

Adopting SUSE Linux Enterprise 16

Key differences between SUSE Linux Enterprise 15 and 16

WHAT?

This article describes the key differences between SLE 15 and 16.

WHY?

This article helps you evaluate an upgrade to SLE 16.

EFFORT

Approximately 10 minutes reading time.

GOAL

Understand how to best adopt SLE 16.

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1 CPU architecture support

	AMD64/In- tel 64 (x86-64)	IBM POWER (ppc64le)	IBM Z (s390x)	Arm (AArch64)
SLES 15	x86-64-v1	POWER8	z12	ARMv8.0-A
SLES 16	x86-64-v2	POWER9	z14	ARMv8.0-A

2 Versioning and release cycle

- SLE 15 uses Service Packs (SPs) for annual updates, such as SP1, SP2, SP3, SP4, SP5, SP6, and SP7, which is the last SP released for SLE 15.
- SLE 16 introduces a new naming schema for versions, using minor releases like 16.0, 16.1, instead of SPs. Releases are scheduled annually and always in November. The initial release, 16.0, is planned for November 2025.

3 Lifecycle

- SUSE Linux Enterprise Server 15 has general support for 1.5 years per Service Pack (with exceptions) and offers various extended support options like LTSS (Long Term Service Pack Support) and ESPOS (Extended Service Pack Overlap Support). Total support for SLE 15 covers up to 13 years (10 years general support + 3 years LTSS). SLES 15 SP7 general support is until 2031-07-31, with LTSS until 2034-07-31 and LTSS Core until 2037-12-31. SUSE Linux Enterprise Server for SAP applications 15 SPs has a total support period of 4.5 years.
- SLES 16 is ready for the future beyond 2038. General Support is expected to end in November 2035, with LTSS and Extreme LTSS beyond 2040. SUSE Linux Enterprise Server for SAP applications 16 has general support for 1.5 years plus 3 years extended support.

4 Systems management

- In SLE 15 and earlier, YaST was used for installation, configuration and systems management. Unattended and scripted installation was performed by AutoYaST.
- In SLE 16, systems management sees significant changes:
 - Installation (including unattended) transitions to Agama. Agama is a new installer
 with a Web-based front-end, command-line interface, and API for integration. It focuses on the installation in favor of software configuration management (SCM) tools.
 Agama supports repeated configuration import.
 - Configuration management uses Salt and Ansible via SUSE Multi-Linux Manager. This supports customers with ready-to-run automation.
 - Remote management is handled by Cockpit, a Web-based front-end for 1:1 management.

These changes in SLE 16 aim to provide better integration with Salt and Ansible, allow remote installation via a Web browser, and offer different interfaces (Web, CLI, HTTP API) for controlling the process.

5 Security framework

- SLE 15 uses AppArmor by default. SELinux is shipped without policies.
- SLE 16 ships SELinux with policies for over 400 modules by default, confining almost the
 whole system. Parts of the system can run unconfined if desired. SUSE Linux Enterprise
 Server for SAP applications 16 has improved workload isolation with SELinux, providing
 isolation for data and data flows, and for containers.

6 Networking stack

- SLE 15 used wicked and NetworkManager.
- SLE 16 focuses on a single stack using NetworkManager.

7 Deployment

- SLE 15 offered ready-to-run images for virtual machines or public clouds and installation
 media for manual deployment with YaST or automated with AutoYaST. It used a special
 installation environment with <u>linuxrc</u>-driven configuration. AutoYaST profile import was
 a one-off task only.
- SLE 16 uses ready-to-run images for virtual machines or public clouds, and manual/auto-mated deployment with Agama. The Agama installer is accessible via a Web interface, command line or HTTP API. Agama allows repeated configuration import. It uses a standard live medium with dracut, systemd, and NetworkManager and provides a backward-compatibility layer with selected linuxrc options.

8 Init system

- SLE 15 used systemd with compatibility for SysV init scripts.
- SLE 16 uses systemd with native units. Transition from SysV init is finished.

9 Default OS configuration

- In SLE 15, the default OS configuration was primarily in /etc.
- In SLE 16, defaults are in /usr and /etc is for customization. This separation of vendor-provided defaults and administrator customization allows easier updates and — optionally — write-only /usr file system.

10 Desktop environment

- SLE 15 used GNOME as the default desktop environment. SUSE Linux Enterprise Desktop and SUSE Linux Enterprise Workstation Extension shared desktop productivity tools.
- SLE 16 uses a minimal GNOME desktop. This helps minimize the security surface. SUSE Linux Enterprise Desktop is not planned for 16.0.

11 Removed technology

SLE 16 removes certain technologies to reduce the OS footprint and the security attack vector:

- NIS is no longer used; customers can choose LDAP instead.
- The ISC DHCP server was removed in favor of the more modern Kea DHCP.
- 32-bit application support is removed, although the Linux kernel can still enable 32-bit system calls with a boot time option.
- SysV init scripts are removed; use native systemd units instead.
- wicked is removed in favor of NetworkManager.

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