



JUNE E-3 SUMMIT 2023

Technology platform strategy for the SAP landscape

SAP Security

SAP Operation Automation

SAP High Availability

Ausblick: SUSE Technology Blueprint for SAP S/4HANA

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SUSE and SAP partner to drive Innovation



SUSE Linux is SAP's Reference Development Platform based on HEC used by RISE with SAP

SAP Data Intelligence
Rancher Kubernetes Engine

90% of Linux with SAP on Microsoft Azure

80% of SAP HANA installations

100% of SAP Business One deployments

300+ Successful SAP S/4HANA Implementation Case Studies

SUSE runs SAP S/4HANA – SAP relies on SUSE

Back to openSAP Podcasts

openSAP Podcasts > SAP Experts Podcast > Episode

SAP Experts Podcast

SAP Experts Podcast Episode 47: SUSEs incredible journey to S/4HANA Cloud - Sebastian Drews, Friedrich Krey

Listen to SUSE CIO Sebastian Drews, Friedrich Krey and Alexander Greb telling the incredible story how SUSE deployed S/4HANA Cloud to just 16 months. Guest: Sebastian Drews – CIO, SUSE Friedrich Krey – Director SAP Market EMEA, SUSE

37:01

Back to series: SAP Experts Podcast

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Former Member

October 9, 2015 | 3 minute read

SAP SE relies on SUSE, also for the SAP HANA Enterprise Cloud

0 0 3,082

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Building on its strong strategic partnership with SUSE, SAP SE is extending its renowned enterprise software platform into the cloud, making it more easily accessible to both new and existing customers. SUSE@ Linux Enterprise Server for SAP Applications gives the global software company a stable, secure and highly flexible platform for building, testing, deploying and managing its solutions, helping it maintain rapid growth in its cloud offerings.

Watch the Success video: [SAP SE relies on SUSE – YouTube](#)

Overview

SAP SE is a leading enterprise applications and cloud services company headquartered in Walldorf, Germany.

Assigned tags

Retagging required

sap on linux

Similar Blog Posts

[SAP HANA Enterprise Cloud: SUSE components – SUSE Openstack Cloud](#)
By Former Member Mar 26, 2014

[SAP HANA, running on SUSE Linux Enterprise, coming to Azure](#)
By Former Member May 17, 2016

[Technical Training Series from SAP and SUSE](#)
By Former Member Mar 28, 2014

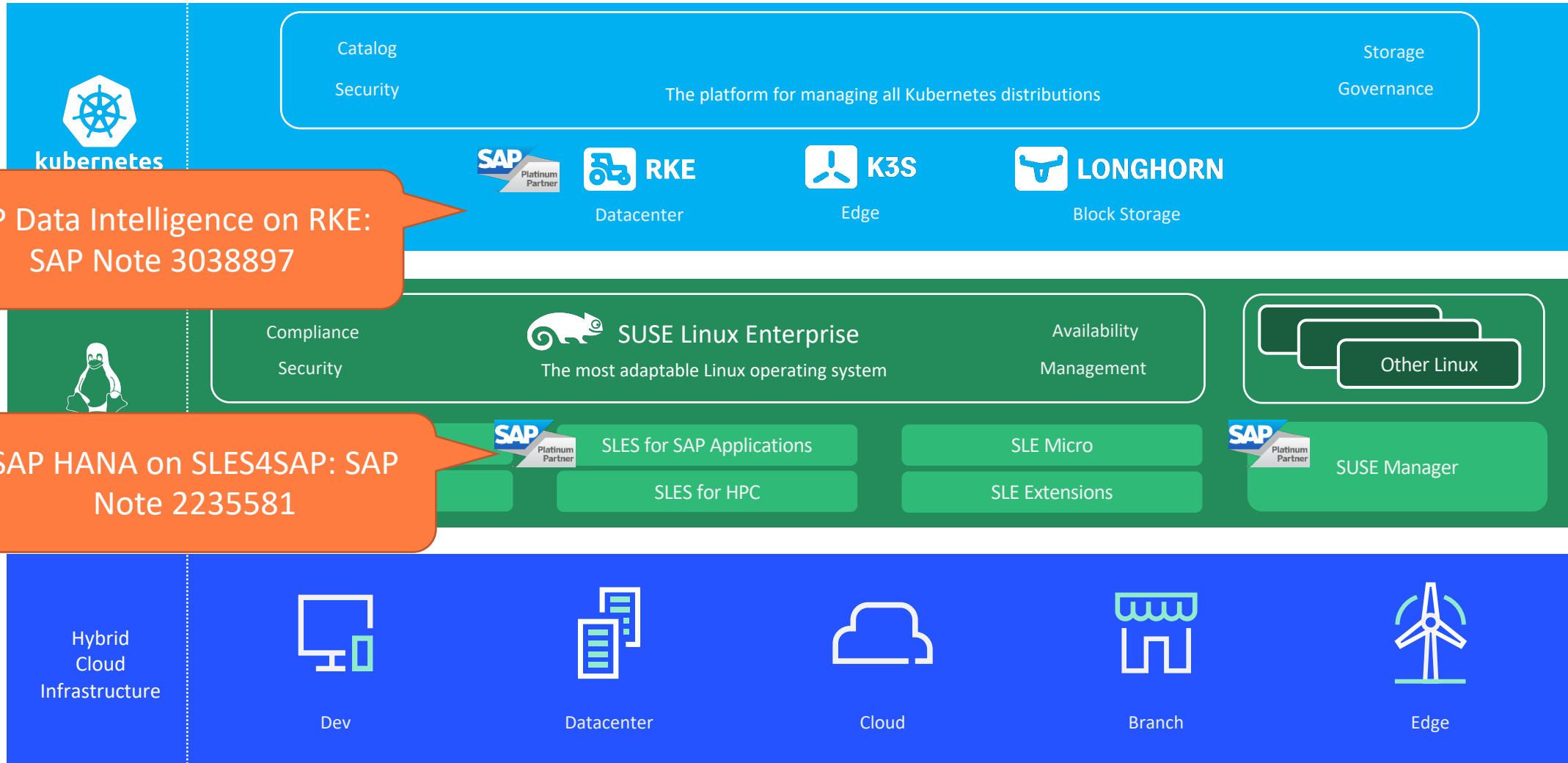
Related Questions

[A problem in SAP B1 Server Tools for SAP HANA installation](#)
By Former Member Aug 13, 2014

[SAP HANA running on XEN virtual Machine](#)

- [SAP Experts Podcast Episode 47: SUSEs incredible journey to SAP S/4HANA Cloud – Sebastian Drews, Friedrich Krey – SAP Experts Podcast \(opensap.info\)](#)
- [SAP SE relies on SUSE, also for the SAP HANA Enterprise Cloud | SAP Blogs](#)

Powering Innovation With Leadership in Linux & Kubernetes



Support & Services

The leading platform for SAP workloads

SAP S/4HANA

SAP Data Intelligence

Linux

Kubernetes

On-Premises/ Private cloud/ Public cloud/ Hybrid Cloud

Platform requirements

- Leverage existing investments from on prem to the cloud
- Ensure business continuity and operation stability
- Agility for SAP
- Scalability for business growth



The leading platform for SAP workloads

SAP S/4HANA

SAP Data Intelligence

SLES for SAP Applications,
SUSE Manager

SUSE Rancher
Kubernetes

On-Premises/ Private cloud/ Public cloud/ Hybrid Cloud

Platform characteristics

- One Linux platform from on prem to cloud with SUSE Technology Blueprint
- High availability and operation stability
- Devops model for SAP
- Elasticity with multicloud support

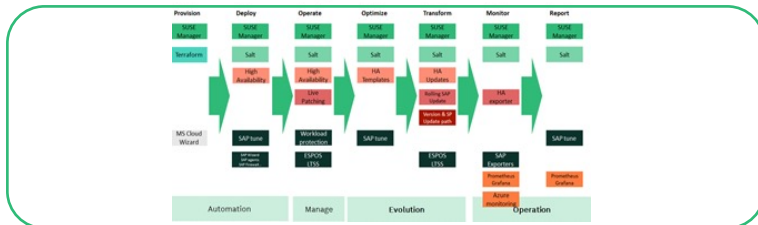


The leading platform for SAP workloads

SAP S/4HANA

SAP Data Intelligence

Run the project



Kubernetes

SUSE Technology Blueprint
(STB)

On-Premises/ Private cloud/ Public cloud/ Hybrid Cloud



SUSE accelerates the move to SAP S/4HANA on prem/ the cloud

SUSE Technology Blueprint – 7 steps

SAP Endorsed App
Premium Certified

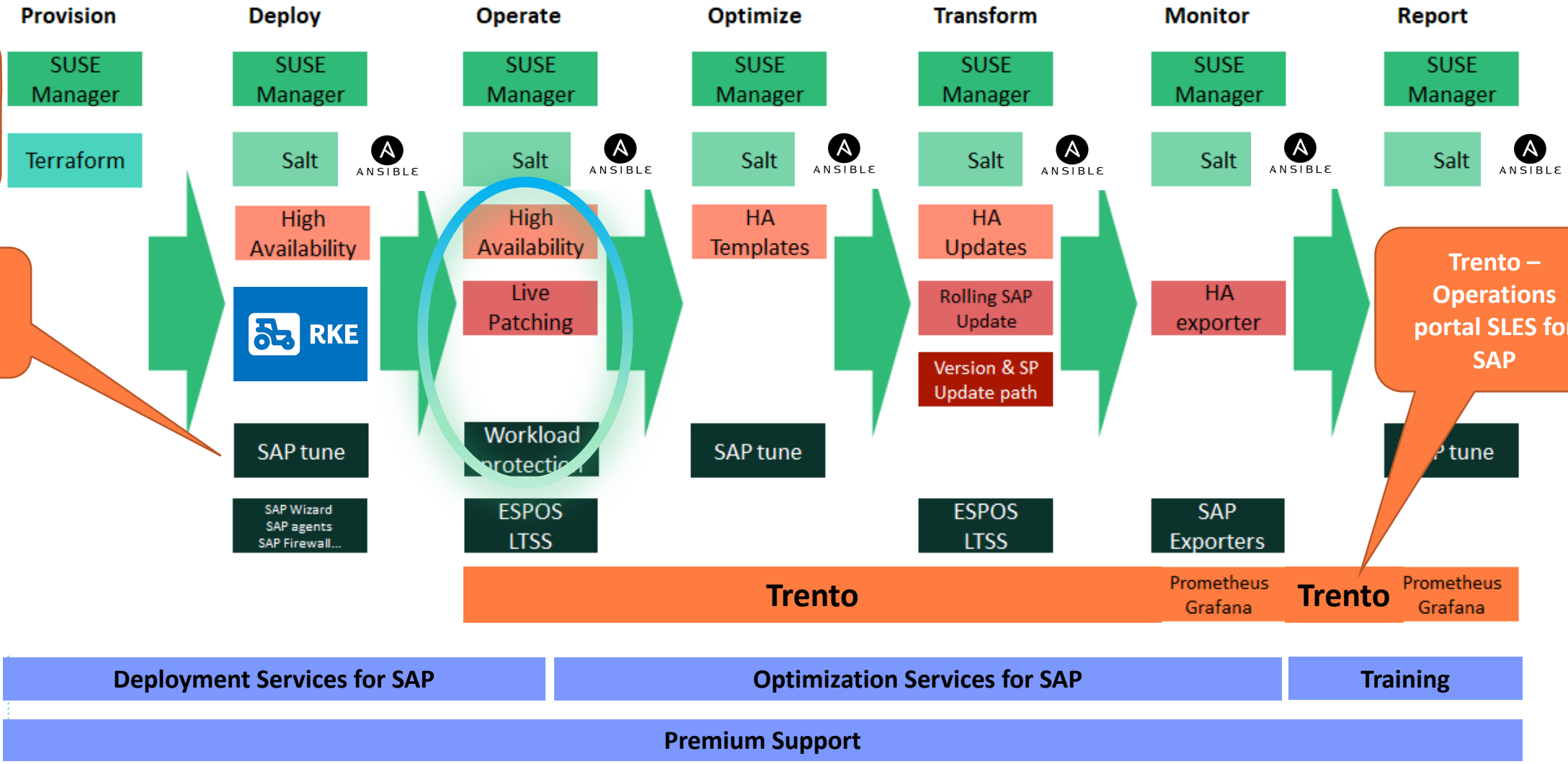
SLES with highest Security level cert EAL 4+

New SAPtune3 automation – TCO reduction

Discovery Services for SAP

Design Services for SAP

Design Review for SAP

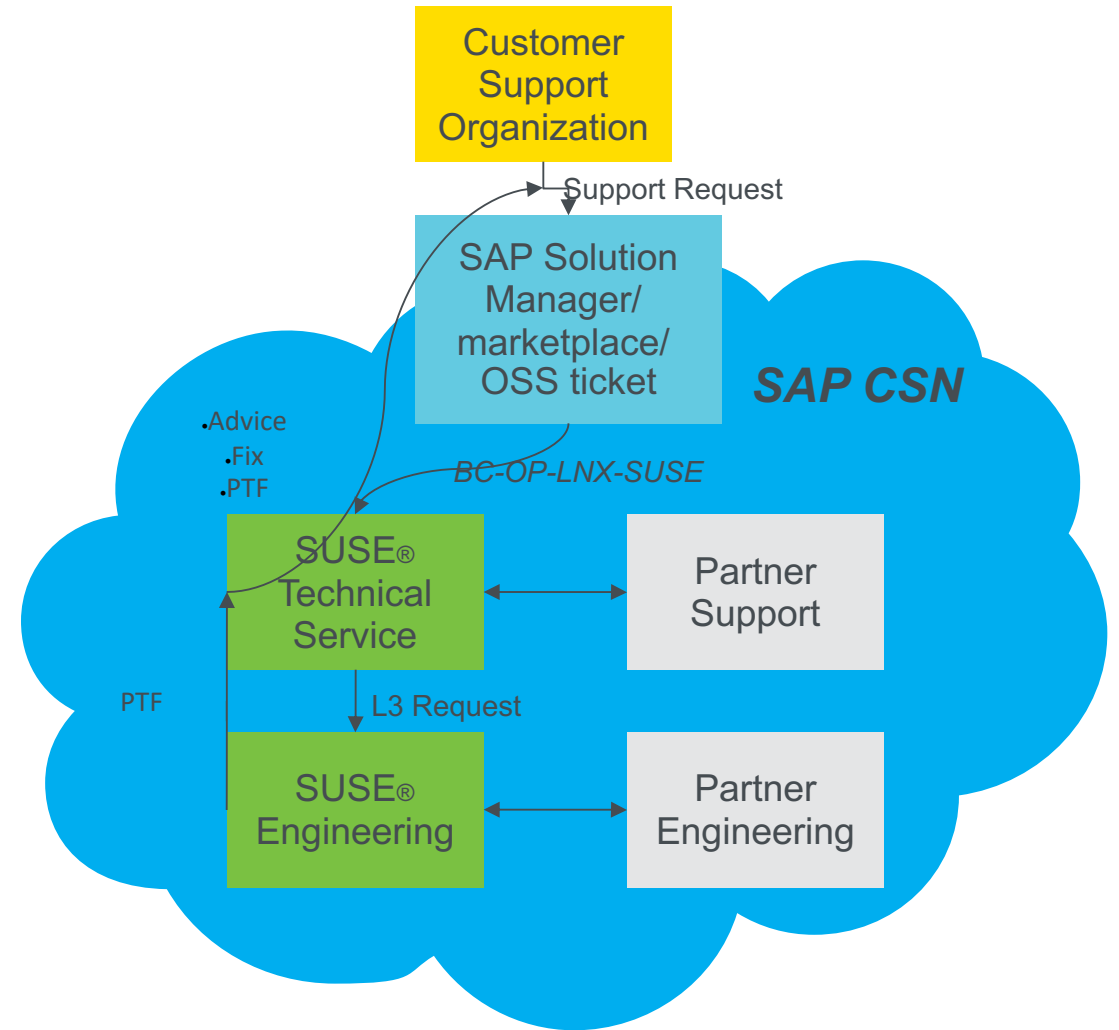


Trento – Operations portal SLES for SAP

SAP / SUSE support

- Integrated in SAP Support Process 24x7
- Leverages SAP Customer Support Network
- Quick support by SAP LinuxLab Experts
- Work together at a task

SAP Note 1056161 - SUSE Priority Support for SAP-Applications



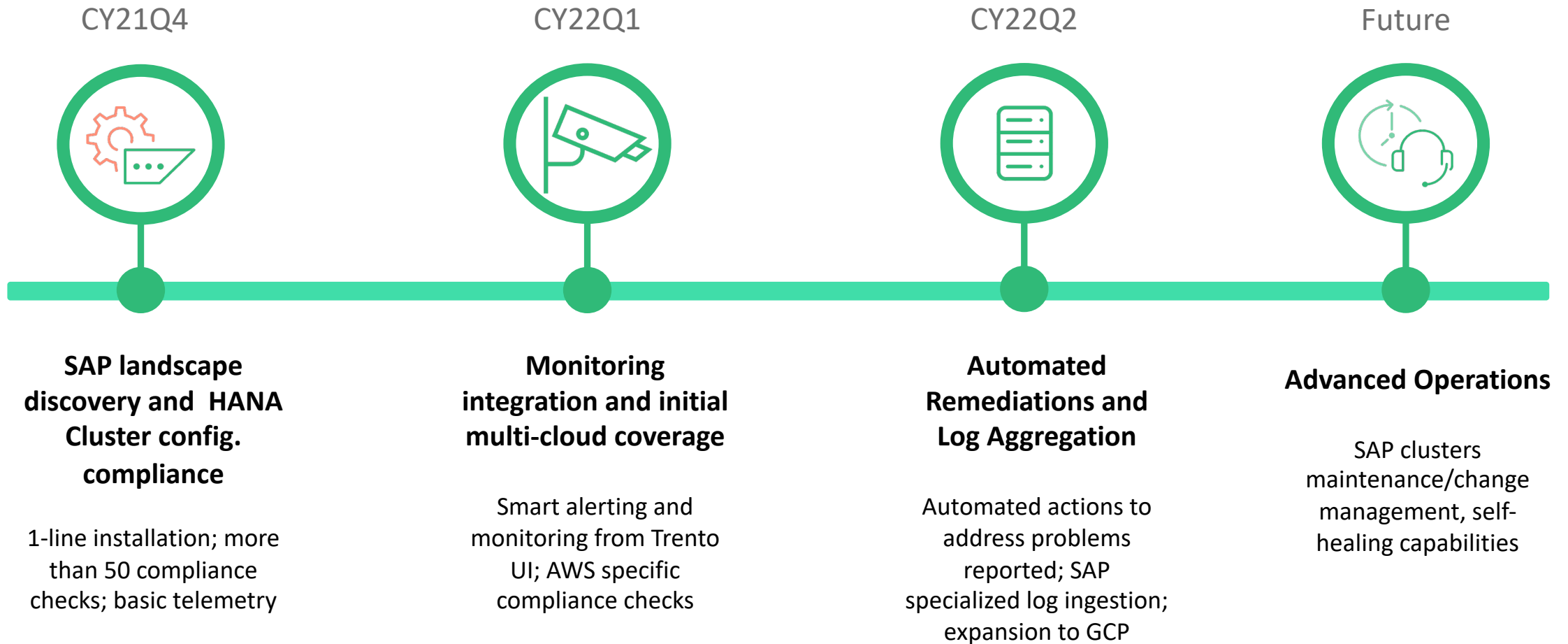
Automation

HA

Security



Trento: Our road ahead



Trento: Safeguard and automate your SAP operations

The screenshot displays the Trento web interface. On the left is a navigation sidebar with options: Home, Hosts, Pacemaker Clusters (selected), SAP Systems, HANA Databases, Settings, and About. The main content area is titled 'Pacemaker Cluster details' for 'hana_cluster', updated at 10/12/2021, 3:21:32 PM. It shows various configuration parameters and a health status summary.

Parameter	Value
Cluster name	hana_cluster
Cluster type	HANA scale-up
HANA system replication mode	sync
SID	PRD
SAPHanaSR health state	4
HANA secondary sync state	FAIL
Stonith type	external/sbd
CIB last written	Tue Oct 12 13:20:27 2021
HANA system replication operation mode	logreplay

Health Summary:

- Passing: 84
- Warning: 8
- Critical: 6

Stopped resources: No stopped resources.

Pacemaker Site details:

Site	Hostname	IP	Virtual IP	Role
Site1	vmhana01	10.74.1.10	10.74.1.12	HANA Primary
Site2				

Key Capabilities (*Ambition*)

- Automatically discover servers, clusters, systems and full landscapes
- Check their configuration against best practices
- Automatically reflect hyperscaler requirements
- Surface any issues in an easy-to-use web UI
- Continuously stay up-to-date with evolving SAP, SUSE and hyperscaler recommendations
- Monitoring of SAP landscape
- Visualization of complete SAP environment

Value to customers

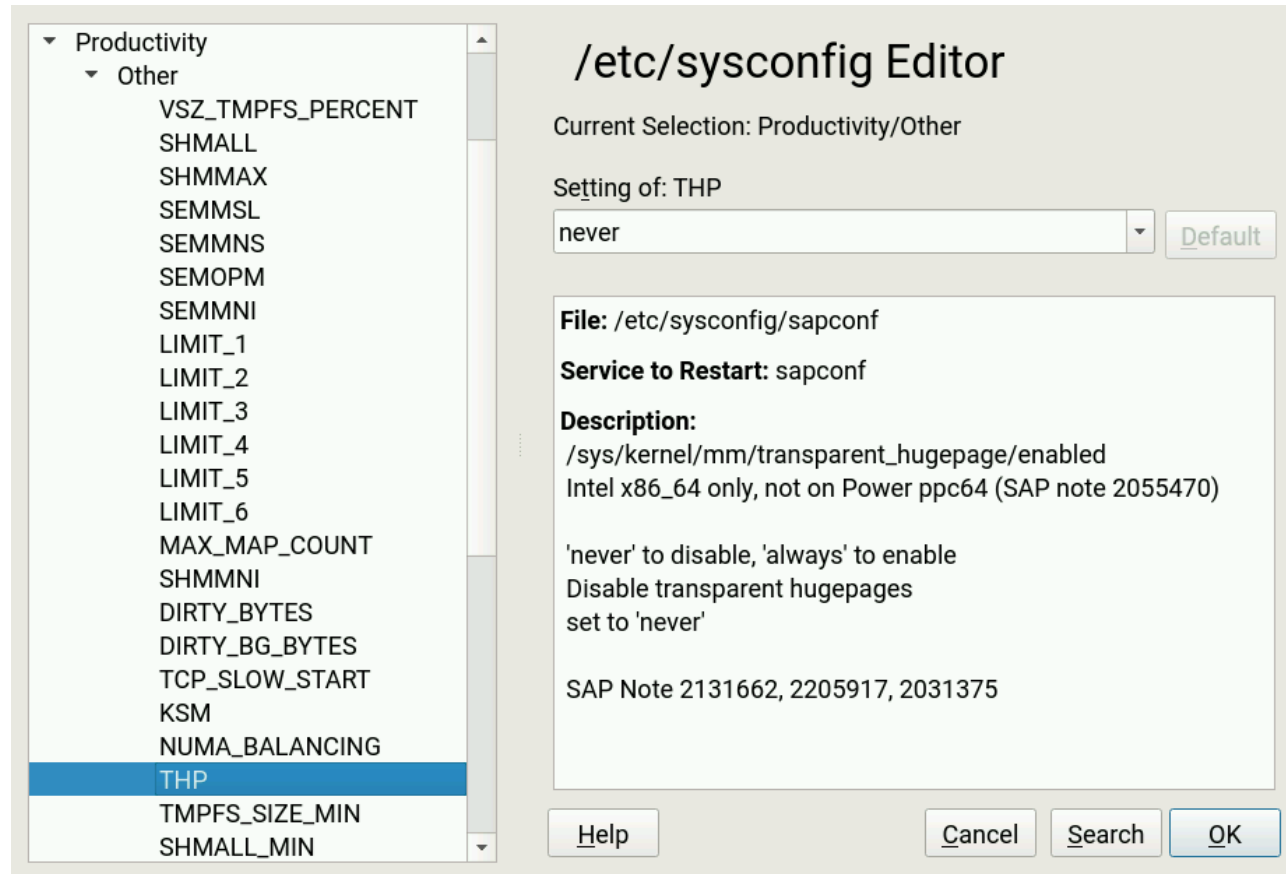
- Peace of mind that all is setup correctly and running smoothly
- Audit readiness
- Actionable best practices help customers to quickly implement them and adapt systems

SAP Performance tuning

- 0061136 Hostnames of SAP servers
- 0171356 SAP software on Linux General information
- 0784391 SAP support terms 3rd-party Linux kernel drivers
- 1275776 Preparing SLES for Sap Environments
- 1310037 SUSE LINUX Enterprise Server 11: Installation notes
- 1501701 Single Computing Unit Performance and Sizing
- 1514966 SAP HANA 1.0: Sizing SAP In-Memory Database
- 1514967 SAP HANA: Central Note
- 1523337 SAP In-Memory Database 1.0: Central Note
- 1793345 Sizing for SAP Suite on HANA
- 1681360 Support for SAP Software on Linux / Fusion-I/O
- 1824819 SAP HANA DB: Recommended OS settings for SLES 11 / SLES for SAP Applications 11 SP2
- 1855805 Recommended SLES 11 packages for HANA support on OS level
- 1890444 Slow HANA system due to CPU power save mode
- 1867783 XFS Data Inconsistency Bug with SLES 11 SP2
- 1888072 SAP HANA DB: Indexserver crash in __strcmp_sse42
- 1846872 "No space left on device" error reported from HANA
- 1876398 Network configuration for System Replication in HANA SP6
- 1944415 Hardware Configuration Guide and Software Installation Guide for SUSE Linux Enterprise Server...
- 1944799 SAP HANA Guidelines for SLES Operating System Installation
- 1954788 SAP HANA DB: Recommended OS settings for SLES 11 / SLES for SAP Applications 11 SP3
- 1943937 Hardware Configuration Check Tool - Central Note
- 1944415 Configuration Guide for Hardware Platforms of SUSE Linux Enterprise Server
- 2000003 FAQ: SAP HANA

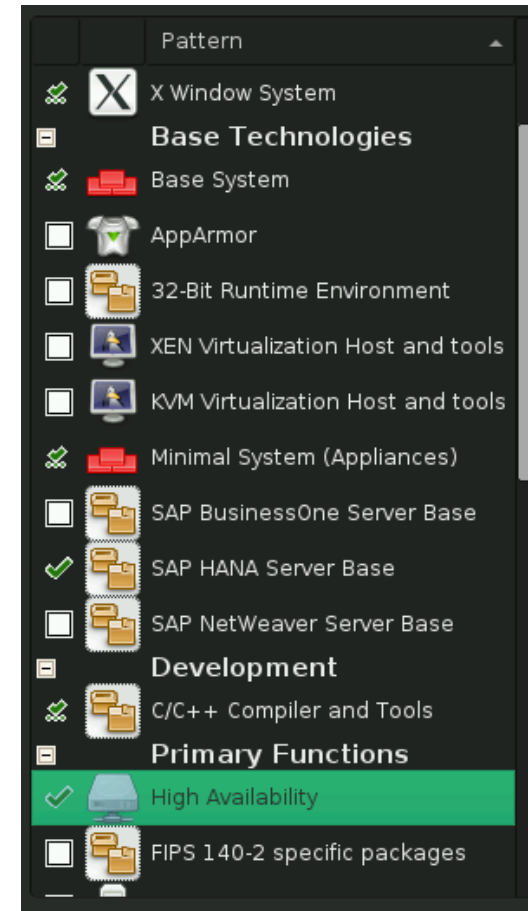
SAP Performance tuning – saptune3

SAPtune



The screenshot shows the `/etc/sysconfig Editor` window. The left pane lists various system settings under the 'Productivity' category, with 'THP' selected. The right pane displays the configuration for 'THP', showing the current selection as 'never' and a 'Default' button. The description includes the file path `/etc/sysconfig/sapconf`, the service to restart (`sapconf`), and a detailed description: `/sys/kernel/mm/transparent_hugepage/enabled` Intel x86_64 only, not on Power ppc64 (SAP note 2055470). It also provides instructions: `'never'` to disable, `'always'` to enable, and to disable transparent hugepages, set to `'never'`. SAP Note 2131662, 2205917, 2031375 is also mentioned.

SAPtune

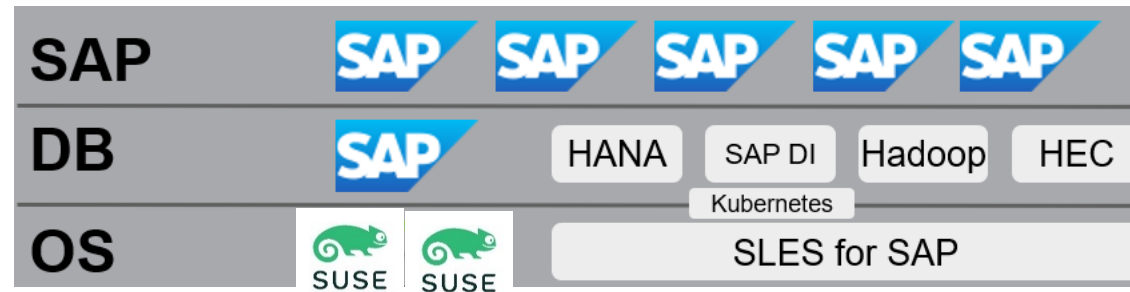
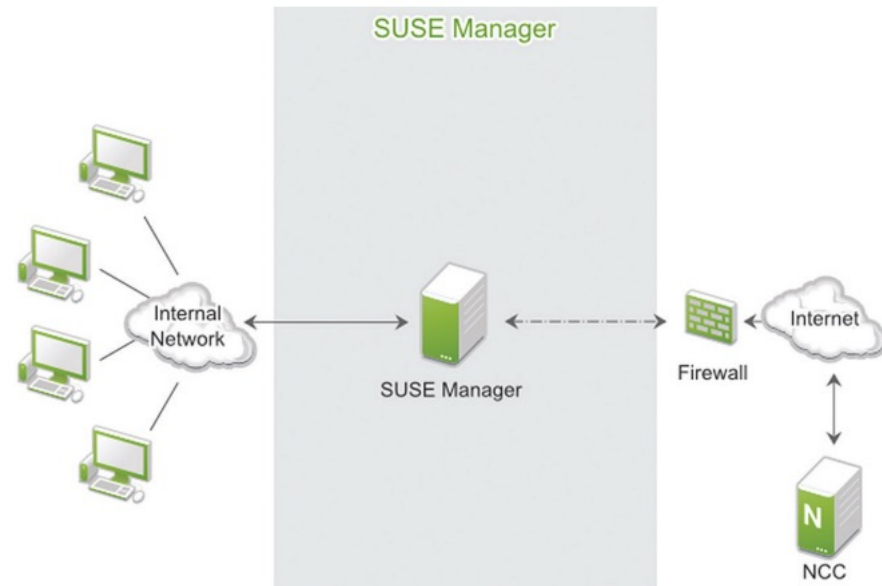


The screenshot shows the SAPtune application interface. It features a list of system components with checkboxes and icons. The 'High Availability' component is highlighted in green. The list includes:

- X Window System
- Base Technologies
 - Base System
 - AppArmor
 - 32-Bit Runtime Environment
 - XEN Virtualization Host and tools
 - KVM Virtualization Host and tools
 - Minimal System (Appliances)
 - SAP BusinessOne Server Base
 - SAP HANA Server Base
 - SAP NetWeaver Server Base
- Development
 - C/C++ Compiler and Tools
- Primary Functions
 - High Availability
 - FIPS 140-2 specific packages

SUSE Manager

Installation of SUSE Manager



SUSE Manager

for Infrastructure Automation

- **Staging Procedure (DEV, Test, PRD)**
- CVE Reporting for Security Patches
- Reporting/Compliance SAP Basis



Automation

HA

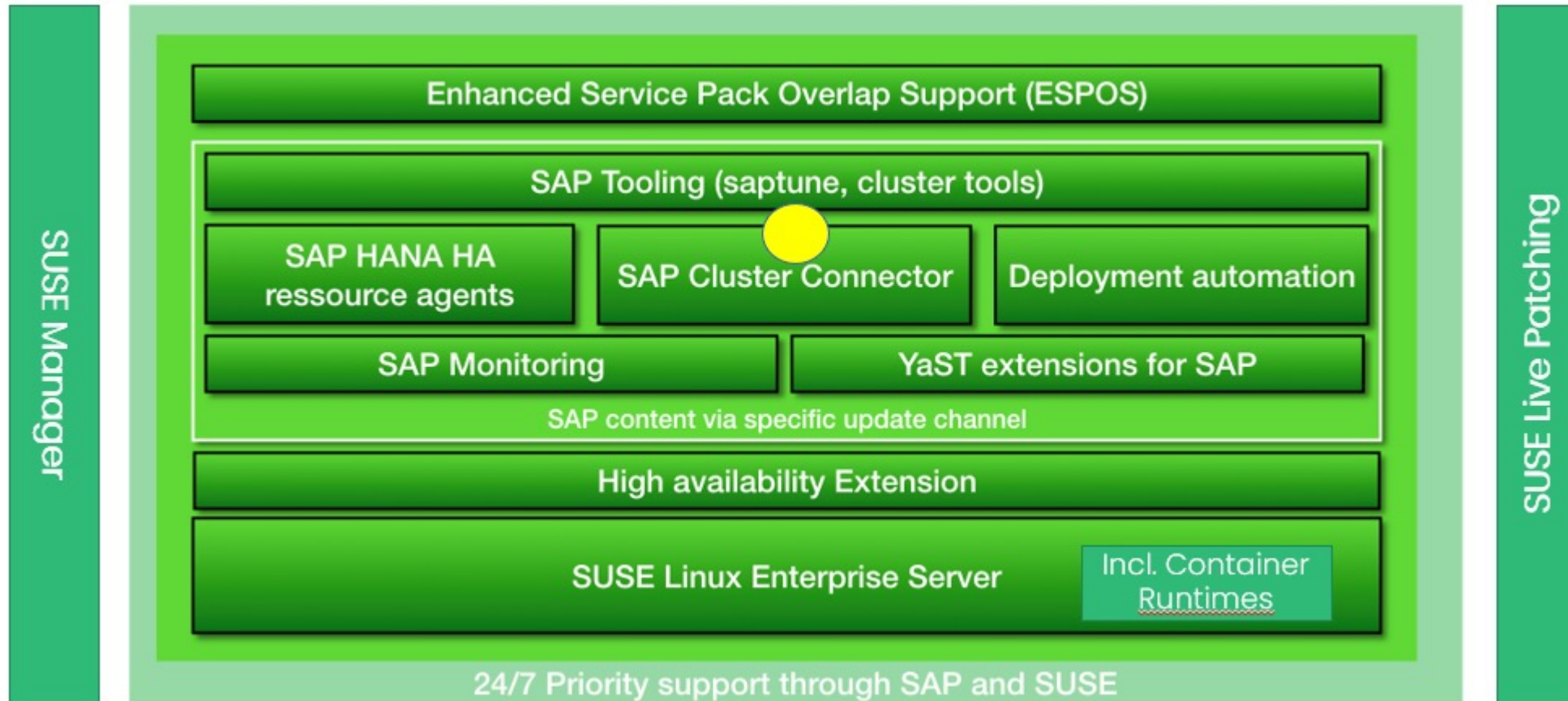
Security



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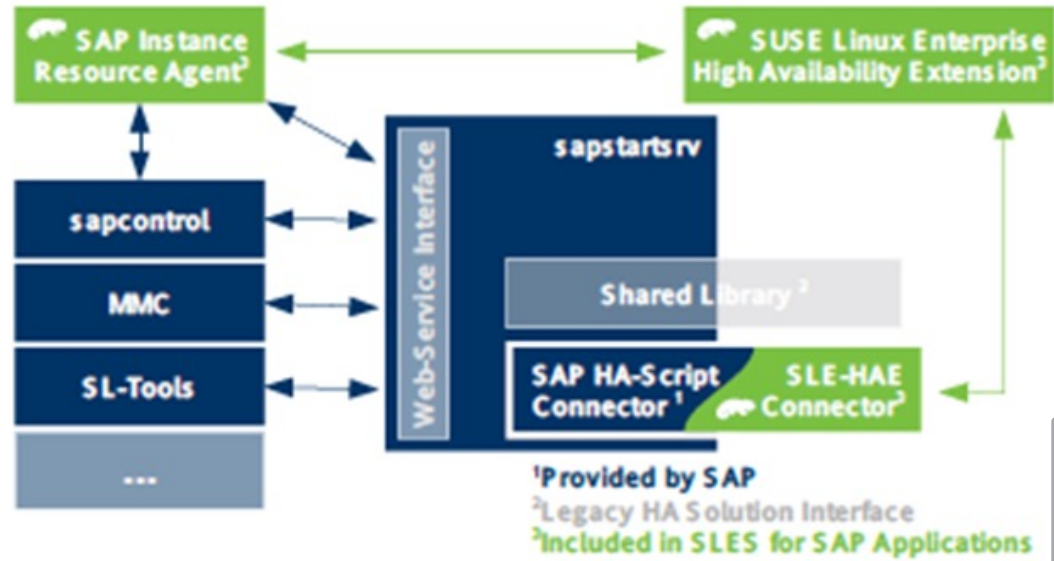
SUSE Linux Enterprise Server for SAP Applications

SAP Cluster Connector



High availability - Netweaver und HANA

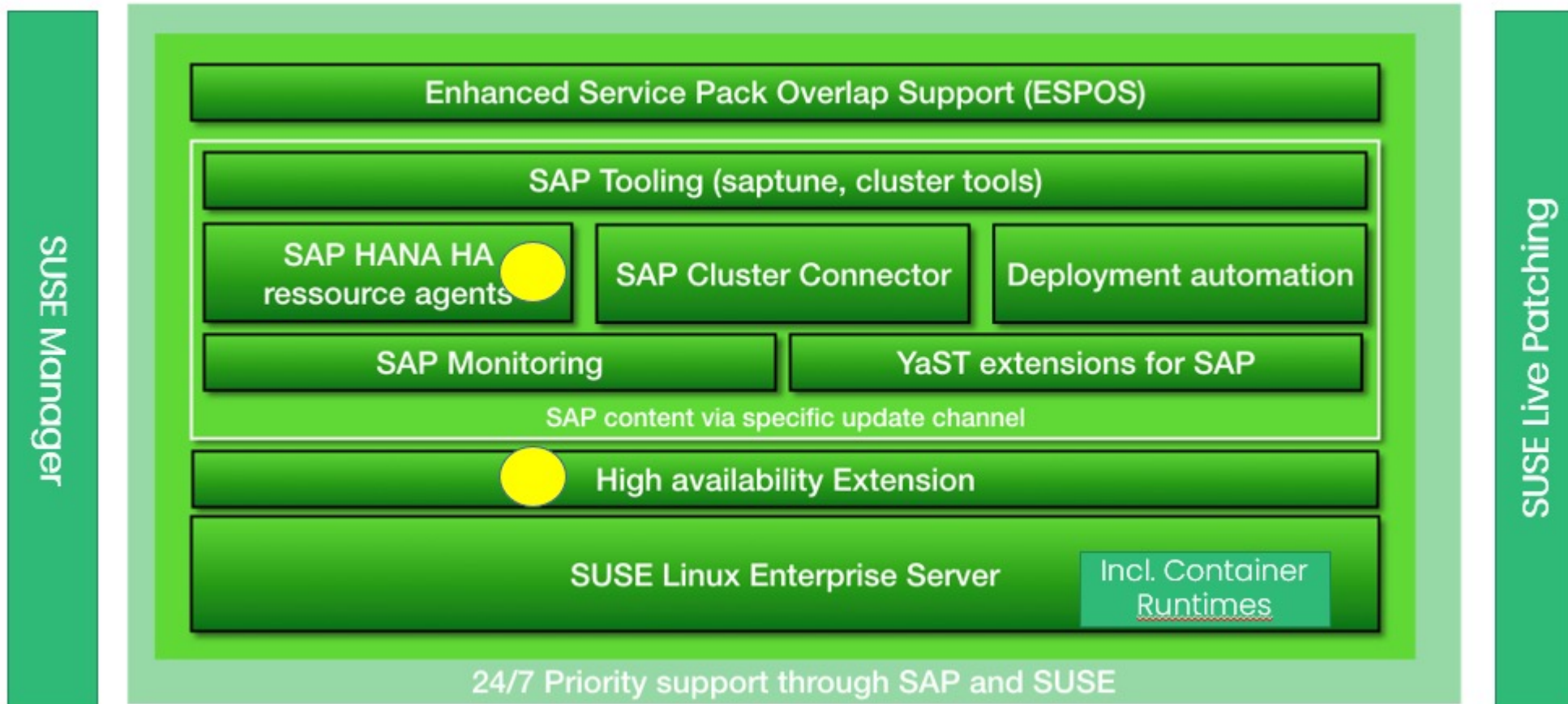
Figure 3.4 Cluster Integration with SAP Control Framework



The screenshot shows the SAP Management Console interface. The left pane displays a tree view of the system configuration, including the instance ERS10 on sapha1er. The right pane shows the configuration details for this instance, including the status (Running) and High Availability Information. The High Availability Information section shows the status as Active, the product version (SUSE Linux Enterprise Server for SAP Applications 12 SP2), the SAP interface version (SUSE Linux Enterprise Server for SAP Applications 12 SP2 (sap_suse_cluster_connector 3.0.1)), the active node (hacert01), and the available nodes (hacert02). A Fallback button is visible next to the available nodes.

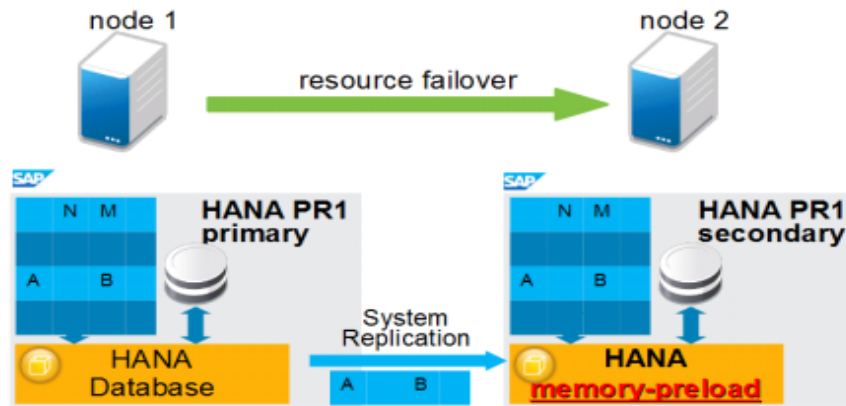
SUSE Linux Enterprise Server for SAP Applications

High availability Extension

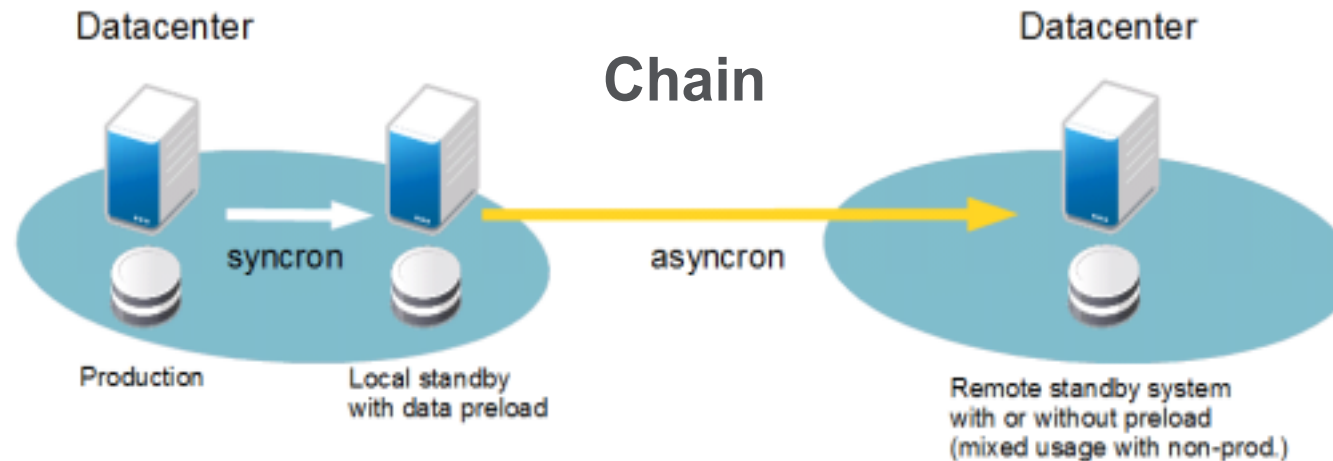
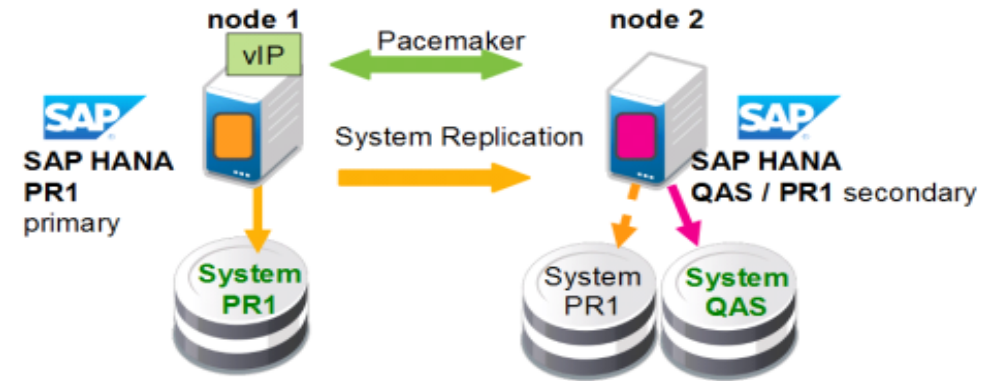


SAP HANA – High availability

Performance Optimized



Cost Optimized



Automation
HA
Security



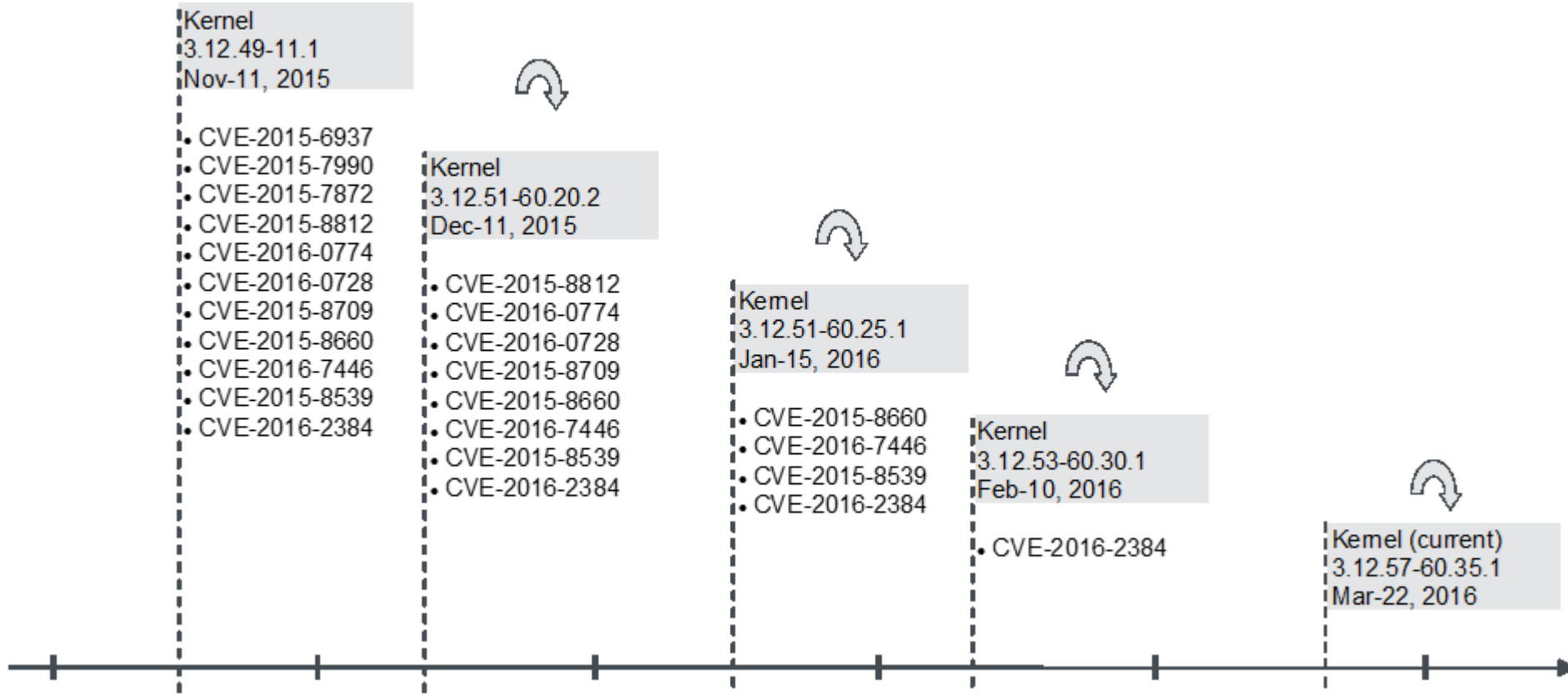
SUSE Linux Enterprise Server for SAP Applications

SUSE Live Patching



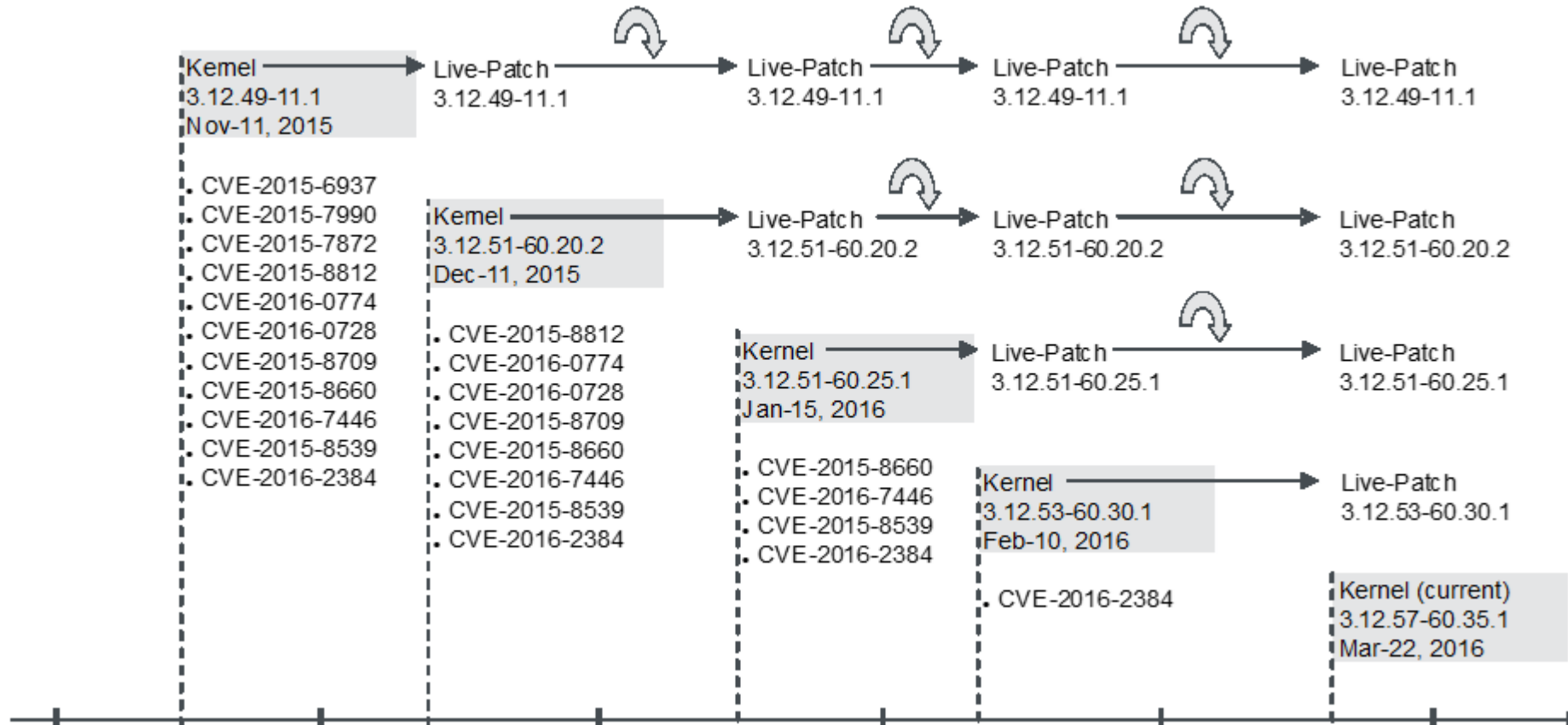
SAP SUSE Live Patching

SLES



SAP SUSE Live Patching

SLES for SAP 15



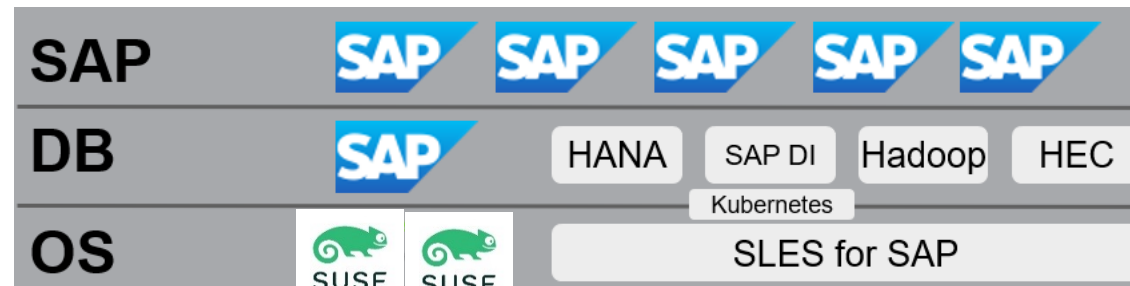
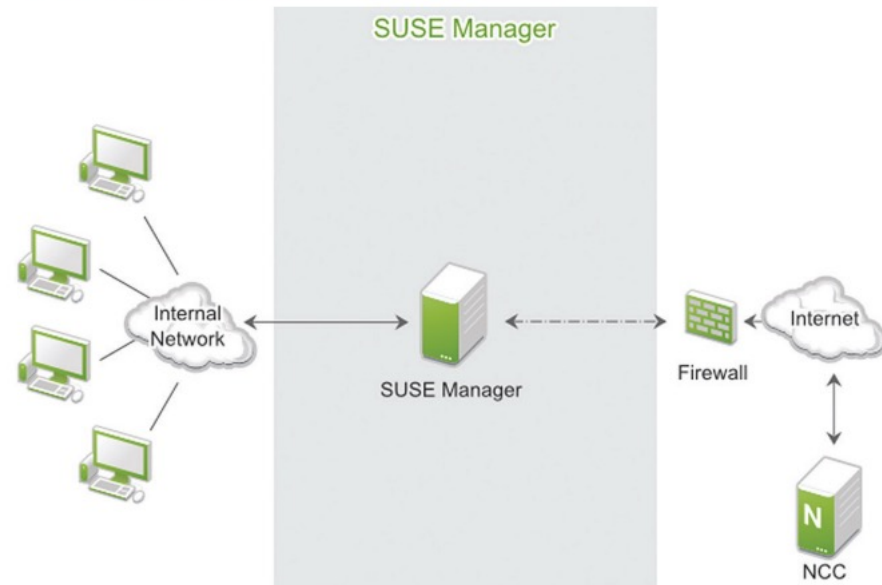
SUSE Linux Enterprise Server for SAP Applications

SUSE Manager



SUSE Manager Audit

Installation of SUSE Manager



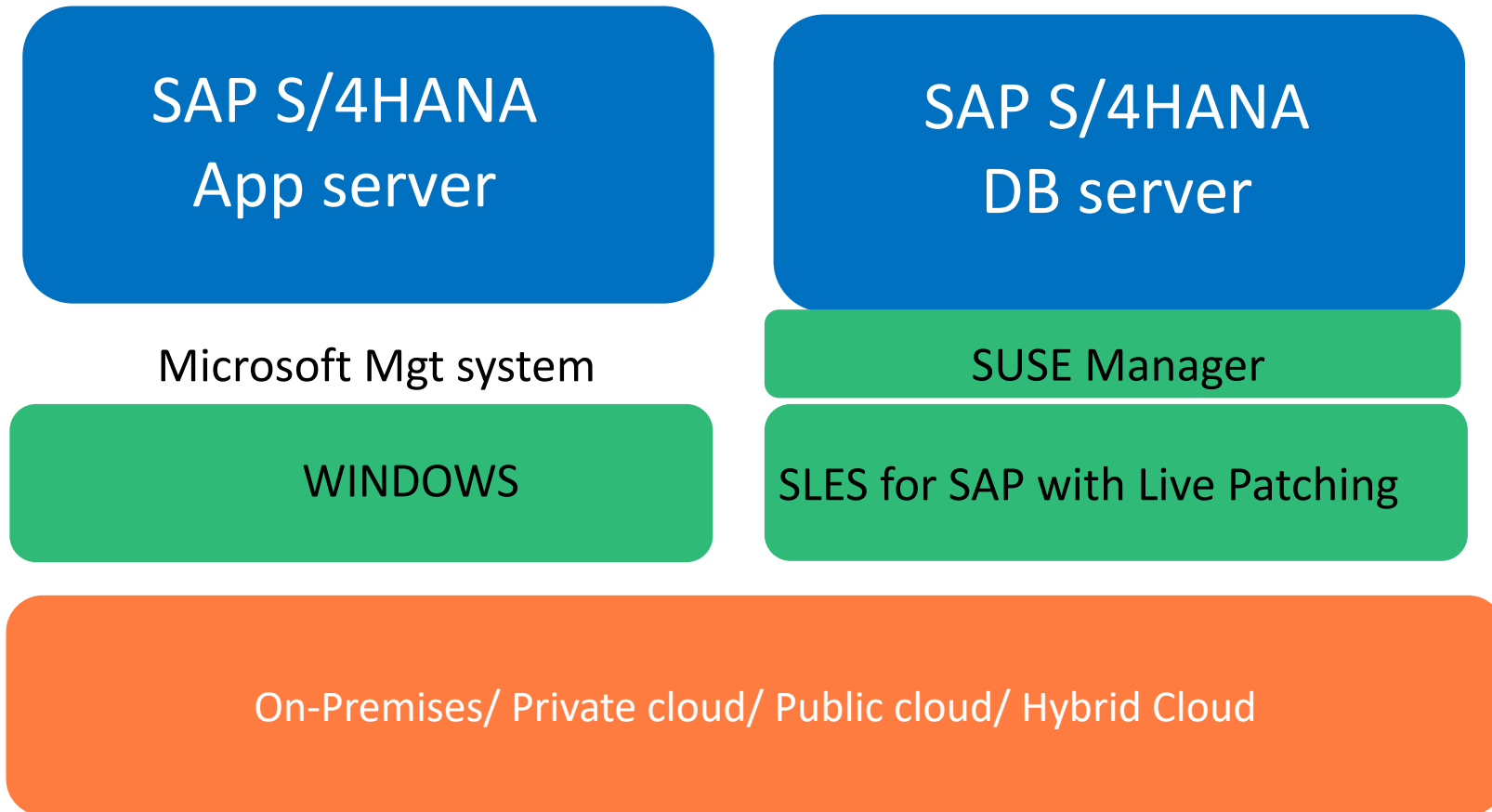
SUSE Manager

for Infrastructure Automation

- Staging Procedure (DEV, Test, PRD)
- **CVE Reporting for Security Patches**
- Reporting/Compliance SAP Basis



Strategy for SAP Security



SECURITY challenges

- Windows shows many vulnerabilities
- Windows has no “live patching”
- Windows has no “Support integration”
- Windows not “endorsed App”

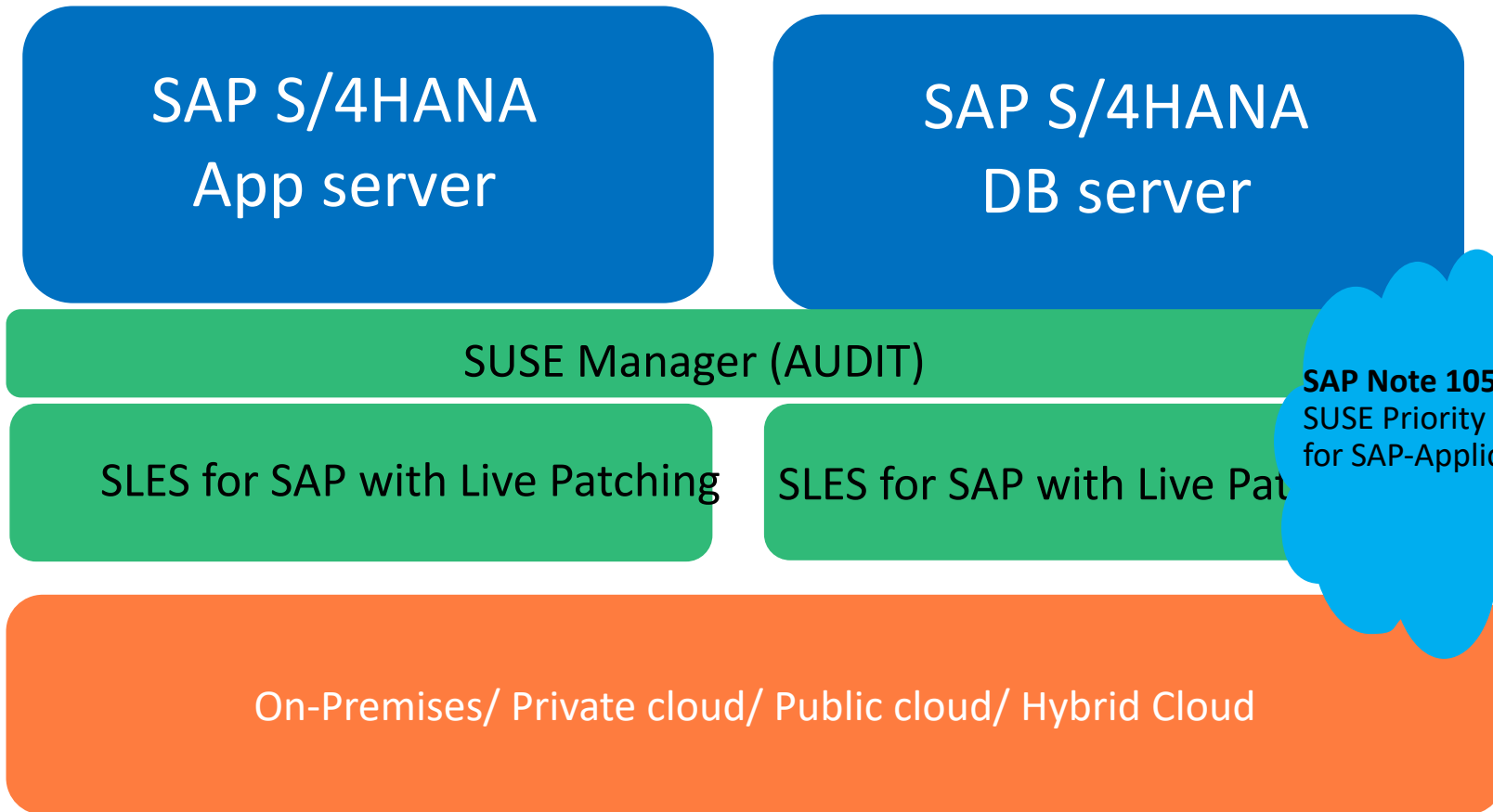
OPERATIONS:

- Windows needs a lot patching work during the year (every 2 weeks)
- 2 Lifecycles to maintain

COSTS

- Need of additional licences to secure windows systems e.g. windows defender

Strategy for SAP Security



SECURITY build in

- SECURITY Live patching
- SECURITY Disc Remote encryption
- Confidential computing
- -> address regulated markets with revisionsafe audit proof for Datasecurity
- Trento 2.0
- SECURITY hardening
- HANA Firewall
- EAL 4+ cert

SLES for SAP mit Live Patching
SUSE Manager Audit

Strategy for SAP cloud transformation

Linux

SUSE Technology Blueprint for S/4HANA SUSE HA pacemaker with SLES for SAP Applications



Run SAP Solutions

High Availability

Live Patching



SAP Automation

SUSE Trento

SUSE Manager



Security

SUSE Live Patching

SUSE EAL 4+ BSI zert

SUSE Manager Audit





Thank you

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