

Sept 22nd, 2020

SAP Optimization with SUSE & the Hyperscalers

Industry leaders that provide enhanced reliability while reducing risk and cost

Hitesh Patel, CSP Sales Director

Stephen Mogg, Public Cloud Solutions Architect, AWS

Esko Wessman, CEO, Nordicmind



Nordicmind in brief

Founded 2002
in Helsinki



Team of recognized professionals: Numerous industry certifications, awards and nominations

Presence in all
Nordic Countries



Extensive reseller network across the key operating territory covering Northern Europe & Russia.
Authorized Distributor for SUSE in all Nordic countries

Value Added
Services



Market & channel development, strong knowledge about the represented products

Specialized
Expertise



Focus on modern IT infrastructure, Enterprise Open Source, DevOps, Cloud and cybersecurity solutions





Server, Cloud & SDS



Analytics, Logging, Security



High Availability & DRS



DevSecOps



Automation & Orchestration



Enterprise Jenkins



PAM & Insider Threat Mgmt



In-Memory NoSQL Database



Management & Monitoring



Backup & Cloud Data Mgmt



Identifying and Classifying Data



Exchange-like Collaboration



Oracle Compatible Database



Multi-Cloud Orchestration



HPC & Big Data Storage



Hybrid Backup



Datacenter & Network



Desktop Virtualization

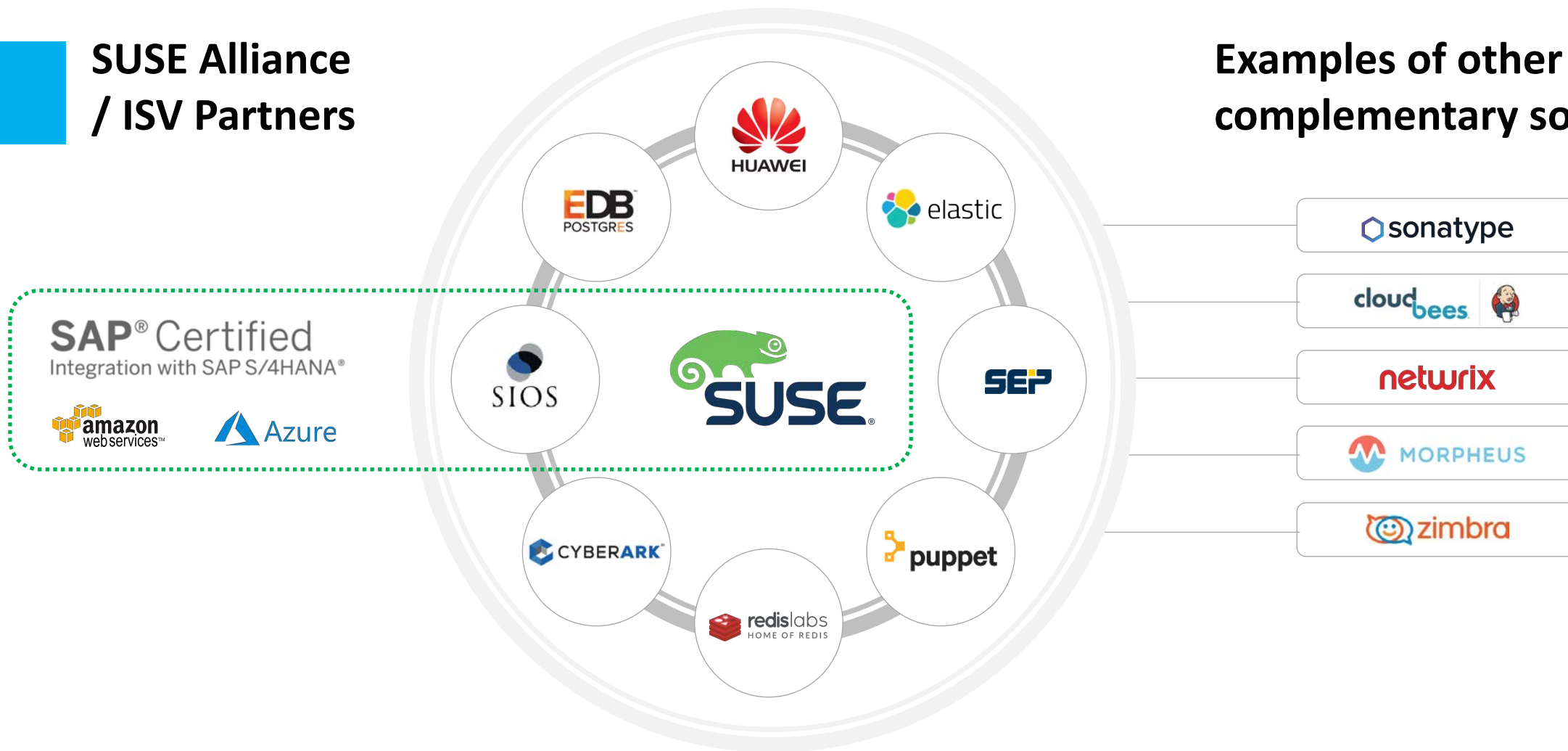


Container Security

Nordicmind SUSE Ecosystem Stack

**SUSE Alliance
/ ISV Partners**

**Examples of other
complementary solutions**



SAP® Certified
Integration with SAP S/4HANA®



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SAP Optimization with SUSE & the Hyperscalers

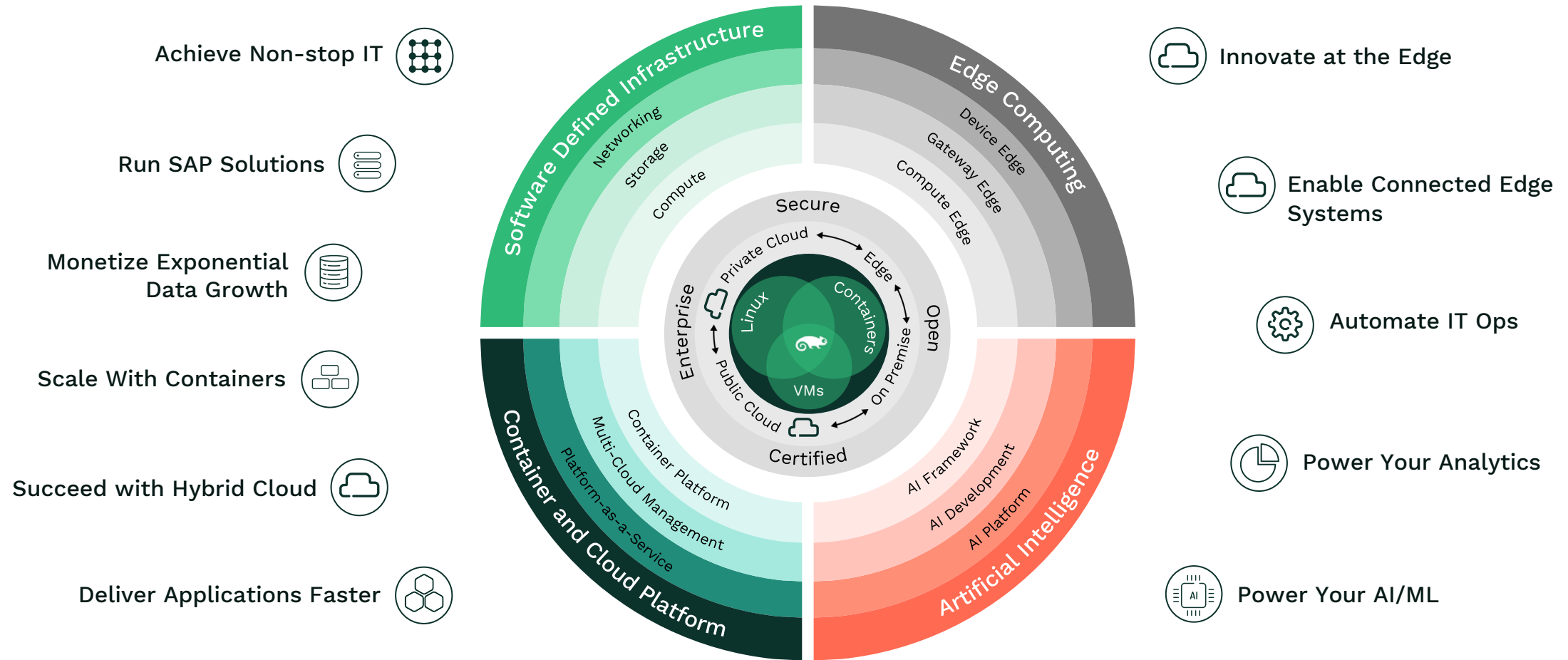
Industry leaders that provide enhanced reliability while reducing risk and cost

Hitesh Patel, CSP Sales Director

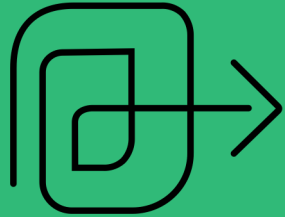
Stephen Mogg, Public Cloud Solutions Architect, AWS

SUSE – World’s Largest Independent Open Source Company

- after Red Hat being acquired by IBM



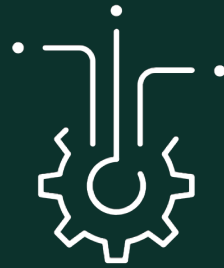
SUSE Vision



Simplify

Run the Business

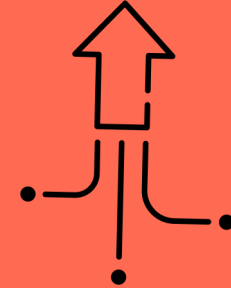
Simplify and optimize existing IT environments



Modernize

Transform the Business

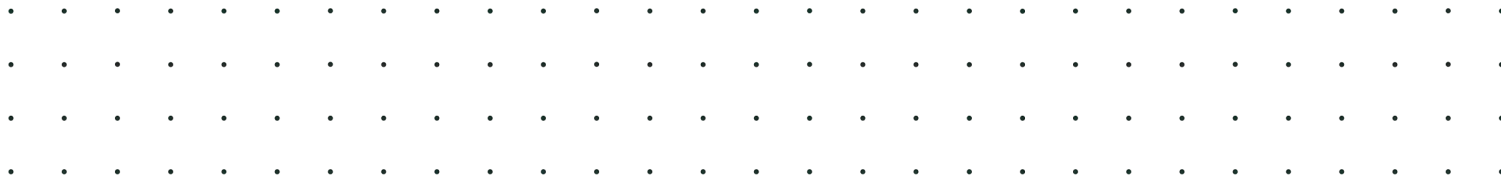
Bring applications and data into modern computing



Accelerate

Scale the Business

Accelerate business innovation through True Open Source Software

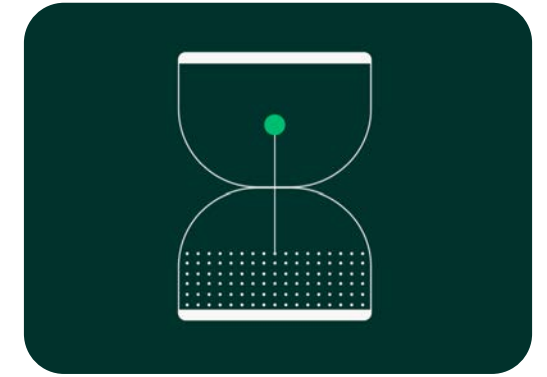


Market Leadership, Innovation & Agility

- SAP HANA, SAP Data Intelligence, SAP Business One developed on SUSE

SUSE was 1st to market with SAP:

- Full deployment automation (2020)
- Full visibility into SAP landscape (2020)
- Intel Optane™ for SAP HANA (2018)
- Certified to manage NetWeaver clusters (2018)
- Certified KVM for SAP HANA (2018)
- First AWS EC2 OS for SAP
- Live kernel patching for SAP (2017)
- SAP HANA System Replication (2014)
- Open source HA for NetWeaver (2012)
- OS for SAP HANA (2011)



SUSE's Market Leadership

- **80%** of all SAP applications on Linux
- **90%** of SAP HANA installations
- **100%** of SAP Business One deployments
- SUSE powers **SAP's Internal and External systems**
- **300+** Success Stories and Case Studies
- **20+** years of collaborative innovation with SAP
- **SAP's** Reference Development Platform

SUSE



ADVANTAGES OF SUSE FOR SAP



Risk Mitigation

- Stable lifecycle support
- On-time and consistent release & HANA certification



Market Leadership, Agility & Innovation

- Cloud-First Mentality
- Working closely with SAP and hyperscalers to drive innovations, first to market for new features
- Largest Independent Open Source Company, after Red Hat being acquired by IBM



Exclusive Automation & Visibility Solutions

- End to End Supported Automation
- Visibility in the entire SAP landscape

SLES FOR SAP IN THE PUBLIC CLOUD



Public Cloud Demands Whole New Dynamics

AGILITY

- “Cloud First and Customer First” mentality guarantees engineering and support priority
- Close relationship with hyperscalers drives innovations in fast pace
- SLE “Public Cloud” modular mechanism delivers flexibility and velocity
- Automation for entire SAP Landscape
- BYOS and PAYG options

RELIABILITY

- Public cloud images on AWS/Azure/GCP are built by SUSE to ensure the highest quality
- SUSE Update Infrastructure is the backbone of reliable image launch and update
- Complete portfolio of HA solutions for SAP HANA, Netweaver, and S4 in the cloud
- SUSE trained Cloud staff to provide L1/L2 support for on-demand images

COMPATIBILITY

- Single SKU for the entire SAP landscape, across on-prem and hyperscalers
- Tuning, HA Deployment, Automation, and Monitoring, the same features are available almost everywhere
- SUSE Manager (SUMA) manages mixed environment of on-prem and cloud, SLES and RHEL, etc.
- Automation compatible with multiple technologies, SALT, Ansible



SLES FOR SAP



Innovative Automation by SUSE SAP Deployments

- As easy as 1, 2, 3
- Substantial reduction in deployment time
- Reduced probability of error approach
- Minimum manual intervention

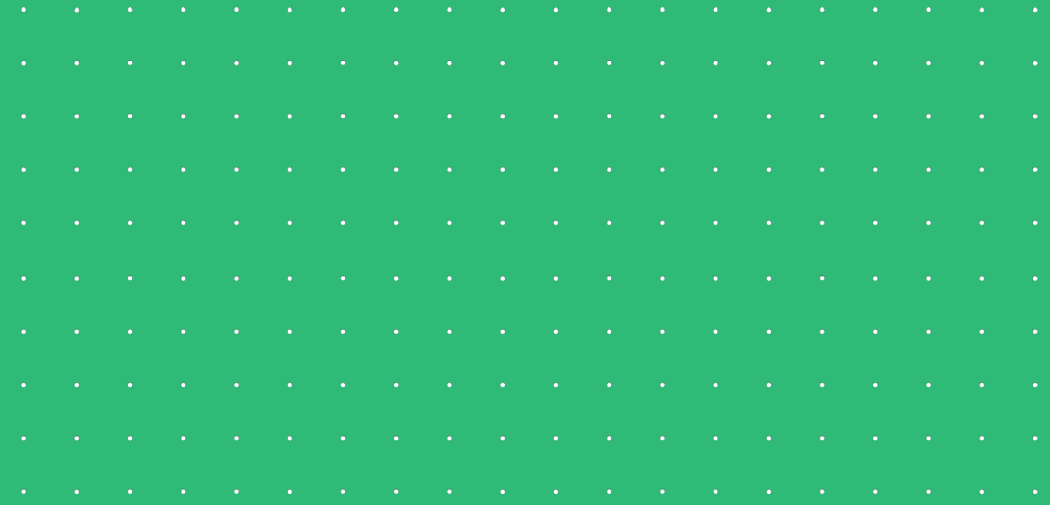


1 Automated IaaS deployment

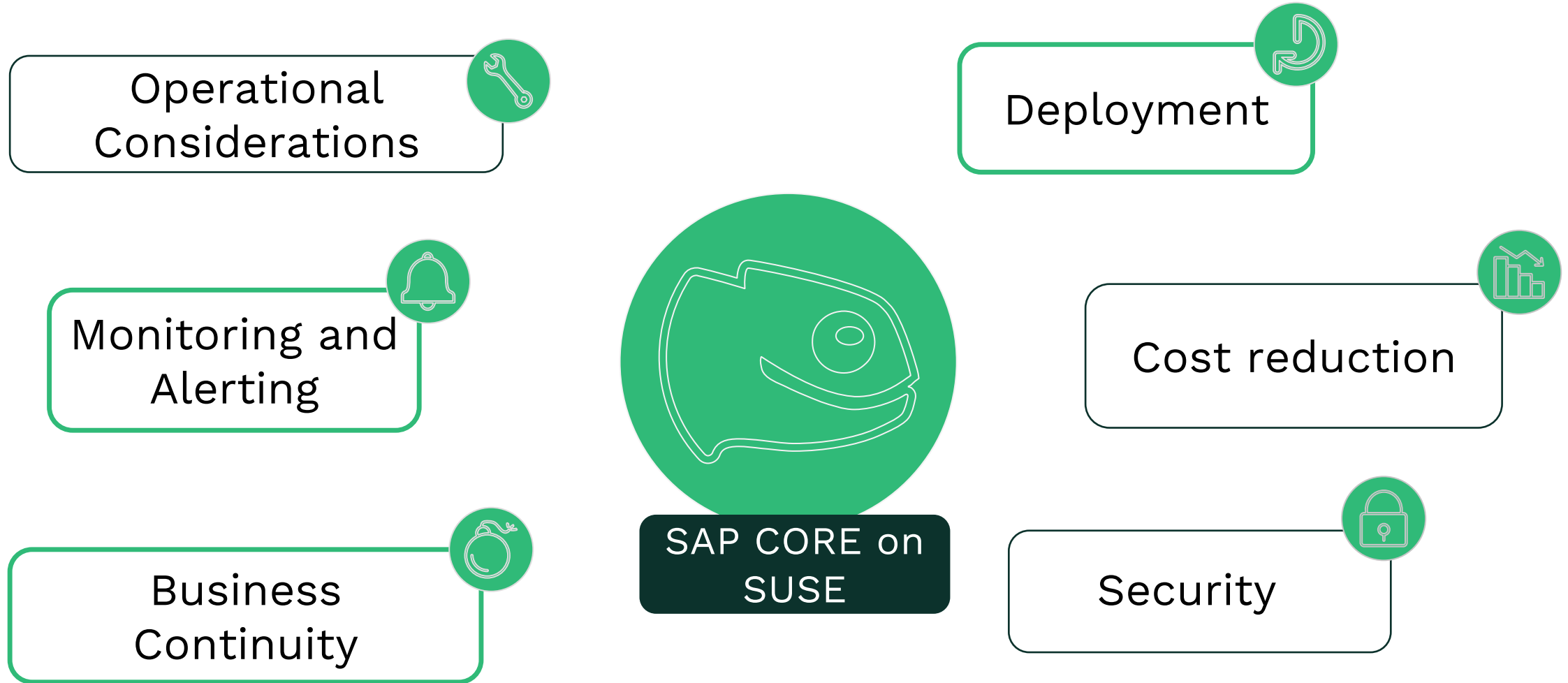
2 Configured SLES for SAP

3 Production Ready SAP

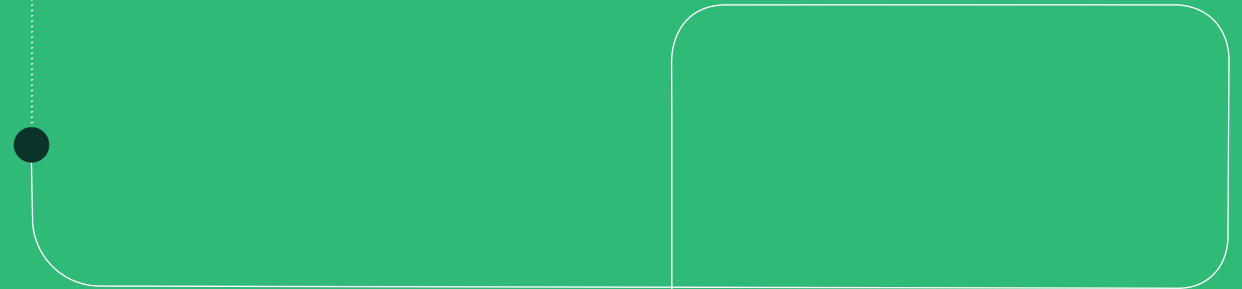
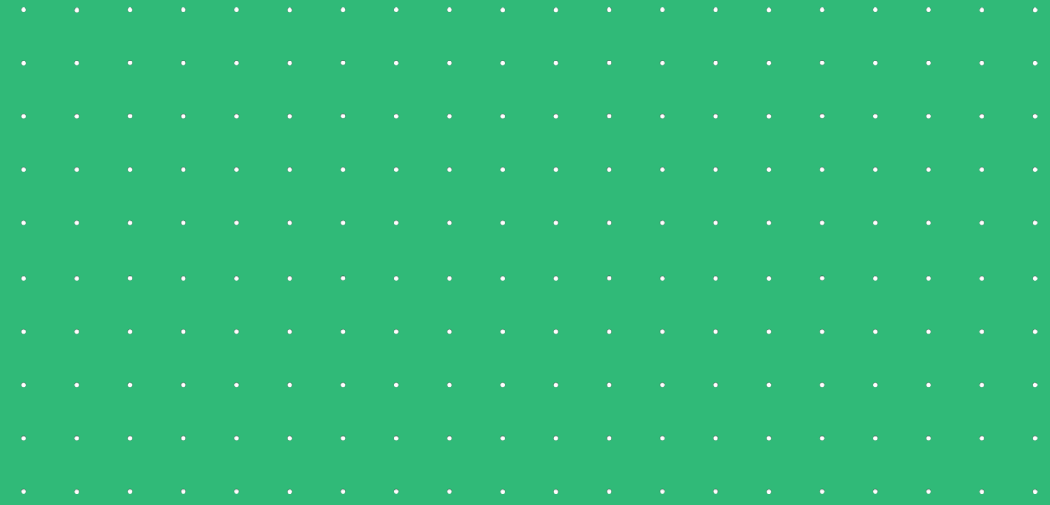
SAP on SUSE on the Public Cloud



Building a Datacenter in the cloud



Deployment



Architecture

HA Cluster Configuration

Configuration of the cluster services and the resources to be managed

SAP Installation

SAP Product automated installation.

OS Preparation

Salt-minion installation, partitioning, mounting points, basic RPM packages installation, etc.

Operating System

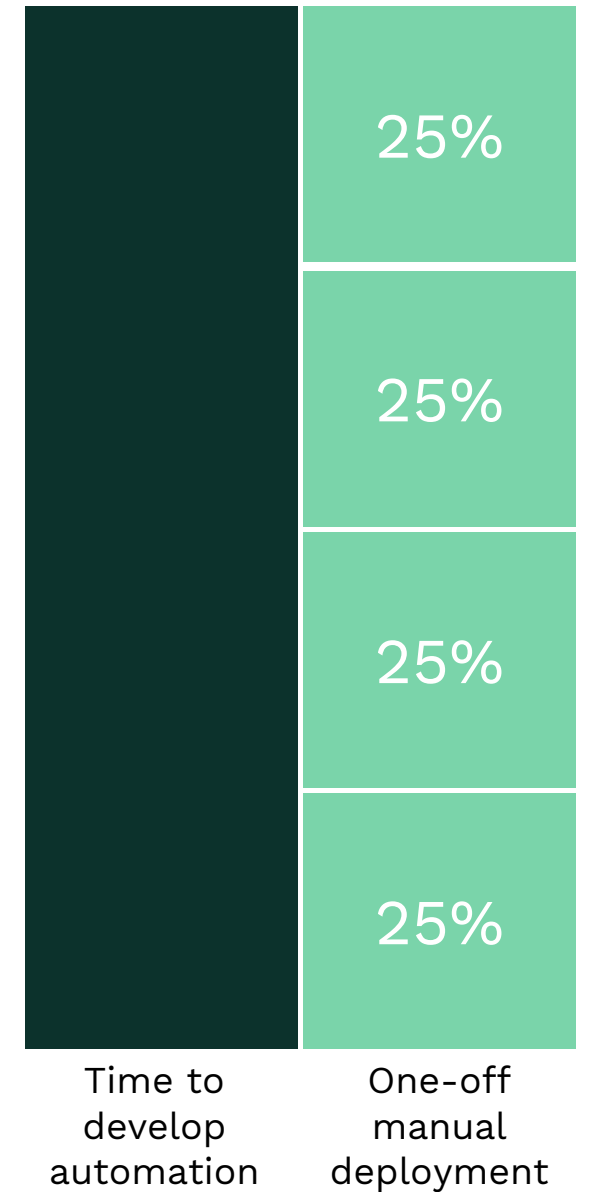
Select public cloud image

Infrastructure

Provisioning of the VMs, network, Storage, etc.
Can be done using Terraform, SUMa, AutoYast etc.

Automate yourself out of a Job!

- Terraform & Salt
- Best practice every time
- Builds / Teardowns / snoozing
- CSP Tooling (Quick Starts, Templates etc)





SLES FOR SAP



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1 Automated IaaS deployment

2 Configured SLES for SAP

3 Production Ready SAP



What to deploy

SUSE Enterprise Linux
for
SAP vs Non SAP

PAYG vs BYOS

SUSE Linux Enterprise Server for SAP Applications

Base OS
and Support

SUSE Linux Enterprise
Server

SUSE Linux Enterprise Server for SAP Applications

Reliability and Resilience	SUSE Linux Enterprise High Availability	SAP HANA HA Resource Agents	Cloud Resource Agents	Remote Storage Encryption Management	SAP HANA Firewall
Performance	Workload Memory Management	Performance Configuration and Tuning			
Ease of Use and Deployment	Installation Wizard	Public Cloud Platform Images	S/4 HANA Transition Support	SUSE Connect	SUSE Package Hub
Base OS and Support	SUSE Linux Enterprise Server	24x7 Priority Support	Extended Service Pack Overlap Support	SAP Specific Update Channel	

SUSE Products and Services

SAP Specific Features from SUSE

SUSE

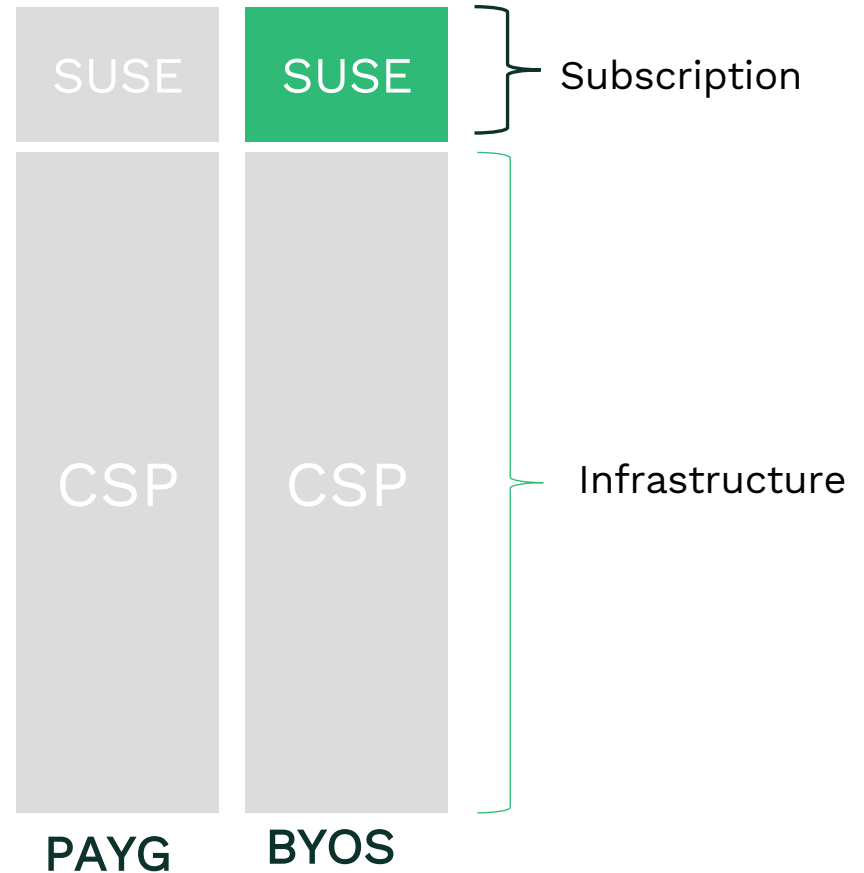
What to deploy

SUSE Enterprise Linux
for
SAP vs Non SAP

PAYG vs BYOS


PAYG vs BYOS - Commercial

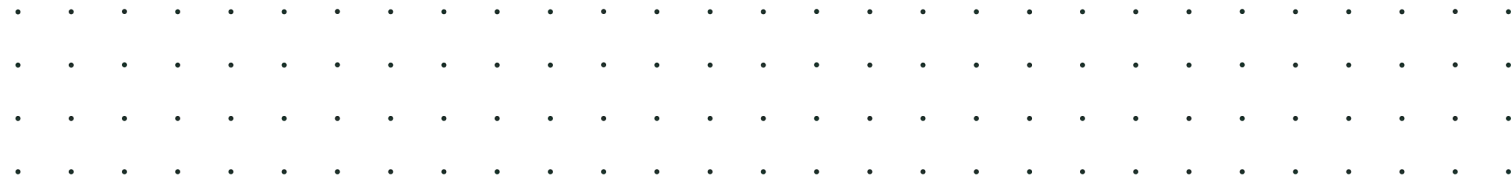
- Vendors
- VM Snoozing
- Estate Coverage



PAYG vs BYOS - Support

- Seamless collaborative process between CSPs and SUSE
- Strong governance model and shared goals
- Long-term vision to completely integrate and automate the support experience
- Continuous Cross Training and knowledge transfer

Usage Model	Level 1 & 2	Level 2,3 Support Directly from SUSE
BYOS		
PAYG	CSP	



Pick the right model for each SAP workload

PAYG, RI, BYOS

- Production Database
- Production Central Services
- Other Production workloads
- Pre-Prod?

PAYG

- Dev / Test
- Production Application Tier
- Disaster Recovery VMs

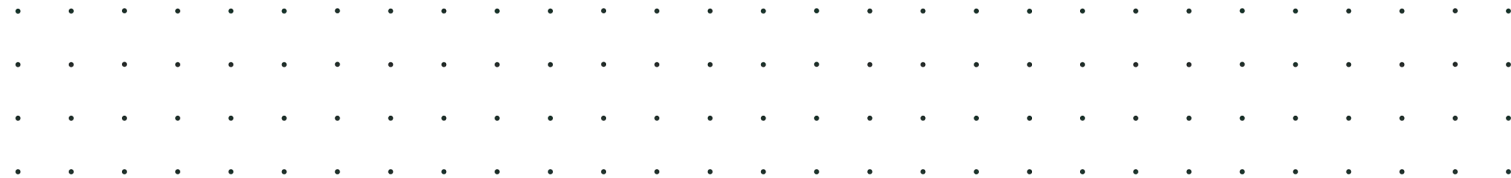
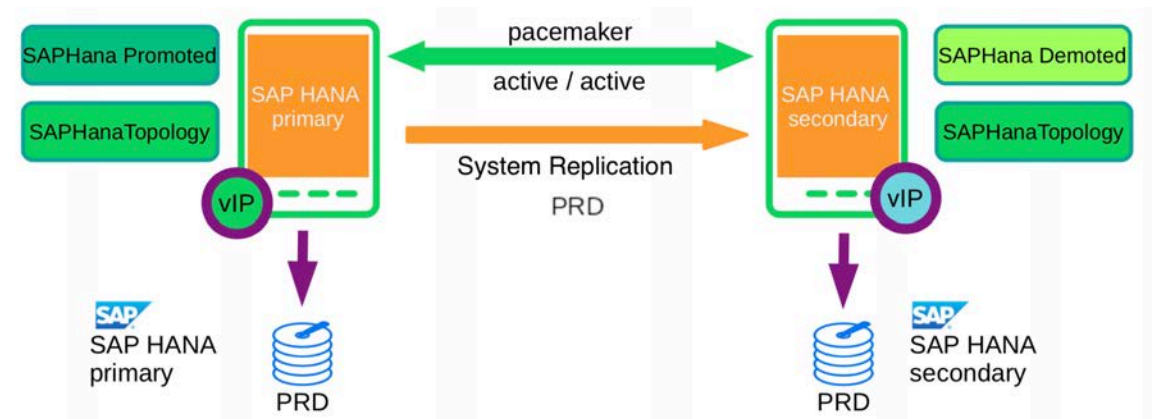


Business Continuity

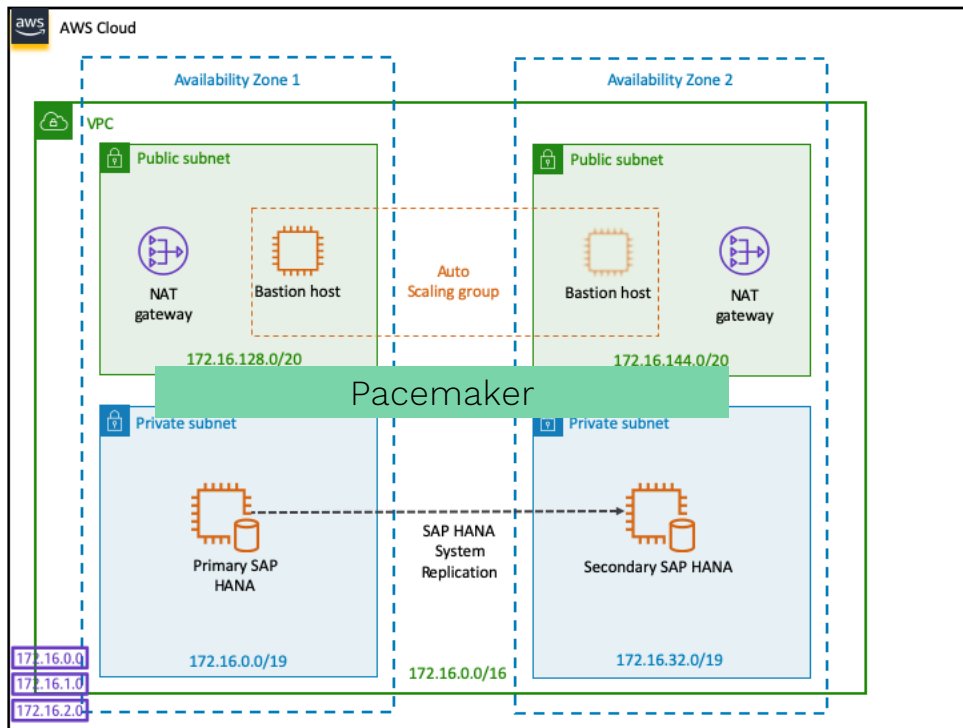


Define 'Continuity'

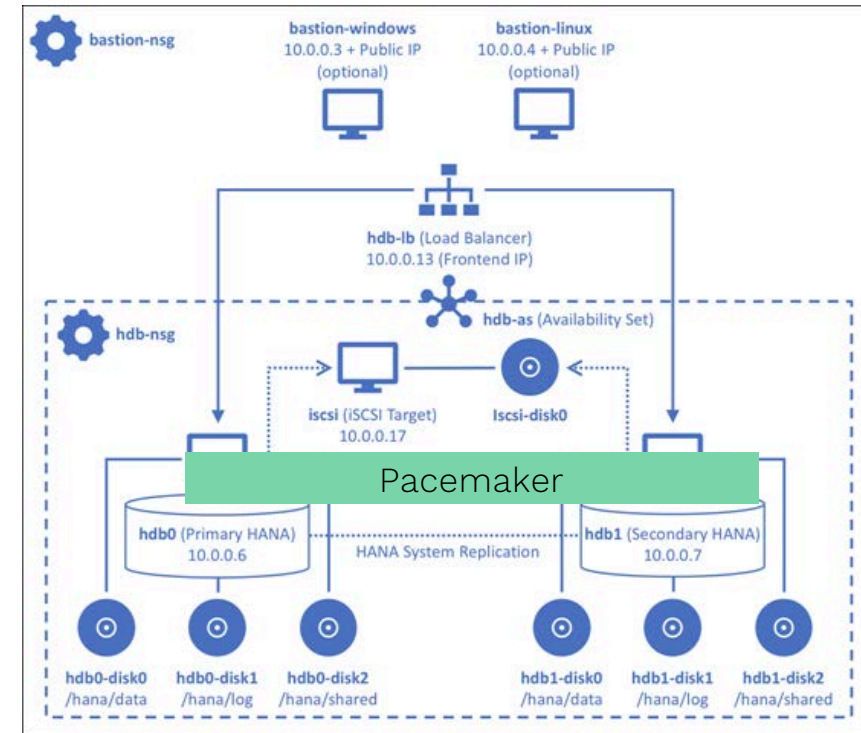
- Define HA, DR
- SAP Single Points of Failure
- Use CSP platform (Regions, Availability Zones)
- Use SUSE HA Extension for maximum uptime



Cluster Architecture – HA on Cloud



AWS



AZURE

HA Best Practices

The SUSE HA Best Practices are a series of documents that provide reliable technical information not covered with the SUSE product documentation and based on real-life installation and implementation experiences from subject matter experts.

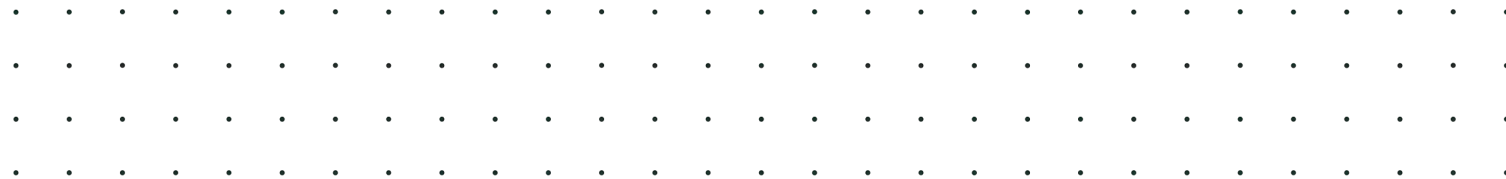
AWS:

<https://documentation.suse.com/sbp/all/>

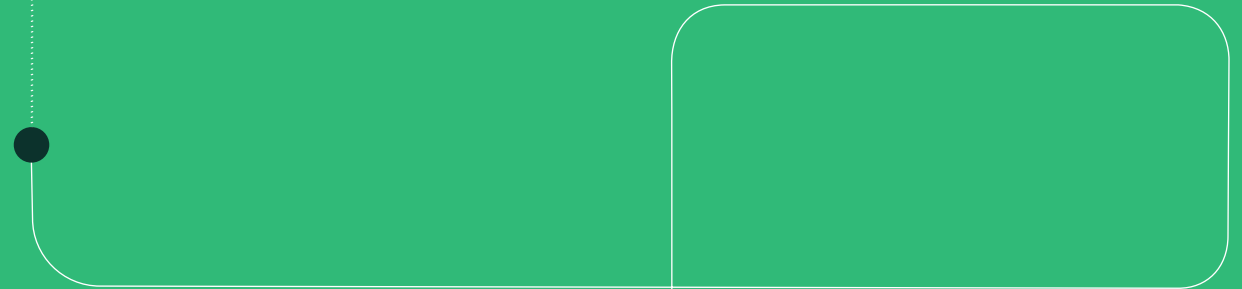
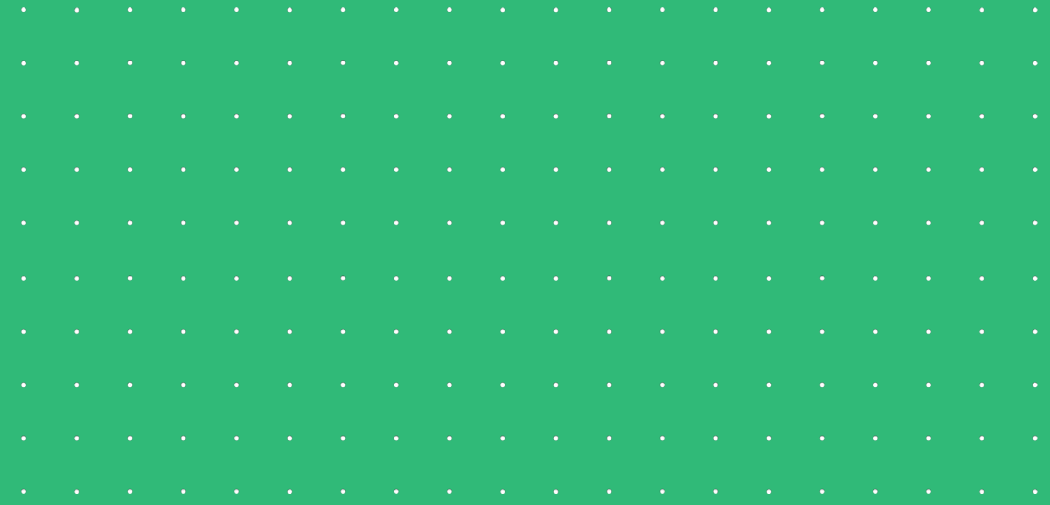
Azure:

<https://docs.microsoft.com/en-us/azure/virtuqxal-machines/workloads/sap/high-availability-guide-suse-pacemaker>

Ensure reliability and supportability of deployed solutions.

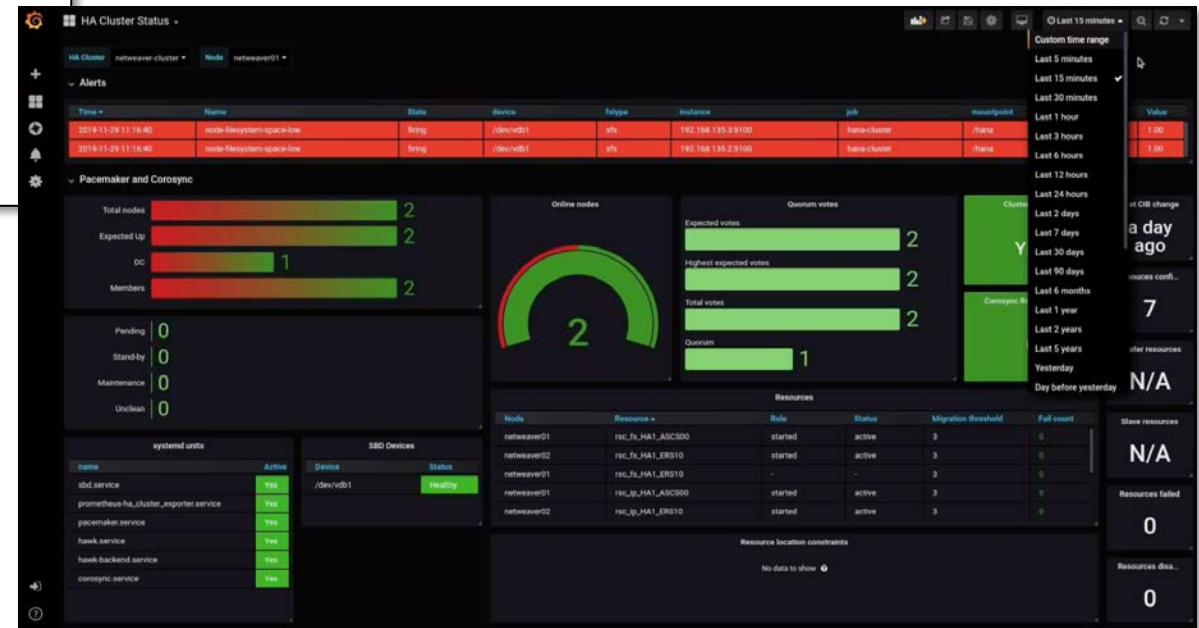
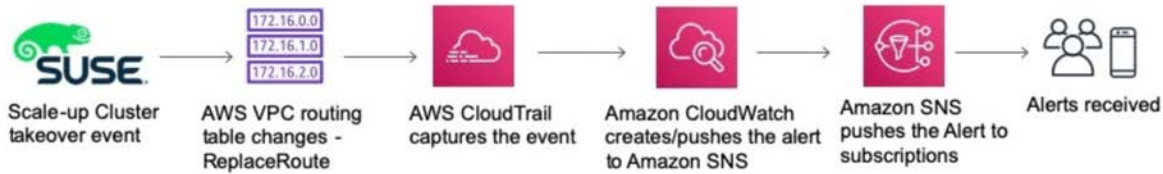


Monitoring and Alerting



Monitoring and Alerting

SUSE Scale-up Cluster Alert Notifications using Amazon Web Services



CSPs and SUSE both have monitoring frameworks available.

SUSE Monitoring

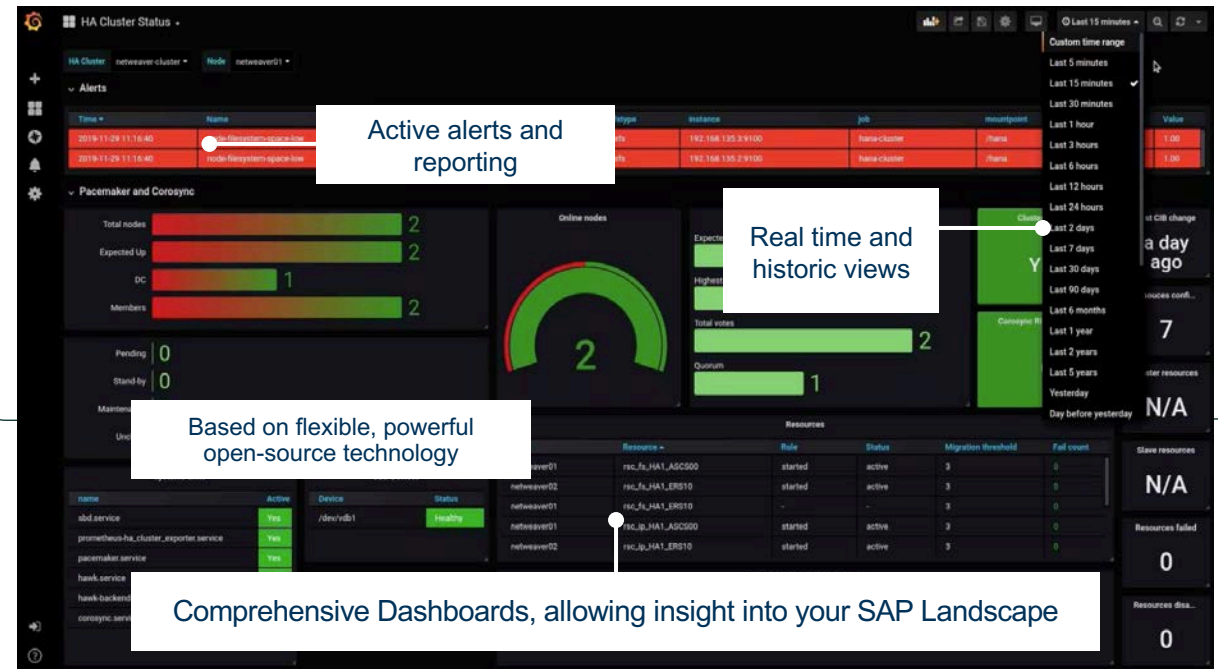
Comprehensive Dashboards, allowing insight into your SAP Landscape

Get notified of issues with active alerts and reporting

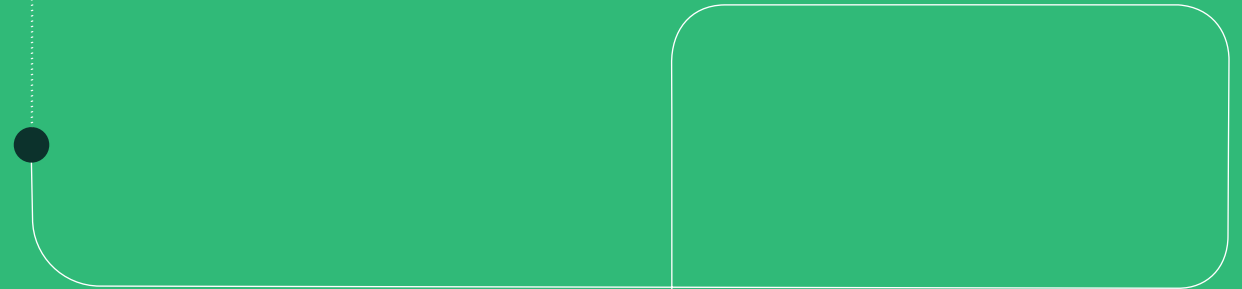
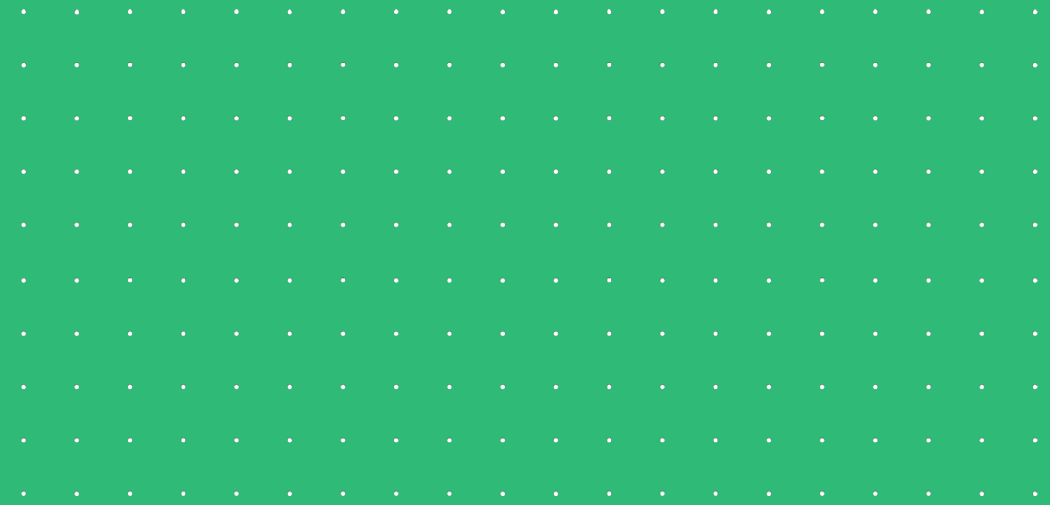
Provides real-time and historic views to ease troubleshooting

Based on flexible, powerful open-source technology

Protects value of existing monitoring solution by Integrating with existing monitoring tools (i.e. Azure Monitoring)



Wrap up



Wrap Up

- Engage Early and often with CSP and partner ecosystem
- Consider Operational Scope
- Seek advice



Q&A

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