# Preparing SLES for SAP applications for SAP Workloads

After installing SUSE Linux Enterprise Server for SAP applications, prepare the operating system to ensure system stability and compliance before deploying your SAP landscape. To prepare SLES for SAP workloads, install required SAP software patterns, verify system tuning with **`saptune`** and confirm SELinux security settings before installing SAP HANA or SAP NetWeaver applications.

Publication Date: 05 Nov 2026

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# 1 Overview of the configuration workflow

A freshly installed operating system requires specific tuning, security policies and package dependencies to run SAP workloads optimally and reliably. SLES for SAP automates the preparation through the following workflow:

1. **Install patterns.** Install the specific software pattern for your workload (for example, SAP HANA or SAP NetWeaver).
2. **Verify tuning.** Ensure **`saptune`** is active and applying the correct system parameters.
3. **Verify security.** Confirm SELinux is properly configured for the installation phase.

# 2 Installing SAP software patterns

SUSE packages software and dependencies into patterns tailored to specific SAP scenarios. When you install the operating system using Agama, you can select the patterns during the installation.

To list which SAP patterns are already in place on your system, run the following command:

```
> zypper search --installed-only --type pattern sap
```

To apply SAP software patterns after initial installation, follow these steps:

1. List available SAP-related patterns on your system:

   ```
   > zypper search --type pattern sap
   ```

   

   ### Tip: Review complete list of available patterns

   For a complete list of patterns available for SUSE Linux Enterprise Server for SAP applications and your target architecture, see https://scc.suse.com/packages in the SUSE Customer Center: Select your product, version and architecture, and type *patterns-sap* in the **Matching name** field.

2. Optionally, list the information and contents of a specific pattern:

   ```
   > zypper info PATTERN_NAME
   ```

3. Identify the pattern that matches your workload and install it. For example, to install the pattern for SAP HANA, run:

```
> sudo zypper install --type pattern sles_sap_DB
```



### Note: Other common patterns

Other common patterns include `sles_sap_APP` for SAP NetWeaver and SAP S/4HANA, as well as `sles_sap_HADB` and `sles_sap_HAAPP` for High Availability setups.

# 3 Verifying system tuning with **saptune**

When you install SLES for SAP, **saptune** is automatically installed and enabled. This tool is used to apply SUSE and SAP best practices for OS-level tuning based on your specific SAP workload.

To check the overall active status of the **saptune** daemon, as well as the currently enabled and applied solution and notes, run the following command:

```
> sudo saptune status
```

To ensure your system is compliant with SAP and SUSE recommendations, apply a tuning solution tailored to your workload (such as `HANA` or `NETWEAVER`). For full instructions on applying and verifying these solutions, see How to Tune Systems with **saptune** (https://documentation.suse.com/sles-sap/16.1/html/SAP-saptune/).

# 4 Verifying security with SELinux

To achieve a smooth SAP software deployment without access denials blocking the installer, SLES for SAP automatically adjusts its security policies when an SAP pattern is installed. By default, the pattern changes the SELinux mode from enforcing to permissive.

Follow the information in Using SELinux with SAP Workloads (https://documentation.suse.com/sles-sap/16.1/html/SAP-SELinux-sap/) before proceeding with the SAP deployment.

# 5 Next steps: Automating SAP deployment

After applying the patterns, tuning the system and configuring SELinux, the base operating system requirements are complete. SUSE recommends using supported Ansible roles to automate the deployment process.

To proceed with installing the SAP workloads, see Deploying SAP Workloads with Ansible Automation (https://documentation.suse.com/sles-sap/16.1/html/SAP-intro-sap-ansible-automation/).

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