# SUSE Linux Enterprise Server for SAP Applications

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### What is SUSE Linux Enterprise Server for SAP Applications?

SUSE Linux Enterprise Server for SAP Applications is a Linux platform that is uniquely optimized for SAP NetWeaver, SAP HANA and SAP S/4HANA solutions. It is a collection of software, maintenance and support features that enable greater reliability and security, automation for routine maintenance and faster service deployment on premise and in the cloud. It is built on SUSE Linux Enterprise Server and supports server, virtualization and cloud environments. SUSE Linux Enterprise Server for SAP Applications is an SAP endorsed app.

### What are SAP Endorsed Apps?

In 2020, SAP launched an initiative to give customers confidence in selected partner applications that have demonstrated proven results, and have been properly evaluated and tested by SAP, earning SAP's premium certification. SAP Endorsed Apps complement and extend SAP's own solutions and can be found on the SAP App Center at https://www.sapappcenter.com/en/search/endorsed. Learn more about SAP Endorsed Apps in this blog https://store.sap.com/en/news-blogs/blogs/sap-endorsed-apps-helping-customers-become-best-run-intelligent-enterprises.

### What is included as part of the SUSE Linux Enterprise Server for SAP Applications offering?

Features in bold are only available with SUSE Linux Enterprise Server for SAP Applications. For details, visit suse.com/products/sles-for-sap.

Base Operating System and Support

- SUSE Linux Enterprise Server
- **Lifecycle 24 x 7 Priority Support**
- **SAP-specific Update Channel**

Reliability and Resilience

- SUSE Linux Enterprise High Availability
- **SAP HANA HA Resource Agents**
- **SAP HANA Firewall**
- **Remote Storage Encryption Management**
- **SAP HANA persistent memory support**
- **Workload Memory Protection**
- Full System Snapshot and Rollback
- SUSE Linux Enterprise Live Patching (with selected subscriptions)

Maintenance Automation

- **Operational data monitoring and export**
- **View and replay cluster transition data**
- **Clustered SAP HANA software update wizard**
- **SAP S/4HANA Transition to Linux Support**

- SUSE Manager Lifecycle Management Module (with selected subscriptions)

Ease of use and deployment

- **Installation Wizard**
- **Support for Hyperscaler Platform Images**
- **SAP S/4HANA stack configuration and deployment automation**
- System Roles
- SUSE Package Hub

**What are the benefits of SUSE Linux Enterprise Server for SAP Applications compared to the base operating system?**

SUSE Linux Enterprise Server for SAP Applications is uniquely designed to deliver reduced downtime of critical operations with a built-in business continuity, including an advanced high availability solution and automated data recovery for SAP HANA. It includes SUSE Linux Enterprise Server as a fast, reliable and secure Linux operating system plus the following capabilities for SAP systems:

- **Reduce risk from outages of critical services** with built-in business continuity including an advanced high availability solution, automated data recovery for SAP HANA and enhanced security for SAP application data
- **Foster innovation for new service delivery** with automated data collection, graphical displays and wizards that proactively identify errors and reduce routine maintenance time
- **Minimize time and effort to deploy SAP landscapes** and transition to SAP S/4HANA with automated installation of the SAP software stack and 24 x 7 support

**How do customers receive support for SAP Systems?**

SUSE Priority Support is delivered with the product subscription for its entire lifecycle of all service packs. This includes 24 hours a day, 7 days a week and as fast as 1-hour response time for access to information and updates. Direct contact with a SUSE® Level 3 support specialist is also available with SUSE Linux Enterprise Server for SAP Applications.

For SAP environments, however, the preferred approach is to initiate a support request via regular SAP escalation channels: telephone, web frontend, CSN or SAP Solution Manager. The request will be immediately assigned to the SAP support request system. SAP will get SUSE involved if required.

**What is different for SUSE Linux Enterprise for SAP Applications on IBM Power Systems?**

SUSE Linux Enterprise Server for SAP Applications 12 SP3 and higher have a common set of features available for both x86-64 and ppc64le. Version 15 introduces specific enablement and optimizations for POWER9-based systems, and supports SAP HANA databases greater than 32 TB and virtual persistent memory (PMEM) when using IBM PowerVM.

**Does SUSE Linux Enterprise Server for SAP Applications support IBM POWER10 processors?**

SUSE Linux Enterprise Server for SAP Applications is tested to support servers in POWER10 mode when they are available.

**What is new in SUSE Linux Enterprise Server for SAP Applications 15 SP3?**

This release includes enhancements and updates to deliver and maintain a reliable and high-performance SAP infrastructure. New features in version 15 enable IT systems and SAP Basis administrators to:

Reduce downtime of critical operations

- **Reduce the complexity of configuring high availability** for SAP NetWeaver and SAP HANA with automated deployment and a new feature to test the high availability set up prior to implementation.
- **Additional high availability scenarios** including SAP HANA scale-out multi-target support for three or more failover target clusters.

Foster innovation with maintenance automation

- **Enhancements to platform monitoring** including SAP HANA parameters and system log aggregation.

Reduce the time and effort to deploy SAP landscapes

- **saptune3 is now available** with the ability to identify the platform by hyperscaler or server vendor and set tuning parameters accordingly based on recommendations in the SAP Notes.

**What problem does Workload Memory Protection solve?**

Many SAP applications are designed to use large amounts of memory for optimal performance. The Linux kernel pages out rarely-accessed memory to maintain filesystem performance. These optimizations conflict causing SAP application performance to slow down, SUSE has developed Workload Memory Management, which is based on open source cgroup, to ensure that SAP transactional and analytics data remains in memory.

**Are ISV Partner applications that are certified for SUSE Linux Enterprise Server also considered certified for SUSE Linux Enterprise Server for SAP Applications?**

Yes, since SUSE Linux Enterprise Server and SUSE Linux Enterprise Server for SAP Applications with the same version and service pack have the same base code, third party applications that are certified on SUSE Linux Enterprise Server will function the same on SUSE Linux Enterprise Server for SAP Applications.

**Can SAP applications be run on SUSE Linux Enterprise Server for SAP Applications in the cloud?**

SUSE Linux Enterprise for SAP Applications is based on SUSE Linux Enterprise, a Linux platform that is proven in the cloud and selected for use with SAP Cloud solutions such as HANA Enterprise Cloud, SAP HANA One. SUSE Linux Enterprise for SAP Applications 15 images are available to run SAP HANA with high availability from Alibaba, Amazon Web Services, Google Cloud, IBM Cloud and Microsoft Azure public cloud services.

Pay-as-you-go (PAYG) or "on-demand" subscriptions include additional capabilities to reduce downtime and administration of SAP

infrastructures. Built-in entitlements to SUSE Linux Enterprise Live Patching and the SUSE Manager Lifecycle Management Module make it easier to centralize management of the entire infrastructure. This includes reserved instances offered by some hyperscalers. Contact your Cloud Service Provider to learn more.

**How does SUSE Linux Enterprise Server for SAP Applications help in the transition to SAP S/4HANA?**

SAP's strategy is to support Linux as the sole OS for the SAP HANA database as the foundation for SAP S/4HANA ERP, BPM and other applications. IT staff who are familiar with UNIX for their SAP environments will not have a difficult time learning how to work with Linux. However, users of Microsoft Windows Server will find Linux to be very different and becoming comfortable with it will be more challenging.

To help these administrators become productive more quickly, SUSE Linux Enterprise Server for SAP Applications provides support for the Microsoft Remote Desktop Protocol. This working environment combined with a guide for administrators to perform common Windows Server tasks with SUSE Linux Enterprise Server will ease the transition to running SAP S/HANA environments on Linux.

SUSE Linux Enterprise Server for SAP Applications also includes Enhanced Active Directory Integration to support existing Microsoft user IDs and passwords to save time and effort with transitioning security to the new environment.

**Is SUSE Linux Enterprise Live Patching included in SUSE Linux Enterprise Server for SAP Applications?**

SUSE Linux Enterprise Live Patching is ideal for fixing Linux kernel security vulnerabilities or stability problems without downtime for SAP systems. An entitlement to use this product is included for Unlimited VMs subscriptions in the data center and for pay-as-you-go (PAYG) cloud subscriptions. Contact your Cloud Service Provider for information on how to access this feature.

**Why isn't live kernel patching included with all subscriptions?**

Feedback from customers, partners and an assessment of the evolving market and technology landscape confirmed that the features and value for SUSE Linux Enterprise Server for SAP Applications users purchasing 1-2 socket SLES subscriptions should not be changed at this time. Users are free to bring their own subscriptions (BYOS) of SUSE Linux Enterprise Live Patching to the cloud but there is no way to provide an automatic entitlement that works consistently across even the major cloud service providers.

**Where can I get more information about automated installation in the cloud?**

S/4HANA software stacks using Salt-based configuration scripts and Terraform deployment of single-node and clustered configurations, on premise and in the cloud. To learn more, including which Hyperscalers are supported, please see the Release Notes at www.suse.com/documentation/sles-for-sap.