

# Frequently Asked Questions

Beyond performance, your business demands long-term investment protection, exceptional energy efficiency, and advanced virtualization technology. AMD and Novell deliver.



Novell.

## 1. What's the nature of the relationship between AMD and Novell?

AMD and Novell have worked closely together for years to bring breakthrough technology to market. AMD's ongoing collaboration with Novell stems from a shared commitment to high-performance, open source enterprise solutions. Today, AMD and Novell are working together to ensure that SUSE® Linux® Enterprise Server is optimized for the Quad-Core AMD Opteron™ processor.

## 2. Is there a history of collaboration between AMD and Novell?

SUSE Linux Enterprise Server is consistently the first Linux distribution to enable advanced features in AMD processors. It was the first 64-bit server operating system to support: AMD Opteron processors, optimization for dual-core processing, AMD PowerNow!™ technology, and AMD Virtualization™ technology.

## 3. What's the difference between Novell and other Linux distributors?

Novell provides a robust, scalable, and flexible infrastructure that takes advantage of the most advanced features of AMD technology, so IT departments can fully realize the benefits of Quad-Core AMD Opteron processors. That's because AMD and Novell worked together to optimize the most advanced features of Quad-Core AMD Opteron processors for SUSE Linux Enterprise Server 10, including:

- **CPU scheduler** — Determines which processes run on each processor
- **Enhanced AMD PowerNow!™ technology** — Delivers performance-on-demand while reducing power consumption
- **Reliability, availability, and scalability (RAS) features** — Help reduce hardware failure that could corrupt data or bring down servers
- **48-bit physical addressing** — Enables servers to have more physical memory
- **AMD Rapid Virtualization Indexing** — Allows multiple virtual machines to run varied datacenter workloads in native and Xen virtualized environments with outstanding performance, energy efficiency, and reliability

## 4. What critical IT challenges are addressed by combining Quad-Core AMD Opteron™ processors with SUSE Linux Enterprise Server 10 Service Pack 1?

Quad-Core AMD Opteron processors combined with SUSE Linux Enterprise Server 10 Service Pack 1 meet critical enterprise demands for long-term investment protection, exceptional energy efficiency, advanced virtualization technology, and unmatched computing performance.

## 5. Will using Quad-Core AMD Opteron™ processors and SUSE Linux Enterprise Server 10 Service Pack 1 require costly and disruptive technology transitions?

No. AMD's common-core strategy and the flexible Linux platform from Novell enable seamless upgrades from dual- to quad-core processors and beyond to help you minimize the cost of transitions and maximize past investments in hardware, software, and personnel. AMD also offers a stable, long-term roadmap.

**6. How does Novell optimize AMD's latest features that are designed to improve energy efficiency, like Enhanced AMD PowerNow!™ technology?**

Enhanced AMD PowerNow! technology works with SUSE Linux Enterprise Server 10 Service Pack 1 to deliver performance-on-demand while reducing power consumption. Novell also supports features like Independent Dynamic Core Technology, Dual Dynamic Power Management™, and AMD CoolCore™ technology, which help businesses control power and cooling costs without sacrificing performance.

**7. Does SUSE Linux Enterprise Server 10 Service Pack 1 take advantage of the advanced virtualization technology offered by Quad-Core AMD Opteron™ processors?**

Yes. Novell actually optimizes hardware-assisted AMD Virtualization™ (AMD-V™) technology. AMD-V provides a balanced approach to improve virtualization performance, enabling more virtual machines to run per server. And AMD Rapid Virtualization Indexing, a new enhancement to AMD-V, can greatly increase the performance of virtualized applications through hardware-assisted memory management for faster switching between virtual machines.

**8. How well does SUSE Linux Enterprise Server 10 Service Pack 1 perform with AMD's multi-core technology?**

Quad-Core AMD Opteron processors combined with SUSE Linux Enterprise Server 10 Service Pack 1 deliver outstanding performance. Novell supports AMD's latest features, such as:

- Enhanced CPU cores designed to execute more instructions per clock cycle
- AMD Wide Floating Point Accelerator that allows each processor to simultaneously execute up to four times the floating point computations of previous AMD Opteron processors
- AMD Balanced Smart Cache with dedicated L1 and L2 caches and a new, large shared L3 cache to benefit applications that work with large datasets
- Dual Dynamic Power Management™ improves memory performance while allowing for decreased system power consumption

**9. How stable and flexible is the foundation provided by SUSE Linux Enterprise Server 10 Service Pack 1 and Quad-Core AMD Opteron™ processors?**

Quad-Core AMD Opteron processors and SUSE Linux Enterprise Server 10 SP1 offer the best-engineered Linux foundation for robust, scalable, and flexible enterprise computing. Plus, Novell's SUSE Linux platform supports the reliability, availability, and scalability (RAS) features of the Quad-Core AMD Opteron processors, which help reduce hardware failure that could corrupt data or bring down servers.

**10. Do AMD and Novell share any technology partners?**

AMD and Novell share strong partnerships with Dell, HP, and IBM, Microsoft, SAP, among others.

**11. What are the key enhancements of SUSE Linux Enterprise Server 10 Service Pack 1?**

SUSE Linux Enterprise includes paravirtualized network, bus, and block device drivers that enable unmodified SUSE Linux Enterprise Server 9 and 10 guest operating systems to run with near native performance in virtual environments. A related offering, the SUSE Linux Enterprise Virtual Machine Driver Pack, contains paravirtualized device drivers for improved performance of unmodified Windows and Red Hat Linux guest operating systems in virtual environments created with SUSE Linux Enterprise Server 10 Service Pack 1.

SUSE Linux Enterprise Server 10 SP1 also updates all key components of the High-Availability Storage Infrastructure, including the cluster file system, volume manager, and cluster resource manager. The result is improved support for workloads like SAP running on Oracle, DB2, and MaxDB. And the Novell® AppArmor™ 2.0 security framework is integrated into the SUSE Linux Enterprise 10 platform and now includes support for Apache Tomcat.

For more information, visit [www.amd.com/novell](http://www.amd.com/novell)  
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