



Partner Flyer

SUSE Linux Enterprise Server for
High Performance Computing
SUSE Enterprise Storage

Transform Your Enterprise with High-Performance Computing from SUSE and HPE

Enterprises today are realizing that high-performance computing (HPC) is no longer the sole domain of well-funded research institutions. It's becoming a valuable solution for organizations that want to run data-intensive workloads and process large volumes of information in ways that help them improve business outcomes, innovation and competitiveness. Now SUSE and Hewlett Packard Enterprise (HPE) have teamed up to make HPC systems accessible to businesses of all sizes. As market leaders in HPC, they offer secure, scalable HPC solutions that are easy to implement and use.

SUSE and HPE HPC Solution at a Glance:

- + *Get a complete, integrated solution that is optimized and proven to work together.*
- + *Easily, cost-effectively scale HPC capabilities and capacity as you grow.*
- + *Combine the innovation of open source technology with expert support from industry leaders.*
- + *Reduce complexity with management features and seamless integration with many third-party solutions.*

■ Products:

SUSE Linux Enterprise Server for High Performance Computing
SUSE Enterprise Storage
HPE hardware:

- HPE SGI 8600
- HPE Apollo 2000
- HPE Apollo 4000
- HPE Apollo 6000
- HPE Apollo 10 Systems
- HPE Superdome Flex
- HPE Apollo 70

To find an effective HPC system for your enterprise needs, there are a number of capabilities to keep in mind, such as security and resilience, ease of use, performance, and data access. However, succeeding with HPC all starts with one critical decision: selecting experienced technology partners who know the unique world of HPC well. That's where SUSE and HPE come in.

SUSE and HPE Help You Stay Ahead of the Competition

SUSE and HPE have a 25+ years partnership—that's longer than some Linux vendors have been in existence. Since 2003, SUSE® Linux Enterprise Server has been bundled as a native install option for SGI supercomputers and servers. And today, the SUSE Linux Enterprise operating system is the preferred OS for all HPE HPC environments.¹

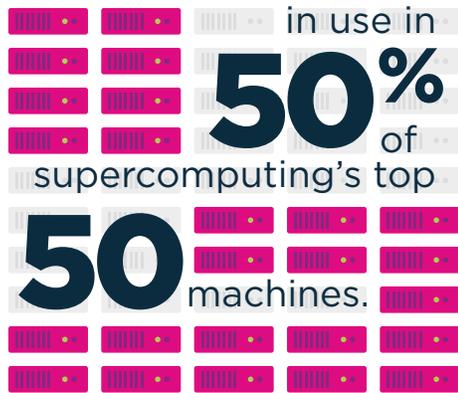
Together, SUSE and HPE can deliver performance and capabilities that others can't. For instance, SUSE adopts new Linux kernels faster than the competition, which lets the HPE HPC team take advantage of those new features to improve your server performance and overall cluster throughput. And the close cooperation means that SUSE can include HPE feature requests quickly and smoothly integrate them into the Linux kernel. It also means that SUSE can add the HPC packages that HPE users want—sooner.

Accelerating Leadership in the HPC Industry

In addition to having a strong partner relationship, SUSE and HPE are also longtime leaders in the HPC space.

¹ www.hpe.com/us/en/product-catalog/detail/pip.5379857.html

SUSE is a longtime leader in HPC



The SUSE Linux Enterprise operating system is in use in 50 percent of supercomputing's top 50 machines. SUSE Linux Enterprise Server is the only Linux distribution that includes supported HPC packages within the distribution, and it is available for both x86_64 and ARM64 architectures. In fact, it was the first commercially supported enterprise Linux for ARM. HPE's Apollo 70 server delivers ARM HPC processor technology for maximum memory bandwidth and familiar management and performance tools.

HPE is the single largest hardware vendor in the HPC market², with a long history of innovation in mid- and large-tier HPC systems. With its acquisition of SGI, HPE's portfolio now includes the SGI 8600, the world's most advanced production supercomputer. And with HPE Apollo 10 systems, even the smallest department can run deep-learning and mixed-workload HPC on industry-standard accelerated compute servers.

A Secure, Intuitive HPC Solution That Delivers What You Need

SECURITY AND RESILIENCE

SUSE Linux Enterprise Server comes certified with Common Criteria EAL4+—the highest certification level for a commercial OS—and is validated to FIPS 140-2, a U.S. government computer security standard. Additionally, HPE has been recognized as having the “world's most secure industry-standard servers.”³

EASE OF USE

SUSE is a founding member of OpenHPC, which works to simplify installation, configuration and maintenance of a custom software stack. With HPE's HPC software and the HPC packages available in SUSE Linux Enterprise Server for High Performance Computing, you have everything you need to run HPC workloads—so you can focus more on your business challenges.

SCALABILITY

SUSE pricing allows you to scale economically, with no difference between head and compute nodes. It also offers an extended support lifecycle so you don't have to interrupt work for OS upgrades. SUSE Enterprise Storage delivers unlimited storage capacity with linear scaling, and Ceph technology exists today in multipetabyte- and even exabyte-scale implementations. And HPE is fast approaching 100,000-node clusters to support exascale systems in the near future.

HIGH PERFORMANCE

SUSE Linux Enterprise Server is optimized for performance in HPC environments, unlike community distributions, and HPE engineers are available to help you optimize and benchmark your applications and workloads.

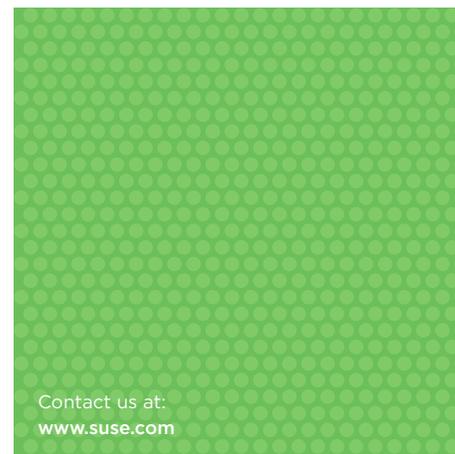
DATA-READINESS

SUSE Enterprise Storage offers software-defined storage based on the latest version of Ceph, with double the write performance of previous releases and significant reductions in I/O latency through BlueStore. The HPE Data Management Framework helps keep data accessible by enabling a hierarchical, tiered storage management architecture.

“We clearly saw that the price-performance of SUSE Linux Enterprise Server on the SGI platform was better than the competing OS options.”

DIEGO KLAHR

HPC Engineer
Total Exploration & Production⁴



Unlock the Power of HPC

Running SUSE Linux Enterprise Server for High Performance Computing on HPE Apollo, Superdome and SGI servers, you can solve your most demanding computational and data-intensive problems. With SUSE and HPE, you can experience the true power of HPC, shored up by the lasting support and expertise of two world-class HPC leaders.

Learn More

Learn more about SUSE Linux Enterprise Server for High Performance Computing at www.suse.com/products/server/hpc/.

Website: www.suse.com/hpe

Email: hpeteam@suse.com

“SUSE has a newer kernel than other options, making it the best choice.”

JIM KASDORF

Director of Special Projects
Pittsburgh Supercomputing Center⁵

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- ² *Trends in the Worldwide HPC Market,* Hyperion Research, September 2017, www.slideshare.net/insideHPC/trends-in-the-worldwide-hpc-market.
 - ³ Based on external firm conducting cybersecurity penetration testing of a range of server products from a range of manufacturers, May 2017.
 - ⁴ www.suse.com/media/success-story/total_success_story.pdf
 - ⁵ www.suse.com/media/success-story/pittsburgh_supercomputing_center.pdf