



Simplify infrastructure management for SAP deployments

Minimize infrastructure complexity, drive IT efficiency, and improve service delivery with a growing list of automation features and tools built into the SUSE portfolio.

New automation features at a Glance:

- Proactively identify issues with integrated system monitoring dashboards based on open source tools Prometheus and Grafana
- Analyze cluster behavior and troubleshoot failovers with SAP HANA system replication tooling
- Automate SAP HANA and SAP S/4HANA deployments in the cloud with built-in configuration scripts based on Terraform and SALT
- Perform fast, error-free upgrades to SAP S/4HANA with features for importing data from sizing tools into Terraform scripts

• Products:

- + SUSE Linux Enterprise Server for SAP Applications
- + SUSE Manager

Building on a history of automation

Working with SAP in the SAP Linux Lab in Walldorf, Germany, SUSE engineers are constantly developing new features and tools to help your IT team simplify the management of your SAP environment. Many of these features you already know – including packages (sapconf and saptune) that configure your implementation based on SAP Notes, an Installation Wizard that supports unattended installations, and live kernel patching that automates OS security compliance by patching the Linux kernel while the system runs.

But to keep pace with the complexity of hybrid environments that blend cloud and on-premise options, you need even more automation. SUSE is on the job.

This document highlights new automation features available with SUSE Linux Enterprise Server (SLES) for SAP Applications

and SUSE Manager. In part, these new features are designed to speed your move to SAP HANA and SAP S/4HANA. In part, they are designed to help you keep the lights on post-implementation and deliver new services faster. With an increasingly automated approach for managing your SAP environment, you'll be able to dedicate more resources to the innovation and value-added activities that keep you ahead.

Let's have a look at what's new.

SAP SYSTEM MONITORING: IDENTIFYING ISSUES AND RESPONDING PROACTIVELY

With intuitive dashboards for monitoring SAP systems on-premise or in the cloud, your technicians can see what's coming faster. This enables you to take proactive measures to head off events that would otherwise lead to system failure or degraded performance.

Using the open source projects Prometheus and Grafana, SUSE builds SAP system monitoring directly into its offerings. SLES for SAP Applications uses Prometheus to collect data from SAP applications and servers. SUSE Manager uses Grafana to render this data in dashboards that aid insight and understanding.

SUSE is also the first to deliver packages for monitoring SAP HANA, SAP clusters, and associated operating systems – all integrated into existing SUSE offerings. What's more, this offering is entirely open. If you already use Nagios, IBM Tivoli, or other monitoring solutions, you can port data collected with SLES for SAP Applications to these other offerings using a REST interface. This method can be used for even the most demanding workloads – on-premise or in the cloud. Microsoft, for example, uses the SUSE Pacemaker Monitoring Exporter tool and REST interface to monitor SAP data on Azure cloud systems.

SAP HANA SYSTEM REPLICATION: TROUBLESHOOTING CLUSTERS AND MANAGING FAILOVERS

SAP HANA natively supports system replication to guard against data loss in case of system failure. It does not, however, include a failover process that automatically moves you from primary to backup system. This is where new SUSE features add value.

SUSE was first to develop and deliver automated SAP HANA system fail-over and recovery. New tools built into SLES for SAP Applications now collect data from SAP system clusters, extract SAP HANA system replication attributes, and create a set of HTML pages that aid visual analysis. This makes it easier for you to monitor live SAP HANA cluster behavior during failover scenarios. For instance, you can make sure that the secondary system takes control as required and that the failing primary system relinquishes control. You can also analyze cluster history to determine if a failover has transitioned correctly and take action to correct any problems as needed.

SAP IMPLEMENTATIONS: AUTOMATING CLOUD DEPLOYMENTS

SUSE has long supported unattended installations of SAP HANA and SAP S/4HANA for on premise scenarios and delivered templates for faster deployment with major hyperscalers. New features now automate installations for both on-premise and cloud scenarios.

With either SLES for SAP Applications or SUSE Manager, you can now perform a fully automated installation of SAP HANA or SAP S/4HANA – cloud or on premise, single node or clusters. Preconfigured and customizable Terraform scripts help define your infrastructure and SALT-based tools automate deployment.

This script-based approach is ideal for upgrading to SAP S/4HANA in the cloud directly from SAP NetWeaver on premise. It also speeds the deployment of new services. To support a new marketing campaign, for instance, you can use a Terraform script to spin up a new instance of an SAP HANA application. After the campaign, you can free up infrastructure by taking the application down. If you ever need the application again for another campaign, simply run the script to deploy as needed.

Deployment options are entirely modular. Like working with Lego bricks, your IT team has the flexibility to modify each installation to meet the needs of your environment and business. And to further increase efficiency, you can also import infrastructure parameters from SAP sizing tools directly into a Terraform script. The result is fast, error-free deployments for moving to SAP S/4HANA.

Helping you do more, faster

With an ongoing focus on automating core aspects of managing your SAP environment, SUSE is helping your IT team to maximize efficiency. Together, core automation features in the SUSE portfolio help simplify and speed deployments – enabling you to be operational on day two.

Configuration scripts – with data directly imported from sizing tools – help automate deployment. Integrated monitoring enables you to visualize issues before they become problems. And if systems do go down, system replication capabilities help you analyze cluster behavior and perform the troubleshooting that prevents downtime moving forward.

Ultimately, this automation gives your IT team the efficiency it needs to focus on higher level, more value-added activities – along with the agility to consistently deliver the innovation the business needs to compete and thrive.