

Best Practices on AWS to Save Millions of Dollars from Business Disruption

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SAPinsider



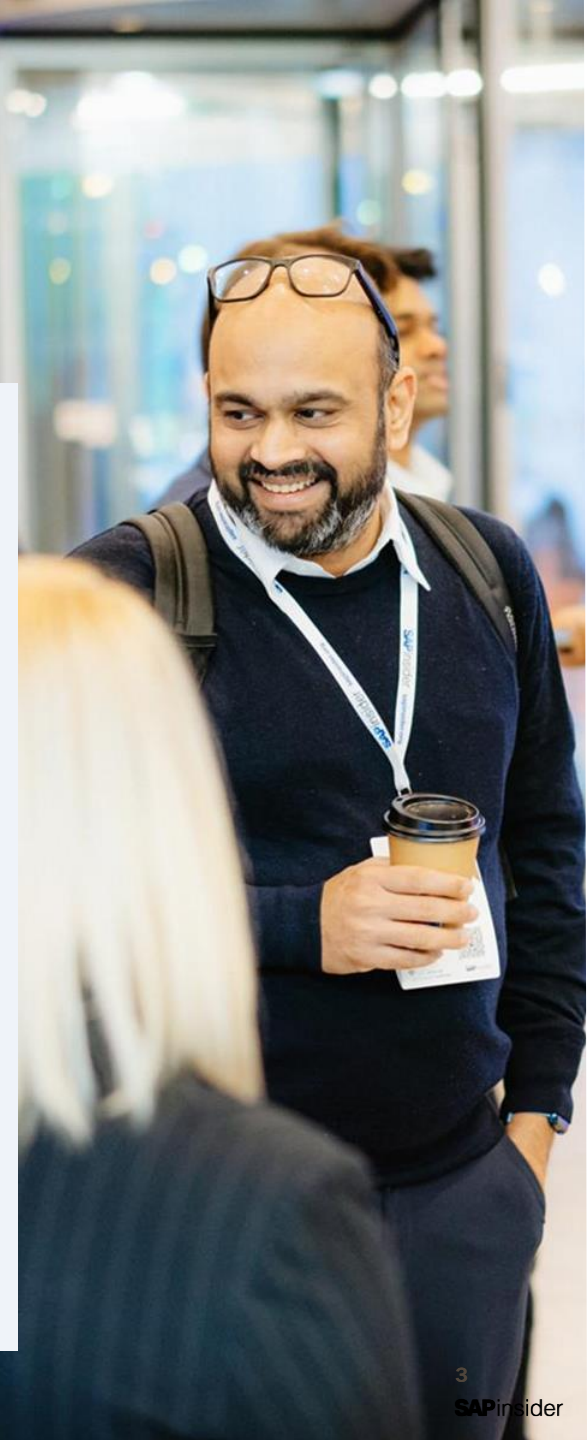
In This Session

Find out how adopting AWS cloud for hosting well-architected SAP applications accelerated business growth for a Fortune 500 IT company. Presented in the form of a case study, you'll see why the customer made the decision to re-platform on SUSE, and how they implemented a robust landscape that resulted in millions of dollars' savings by avoiding business disruption and streamlining operations.

You'll be able to takeaway best practices which demonstrate that, by leveraging ground breaking SUSE co-innovations with AWS, you can craft right strategies and technologies to derive business value without making process or functional changes in their mission critical SAP landscape.

What We'll Cover

- Overview of the customer's SAP landscape on AWS
- Challenges with the old platform
- Co-innovation between AWS and SUSE that addressed all the issues
- Business benefits
- Best practices you can adopt
- Wrap-Up

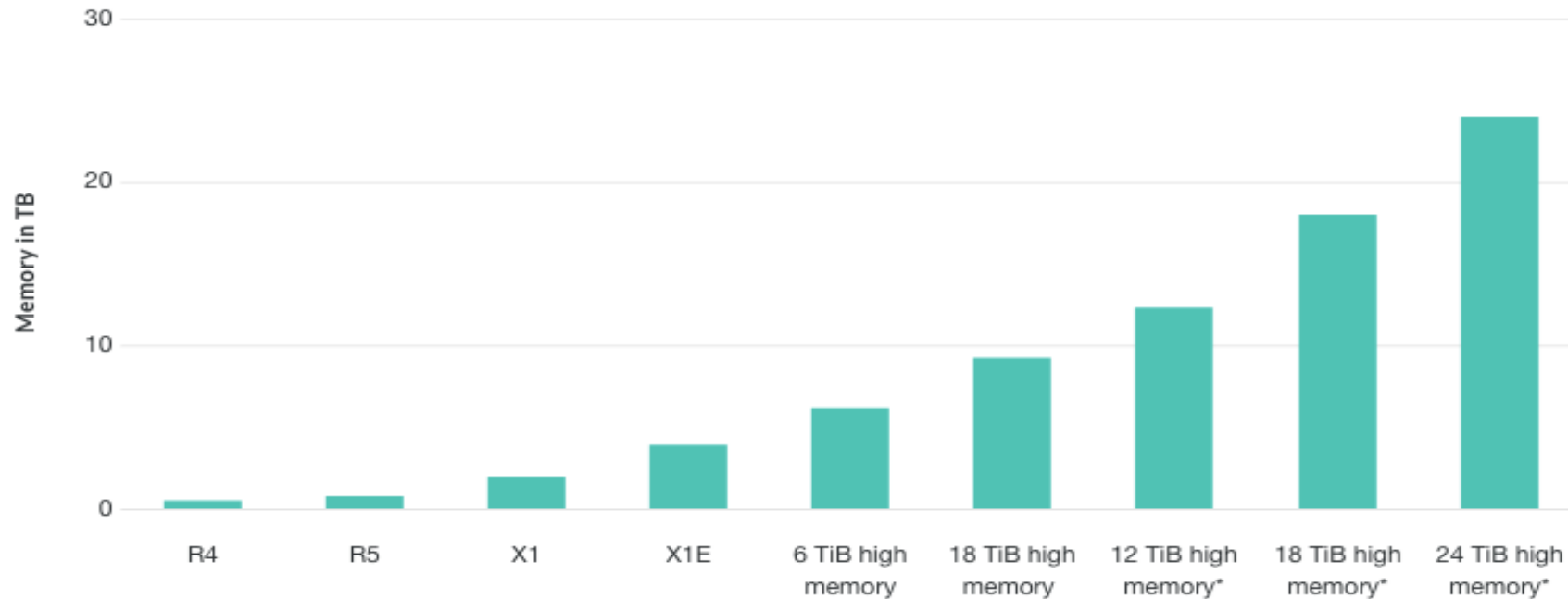


Overview of the SAP landscape before re-platform

- Complex 15+ SAP system landscapes including – SAP S/4HANA, SAP BW, SAP BW4/HANA, SAP MDG, SAP GRC, SAP SLT, SAP IQ, Solution Manager, SAP PO, BODS etc.
- Project and Production support landscape for most of the critical systems in the SAP environment
- Several other peripheral systems like ADS, GTS, EP, Cloud Connector, OpenText etc. are integrated with the main SAP landscape
- 500+ Amazon EC2 instances are hosting existing SAP workloads
- Production HANA DB and SAP applications have High Availability configured on non-SUSE operating systems

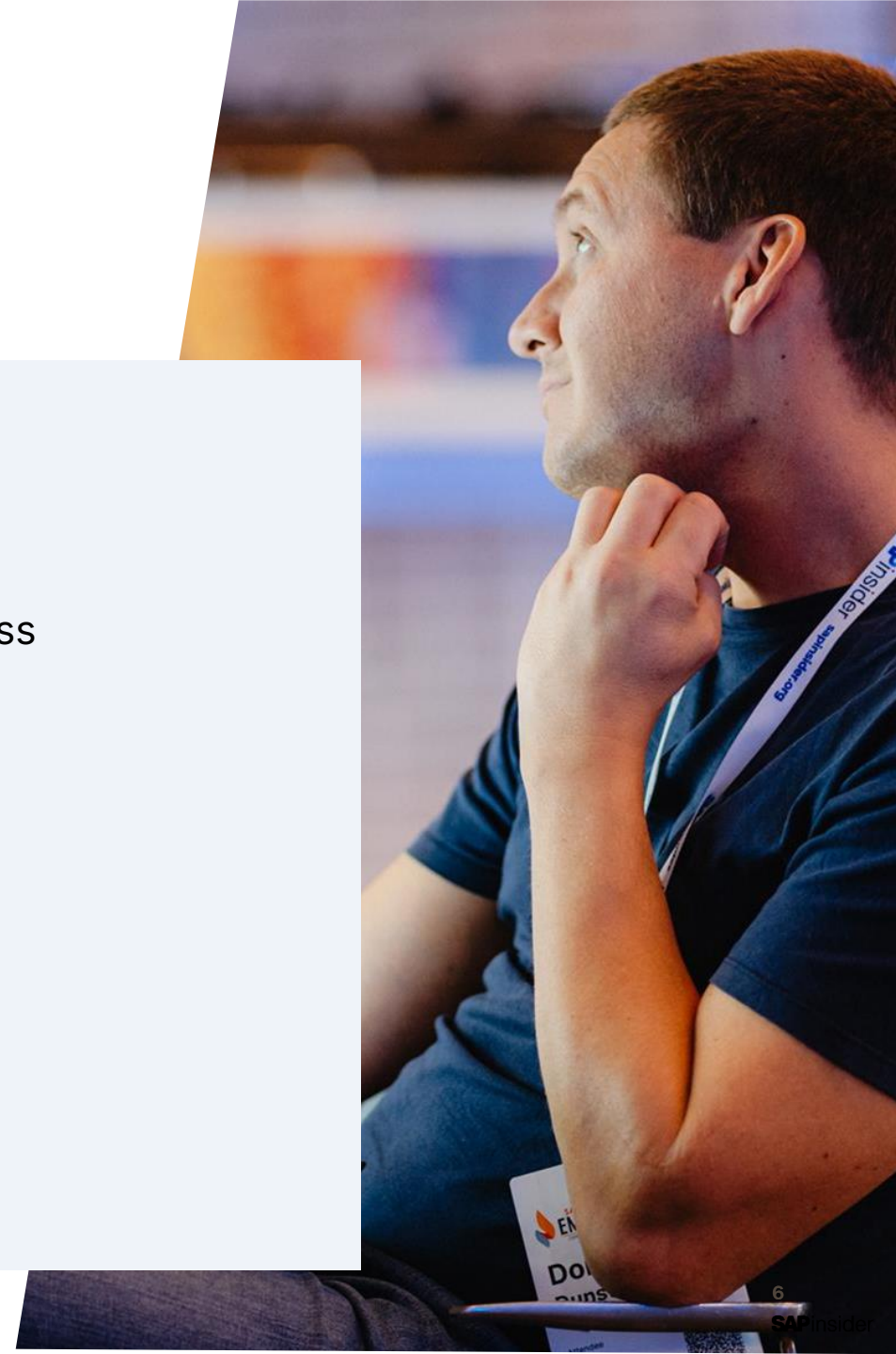
18TB and 24TB Bare Metal SAP HANA Prod Databases

SAP S/4HANA on AWS is supported on single node / scale-up configurations with up to 24 TB of memory and multi-node / scale-out configurations with up to 48 TB of memory.



Challenges with the old platform

- Frequent application downtime
- Security vulnerabilities
- Manual OS patching process brings business disruption and maintenance overhead
- Business/revenue loss
- OS vendor support process



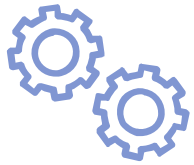
Frequent business disruption and threat to SAP landscape

- Index server overloading and crashing
- Longer Failover time to secondary node of SAP HANA
- 60,000+ Security vulnerabilities found in landscape
- Manual operating systems patching process
- Daily review needed to maintain the compliance requirements

AWS & SUSE Have Answers



Co-innovations that addressed all the issues



**Exclusive
High Availability
Solutions**



Live Patching
to avoid reboot for
critical security
vulnerabilities



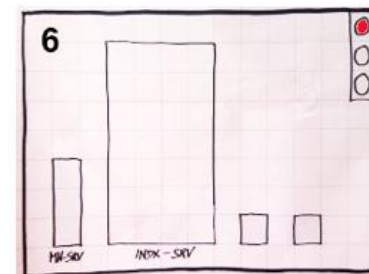
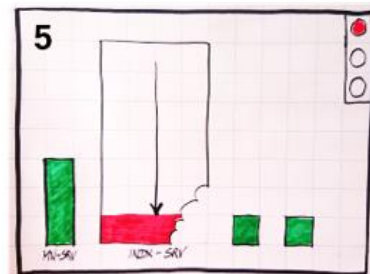
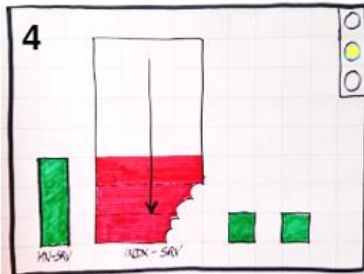
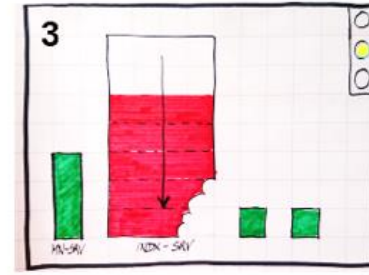
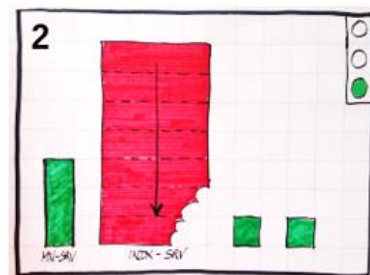
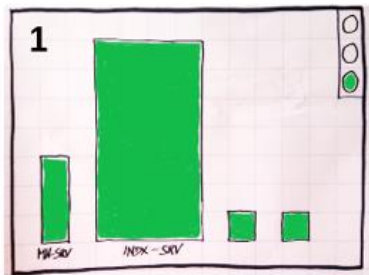
SUSE Manager
streamlines lifecycle
management



**Integrated
Support
Process**

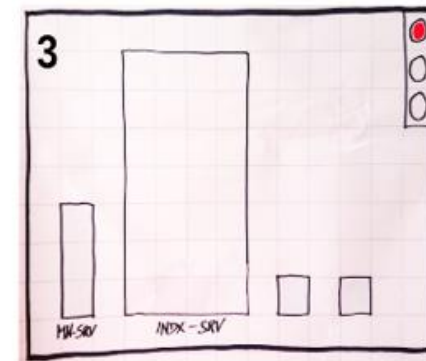
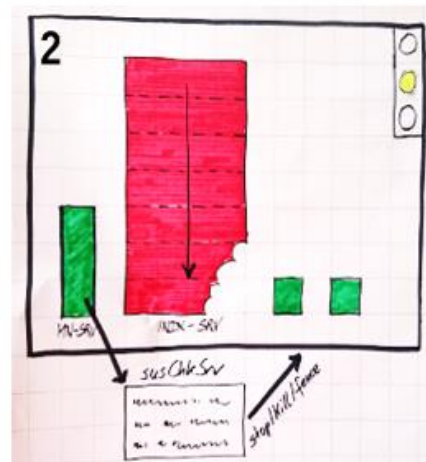
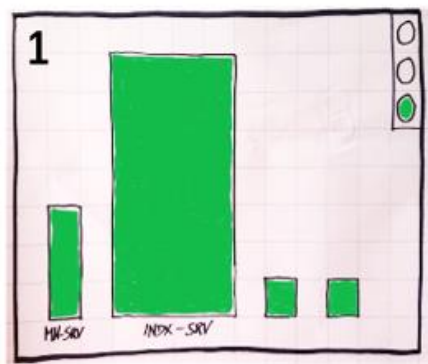
HANA Indexserver Crashing Issue

- When SAP HANA indexserver crashes, it takes a very long time for the service to fail completely to a point that a failover can be triggered by cluster
- The recovery hour is over one hour for large HANA database



Fast-Dying HANA Indexserver HA Solution

- SUSE has implemented a fast-dying indexserver solution, reducing recovery time, after HANA indexserver failure, from hours to minutes; supports HANA 2.0 SPS 05+
- Exclusive SUSE Solution; recommended for all HANA deployment
- Fully tested and supported on AWS



Live Patching - Update without disruption

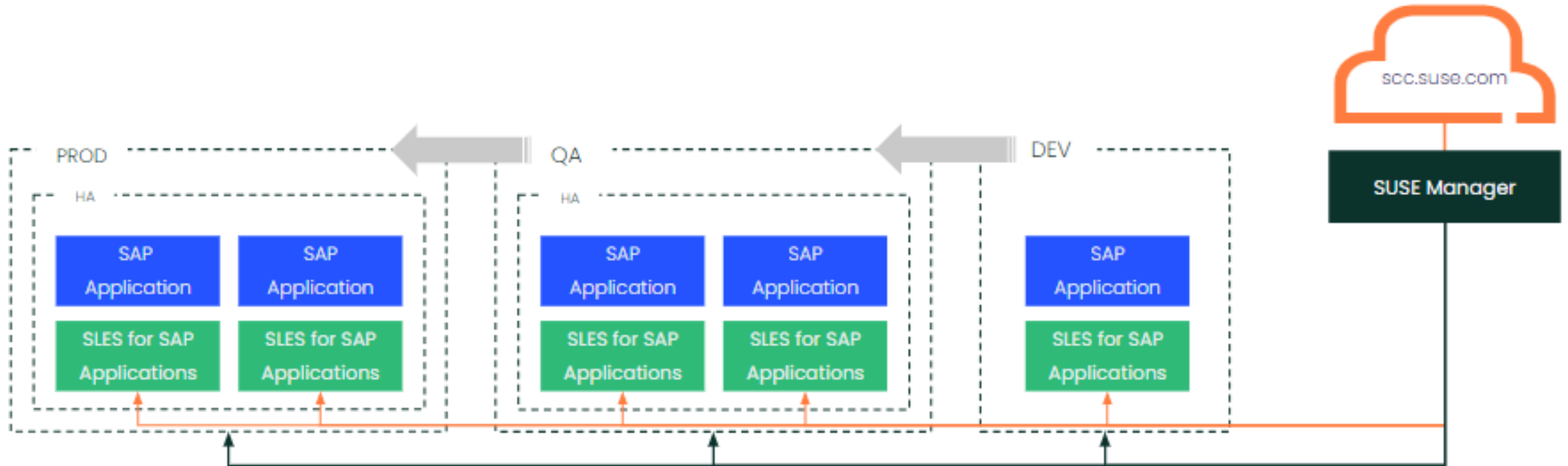
SUSE Live Patching helps avoid reboot for up to 12 months for critical security vulnerabilities

Besides Kernel Live Patching, SUSE provides User Space Live Patching to update key libraries (**glibc** & **openSSL**, dependencies of HANA) without disruption



Automated Patching Process with SUSE Manager

SUSE Manager: ensure compliance, reduce complexity & save cost



Summary of the benefits from the re-platform to SUSE

- SUSE operating system “SLES for SAP Applications” provides more robust security and patching options
- Automated High Availability cluster failover process is quicker and more stable on SUSE
- SUSE offer exclusive solution to reduce the recovery time when HANA indexserver crashes
- No SAP application changes or manual configuration needed
- No impact to existing functionality or performance
- No issues identified
- Only needed three hours downtime per system during cutover

Timeline, Process and Benefits

- 6 months to migrate 500+ SAP and Amazon EC2 instance
- Parallel environment created on SLES for SAP OS on AWS
- During cutover detaching and attaching of volume groups from old and new instances respectively
- Change Hostnames and update DNS
- New Instances are available to business within 3 hours
- Live patching process ensures systems availability also compliance
- 60,000+ Security vulnerabilities mitigated
- Quick failover to Secondary SAP HANA node ensures application availability and uptime
- Patching process is fully automated

Savings from Eliminating Business Disruptions & Streamlining Operations

\$1M

per hour saved from HANA
indexserver failure

by SUSE HA Solutions

\$1M

per hour saved from patching
reboot

by SUSE Live Patching

200+

man-hours saved from
patching process

by SUSE Manager

Millions of Dollars of Savings in One Year

Best practices you can adopt

- AWS Well-Architected Framework SAP Lens
- Automate SAP deployment with AWS Launch Wizard
- Adopt the latest SUSE solutions bundled with SLES for SAP Applications
- Increase Insights with monitoring
- Optimize spending
- Get help from services



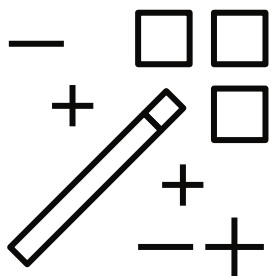
AWS Well-Architected Framework SAP Lens

SAP Lens is a collection of best practice knowledge to help customers quickly assess an SAP workload through scored questions, organized in 6 pillars, 21 topics and 101 best practices.

The SAP Lens is strongly recommended for existing AWS customers who are currently running their SAP workloads on the platform. The Lens can also be used during the early planning stages of a migration/implementation of SAP on AWS.



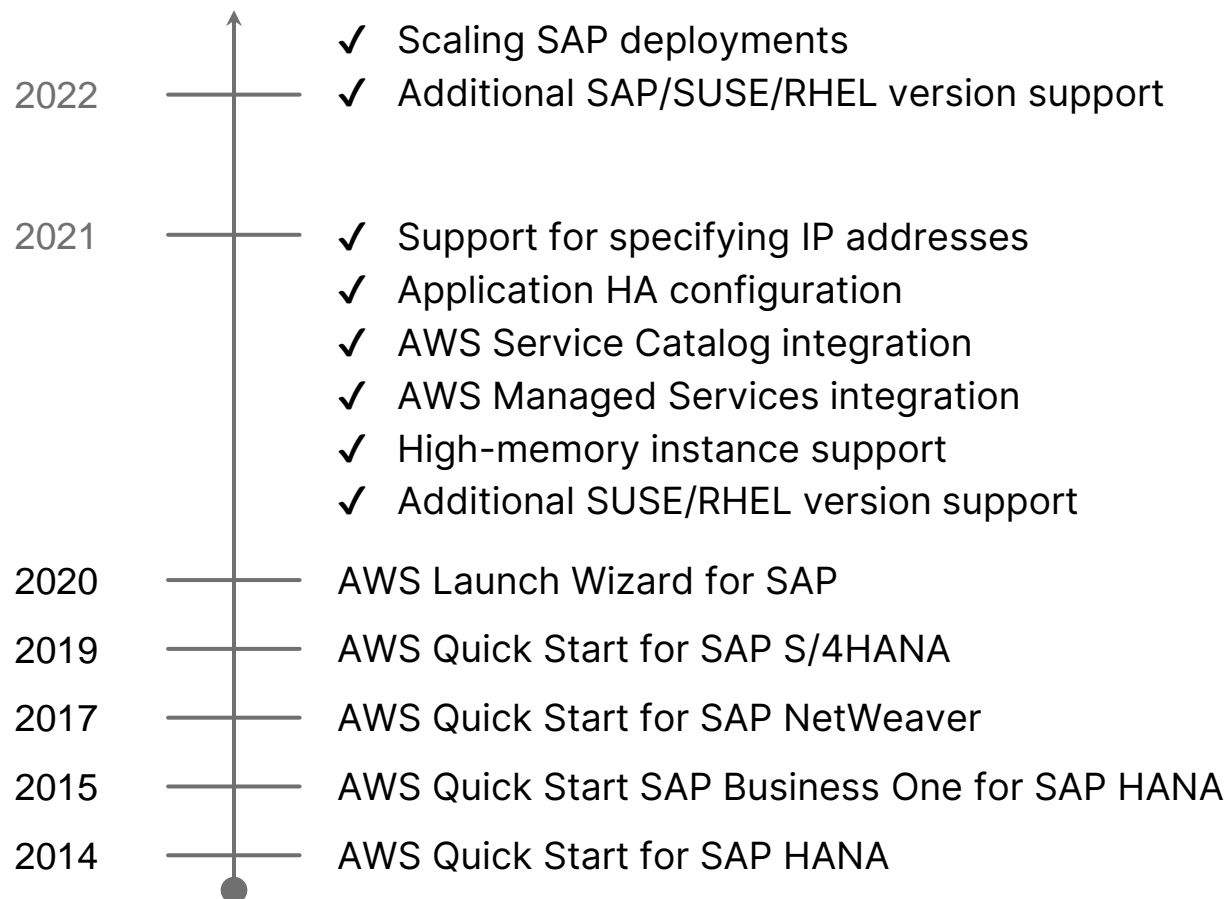
Automate SAP deployment with AWS Launch Wizard



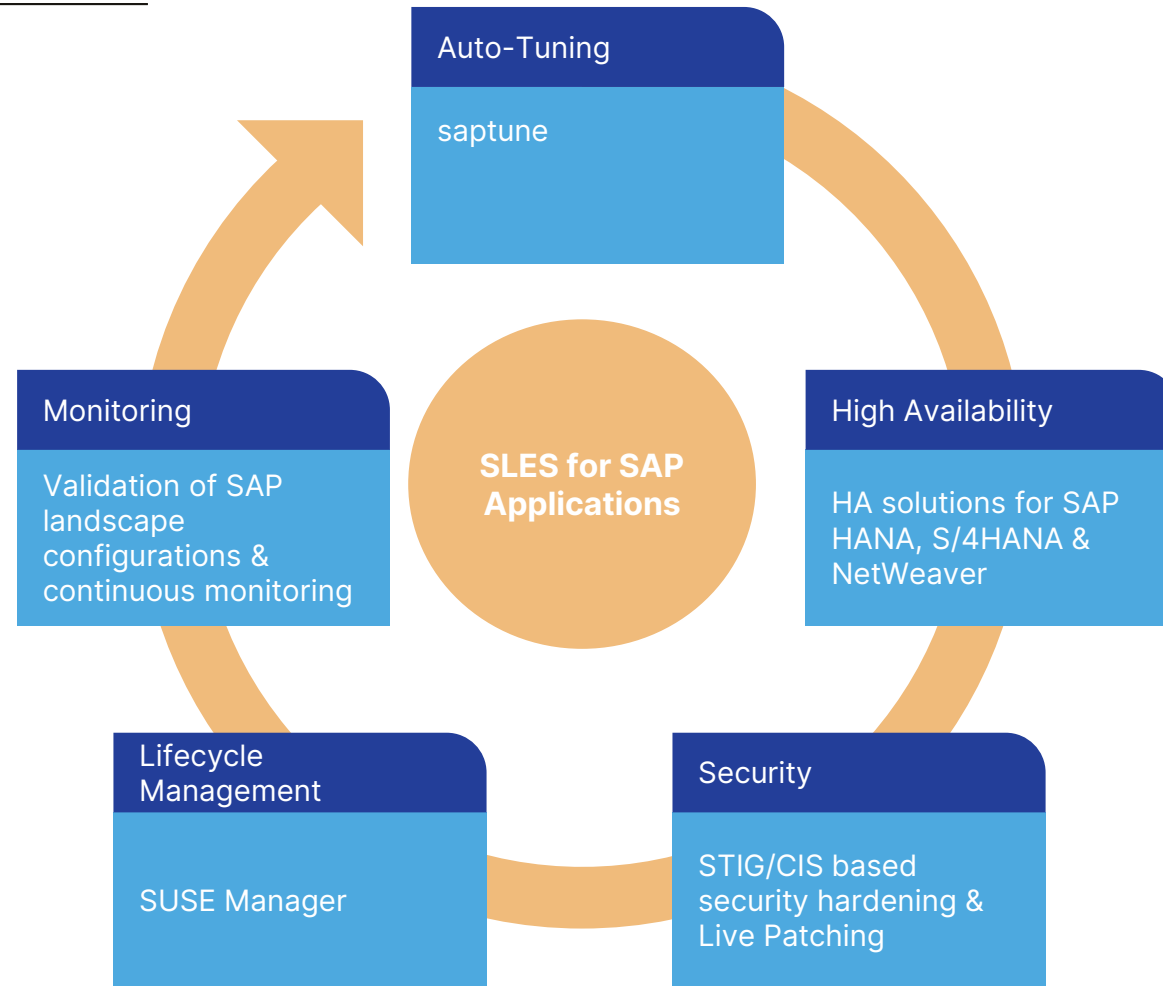
AWS Launch Wizard is a free service that provides a guided experience for configuring and deploying SAP on AWS

- Intuitive interface built for SAP users
- Recommends AWS resources and configuration based on SAP best practices
- Reusable infrastructure settings for infrastructure as code

History of SAP deployment innovation



Adopt SUSE Latest Solutions on AWS



Optimize Spending



Get help from support & services

AWS Support & Services

- AWS IEM (Infrastructure Event Management)
- AWS Enterprise Support
- AWS SAP Competency Partners

SUSE Support & Services

- SUSE ASSIST: Optimization Services (aka Health Check)
- SUSE Premium Support
- Premium Technical Advisory Services (PTAS)

Wrap Up

- A case-study of the re-platform of the SAP landscape of a Fortune 500 Enterprise customer
- Issues and business loss with the old platform
- Re-platform as the remediation approach
- Innovation from SUSE and AWS saves millions of dollars for customer
- Plethora of services and innovation to build solutions from SUSE and AWS
- Best practice guidance

Where to Find More Information

SUSE & AWS Solutions landing page <https://www.suse.com/partners/alliance/aws/>

SUSECon SAP Sessions on Youtube

<https://www.youtube.com/watch?v=MN2Hj9hkmkw&list=PLX2Uwm1Un8aap0yLF63AMUzOGINCELWFU>

SUSE Services purpose-built offerings for Cloud-Optimized SAP environments ([link](#))

AWS for SAP landing page <https://aws.amazon.com/sap/>

AWS Well Architected Framework – <https://docs.aws.amazon.com/wellarchitected/latest/framework/welcome.html>

Well-Architected Framework SAP Lens documentation page v2 released (Oct 2022) –

<https://docs.aws.amazon.com/wellarchitected/latest/sap-lens/sap-lens.html>

AWS for SAP Blog channel: <https://aws.amazon.com/blogs/awsforsap/>

AWS for SAP on YouTube: <https://youtu.be/hM9GlzRzL1I?si=Lq5X9zmXnKNx84BP>

AWS Partner Blog: <https://aws.amazon.com/blogs/apn/>

Key Points to Take Home

- AWS and SUSE provide robust and secure SAP solutions
- Call to Actions:
 - Schedule Discovery workshop
 - Assess your scope of improvement, downtime SLA, RPO/RTO objectives, Day 2 operational process
 - Engage with the right set of partners
 - Design with the best practices and latest solutions
 - Conduct Proof of Concept
 - Start migration project

Thank you! Any Questions?

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complete your session
evaluation.

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