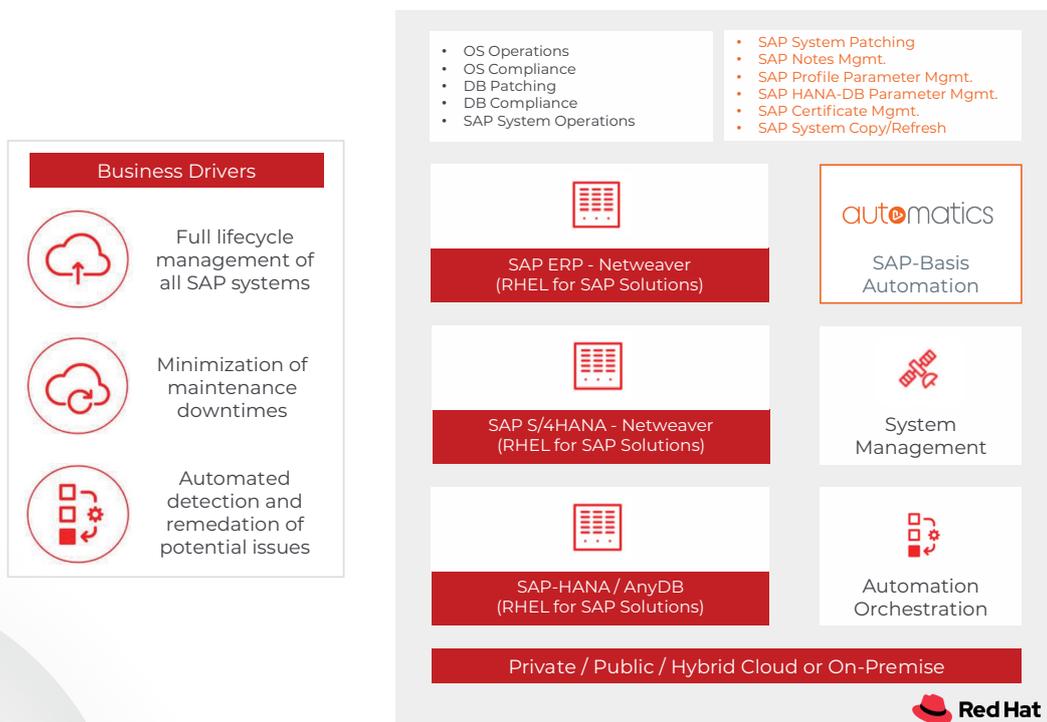# AUTOMATE SAP BASIS OPERATION

CHALLENGES

Today, SAP forms the backbone of many companies across different industries. To ensure continuous business operations, the SAP systems must be operated with high performance, security and as less downtime as possible. Complex system landscapes, regular corrections and patches require ongoing intensive support. This is made much more difficult by staff shortages, a lack of know-how and increasing cyber attacks. Therefore, SAP customers are under pressure to standardize and automate system operation.
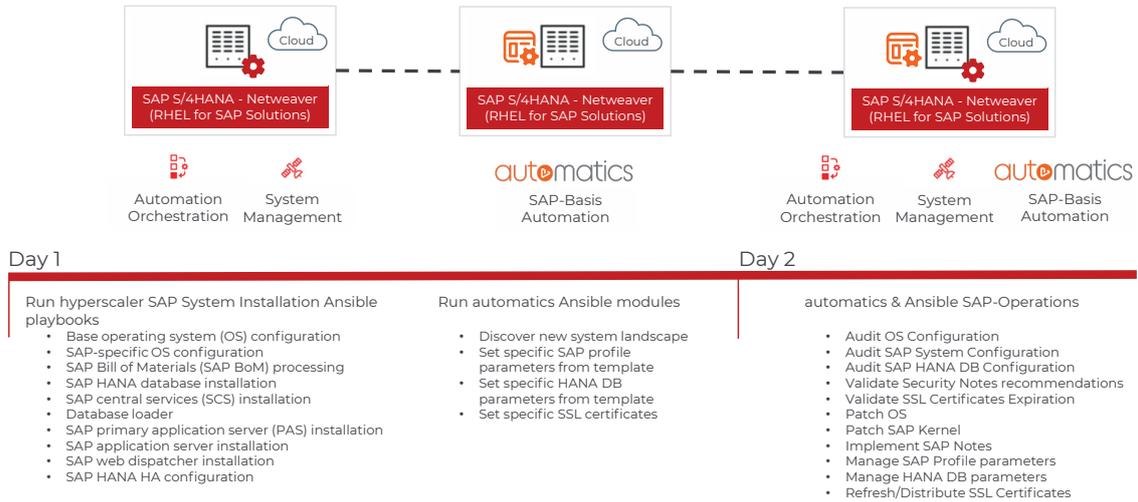
SOLUTION WITH ANSIBLE & AUTOMATICS

With a cross-platform infrastructure & SAP Basis automation solution, an integrated discovery of SAP systems and with out-of-the-box workflows, time-consuming recurring SAP Basis tasks can be fully automated, reducing dependencies, errors and risks in Day-1 & Day-2 operations. Using automatics and Ansible, customers can audit and automate SAP operations across the entire stack (infrastructure, OS, backup, SAP application).

FULL-STACK SAP BASIS AUTOMATION

- OS Operations
- OS Compliance
- DB Patching
- DB Compliance
- SAP System Operations

- SAP System Patching
- SAP Notes Mgmt.
- SAP Profile Parameter Mgmt.
- SAP HANA-DB Parameter Mgmt.
- SAP Certificate Mgmt.
- SAP System Copy/Refresh

Business Drivers

Full lifecycle management of all SAP systems

Minimization of maintenance downtimes

Automated detection and remediation of potential issues

SAP ERP - Netweaver
(RHEL for SAP Solutions)

SAP S/4HANA - Netweaver
(RHEL for SAP Solutions)

SAP-HANA / AnyDB
(RHEL for SAP Solutions)

automatics
SAP-Basis Automation

System Management

Automation Orchestration

Private / Public / Hybrid Cloud or On-Premise

Usecase: Fully automated setup and configuration of an SAP S/4HANA system in the cloud

SAP S/4HANA - Netweaver (RHEL for SAP Solutions)	SAP S/4HANA - Netweaver (RHEL for SAP Solutions)	SAP S/4HANA - Netweaver (RHEL for SAP Solutions)
Automation Orchestration · System Management	SAP-Basis Automation	Automation Orchestration · System Management · SAP-Basis Automation

Day 1

Run hyperscaler SAP System Installation Ansible playbooks
- Base operating system (OS) configuration
- SAP-specific OS configuration
- SAP Bill of Materials (SAP BoM) processing
- SAP HANA database installation
- SAP central services (SCS) installation
- Database loader
- SAP primary application server (PAS) installation
- SAP application server installation
- SAP web dispatcher installation
- SAP HANA HA configuration

Run automatics Ansible modules
- Discover new system landscape
- Set specific SAP profile parameters from template
- Set specific HANA DB parameters from template
- Set specific SSL certificates

Day 2

automatics & Ansible SAP-Operations
- Audit OS Configuration
- Audit SAP System Configuration
- Audit SAP HANA DB Configuration
- Validate Security Notes recommendations
- Validate SSL Certificates Expiration
- Patch OS
- Patch SAP Kernel
- Implement SAP Notes
- Manage SAP Profile parameters
- Manage HANA DB parameters
- Refresh/Distribute SSL Certificates

automatics offers, as a complement to Ansible, the ideal automation solution for all SAP Basis operations that are directly dependent on and within the SAP application. With an Ansible Collection, as well as the possibility of integration into the Red Hat Ansible products (e.g. Automation Platform, Event-Driven Ansible, …), automatics follows a holistic approach from the detection of deviations in system configurations to the automated and cross-system change of configurations:

- SAP System Patching (Kernel, Host Agent, Diagnostic Agent)
- SAP Notes Download, Validation & Implementation
- SAP Profile Parameter Audit & Management
- SAP HANA-DB Parameter Audit & Management
- SAP Certificate Expiration-Validation & Distribution
- SAP System & Client Copy/Refresh

EVENT-DRIVEN SAP BASIS AUTOMATION

automatics SAP-Basis Security & Compliance Checks
- Expired SAP SSL Certificates
- Relevant SAP Security Notes
- Noncompliant SAP System configurations
- Noncompliant HANA DB configurations

Actions
- Consistent SAP System Stop/Start Operations
- Implement SAP Notes after SAP system setup
- Set specific Profile Parameters after SAP system setup
- Set specific HANA-DB Parameters after SAP system setup
- Rollout/Distribute SSL Client Certificates