Data Sheet

SUSE Linux Enterprise Server

SUSE® Linux Enterprise Server 15

SUSE® Linux Enterprise 15 server is a multimodal operating system that paves the way for IT transformation in the software-defined era. The modern and modular OS helps simplify multimodal IT, makes traditional IT infrastructure efficient and provides an engaging platform for developers. As a result, you can easily deploy and transition business-critical workloads across on-premise and public cloud environments.

Product Overview

Many organizations use traditional infrastructure, software-defined infrastructure or a mix of traditional and software-defined. This leads to a multimodal IT scenario, where different types of IT infrastructure have different technologies, processes and business drivers.

SUSE Linux Enterprise 15 server, with its multimodal design, helps organizations transform their IT landscape by bridging traditional and software-defined infrastructure.

Key Benefits

- **Simplify multimodal IT by bridging your traditional and software-defined infrastructures.** *The SUSE Linux Enterprise 15 platform uses a "common code base" to ensure application mobility across your IT infrastructure. Whether you are building microservices using SUSE CaaS Platform, deploying the latest SAP applications on SUSE Linux Enterprise Server or using SUSE OpenStack Cloud to manage your system resources, the common code base ensures consistency and helps you move application workloads transparently across traditional and software-defined infrastructure.*

  The "common code base" also helps you improve systems management by avoiding maintaining multiple code streams for different hardware setups in your mixed IT environment—the same operating system code runs IBM Mainframe and Raspberry Pi based IoT devices. It enables silicon agnostic computing that is independent of underlying CPU architecture. As a result, you gain a consistent experience across architectures—x86-64, ARM, POWER and IBM Z.
- **Make traditional IT infrastructure more efficient with a Modular+ architecture.** *You can innovate and improve efficiency of existing IT infrastructure without disrupting the stability, security and proven standards. In Modular+ architecture, everything is a module. So, you can get product updates and patches more frequently.*

  The Modular+ architecture helps an IT administrator reduce risk by simplifying planning and decision making. Starting with one installation image, you can add SUSE Linux Enterprise Server products or add modules with ease as your business needs grow. Delivery of new features is simple and easy as everything is a module.

System Requirements

Minimum Linux server system requirements for installation:

- *1024 MiB RAM, 512 MiB Swap recommended*
- *2 GiB available disk space (8.5 GiB for all patterns), 32 GiB for snapshot/rollback of the OS*
- *800 x 600 display resolution (1024 x 768 or higher recommended)*

Supported processor platforms:

- *x86-64 (Intel 64, AMD 64)*
- *ppc64le (IBM POWER LE)*
- *s390x (IBM z Systems)*
- *ARM v8 (AArch 64)*

"IDC believes the common code base of SUSE Linux Enterprise 15 makes the product a multi-platform OS that is well suited for heterogenous computing environments. SUSE can leverage this feature to help customers more effectively bridge the gap between traditional infrastructure environments and modern, software-defined infrastructure."

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- **Accelerate the transition from developer setups to production deployments.** *You can use the free developer subscription of SUSE Enterprise Linux or use openSUSE Leap to seamlessly transition from development setups to production setups.*

  When you start with openSUSE Leap on your development setups there is no need to setup new systems for enterprise Linux. You can take full advantage of the enterprise class community Linux in your development environment and easily move from community Linux based development to SUSE Linux Enterprise 15 based development and production with fully supported enterprise Linux.

Key Features

CREATE AND SUPPORT AN AGILE IT INFRASTRUCTURE

- **Containers.** *SUSE CaaS Platform is our flagship enterprise class container management solution that enables IT and DevOps professionals to easily deploy, manage, and scale container-based applications and services. SUSE CaaS Platform comes integrated with Kubernetes for container orchestration and SUSE MicroOS—the microservices container and container host OS.*

  In addition, SUSE Linux Enterprise Server supports Linux Containers and open source Docker container engine. You can manage Linux Containers using common virtualization framework (libvirt). To support open source Docker container engine, a private registry is included with tools to collaborate securely, apply security patches and automate application deployment inside Linux Containers.
- **Just Enough Operating System (JeOS).** *SUSE Linux Enterprise Server JeOS is a minimized form factor of SUSE Linux Enterprise Server. JeOS is delivered as minimized, ready-to-run virtual images to make the virtualization deployment more efficient. JeOS is also delivered as a KIWI template for customers and partners to use to start golden images.*
- **Packages and Open Build Service.** *Pick and choose functionality from a menu of packages made available by Modular+ architecture. Create reproducible builds across architectures and Linux distributions using Open Build Service technology. Take advantage of thousands of open source packages from the user community on SUSE Package Hub.*
- **Modules**. *In SUSE Linux Enterprise 15 with Modular+ architecture, everything is a module. So, you can innovate without being out of pace with the traditional enterprise software delivery model. The modules available in SUSE Linux Enterprise Server provide faster integration with upstream updates. This design approach lets you balance the flexibility of the modular architecture and stability of the infrastructure. Some of the modules are: Base System, Containers, Desktop Applications, Development Tools, Public Cloud, Server Applications. Refer to* **www.suse.com/releasenotes/x86_64/SUSE-SLES/15/#Intro.ModuleExtensionRelated** *for a complete list of modules.*
- **Full System Rollback.** *Gain better resiliency with Full System Rollback that allows you to take snapshots of the system, including the kernel files, and roll back. System administrators can boot from a snapshot to improve data safety. When you upgrade to a new service pack for your SUSE Linux Enterprise Server, the full system rollback capability minimizes the risk and allows you to rollback easily.*
- **Skip Service Packs.** *Save time and resources with "skip service packs" functionality, which lets you skip upgrades of prior service packs and jump straight to latest service pack. Along with the Rollback feature that enables going back to a good state at click of a button you can minimize human error and save even more time.*
- **ARM AArch64 and Raspberry Pi.** *Improve power efficiency using ARM 64's low power consumption and efficient design for your servers and network infrastructure using SLES for ARM and SUSE Linux Enterprise Server for Raspberry Pi.*
- **Salt.** *Track and manage configurations using Salt integrated in base system. Salt provides a very scalable, fast and secure way of communicating with systems in real time. In addition, you can seamlessly integrate with SUSE Manager to take full advantage of Salt's configuration management capabilities.*

"In SUSE's 'Modular+' architecture, everything is a module so customers can install only the features that are needed. This approach helps customers minimize upfront planning and reduce risk, and enables SUSE to deliver product updates and patches more frequently."

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- **Full support for KIWI.** *With one configuration, you can use KIWI to create OS images for physical deployments (DVD, USB) as well as provision it into virtual hypervisor environments (Xen, KVM, VMware, HyperV), container frameworks and public and private clouds.*

DEPLOY MISSION CRITICAL SERVICES

- **SUSE Linux Enterprise Live Patching.** *Update security patches without rebooting machines and without waiting for your next service window.*
- **Complete offline installation/ disconnected operations.** *Enhance security with disconnected offline installation that helps you to maintain physical segregation from external networks. Complete offline installation is a big benefit for many applications such as Oracle, SQL, and SAP and businesses such as government and defense.*
- **Open vSwitch with DPDK (Data Plane Development Kit).** *Efficiently implement virtual network functions using Open vSwitch with DPDK (Data Plane Development Kit) that accelerates the user space data plane and provides the packet processing capabilities needed for Software Defined Networking (SDN) and Network Function Virtualization (NFV) solutions.*
  - Combined with the broad hypervisor support of SUSE Linux Enterprise Server the new network function virtualization capabilities provide SUSE customers with a complete virtualization solution for cloud and on-premise deployments.
- **Mission-critical systems support.** *Create cost-effective infrastructure based on your mission critical systems requirements. SUSE Linux Enterprise provides proven support for a range of mission-critical systems—Mainframes IBM z System and LinuxONE, Midrange servers powered by IBM POWER8 and scalable Intel/ AMD/ARM 64-bit servers.*
- **Virtualization.** *Increase virtualization and reduce data foot print using virtualization technologies that suit your business needs. SUSE Linux Enterprise Server provides built-in support for Xen and Kernel Virtual Machine (KVM), Containers for application automation, and paravirtualized driver packs for enhanced virtual machine performance. SUSE Linux Enterprise Server is optimized to deliver superior performance with VMware vSphere and Microsoft Hyper-V. VMware drivers and tools (open-vm-tools) are fully supported and integrated into SUSE Linux Enterprise Server in an all-in-one package with their performance fine-tuned.*
- **High Availability.** *Achieve higher service availability by clustering servers together and removing single points of failure. SUSE Linux Enterprise High Availability Extension offers an industry-leading, mature high availability solution. Starting with SUSE Linux Enterprise 15, Geo Clustering is included within High Availability extension itself, so you can easily connect data centers across the world using the integrated Geo Clustering functionality.*
- **NVDIMM.** *Reduce downtime by reducing rebuild time upon power restoration with integrated NVDIMMs that save data in seconds and make data immediately available on reboot. Downtime sensitive applications such as online transaction processing and financial applications can benefit from persistent system memory functionality. Improve performance by running applications such as storage and database acceleration at far higher speeds using system memory persistence capabilities of NVDIMM.*
- **Exploiting Hardware RAS.** *Enhance your system reliability and reduce service costs. SUSE Linux Enterprise Server includes exclusive processes to exploit the RAS features of your hardware platform.*
- **Certified Applications.** *SUSE Linux Enterprise Server supports a wide variety of third-party ISV applications. For the complete list of certified software applications for SUSE Linux Enterprise (all versions), please visit:* **www.suse.com/susePSC/home**.
- **Certified Hardware.** *Most leading hardware vendors support our Linux server OS, so you can save money by using your existing physical servers or low-cost commodity hardware.*

CONTINUOUSLY IMPROVE YOUR IT INFRASTRUCTURE

- **NVMe over Fabrics.** *Improve application performance with fast local NVMe (Non-Volatile Memory Express) and remote storage devices with NVMe over Fabrics (NoF). Using NVMe you can fully exploit the benefits of modern solid-state memory technology.*
- **Enhanced YaST® Installer.** *Improve resiliency and automate processes right from installer stage using auto update of code with the powerful administration tool YaST (Yet another Setup Tool). YaST gives you the capability to customize your system quickly during and after the installation.*

> **"SUSE designed SUSE Linux Enterprise (SLE) 15 with the developer community in mind. Developers can easily transition from openSUSE Leap or the free developer versions of SLE to the fully supported SLE 15 distribution."**
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YaST is now written in Ruby so it's open and more easily customized.

- **SUSE Customer Center (SCC).** *Using SCC, you can centrally manage your SUSE subscriptions, access software updates and contact SUSE Customer Support. The user-friendly interface gives you a central view of all your SUSE subscriptions, allowing you to easily find the information you need.*
- **Security standards compliance.** *SUSE Linux Enterprise Server is successfully certified after Common Criteria Certification at EAL4+. In addition multiple cryptography security modules are validated to fulfill the requirements of FIPS 140-2. Those modules are OpenSSL, OpenSSH client and server, Strongswan (IPSec-based VPNs), the Kernel Crypto API, Mozilla NSS (Level 2) and libgcrypt.*
- **TPM 2.0.** *Implement hardware based security with secure cryptoprocessor standard TPM (Trusted Platform Module) 2.0.*
- **Single Sign-on.** *Shibboleth support in SUSE Linux Enterprise Server enables single sign-on using one identity across different domains for computer networks and web infrastructure.*

Following are links for products/extensions referenced in this document.

- *SUSE CaaS Platform*
- *SUSE Linux Enterprise Live Patching*
- *SUSE Linux Enterprise High Availability Extension (includes Geo Clustering)*
- *SUSE Linux Enterprise Server Workstation Extension, Desktop*
- *SUSE OpenStack Cloud*

For further details visit: **www.suse.com/server/**

Documentation: **www.suse.com/documentation/sles/**

Release Notes: **www.suse.com/releasenotes/x86_64/SUSE-SLES/15/**