SAP ASUG

Accelerate your SAP S/4HANA transformation on AWS

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Amazon Web Services

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Senior SAP Solutions Architect
Amazon Web Services

ERP modernization is key pillar of enterprise modernization

79%

of SAP customers plan to migrate to S/4HANA, have started to move, or are live[1]

Top drivers of S/4HANA adoption[2]

Digital transformation

Process improvement/standardization

Legacy ERP consolidation/retirement

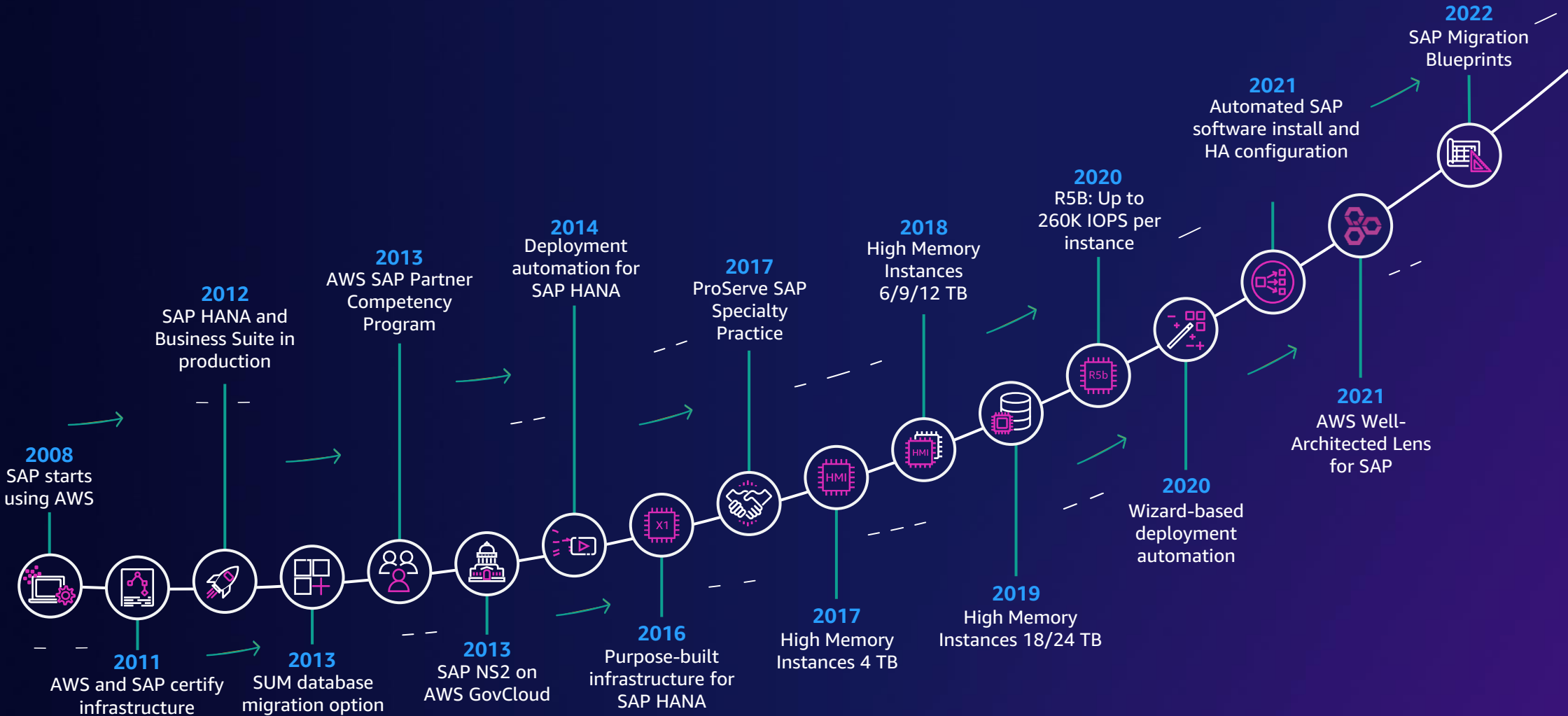Improved functionality/performance

1. ASUG Cloud Survey, ASUG, 2022
2. 2021 Pulse of the SAP Customer, ASUG, 2021

Why SAP customers choose AWS

13 years of customer-obsessed innovation

AN UNPARALLELED TRACK RECORD OF INDUSTRY FIRSTS FOR SAP IN THE CLOUD

2008
SAP starts using AWS

2011
AWS and SAP certify infrastructure

2012
SAP HANA and Business Suite in production

2013
SUM database migration option

2013
AWS SAP Partner Competency Program

2013
SAP NS2 on AWS GovCloud

2014
Deployment automation for SAP HANA

2016
Purpose-built infrastructure for SAP HANA

2017
ProServe SAP Specialty Practice

2017
High Memory Instances 4 TB

2018
High Memory Instances 6/9/12 TB

2019
High Memory Instances 18/24 TB

2020
R5B: Up to 260K IOPS per instance

2020
Wizard-based deployment automation

2021
Automated SAP software install and HA configuration

2021
AWS Well-Architected Lens for SAP

2022
SAP Migration Blueprints

What customers say about running SAP on AWS

"What we really benefited from was AWS expertise not just in the cloud, but in SAP…"

Alla Krapivsky
Group Manager for Retail IT

"We've not found anybody who innovates at the same pace."

Shane Thatcher
CIO

REVLON

"RISE with SAP provides Revlon with numerous opportunities to support our continued digital acceleration through modernizing our core back-office infrastructure and applications while reducing our total cost of ownership. Additionally, RISE with SAP will enable increased flexibility and agility in support of our Revlon Global Growth Accelerator program."

Jose Urquijo
Chief Information Officer

Kellogg's

"Some of our SAP logistics and finance reports are executing up to 60% faster on AWS. That means our SAP users are more productive and they can report results to the business faster."

Ramesh Kollepara
IT Director

"We selected AWS because of its maturity in the market, breadth of services, and commitment to cybersecurity… AWS has a lot of experience running SAP HANA platforms in the cloud, and that was huge for us."

Jeff Wright
Cloud Service Senior Manager

AWS leads HANA Infrastructure Services

"AWS offers high flexibility and helps customers get the most value out of SAP investments, whether it is lift and shift, modernize or move to S/4HANA. It also offers a secure, reliable, and extensive public cloud infrastructure, with more than 200 services to innovate, along with a purpose-built SAP automation tooling."

"AWS continues to lead the infrastructure services offering market with its wide range of services to host for SAP HANA workloads on its platform."

Public Cloud - Services and Solutions
SAP HANA Infrastructure Services

2021 U.S.

ISG Provider Lens™
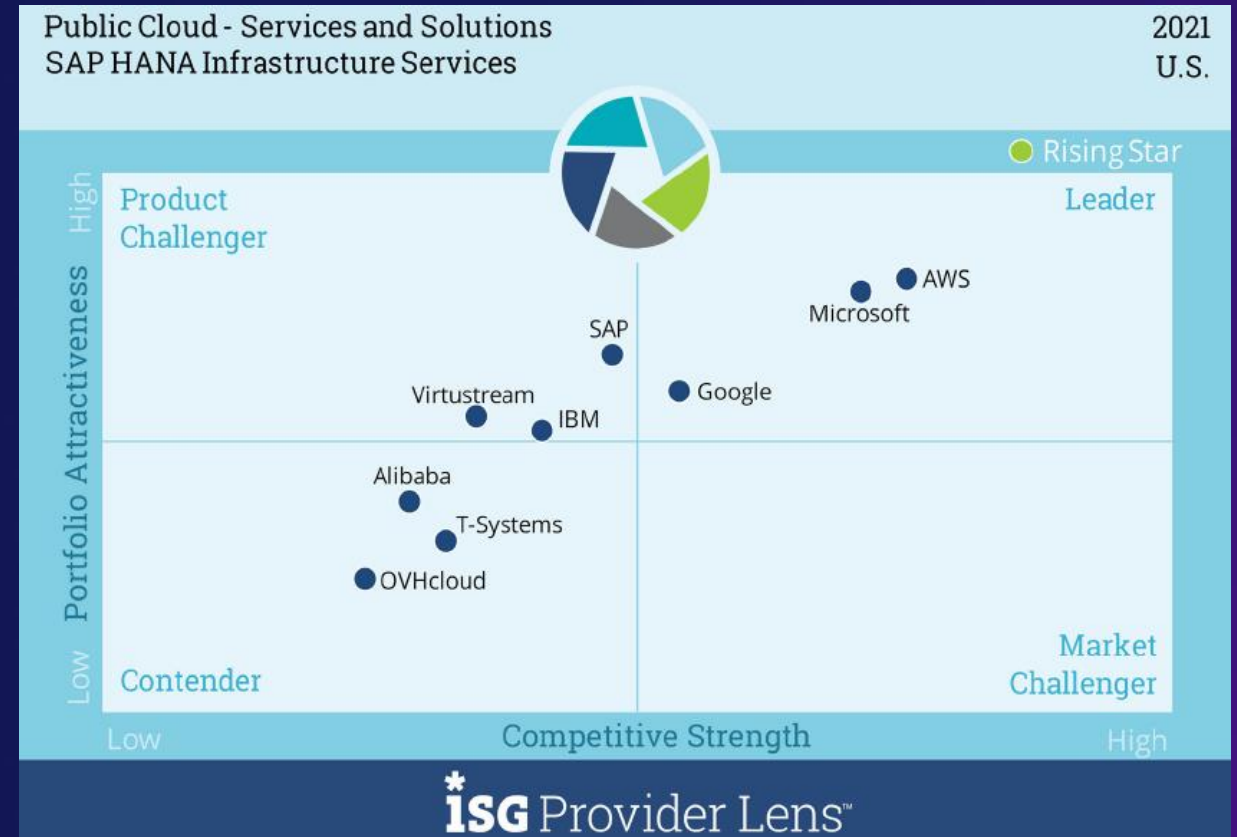
Accelerating your S/4HANA transformation

Running S/4HANA on AWS: Your options

	RISE with SAP	SAP on AWS native
Management	SAP manages infrastructure and software	Customer/partner manages infrastructure and software
Extensibility	Extend with SAP Business Technology Platform (more BTP services on AWS than all other providers combined)	Extend by natively integrating with AWS services
Pricing	Includes Infrastructure, Software Subscription, Software Support, and Technical Managed Services*	Includes infrastructure; bring-your-own license and support for SAP app, database, and OS and work with AWS Partners
Optimization	SAP landscape set in the RISE contract with options to ramp the usage tiers during the term	Maximum flexibility to optimize your architecture and operations and take advantage of commercial programs and price reductions

*Additional Cost for Disaster Recovery, Digital Access (Data Blocks), Customer Evaluation System, 99.9% SLA, Additional Storage and Usage tier

Unmatched experience delivering customer success across ERP modernization approaches

Rehosting ECC	Suite on HANA	S/4HANA migration (native and RISE)	Innovate, modernize, and transform with AWS services
rbi restaurant brands international	**BOSE**	Bristol Myers Squibb	**INVISTA**
83% capex reduction, 18% opex reduction, 28% performance increase	Uses Suite on HANA with AWS IoT for smart manufacturing	Reduced costs by 20% and automated GxP compliance with greenfield S/4HANA deployment	Estimated $300M in operational value by combining ECC with AWS analytics, AI, and ML services
Kellogg's	**Newmont**	**REVLON**	VW
Improved process performance by 60% while reducing costs	Moved to HANA, reduced costs by $530K while navigating GoldCorp acquisition	Supporting their digital commerce transformation and strategic cloud migration with RISE on AWS	Integrating S/4HANA with VW Digital Production Platform to improve manufacturing productivity by 30%

Top challenges IT teams face with SAP projects

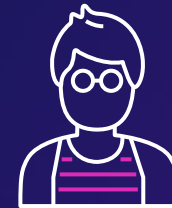**52%**

Lack of resources

45%

High costs

35%

Lack of consistency in configuring, onboarding, and management

32%

Human error

Source: "How automation accelerates innovation for SAP operations teams," ASUG/Avantra, 2020

Working backwards from SAP customer needs

52%
Lack of resources

- Eliminate cross-team dependencies
- Get more out of valuable personnel
- Attract and develop top talent

45%
High costs

- Rightsize your infrastructure
- Reduce labor costs with industry-leading automation
- Lower cost per SAPS/GB

35%
Inconsistent configuration, onboarding, and management

- Automate configuration and deployment
- Reuse SAP deployment patterns for infrastructure as code
- Manage SAP with cloud-native tools

32%
Human error

- Automatically align to AWS and SAP best practices
- Leverage the collective experience of 13+ years and 5,000+ customers
- Minimize the need for human intervention

AWS automation supports Storengy's green energy transition with S/4HANA

- Reduces S/4HANA deployment from months to hours with AWS Launch Wizard
- Reduces HANA backup times from 1 hour to 5 minutes with AWS Backint Agent
- Reduces operating costs by 40%
- Stronger security posture using AWS Well-Architected Review
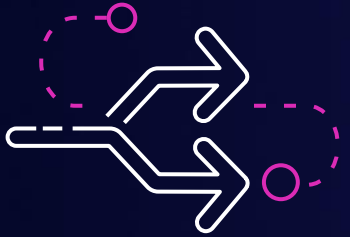
storengy

A company of ENGIE

"AWS Launch Wizard was a major accelerator for our SAP S/4HANA implementation and our overall transformation. Now, when the business wants to test a new functionality or feature, we can provide it immediately because of the on-demand infrastructure and deployment automation AWS offers."

Guillaume Yvon
Enterprise Architect, Storengy

Migration

SAP Lens for AWS Well-Architected Framework

CUSTOMER-PROVEN DESIGN PRINCIPLES AND BEST PRACTICES FOR ENSURING SAP WORKLOADS ON AWS ARE WELL-ARCHITECTED ACROSS:

AWS **Well-Architected**

Operational Excellence

Security

Reliability

Performance Efficiency

Cost Optimization

Sustainability

AWS Migration Hub: Simplifying migration

Migration Hub is the central tool across all phases of migration

Assess

Import existing server inventory

Obtain rightsized Amazon EC2 recommendations

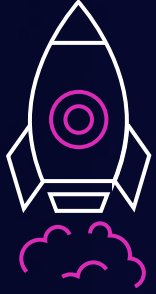Capture and visualize system inventory, performance, and dependencies

Mobilize

Analyze server performance and identify server dependencies

Group applications and build a migration plan
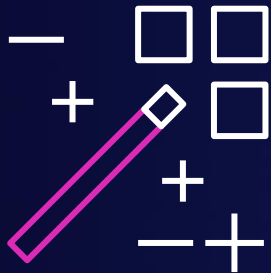
Migrate and modernize

Track application migrations from multiple tools
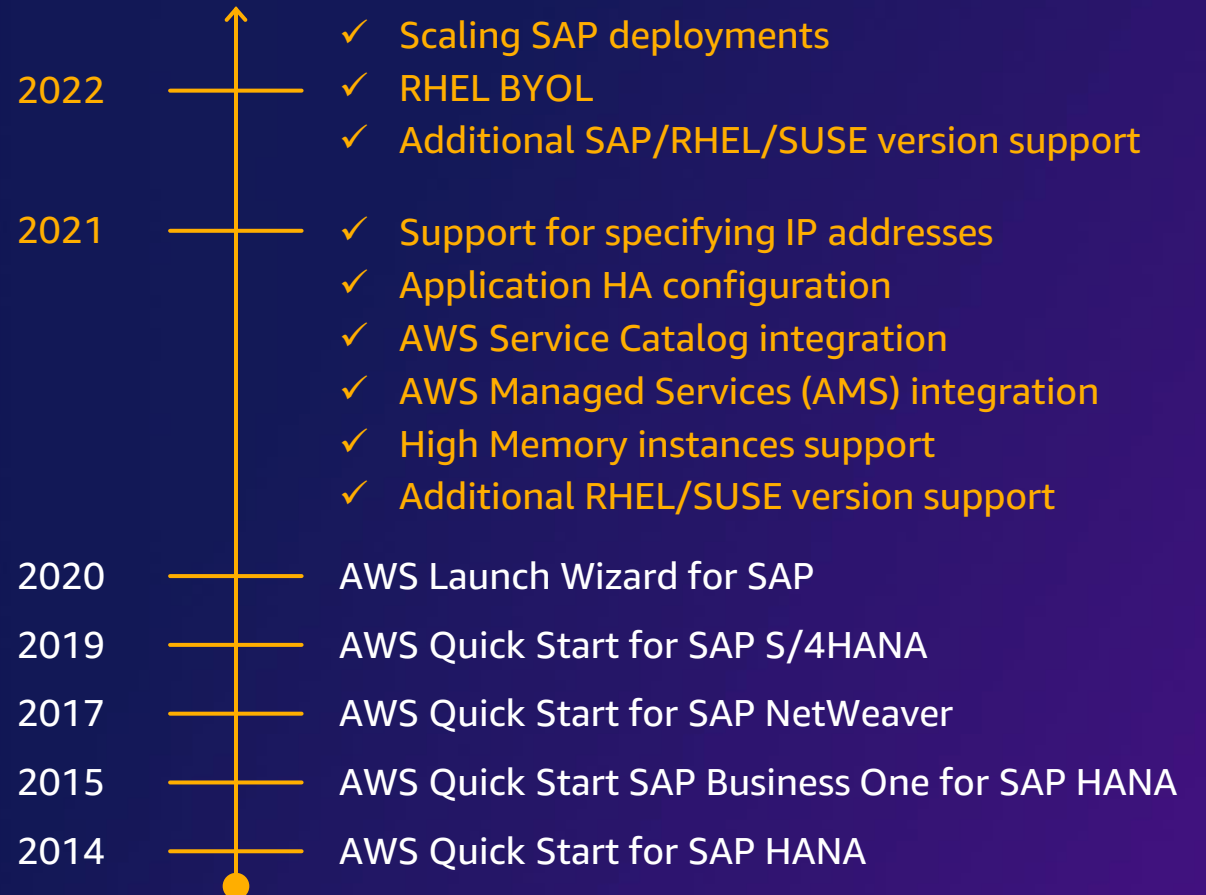
Deployment and configuration

Automating 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

2022
- ✓ Scaling SAP deployments
- ✓ RHEL BYOL
- ✓ Additional SAP/RHEL/SUSE version support

2021
- ✓ Support for specifying IP addresses
- ✓ Application HA configuration
- ✓ AWS Service Catalog integration
- ✓ AWS Managed Services (AMS) 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

Deploy SAP on AWS in hours vs. months

AWS LAUNCH WIZARD GIVES YOU A HIGHLY AVAILABLE, BEST PRACTICE-ALIGNED SAP SYSTEM READY FOR USE

|	
SAP software install	**SAP S/4 HANA** BW/4HANA SAP NetWeaver HANA
Operating system deployment and storage allocation	HA cluster set up Red Hat SUSE
Server and storage configuration	Amazon CloudWatch Amazon EBS Amazon EFS Amazon S3
Infrastructure and network setup	Amazon VPC & SGs Amazon EC2 AWS KMS Amazon Route 53

SAP application install feature

Single-instance deployment
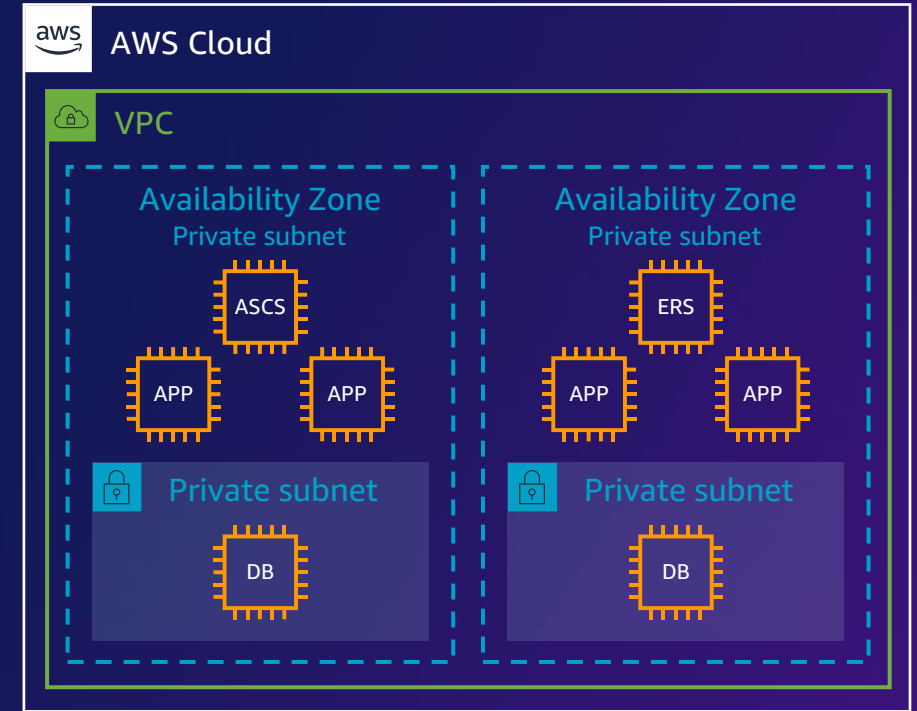
- Development, sandbox
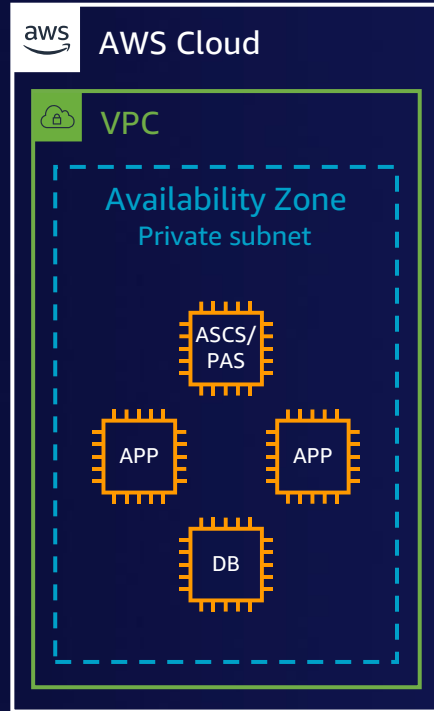
Distributed instance with HANA Scale-up deployment

- Development, sandbox, test, pre-prod, prod
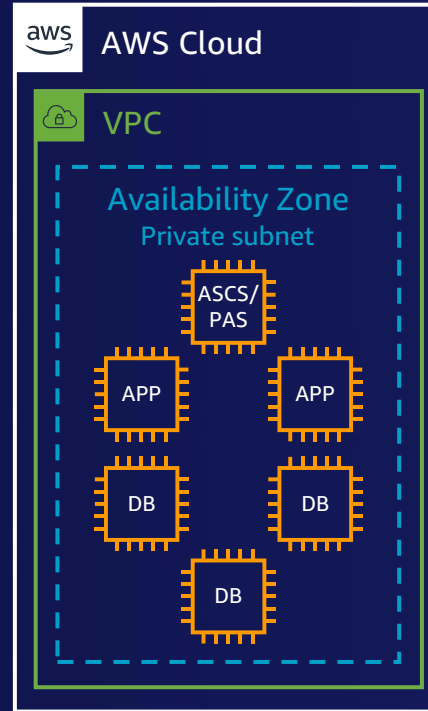
Distributed instance with HANA Scale-out deployment

- Development, sandbox, test, pre-prod, prod

High-availability deployment

- Pre-prod; prod

Let's deploy an S/4HANA system on AWS!
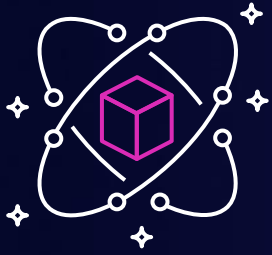
DevOps for SAP with AWS Professional Services

Architect, migrate, and operate SAP workloads using DevOps tools and methodologies

DevOps for SAP on AWS at CHS

- Reduced SAP provisioning time by >90%

- Patches 150+ SAP instances across 6 accounts in <1 hour

- Automatically shuts down non-production systems after business hours to reduce costs

Management and monitoring

Amazon CloudWatch Application Insights for SAP HANA

EASILY IDENTIFY AND RESOLVE PROBLEMS IMPACTING YOUR HANA–BASED WORKLOADS

- Automatically set up monitors and dashboards for application resources

- Detect and troubleshoot problems quickly with automatic notification

- Determine root causes quickly with AI-driven insights

- Supports single, multi-node and high-availability landscapes
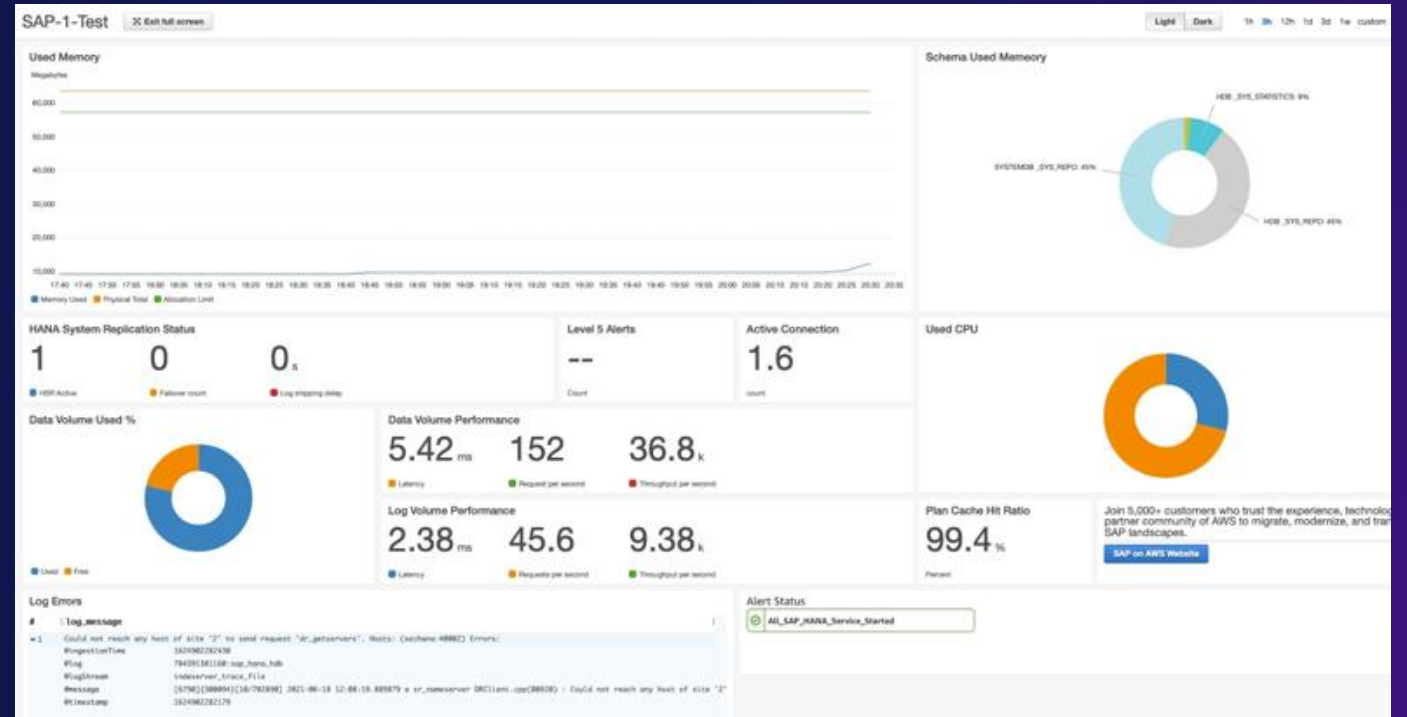
Automate HANA backup with AWS Backint Agent
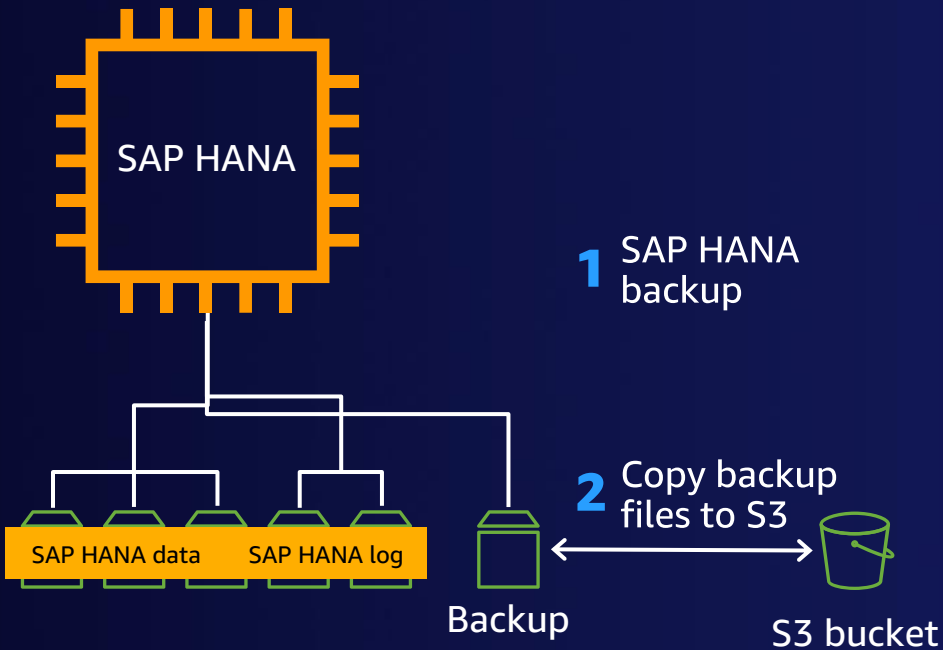
File-based backup
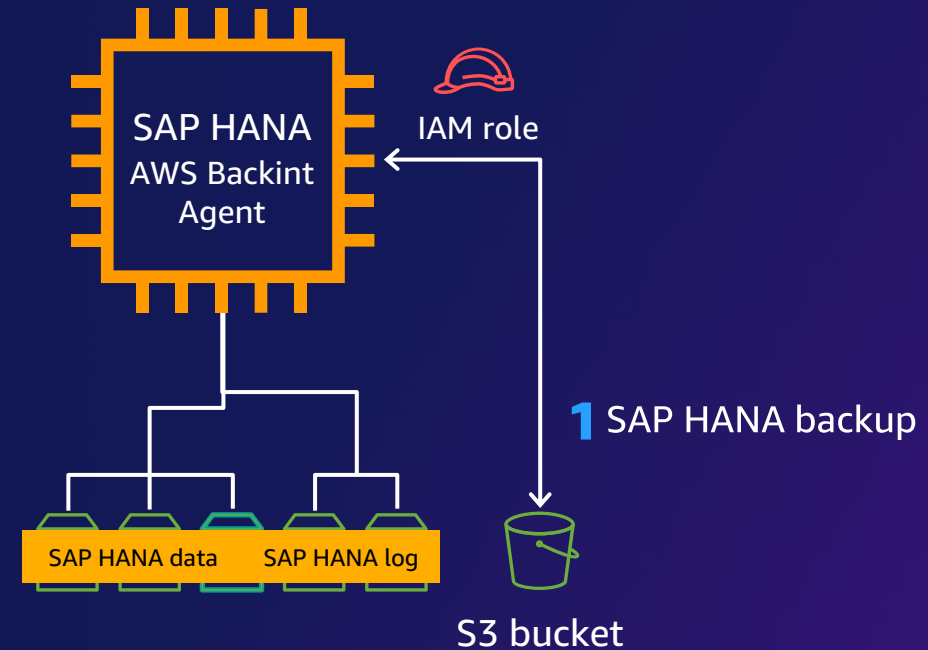
Backup with AWS Backint

- Back up SAP HANA directly to Amazon S3
- Designed for 99.999999999% durability
- 2 GB/s per node throughput, scaling linearly

Innovation and transformation

Clean core + AWS = Innovation

ACTIVATING THE DATA-DRIVEN ENTERPRISE

REVENUE GROWTH

OPERATIONAL OVERHEAD

Empowered sales teams

Intelligent decision-making

Better relationship with customers

Increased efficiency

Products that get better with time

Data-driven discipline

Nodes: DW, BI, ALM, IoT, ETL, Mobile, ML, Amazon OpenSearch Service, Amazon Aurora, Amazon Redshift, Amazon Lex, Amazon EKS, API Gateway, AIM

AWS native — SAP Business Technology Platform

Data lakes	ECC OLTP	SOH OLTP	S/4HANA OLTP	BWoH OLAP	BW/4 OLAP	Third-party applications

INFRASTRUCTURE	CORE SERVICES	SECURITY AND COMPLIANCE	MANAGEMENT TOOLS
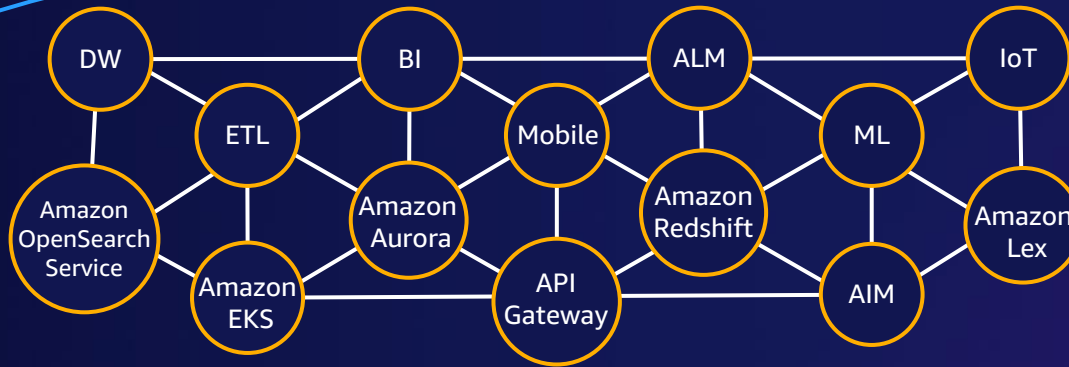
DIFFERENTIATION LAYER
Build to change

APPLICATION LAYER
Build to consume

INFRASTRUCTURE LAYER
Build to last

aws

Analyze and transform SAP data with AWS services

USE THE AMAZON APPFLOW SAP ODATA CONNECTOR TO RUN DATA FLOWS FROM SAP ERP/BW FOR USE WITH AWS SERVICES IN JUST A FEW CLICKS

AWS Lambda

Amazon Redshift

SAP

Amazon AppFlow

Amazon S3

Amazon Rekognition

Amazon SageMaker

Modern enterprise analytics with SAP data

Operational reporting & embedded analytics

End-to-end enterprise analytics

SAP Core Applications

SAP

S/4HANA, ECC, BW

Finance | Supply chain | ...
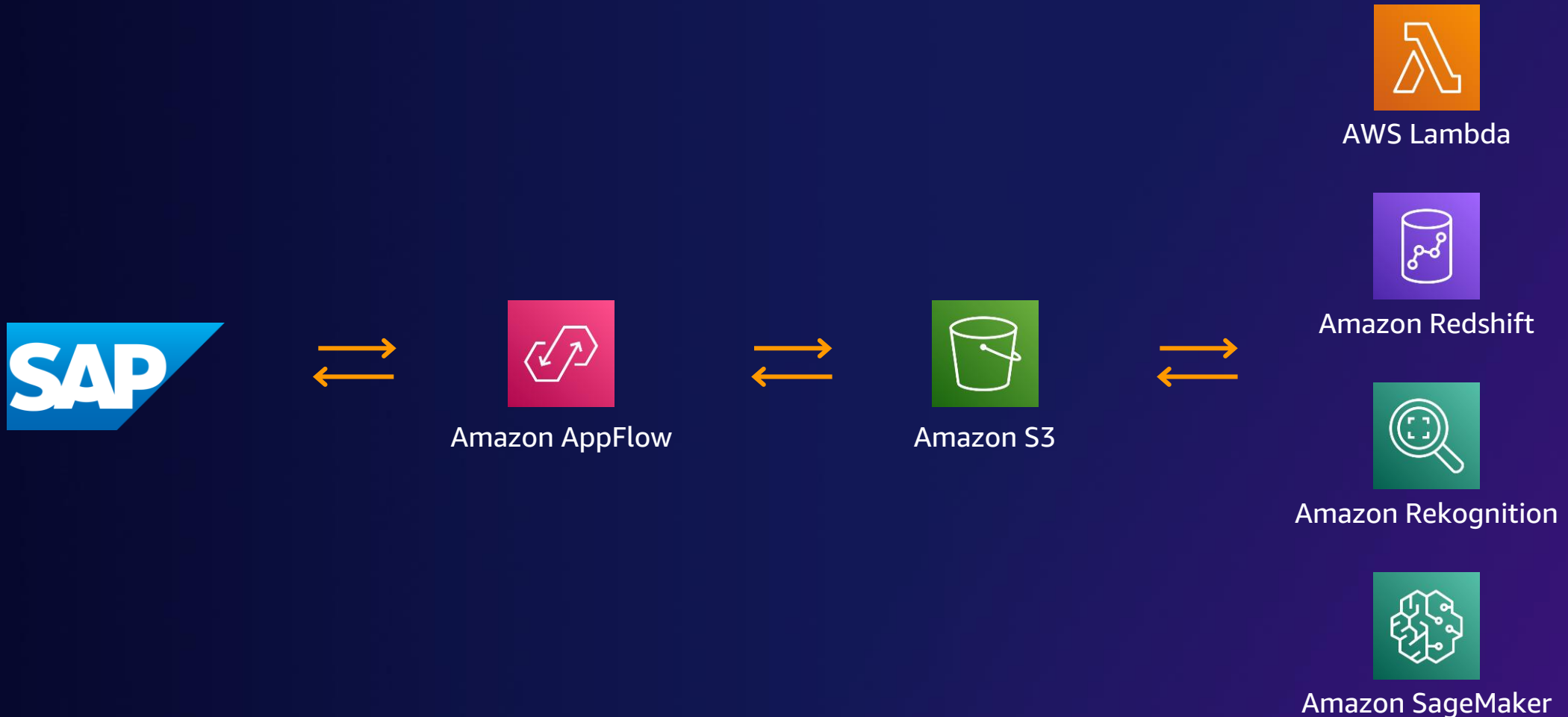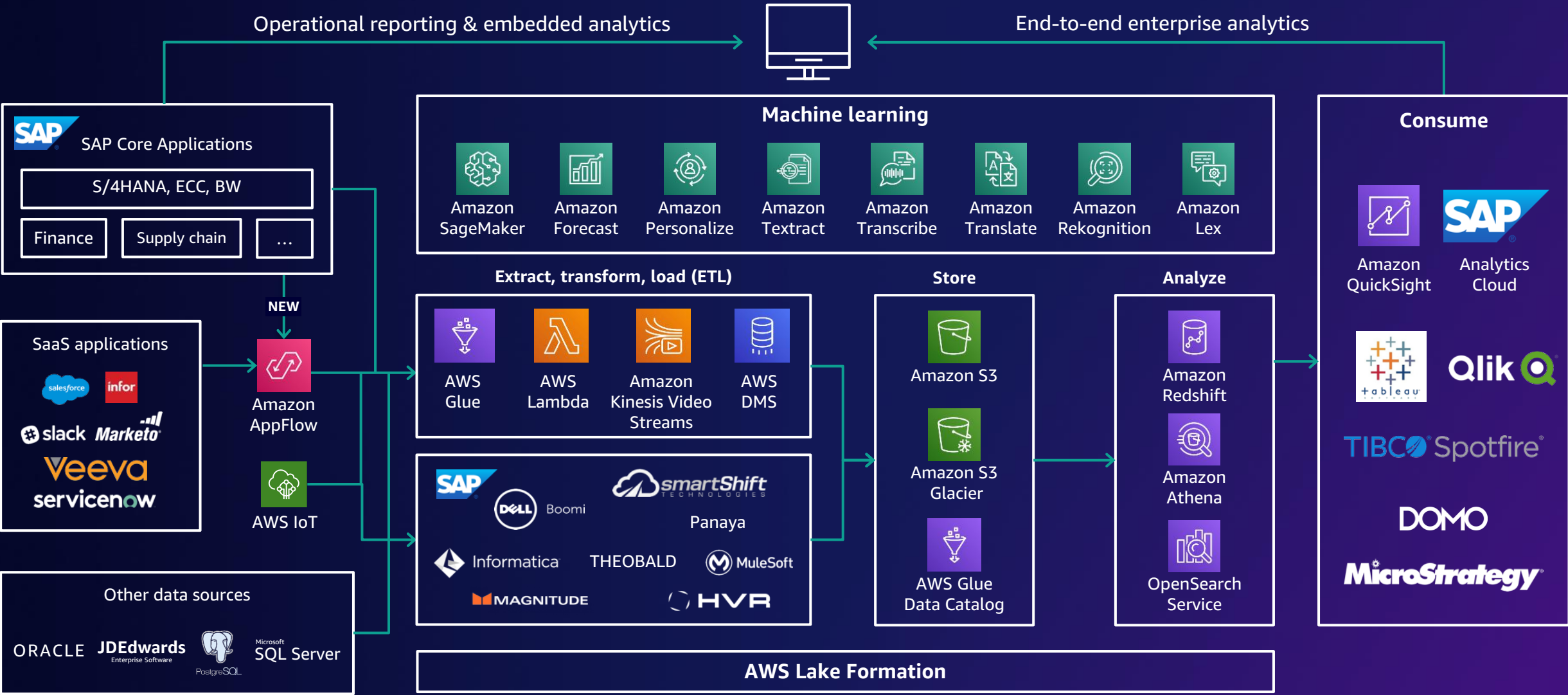
NEW

Amazon AppFlow

AWS IoT

SaaS applications

salesforce | infor | slack | Marketo | Veeva | servicenow

Other data sources

ORACLE | JDEdwards Enterprise Software | PostgreSQL | Microsoft SQL Server

Machine learning

| Amazon SageMaker | Amazon Forecast | Amazon Personalize | Amazon Textract | Amazon Transcribe | Amazon Translate | Amazon Rekognition | Amazon Lex |

Extract, transform, load (ETL)

| AWS Glue | AWS Lambda | Amazon Kinesis Video Streams | AWS DMS |

SAP | DELL Boomi | smartShift TECHNOLOGIES | Panaya
Informatica | THEOBALD | MuleSoft
MAGNITUDE | HVR

Store

Amazon S3

Amazon S3 Glacier

AWS Glue Data Catalog

Analyze

Amazon Redshift

Amazon Athena

OpenSearch Service

Consume

Amazon QuickSight | SAP Analytics Cloud

tableau | Qlik Q

TIBCO Spotfire

DOMO

MicroStrategy

AWS Lake Formation

Getting started

Proven model for SAP migration and modernization

Assess

Discovery workshop

Initial TCO assessment

Mobilize

Technical validation

Migration plan

Business case

Migrate and modernize

Migrate

Modernize

Realize benefits

Reduce cost

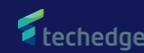Reduce risk

Increase agility

Innovate faster
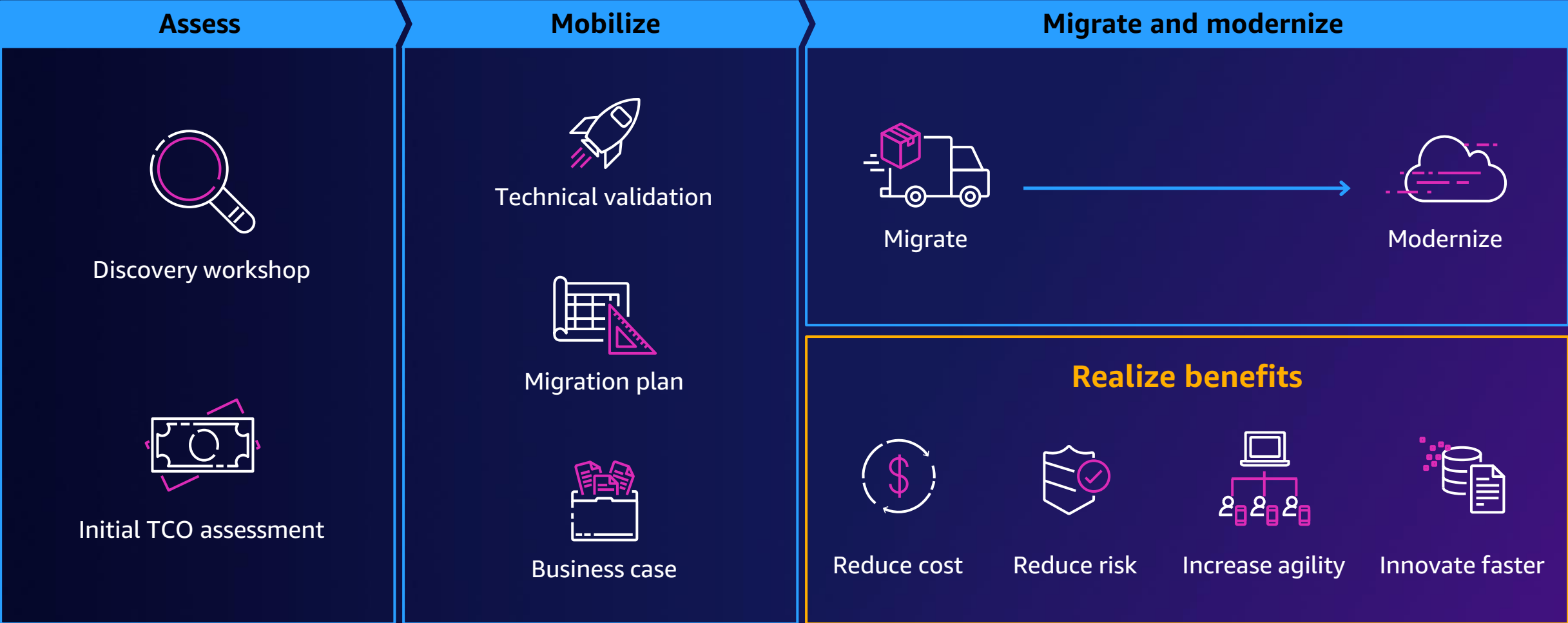
SAP on AWS Partner community

AWS SAP COMPETENCY PARTNERS

Streamline migration and innovation with AWS Partners that have proven SAP on AWS customer success

91%

of SAP on AWS customers use a partner

AWS Professional Services Global SAP Practice

BRIDGE THE SAP ←→ CLOUD SKILLS GAP AND REALIZE YOUR DESIRED BUSINESS OUTCOMES WITH THE WORLD'S FOREMOST SAP ON CLOUD EXPERTS

Complementary offerings

- SAP on AWS Discovery
- SAP HA on AWS Discovery
- DevOps for SAP
- Analytics for SAP
- SAP Extend Discovery

Bristol Myers Squibb

S/4HANA on AWS customer outcomes

moderna

Implemented HA and infrastructure as code for S/4HANA to help scale operations and deliver 1.4B COVID-19 vaccine doses globally

Liberty Mutual

Uses AWS services in concert with S/4HANA to do real-time financial closing

zalando

Uses AWS analytics, AI/ML, and customer engagement services with S/4HANA to improve customer experiences, reduce cost of insight by 30%, and ship 250M orders/year

ENGIE

Digitally transforming to accelerate their zero-carbon transition with SAP S/4HANA and an Amazon S3–based data lake on AWS

Next steps to start your journey

Work with us

Complementary
discovery workshops

Work with an AWS SAP
Competency Partner

Work with AWS
Professional Services SAP/
ERP Specialty Practice

Explore the AWS Migration
Acceleration Program (MAP)

Explore SAP on AWS

aws.amazon.com/sap

Case studies: go.aws/3vG4Nf5

Learn in-demand AWS Cloud skills

AWS Skill Builder

Access **500+ free** digital courses and Learning Plans

Explore resources with a variety of skill levels and **16+** languages to meet your learning needs

Deepen your skills with digital learning on demand

Train now

AWS Certifications

Earn an industry-recognized credential

Receive Foundational, Associate, Professional, and Specialty certifications

Join the **AWS Certified community** and get exclusive benefits

Access **new** exam guides

Thank you!

Please complete the session survey