

VMware Virtual SMP

Multi-processor support for virtual machines



What Is VMware Virtual SMP?

VMware® Virtual Symmetric Multi-Processing (SMP) enhances virtual machine performance by enabling a single virtual machine to use multiple physical processors, simultaneously. A unique VMware feature, Virtual SMP™ enables virtualization of the most processor- and resource-intensive enterprise applications such as databases, ERP and CRM.

New – 4-way Virtual SMP. The Virtual SMP capability has been extended from two to four processors in VMware Infrastructure 3.

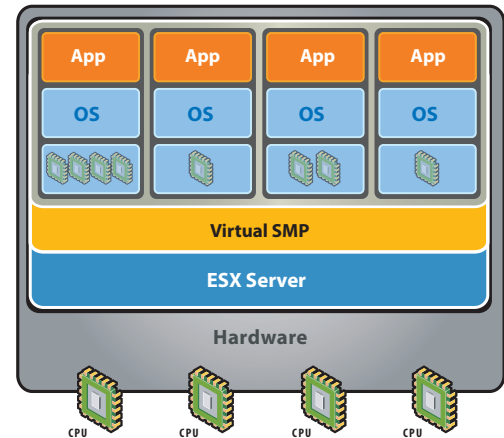
How Is VMware Virtual SMP Used in the Enterprise?

Virtual SMP allows users to:

- **Run resource intensive applications in virtualized environments.** Run enterprise application such as databases, and ERP or CRM, in virtual machines.
- **Scale computing environments without adding new hardware.** Allow multiple processors to work together on a workload and increase utilization of existing resources.
- **Improve software development and deployment.** Create development and testing environments that are more realistic and can be quickly and easily deployed.

How Does VMware Virtual SMP Work?

VMware Virtual SMP makes it possible for a single virtual machine to span up to four physical processors, or CPUs. These processors share the same memory, and work on any task regardless of the location of the task in memory. Virtual SMP co-schedules non-idle virtual processors synchronously while allowing over-commitment of the processors. Idle virtual processors can be de-scheduled with the guest operating system running inside the virtual machine and then re-used for other tasks. Virtual SMP periodically moves processing tasks between the available processors to re-balance the work load. Virtual SMP has built-in controls to minimize overhead on the system.



VMware Virtual SMP increases the processing capacity of virtual machines by allowing a single virtual machine to utilize up to four processors simultaneously.

How Can I Purchase Virtual SMP?

- Two-way and four-way Virtual SMP is included with VMware Infrastructure 3 Standard and VMware Infrastructure 3 Enterprise.
- Virtual SMP is not available for purchase as a stand-alone product.

Product Specifications and System Requirements

Virtual SMP requires VMware ESX Server. For detailed product specifications and system requirements, go to http://www.vmware.com/support/pubs/vi_pubs.html.

“The new 4-way Virtual SMP opens new frontiers for us - now we can create virtual machines for even the most processor and memory intensive applications such as databases, ERP and CRM. We are very excited that VMware is turning the vision of the automated, self-optimizing datacenter into reality.”

Ed Baldwin, Senior Network Engineer, Enbridge Energy Company, Inc.