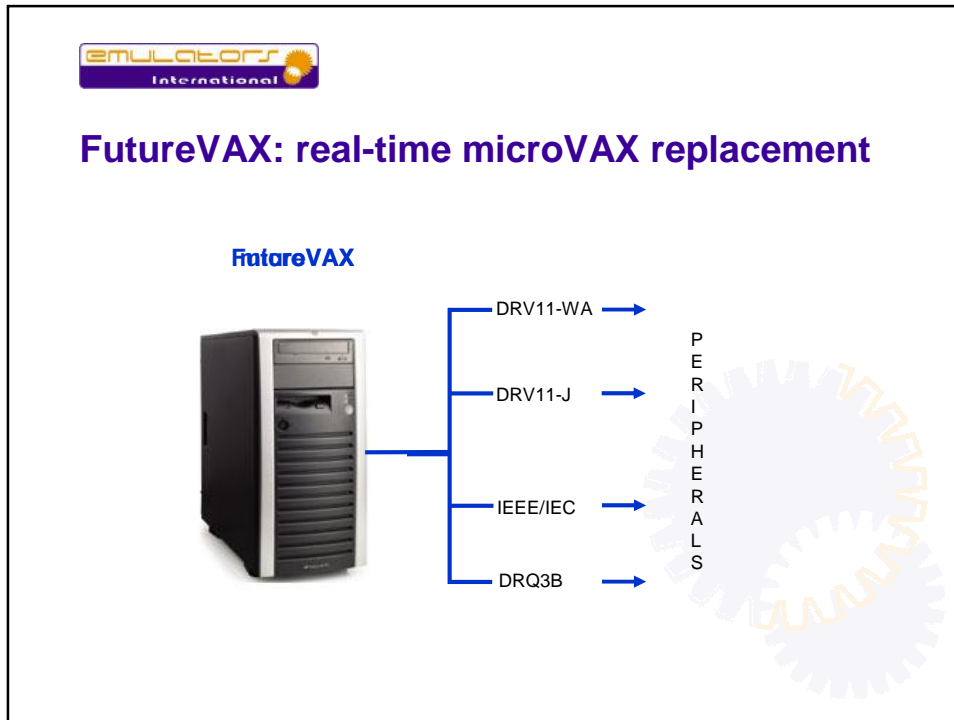
- CHARON-AXP or VirtualAlpha
 - /3000 replaces DEC3000 AXP
 - /1000 replaces AlphaServer 400, 1000, 2000
 - /4000 replaces AlphaServer 2100, 4000
 - /4100 replaces AlphaServer 4100
- PersonalAlpha: hobbyist / single user version



Product available from:

- **Software Resources International**
CHARON-AXP
www.softresint.com
- **Emulators International**
VirtualAlpha (special projects/customization)
www.alphaemulator.com
www.personalalpha.com

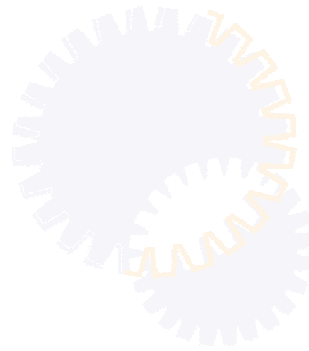






Qbus system kernel replacement

- Replace CPU, memory, disk
- Keep Qbus cage and adapters



FutureVAX 3600-3

- 28 VUPS CPU performance
- Max 64 MB emulated VAX memory
- 512 MB physical memory
- 36 GB SCSI disk
- 1 Ethernet adapter assigned to the VAX-emulator
- 1 Ethernet adapter for emulator configuration and control purposes
- CD-ROM device
- Floppy drive
- PCI-to-Qbus interface
- 3 free option slots for Qbus option modules
- Emulator software
- License protection key





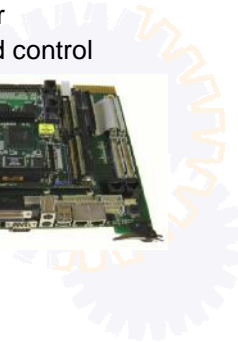
FutureVAX 3600-6

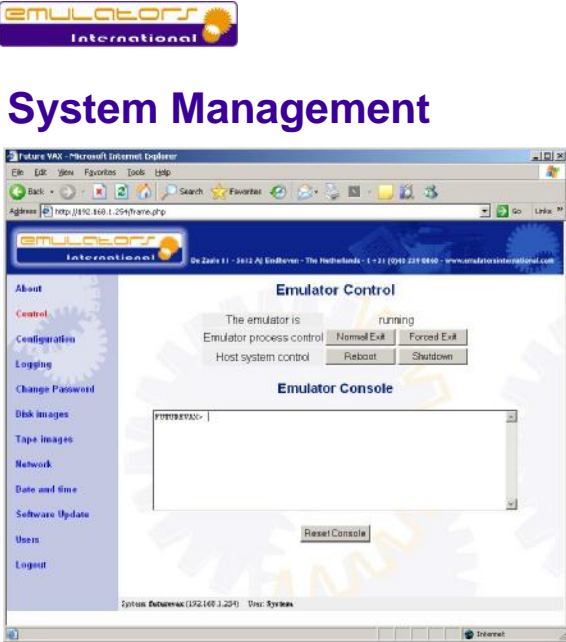
- 32 VUPS CPU performance
- Max 64 MB emulated VAX memory
- 512 MB physical memory
- 36 GB SCSI disk
- 1 Ethernet adapter assigned to the VAX-emulator
- 1 Ethernet adapter for emulator configuration and control purposes
- CD-ROM device
- Floppy drive
- PCI-to-Qbus interface
- 6 free option slots for Qbus option modules
- Emulator software
- License protection key




FutureVAX 3600-Q

- 18 VUPS CPU performance
- Max 64 MB emulated VAX memory
- 512 MB physical memory
- 40 GB physical disk
- 1 Ethernet adapter assigned to the VAX-emulator
- 1 Ethernet adapter for emulator configuration and control purposes
- PCI-to-Qbus interface
- Emulator software
- License protection key





The screenshot shows a web browser window displaying the 'Emulators International' website. The page title is 'System Management'. The main content area is titled 'Emulator Control' and shows the emulator is 'running'. Below this, there are buttons for 'Normal Exit', 'Forced Exit', 'Reboot', and 'Shutdown'. A section titled 'Emulator Console' contains a text area with the text 'FORCED EXIT' and a 'Reset Console' button. A sidebar on the left lists various management options: About, Control, Configuration, Logging, Change Password, Disk images, Tape images, Network, Date and time, Software Update, Users, and Logout. The browser's address bar shows 'http://8192.868.1.25/iframe.php'. A large gear watermark is visible in the background of the slide.



The screenshot shows the 'Emulators International' logo at the top. Below it is the section header 'Additional capabilities'. A bulleted list follows, detailing the emulator's features:

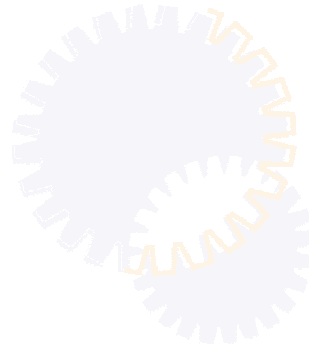
- Bigger disks
- USB removable disks
- Memory stick support
- Performance control mechanism

A large gear watermark is visible in the background of the slide.



FutureVAX benefits

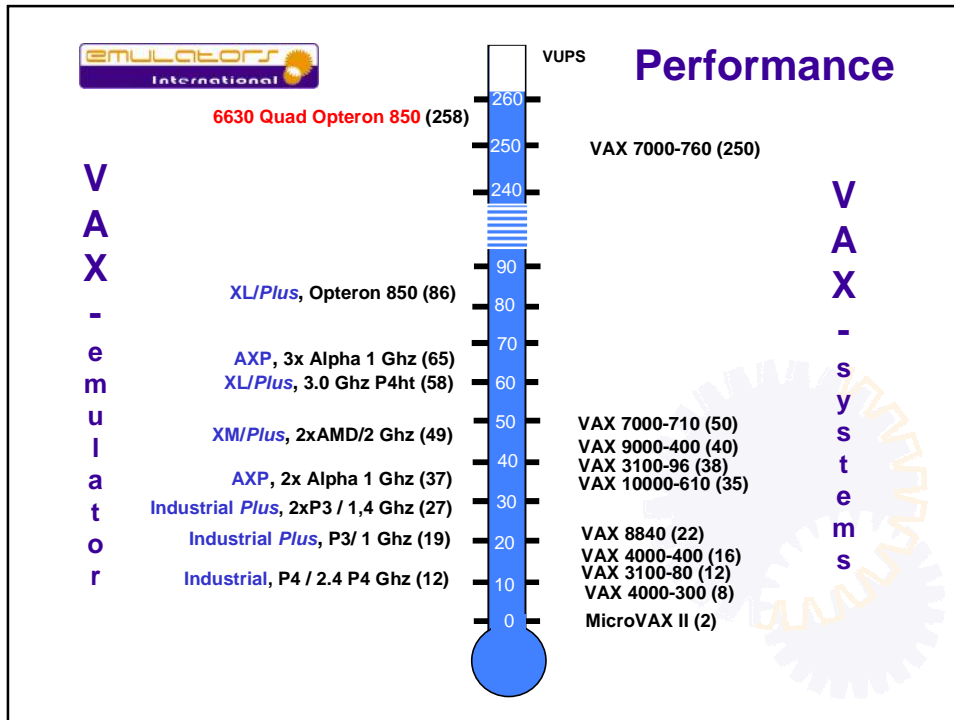
- No software changes
- Hardware exchange
- Fast, low cost
- Performance increase
- Extend installation longevity
- Qbus adapter equivalents
- Real-Time application support
- Performance calibration
- Improves maintenance



CHARON-VAX

- Windows based software
- Targetted at standard VAX replacement
- Non real-time environment
- No QBUS devices involved
- Available through Software Resources and Resellers





EMULATORS International

VMS software licenses

HP Transfer Licenses for OpenVMS:

- Right to transfer VAX/VMS to the emulator system
- All supported layered products

Support on HP hardware only

<http://www.openvms.compaq.com/openvms/sri-charon-vax-emulator.html>



For more information:

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www.softresint.com
www.alphaemulator.com
www.personalalpha.com
www.futurevax.com

Questions
References

Product descriptions
Application notes
Documentation
Utility downloads