

vtAlpha version 2.1 Release Notes

Changes since the last version

Tru64 multi-CPU support

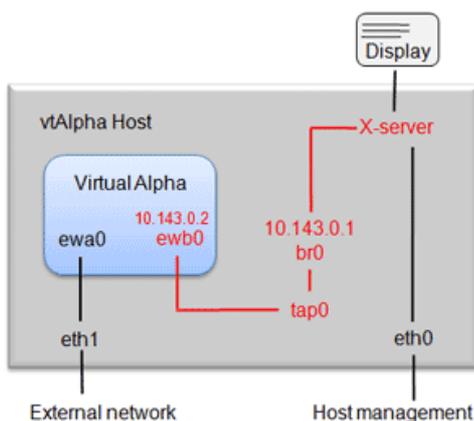
Version 2.1 adds support for multi CPU virtual Alpha's running Tru64.

vtAlpha v 2.1 allows you to replace multi-CPU AlphaServer 1200, 2000, 2100, 4000, 4100, DS20 and ES40 systems running OpenVMS or Tru64.

For the multi-CPU systems (vtAlpha-DS, -ES and CS) a minimum operating system level of 7.1-2 for OpenVMS and 4.0F for Tru64 applies. vtAlpha-LE and -BS support OpenVMS 6.2-1h3 and Tru64 3.2C as oldest version.

Setup vtAlpha as a virtual Alpha workstation

We have received multiple requests to allow vtAlpha to run as a one-box solution for Alpha workstation configuration replacements. With version 2.1 we have added extended support for on-host graphics adapters and enhanced configuration capabilities to support these requests. A virtual Alpha workstation looks like this:



To support the workstation setup we use the X-windows server that is available in the vtAlpha host and connect that to the virtual Alpha by an in-host network link. For this internal link we use a virtual network adapter (tap0) and bridge (br0).

Alpha network adapter ewa0 is connected to an external network via eth1. eth0 should be allocated (as always) for vtAlpha host management purposes (vtMonitor).

For this in-host X-server link two IP-addresses are assigned by default. These can be changed, when required. The X-server configuration has a standard protection against external access. This protection allows access from localhost, 10.143.0.1 and 10.143.0.2 by default, and can be updated in the vtAlpha host menu.

Configuration capabilities to define the settings of your workstation monitors are also added to vtAlpha. We refer to the vtAlpha reference manual chapter 3.7.2 or the Tips section in the online manual in vtMonitor for detailed instructions on how to setup such a virtual Alpha workstation.

Improved vtAlpha version upgrade procedure

The vtAlpha installation DVD and USB disk image now have the **Upgrade** option that allows a smooth and simple upgrade of an existing installation. The process is now fully automated and requires no manual intervention. It analyzes the existing installation and determines which upgrade(s) are required. Existing configuration files will be saved prior to upgrade and reinstalled after the process, ensuring a flawless upgrade, even when a large version gap needs to be closed. No online update applies for this version (vtAlpha kernel re-install required)

Download locations

DVD-image: ftp://update.getanewemulator@ftp.avtware.com/vtalpha_dvd_2.1.0.zip

USB-stick image: ftp://update.getanewemulator@ftp.avtware.com/vtalpha_usb_2.1.0.zip

Note version 2.0 required a license key upgrade, don't forget when you are upgrading from an older version.

32 GB memory support

In version 2 vtAlpha supports up to 32 GB of virtual Alpha memory.

Disk Caching for better storage performance

When using logical disks there is the option **Read-Cache on** and **Write-Cache on** in the configuration parameters of the logical disk. By default these are set to **no**. This ensures that write actions to disk are executed immediately to always warrant storage data integrity.

When your vtAlpha does not share its logical disks with another (virtual) Alpha, or when it shares its storage with another virtual Alpha on the same vtAlpha host computer, it is beneficial to set these caching parameters to **yes**. I/O performance can double when using this option, depending on the applications.

The caching is arranged on the vtAlpha host level. As soon as you cross that border (= another physical or virtual machine), storage data integrity can no longer be warranted when this caching option is activated. The caching options should be **no** in these cases

Eco App (Energy Conservation Application) v1.1

We have issued a new version of the vtAlpha Eco App, which is required when you run vtAlpha v2.1.

vtAlpha includes the 'Eco App' which downsizes the energy consumption of the vtAlpha host when the guest operating system does not require all available CPU capacity.

Normally a (any) virtual Alpha runs the host CPU's at full throttle because it not aware of the actual demand of the guest operating system. This behavior will needlessly keep the host CPU's busy, consume a lot of energy, generate a lot of heat (requiring extra energy for cooling) and wear the host system down prematurely.

To remedy this we developed the Eco App (**Energy Conservation Application**). It runs in OpenVMS and tells vtAlpha when VMS doesn't need the (virtual) Alpha CPU. vtAlpha then releases the CPU in the host system until the Eco App tells it that VMS needs the CPU again.

This Eco App is a major energy saver and we recommend to use it wherever possible.

Read more about it here: <http://www.avtware.com/vlog/>

It can be downloaded from our FTP-site: <ftp://ftp.avtware.com/ecoapp.vdisk>

This will give you a logical disk that you can connect to your virtual Alpha, run product **install ecoapp** in OpenVMS. After this step you can disconnect the ecoapp disk again.

Or you can connect directly from OpenVMS to the following FTP location: **ftp.avtware.com**, file (binary): **ecoapp.zip**, and process it in VMS with **product install ecoapp**.

If the system on which this utility is running does not support this energy saving capability, an error will be issued when loading or installing the utility.

vtMonitor enhancements

- Improvements to the terminal emulation tool.
- Added password protection capability the OPA0 and COM2 and all other serial lines (PBXDA), prohibiting that non-authorized people gain access to a console connection and with that to system management capabilities.
- Improvements in the display of configuration details.
- Display of the free space on attached disk storage
- Create and delete disk partitions

vtAlpha license update

For offline license key updates, follow this process:

Get the license key number from vtMonitor System tab. It should start with a single digit, followed by a dash followed by seven digits, like 1-1234567.

Login to our License-server (<ftp://update:getanewemulator@ftp.avtware.com/license>).

Download the .tgz file with your license key number.

Use vtMonitor to import and upgrade that file into vtAlpha.