vtVAX for Windows Product Overview

vtVAX software is a cost-effective replacement for almost any DEC VAX server or workstation. This VAX virtualization software runs on modern x86-64 hardware, virtual machines, or the Cloud. The OpenVMS operating system, user interface, and layered applications run unmodified on vtVAX without source code conversion, recompiling, relinking, or end-user retraining.

The compatibility of vtVAX with VAX hardware has been tested using the DEC VAX diagnostics and architecture verification tools. Compatibility with legacy DEC physical devices including SCSI disks and tapes, serial ports (including full modem control) and Ethernet cards preserves real-time process control applications in industrial environments.

vtVAX allows you to take advantage of the significantly improved CPU, disk, and networking performance of modern architectures, improving user response times. The Instruction Caching (IC) option dramatically improves the performance of CPU-intensive applications such as floating point, statistical analysis, and data warehouse business analytics.

Product	CPUs	Memory	VAX Model
vtVAXStation	1	128MB	MicroVAX II VAX Server 3600/3900
vtVAX	1	128-512MB	MicroVAX II VAX 3100-90/95 VAX 4000-90 VAX 4000-100/105/200 VAX Server 3600/3900
vtVAX IC Instruction Caching	1	128-512MB	MicroVAX II VAX 3100-90/95 VAX 4000-90 VAX 4000-100/105/200 VAX Server 3600/3900
vtVAX 76X0	1-4	2GB	VAX 66X0/76X0

System Management

vtVAX for Windows is user-friendly, with an XML-based GUI management tool which allow authorized admins to run and maintain your virtual VAX systems running on Windows from a single interface.

Clustering

vtVAX brings OpenVMS Clusters' well-deserved reputation for high-availability and reliability into the modern datacenter, providing flexible, cost-effective disaster recovery options for small businesses as well as global enterprises. vtVAX can be configured as VAX-cluster or OpenVMS Cluster member using Ethernet (NI) or emulated DSSI ("shared disk") interconnects. The Maintenance Operations Protocol (MOP) is supported for maintenance operations and remote booting.

Storage Subsystem

vtVAX has the capability to configure virtual disks, CD-ROM drives and tape devices. The virtual devices may be mapped to storage devices or container files on the host system. These container files may be located on any type of storage attached to the host: SCSI, SATA, SAS, USB, SSD, CD/DVD, iSCSI, NAS, NFS or SAN.

Emulated Qbus-based systems allow for the configuration of four virtual MSCP disk controllers, each supporting 32 drives (DI, DK, and DU devices). SCSI bus systems support the configuration of two virtual SCSI controllers, each supporting eight disk devices. One virtual tape controller may be configured with up to 16 tape drives. vtVAX 76X0 systems may be configured with up to eight DSSI controllers.

Multiple container files may be stored on a single PC drive, providing for storage consolidation without changing the OpenVMS file system. VAX tape operations using logical tape drives and transfer data at disk speeds without the physical media errors often experienced with tape storage.

Network Subsystem

vtVAX supports virtual DELQA, DEQNA, SGEC or DEMNA Ethernet interfaces, depending on the processor model being emulated. A maximum of two DELQA/DEQNA adapters or one SGEC adapter may be configured (all three may be configured when emulating a vtVAX 4000 system). vtVAX 76X0 systems may be configured with up to four virtual DEMNA adapters. Each virtual Ethernet adapter is mapped to a dedicated physical Ethernet interface on the host system. On the Bare Metal platform, a virtual switch may be used to allow multiple virtual adapters to share a single physical interface.

Network interfaces are not limited by the 10 Mbps, half-duplex limitations of a physical VAX system. The physical interfaces can be configured in any mode supported by host computer, typically 1 or 10 Gbps. In most cases this allows the virtual VAX system to achieve much higher network throughput than the VAX it replaces.

Serial Lines

vtVAX emulates the DHQ11, DHV11, CXA16, CXB16, and CXY08 serial interfaces; up to a maximum of 32 ports. Each configured serial port requires a dedicated connection on the host: a serial COM port (on-board or PCI serial interface) or a Telnet connection. Telnet connections are presented as virtual devices. You only need to configure those virtual ports actually being used.

Graphics

When emulating a Qbus-based system, a single virtual VCB02 graphics controller can be configured, allowing the host monitor to be used as the display device for the virtual VAX.