vtSparc–4U (SPARCStation)

Product Overview

Many manufacturers and industrial facilities still rely on software that runs on older Sun SPARCstation computers. These machines are decades old, increasingly difficult to maintain, and nearly impossible to find replacement parts. However, the software running on them is deeply embedded in day-to-day operations and can be expensive or risky to replace.

vtSparc-4U (UltraSparc) solves this problem by creating a software replica or a virtual machine of the original SPARCstation hardware. The existing software continues to run exactly as it always has, but now it runs on a modern computer, a virtual machine, or the cloud. No changes are made to the client's software, and no software migration is required.

Key Benefit:

vtSparc-4U lets you retire aging SPARCstation hardware without touching the software that runs on it — saving significant time, cost, and risk.

vtSparc-4U specifically supports virtualization of the following SPARCstation models:

- Ultra 5
- Ultra 10
- Ultra 450

Emulation Process

Modern computers use a completely different hardware architecture than the original SPARCstation systems, which means SPARC software cannot run on them directly. vtSparc-4U bridges this gap through a process called emulation.

During emulation, vtSparc-4U acts as a translator between the old software and the new hardware. It presents the SPARC software with all the hardware components it expects to see , such as: disk controllers, network adapters, memory, and processors, even though those components no longer physically exist. The software has no way of knowing it is not running on the original machine.

The migration process works like this: binary image copies of the original SPARC hard disks are transferred to the new host system. Once that transfer is complete, simply power on the virtual machine and resume normal operations.

Specifications

Parameter	Value
Supported Models	Ultra 5,10, 450
Guest OS	Solaris 4 and all later versions
Virtual CPUs	1 to 24 virtual SPARC processors
Virtual Memory	Up to 128 GB
Host Environment	x86 PC, virtual machine, or cloud — no pre-installed OS required
Storage Options	SAS, SATA, iSCSI, NFS, Fibre Channel, NAS, SAN
Networking	Emulated LANCE Ethernet; VLAN support; multiple virtual machines can share one network connection
Serial Ports	2 virtual COM ports, connectable to physical devices or terminal sessions via telnet or SSH
Optical Media	Physical CD/DVD drives and ISO image files supported

Storage and Networking

Modern Storage, Familiar Interface

One of the most valuable aspects of vtSparc-4U is that it completely separates what the old software sees from what is actually happening behind the scenes. The SPARC software still thinks it is talking to the same old disk drives and network adapters, including SUNHME Ethernet and LSI SCSI adapters, but the vtSparc-4U connects those virtual devices to modern storage and networking infrastructure.

Customers can take advantage of modern storage technologies that the original SPARCstation could never support. For host-based storage, vtSparc-4U works with any device type: Fibre Channel, SCSI, iSCSI, SATA, SAS, NAS, SAN, or NFS — seamlessly translating between what the SPARC software expects and what the modern host has to offer.

Flexible Disk Options

Disks in vtSparc-4U can be configured in two ways. Logical disks are files stored on the host system's storage, where it is easy to manage, back up, and combine multiple virtual SPARC disks on a single physical drive. Physical disks assign a real, dedicated drive directly to the virtual machine, which some applications may prefer for performance or compatibility reasons.

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Installation and Host Environment

vtSparc-4U installs directly onto the host computer without requiring a pre-installed operating system like Windows or Linux. This approach, sometimes called a bare metal installation, keeps the environment simpler, more secure, and eliminates the cost of maintaining an additional operating system.

Everything needed to run and manage a virtual SPARC systems is included in the vtSparc-4U package. The system can run on a standard x86 server, inside a virtual machine, or on a cloud platform, giving flexibility in how and where it is deployed.

System Management

vtSparc-4U includes the vtMonitor management tool, which allows customers to manage and monitor the virtual SPARC environment from any location with network access to the host system. Through vtMonitor, virtual machines can be started and stopped, configurations adjusted, and monitored health of both the virtual systems and the underlying host hardware — all from a single, easy-to-use interface.

Security

vtSparc-4U is designed to meet the security requirements of industrial and enterprise environments. The system manager can configure the security environment to match an organization's policies.

Key security capabilities include:

- Role-based access control with configurable permission levels, so different users have access only to what they need
- Secure communication protocols for all remote management traffic
- Encrypted execution environment when deployed in the cloud
- Configurable event logging and alerts to track activity and flag issues

License Protection

vtSparc-4U is licensed software. Each installation is protected by a compact USB Smart Card, which is a small physical key (only 3 mm high). The Card plugs into the host computer and activates the software. Its low profile means it is unlikely to be accidentally knocked loose during normal operation.

The licensing system is flexible enough to manage multiple instances of vtSparc-4U that runs on the same host or across multiple systems on a company network. This configuration makes it straightforward to build a disaster-tolerant setup, where a second system can take over if the primary host fails.

Products and Services

Product or Service	Description
Base License	Licenses one virtual SPARC instance on a single host system
Additional CPU License	Adds one extra virtual SPARC processor per license; up to 23 additional CPUs supported per instance (U450 model only).
Annual Software Support	Provides access to the vtSparc support team and the right to download and install updated product versions throughout the support term
Disaster Recovery License	Provides 720 hours of vtSparc-AS runtime that can be used in 10-minute blocks, allowing continued operation during a host hardware failure