Cisco and SUSE®: Providing Unified Computing Systems for Streamlining Data Centers

SUSE® is a leading supplier of enterprise operating systems and software for building and managing data center environments that include physical, virtual and cloud workloads. By using our solutions, customers can better manage complexity and respond faster to the needs of the business while lowering operational expenses.

**Products:**
- SUSE Linux Enterprise Server
- SUSE Linux Enterprise Server for SAP Applications
- SUSE Linux Enterprise High Availability Extension
- SUSE Linux Enterprise Server for High Performance Computing
- SUSE Cloud

With more than 10,000 certified applications from over 1,600 independent software vendors, SUSE Linux Enterprise Server is a versatile platform that delivers performance and security at the highest level of any operating system. The combination of the Cisco Unified Computing System (UCS) and our more than 20 years of experience delivering enterprise solutions across a broad market offers data center customers a new way to decouple scale from complexity and cost.

SUSE and Cisco solutions cover:
- **Networking**
- **Virtualization**
- **Cloud infrastructure**
- **Management tools**
- **Storage**

The excellent integration of these solutions enables CIOs and IT managers to reduce the amount of time their staffs spend manually accomplishing basic tasks, allowing more time to focus on proactive data center tasks. Cisco and SUSE build on this combined offering through strong partnerships with leading virtualization, storage and tool vendors as well as cloud service providers.

Cisco, with its long-time presence in most data centers worldwide, its networking products and, more recently, Cisco Unified Computing System, and SUSE, with its record of success in the broad enterprise market, offer customers the products to keep pace with market and technology changes:
- Migration from RISC/UNIX to Linux
- Movement to cloud computing, including hybrid cloud computing
- High availability
- Scale-up/scale-out computing
- Big-data processing using in-memory systems

With SUSE and Cisco, learn new ways to decouple scale from complexity and cost and discover how to reduce the amount of time your staff spends manually accomplishing basic tasks.
UNIX to Linux Migration Solutions
SUSE Linux Enterprise Server on Cisco UCS provides RISC/UNIX scalability, security and RAS on newer, more energy efficient x86 hardware at a Linux price. Technology advancements in SUSE Linux Enterprise Server take advantage of Itanium features Intel has incorporated into the next-generation Xeon processors, making SUSE Linux Enterprise Server an optimal replacement for RISC/UNIX in the backend database application space.

RISC/UNIX to Linux migration is often part of any data center modernization process. Modernization involves controlling costs while ensuring long-term competitiveness:

- Nearly 70 percent of business systems are legacy systems (such as RISC/UNIX).
- These infrastructures often have less than 20 percent utilization.
- These environments can consume 75–90 percent of an IT budget.

One important part of data center modernization involves determining how savings in server, storage, and network infrastructure can be achieved. Migrating RISC/UNIX server workloads to Linux allows for server consolidation and cloud technology to drive down Capex costs.

But the real value for many customers is around Opex savings. SUSE and Cisco, working together with technology such as SUSE Linux Enterprise Server and UCS, provide converged infrastructure (known as “fabric computing”) to help you drive down Capex and Opex costs, increase efficiency and enhance responsiveness to changing market conditions.

High Availability
Cisco and SUSE have partnered to deliver high availability for SAP solutions. By combining Cisco Intelligent Automation for SAP and the high-availability extension for SUSE Linux Enterprise, customers are able to:

- Monitor utilization across CPU, memory and more
- Automate maintenance
- Monitor SAP subsystem component status

The high-availability extension includes:

- High-availability service and application clustering
- File systems and clustered file systems
- Network attached storage (NAS)
- Network file systems
- Volume managers
- Storage area network (SAN) and drivers
- Ability to manage above components working together
SUSE Cloud Integrated with Cisco UCS

SUSE Cloud is an automated cloud-computing platform based on the OpenStack project that enables enterprises to run Infrastructure-as-a-Service private clouds. By deploying SUSE Cloud, customers can:

- Respond faster to the market
- Reduce costs
- Improve resource utilization
- Speed the delivery of IT services

SUSE Cloud has been integrated with Cisco’s UCS Manager to provide the only enterprise-quality, OpenStack-based private cloud software with provisioning of Cisco hardware from within the cloud management console. The integration between SUSE Cloud and Cisco’s UCS Manager makes setting up an OpenStack cloud easy and efficient, so enterprises can get a faster return on their private cloud investment.

SUSE Linux Enterprise Server for High Performance Computing

Linux is the operating system of choice for the world’s fastest supercomputers with a leader in SUSE Linux Enterprise. Available on Cisco UCS, SUSE Linux Enterprise Server enables features such as asynchronous I/O and multi-core/hyper-threading processor support to run on scale-out/scale-up servers. SUSE Linux Enterprise Server for High Performance Computing and Cisco UCS, with their potential for massive scalability, provide a very competitive platform for HPC.

SUSE Cloud provides the fundamental capabilities enterprises need to deploy their own IaaS cloud.

Big Data Solutions

Analyzing big data presents huge opportunities for innovation and growth—and big challenges. A successful big data environment requires a solution that can seamlessly incorporate high availability, security, cloud computing and high performance technologies. With its proven enterprise experience and leadership in these core technologies, SUSE provides the right foundation to allow you to overcome barriers and capitalize on the valuable data that exists in your organization.

SUSE Linux Enterprise Server supports the open Hadoop framework for processing distributed data-intensive workloads. It can isolate all non-Hadoop processes on one core and maximize processing power reserved for Big Data processing. SUSE Linux Enterprise Server is an ideal platform for big data workloads because of its support for:

- Transparent per-CPU load balancing on multi-queue devices
- Faster packet filtering to boost network performance
- Improvements to large file handling to speed up I/O-intensive workloads

Additionally, SUSE has partnered with Cisco to deliver a full solution portfolio for SAP HANA on Cisco UCS. SUSE Linux Enterprise Server for SAP Applications operating system has features specifically optimized to improve performance of SAP HANA in-memory processing for big data on UCS.

Learn More

To learn more about SUSE and Cisco and how our solutions can help you streamline your data center, visit www.suse.com/cisco
Contact your local SUSE Solutions Provider, or call SUSE at:

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