SUSE

Accelerate your SAP S/4HANA Migration

Safeguard your SAP S/4HANA Environment with AWS and SUSE
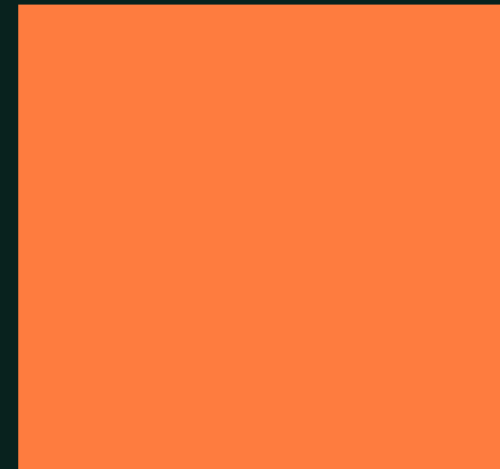
Presenters

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SUSE, SAP & AWS

Partnership and Co-Innovation for
Customer Success

23+
years of SAP & SUSE Partnership

70%
of SAP apps on Linux

100%
of SAP Business One on HANA

EA
SUSE for SAP is an SAP Endorsed App

85%+
of HANA deployments

HANA
developed on SUSE for SAP

95%
of HANA on IBM Power

HEC & RISE
run on SUSE

SAP
Runs day-to-day on SUSE

10+ Years of Collaboration and Innovation

SLES on AWS Marketplace

SLES on AWS Gov Cloud

AWS Launch Wizard

Private Offers for SLES for SAP

SUSE joins AWS Container Competency

Support for X1 EC2 Instance

Nitro instances for SAP scale-out

SUSE joins AWS Public Sector Partner Program

SUSE acquires Rancher Labs

2010 — 2014 — 2017 — 2019 — 2023

SLES for SAP Certified on AWS

SLES for SAP HANA and HA AWS Quick Start

SLES for SAP Automation and monitoring

APN Partner of the Year

Support for X1e EC2 Instance

Support for EC2 High Memory for HANA

SLE Live Patching & SUSE Lifecycle Manager Client Subscription included w/SLES for SAP

SUSE support for AWS Outposts, Ready Partner designation

Challenges that we solve together

— Many requirements to follow to be SAP compliant

— High Availability deployments can be complex

— Downtime from planned maintenance and unplanned events

— Lack of visibility and insights into the SAP landscape, especially HA

Accelerate the migration of SAP landscapes.

SUSE Linux Enterprise Server for SAP Applications

Reliability and Resilience	Live Patching (PAYG)	SUSE Linux Enterprise High Availability Extension	Persistent Memory Support	SAP HANA HA Resource Agents	SAP HANA Firewall	Remote Storage Encryption Management	Workload Memory Protection
Faster Deployment	SUSE Package Hub	SAP Installation Wizard	Hybrid Cloud Automated Deployment	Public Cloud Platform Images	S/4HANA Transition Support		
Infrastructure Management	SUSE Connect	Performance Configuration and Tuning	Infrastructure Monitoring	Cluster Transition Visualization	SAP HANA Update Wizard	Trento	
Base Operating System and Support	SUSE Linux Enterprise Server	24x7 Priority Support	Extended Service Pack Overlap Support	SAP-Specific Update Channel			

■ SUSE Product and Services   ■ SUSE features for SAP systems

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Certification Process for SAP HANA and NetWeaver

Every new HANA release and SLES for SAP release follows this process

SUSE
Builds New PAYG and BYOS Images

SUSE*
SAP HANA, S/4HANA, & NetWeaver Certifications

SAP

AWS

WORKS WITH SAP TO GET CERTIFIED

- IMAGES WITH THE NEW SLES FOR SAP RELEASE

- TARGET INSTANCE TYPES

* CERTIFICATION:
- SERVICE PACK FOR SAP HANA

- MAIN-STREAM FOR S/4HANA AND NETWEAVER

AWS Migration Hub Orchestrator for SAP

Migration Hub is the central
tool across all phases of
Migration

Assess

Import existing server inventory

Obtain right-sized
EC2 Recommendations

Capture and visualize
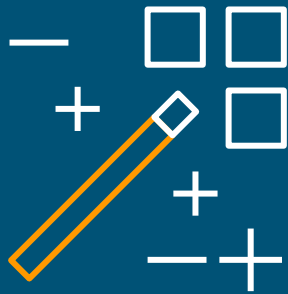system inventory, performance,
and dependencies

Mobilize

Analyze Server performance and
identify server dependencies

Group applications and build
a migration plan

Migrate and modernize
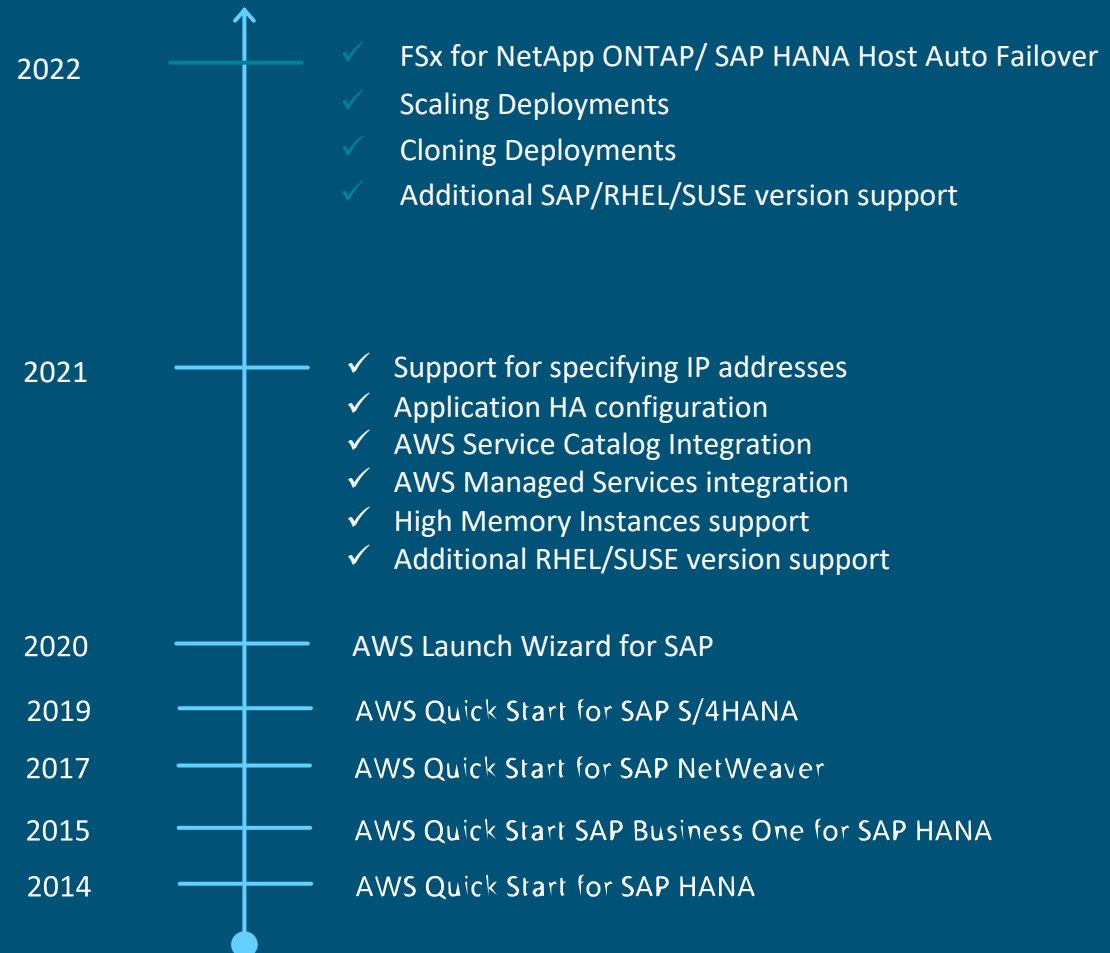
Track application migrations
from multiple tools

aws

Automating SAP deployment with AWS Launch Wizard

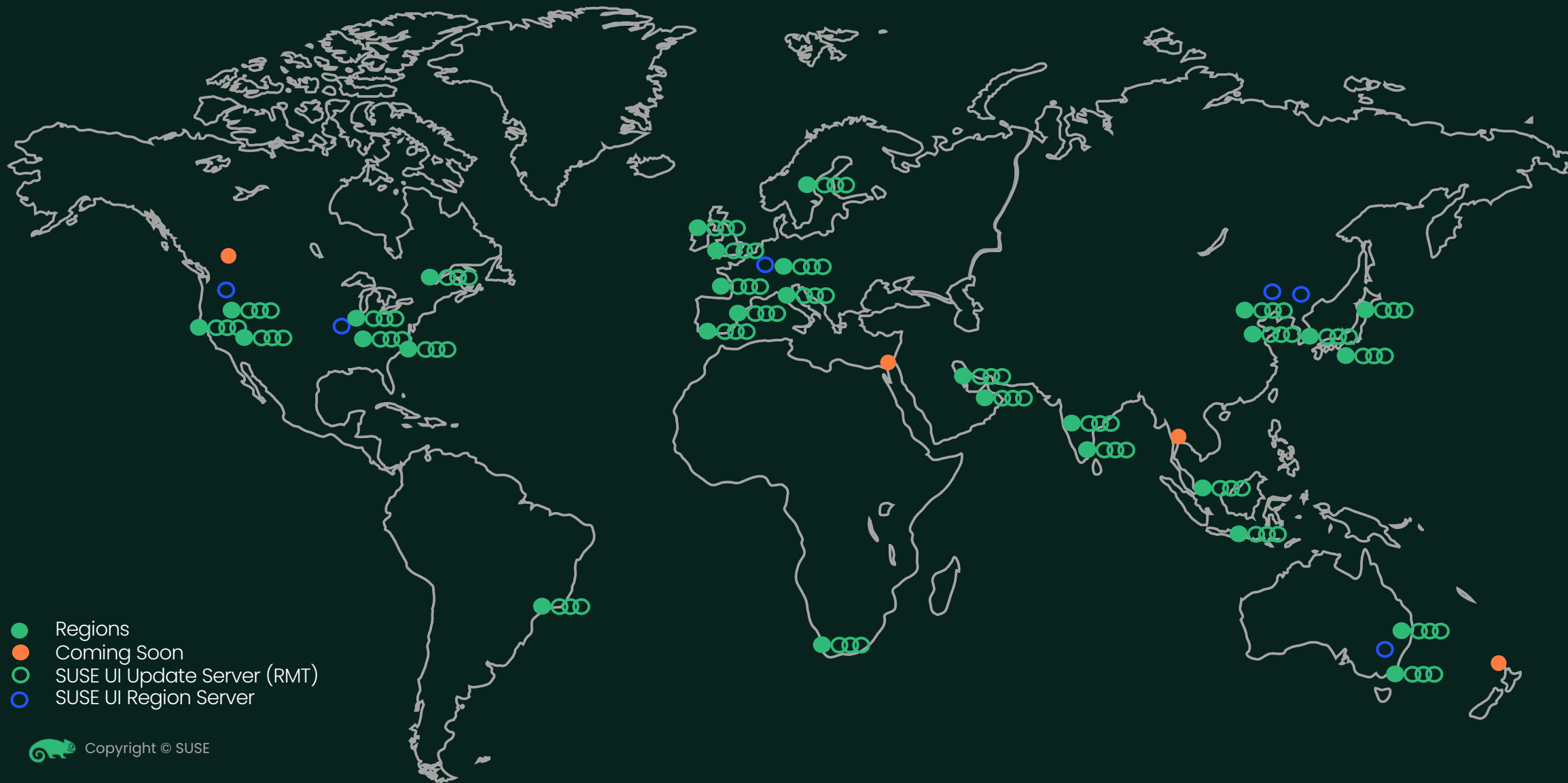**History of SAP deployment innovation**

AWS Launch Wizard is a free service that provides a guided experience for configuring and deploying SAP on AWS

- Intuitive interface built for SAP users

- Recommends AWS resources and configuration based on SAP best practices

- Reusable infrastructure settings for infrastructure-as-code

2022
- ✓ FSx for NetApp ONTAP/ SAP HANA Host Auto Failover
- ✓ Scaling Deployments
- ✓ Cloning Deployments
- ✓ Additional SAP/RHEL/SUSE version support

2021
- ✓ Support for specifying IP addresses
- ✓ Application HA configuration
- ✓ AWS Service Catalog Integration
- ✓ AWS Managed Services integration
- ✓ High Memory Instances support
- ✓ Additional RHEL/SUSE version support

2020 AWS Launch Wizard for SAP

2019 AWS Quick Start for SAP S/4HANA

2017 AWS Quick Start for SAP NetWeaver

2015 AWS Quick Start SAP Business One for SAP HANA

2014 AWS Quick Start for SAP HANA

SUSE Update Infrastructure in AWS

Regions
Coming Soon
SUSE UI Update Server (RMT)
SUSE UI Region Server

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Reduce outage disruption and provide near-zero downtime

Providing Resilience

Do Nothing

— Use monitoring / or helpdesk to identify when service is down.

— Restart instance manually

AWS Capability

— Monitoring and Auto Restart of VM

— Protects against host hardware / instance failure

— RTO?

SUSE High Availability Extension

— Protects against hardware, service and application failures.

— Tightly integrated with Operating System

— Fully Automated

SUSE <u>Develops</u> HA Solutions for SAP

- SUSE is the innovation leader, and source of expertise

- SAP HANA HA Solutions developed by SUSE

  - Automated Failover of HANA System Replication

  - Scale-Up & Scale-Out

  - <u>Fast-Dying Index Server</u>

- SAP NetWeaver and S/4HANA HA Solutions developed by SUSE

  - sap-suse-cluster-connector – certification reference for any Unix/Linux cluster vendor

  - ENSA1 certified ASCS/ERS HA

  - ENSA2 certified ASCS/ERS HA

  - Certified Simple Mount Structure – Only available from SUSE
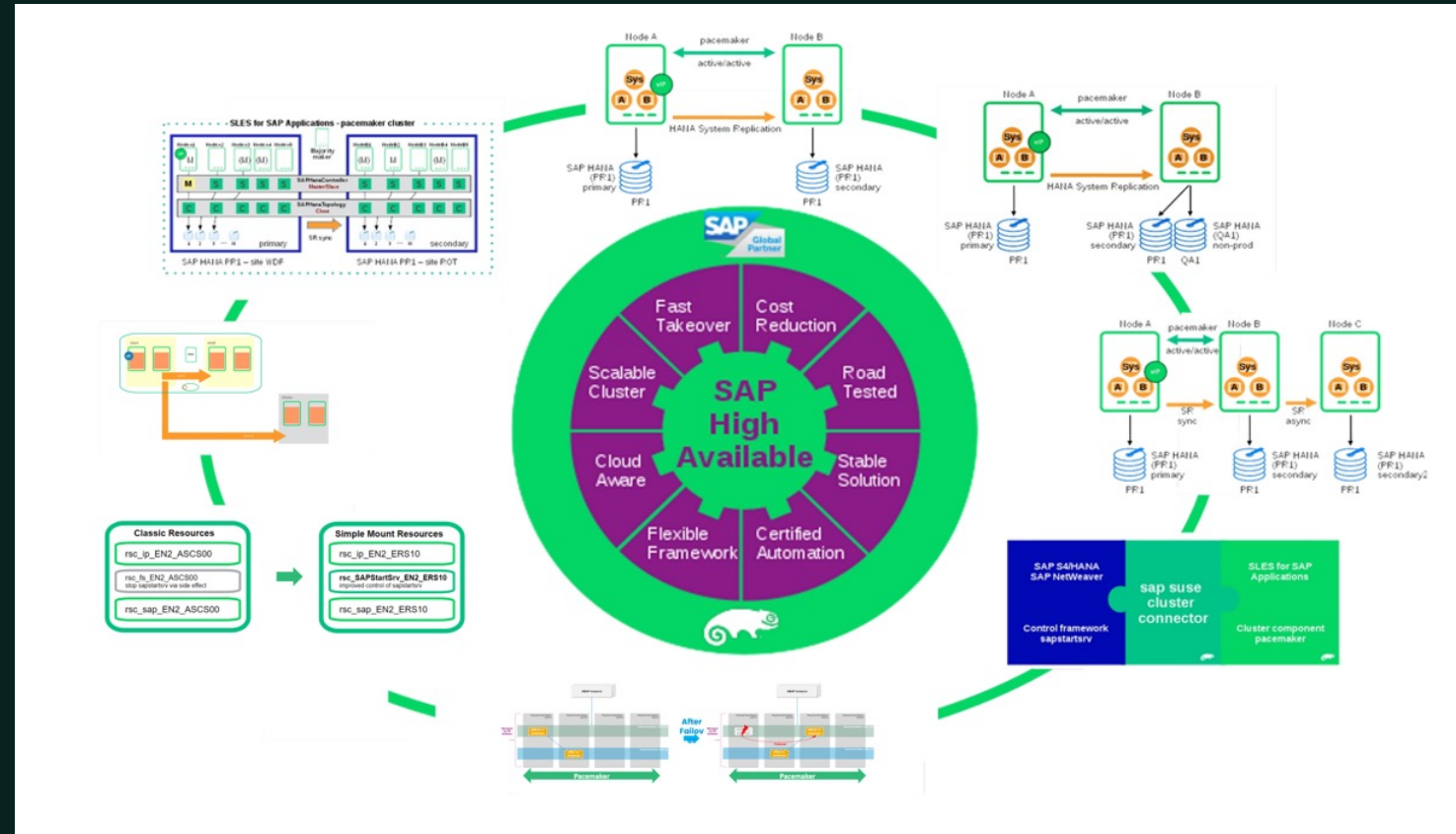
Best Practices - Innovation

Multi SID
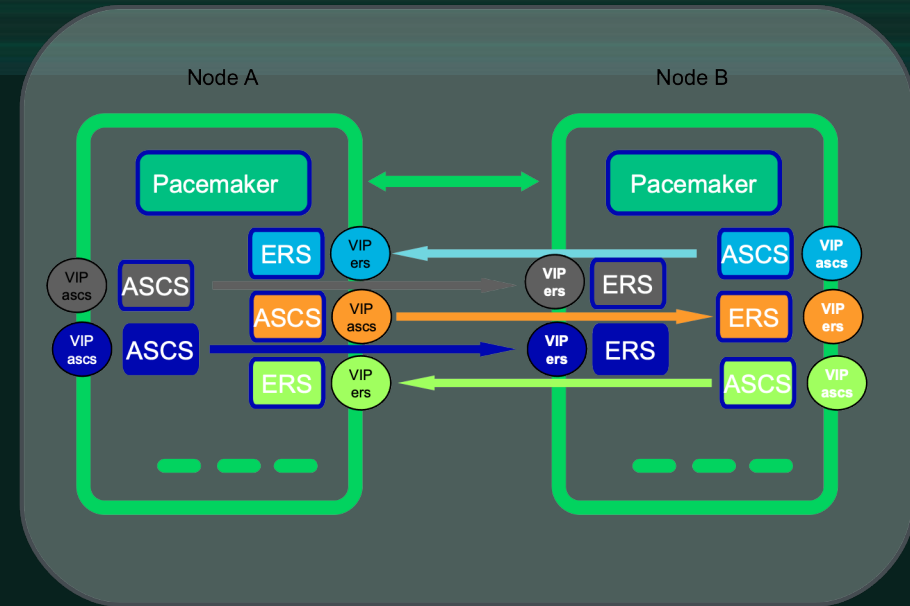
ASCS Simple Mount
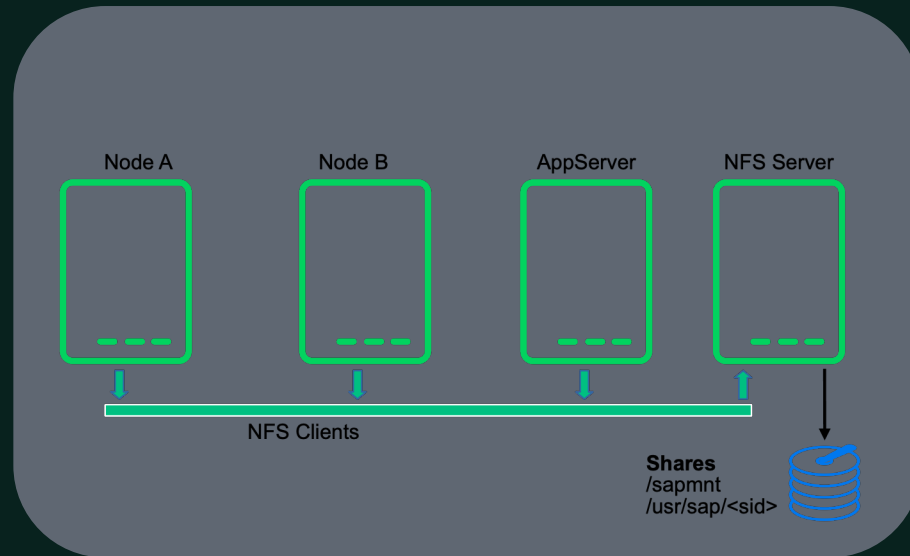
Rolling Update (cluster)

- Run migration process on test systems first

- Upgrade one cluster node at a time

- The remainder of the cluster nodes remains running

Live Patching – Update without Disruption

User Space Live Patching ONLY available from SUSE

APPLICATIONS

- Update applications without disruption, when prerequisites are met, and the user space live patching toolkit is used

LIBRARIES

- Update key libraries (e.g., glibc, openSSL, dependencies of HANA) without disruption
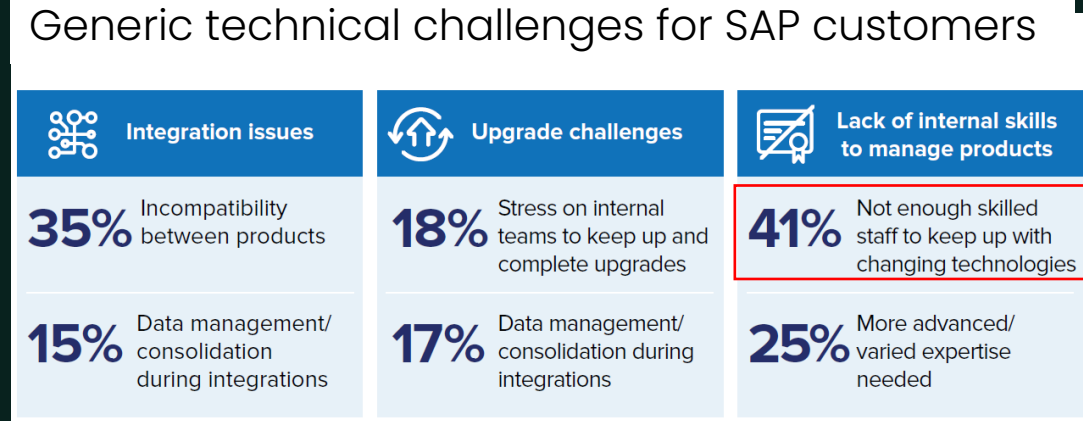
LINUX KERNEL

- Update the Linux kernel without disruption

Maximize Insights

SAP Customer Challenges

Managing the complexity of SAP environments is one of customers' biggest challenges

- SAP systems are mission-critical, even a brief downtime period can cause productivity, financial, and reputational damage to a business or business segment.

- At the core of SAP systems is the SAP HANA database – part of a complex setup.

- SAP ECC maintenance ends in 2027 therefore there is a sense of urgency for customers to react. We expect many customers will migrate to S/4 HANA and they will need additional new skills.

- Customers' top issues that are raised to SUSE Support: Clustering and High availability

Generic technical challenges for SAP customers

Integration issues	Upgrade challenges	Lack of internal skills to manage products
35% Incompatibility between products	**18%** Stress on internal teams to keep up and complete upgrades	**41%** Not enough skilled staff to keep up with changing technologies
15% Data management/ consolidation during integrations	**17%** Data management/ consolidation during integrations	**25%** More advanced/ varied expertise needed

Source: ASUG survey 2021

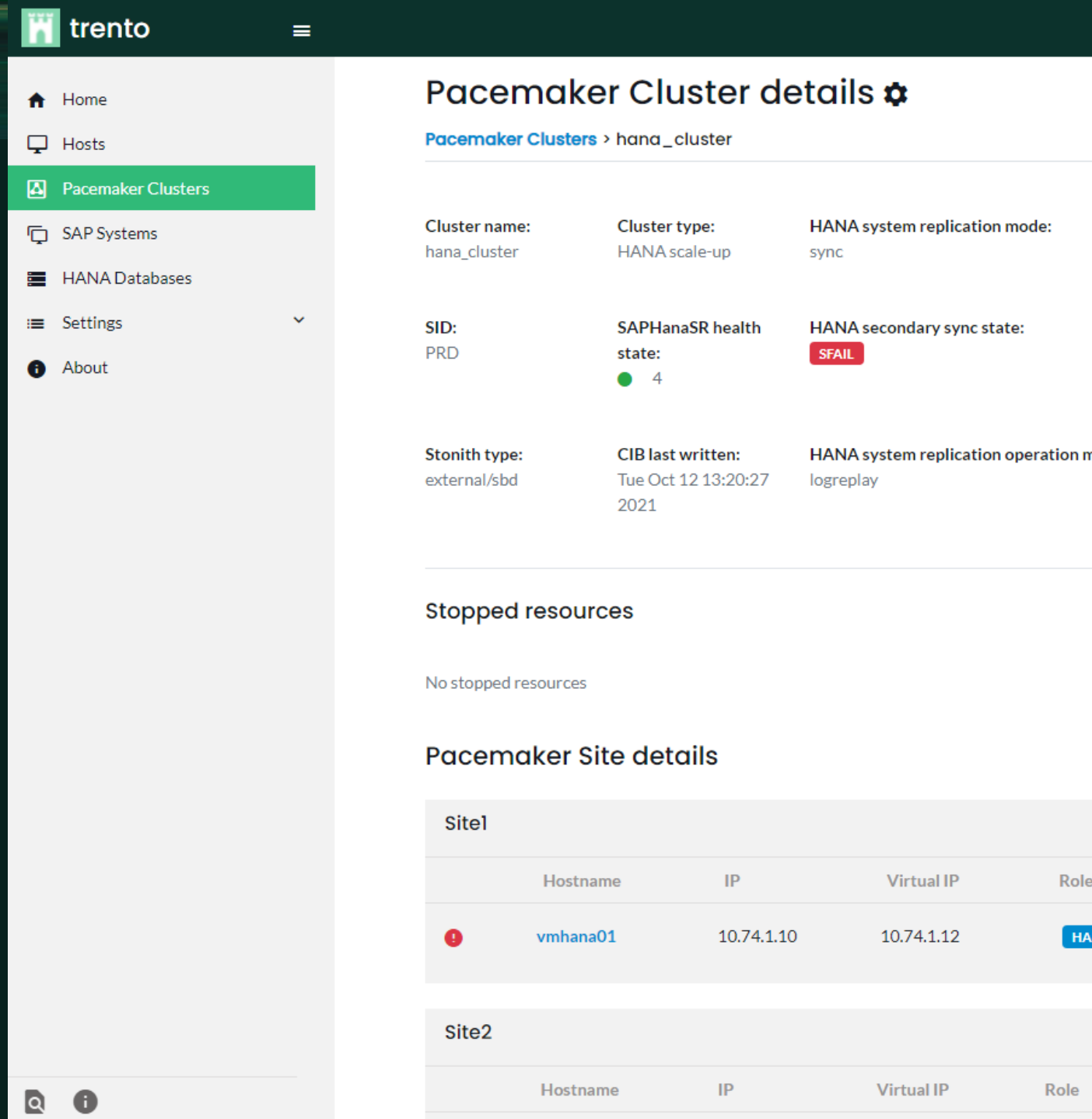**How can SUSE help customers manage complex SAP environments?**

Trento:
Safeguard your
SAP Operations

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

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trento

- Home
- Hosts
- Pacemaker Clusters
- SAP Systems
- HANA Databases
- Settings
- About

Pacemaker Cluster details ⚙

Pacemaker Clusters > hana_cluster

Cluster name:
hana_cluster

Cluster type:
HANA scale-up

HANA system replication mode:
sync

SID:
PRD

SAPHanaSR health state:
● 4

HANA secondary sync state:
SFAIL

Stonith type:
external/sbd

CIB last written:
Tue Oct 12 13:20:27 2021

HANA system replication operation m
logreplay

Stopped resources

No stopped resources

Pacemaker Site details

Site1			
Hostname	IP	Virtual IP	Role
● vmhana01	10.74.1.10	10.74.1.12	HA

Site2			
Hostname	IP	Virtual IP	Role

Wrap Up

Key Takeaways

Four Themes

- AWS and SUSE innovate for mission-critical workloads

- Experience a secure, faster, fully tested approach to accelerate the migration of SAP landscapes to AWS

- Reduce outage disruption and provide near-zero downtime from planned maintenance and unplanned system events

- Maximize insights to proactively safeguard the SAP landscape

https://www.suse.com/partners/alliance/aws/
https://aws.amazon.com/sap/

SUSE

Thank you

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