

Love's Travel Stops' road to SAP modernization with AWS

Bob Armstrong, Sr. Manager of Digital Platforms, Love's Travel Stops
Cristina Greysman, Head of AWS for SAP Alliance and Partners Americas, AWS

Las Vegas

2024

SAPinsider



In This Session

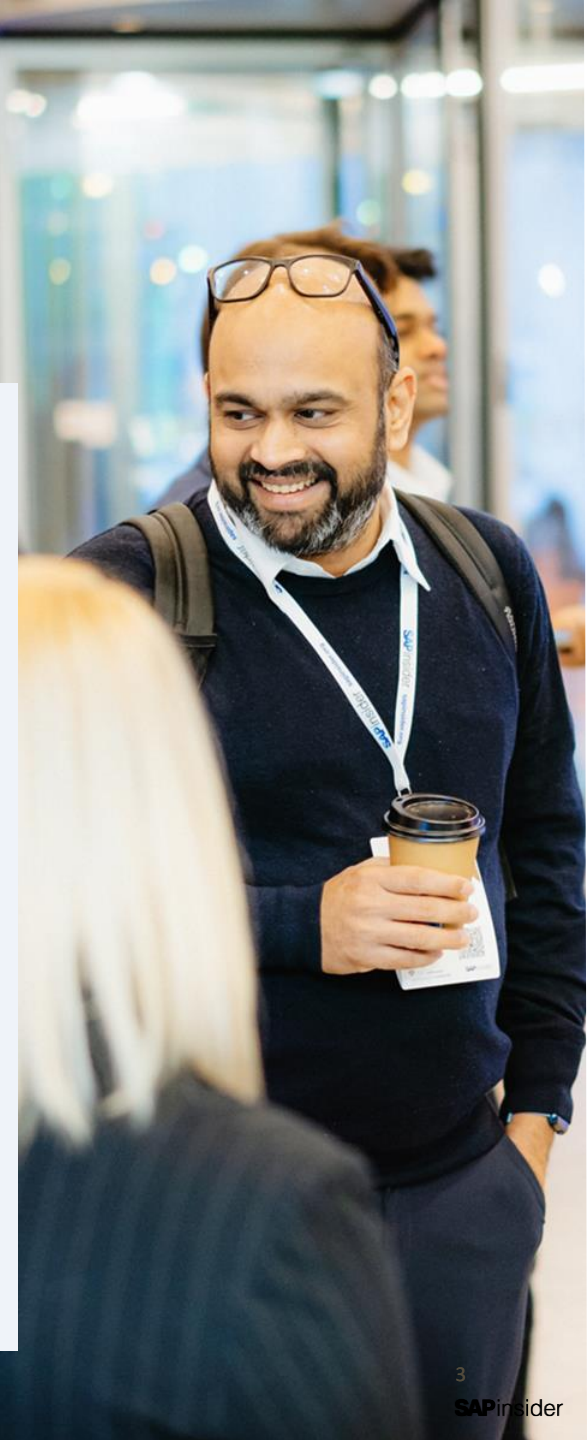
Discover how Love's Travel Stops migrated core SAP ERP applications to AWS, boosting reliability, performance, security, and cutting costs.

Hear more about their ongoing modernization, implementing SAP S/4HANA on AWS to support their growing divisions.

Lastly, learn about how Love's Travel Stops plans to optimize their supply chain as well as automate finance operations with AWS AI/ML to fuel continued expansion.

What We'll Cover

- About Love's Travel Stops
- SAP migration to AWS
- SAP modernization and innovation in the cloud
- How AWS supports SAP customers
- Summary and lessons learned



About Love's Travel Stops



About Love's Travel Stops



Love's provides professional truck drivers and motorists 24-hour access to clean and safe places to purchase gasoline, diesel fuel, Compressed Natural Gas, travel items, electronics, snacks, restaurant offerings, Truck Care, and more

- Founded in 1964, celebrating our 60th anniversary
- 640+ locations in 42 states
- 40,000+ employees from coast to coast
- Corporate offices in Oklahoma City and Houston (Musket Corporation and Trillium)

About Love's Travel Stops



Gemini



Musket Corporation



Trillium



Speedco

Key factors shaping Love's Travel Stops requirements



Growth Opportunities

- Accelerating organic store growth
- Expansion of Truck Care services
- RV Parks, Truck Washes, Legal Services
- Musket expansion (Europe, Canada, Mexico)



Climate Change & Alternative Fuels

- Trillium Energy and Cargill renewable diesel project
- Renewables—compressed natural gas, hydrogen
- EV Services
- EV Infrastructure grants



Supply Chain

- Fuel—New partnerships and terminals
- Global sourcing
- Private label branding
- Distribution center growth



Technology Trends

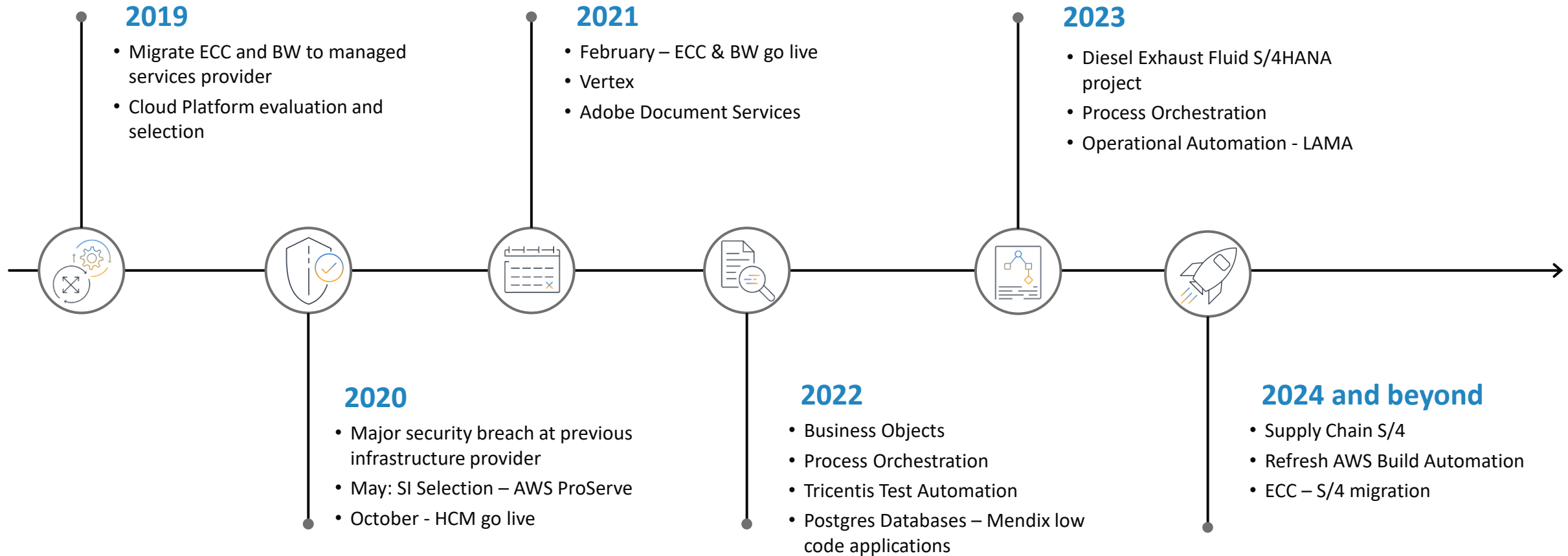
- Self service checkout
- AI – Chatbots, Intelligent Document Processing
- Network improvements—SpaceX Starlink Internet



Where we've been

SAP migration to AWS

SAP landscape modernizations



Our IT mission



**Faster pace of
innovation**



**Accelerated business
growth**



**Excellent customer
experiences**



Operational efficiency

Acceleration Strategies

- Accelerating Speed of Delivery
 - Automation – Build and operate infrastructure
 - Architecture standards and patterns
 - Enterprise tier of applications
 - Leverage AI
 - Empower teams
- Accelerating Pace of Acceleration
 - Focus on what business we're in
 - Leverage partners over vendors
 - Robust SAAS strategy
 - Best of breed solutions for strategic initiatives
 - Leverage existing tech portfolio for tactical



Key requirements for our migration



Strengthen security posture



Complete before contract/ hardware refresh deadlines



Minimal business disruption



Clear and robust HA/DR strategy

Inside our migration



Build

- AWS Quick Starts for SAP using customer-hardened image
- Amazon Inspector for CIS compliance



Strategy

- SAP homogeneous and heterogeneous system migrations
- HANA System Replication (HSR)



Reduce Downtime

- AWS DataSync for shared file system replication
- Replication started prior to cutover

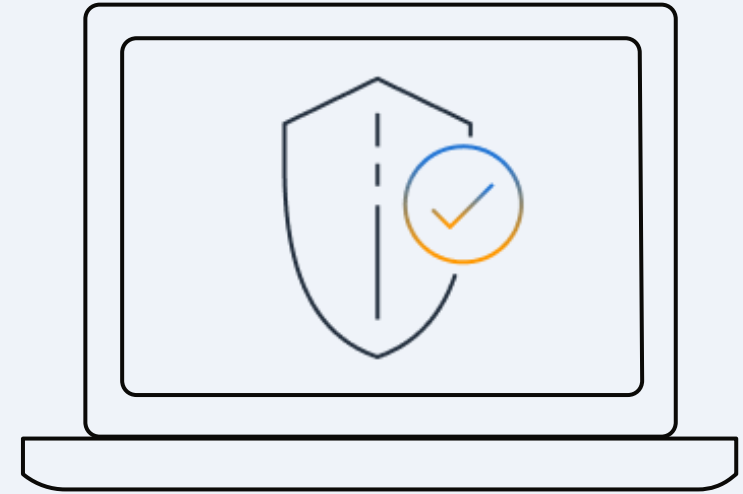


Cutover

- Cutover (downtime) completed in 6 hours overnight
- HANA 1.0 to 2.0 upgrade for HCM

Strengthening our security posture

- AWS Well-Architected Security Pillar
- Instance/OS hardening
- Encryption at rest/in motion
- Automated guardrails



Automating SAP operations



Backup and data protection with
AWS Backint Agent /
FSx for Lustre



Monitoring and Alerting with AWS
CloudWatch Application Insights
for SAP HANA



DevOps with Terraform, Ansible,
Packer, and AWS Lambda



Infrastructure and application
orchestration with SAP Landscape
Manager



Disaster recovery with AWS
CloudEndure / AWS Elastic
Disaster Recovery

How we engaged AWS Professional Services



Design

- Design workshops for architecture and deployment planning
- Detailed designs for landing zone, network, security, sizing, HA/DR, Backup/Recovery, and system monitoring



Build

- Landing zones and networking
- All AWS infrastructure and services configuration
- IaC in Cloud Formation Templates



Test

- Launched a migration factory to build each life cycle and test the migration
- Tested HA/DR, Backup/Recovery, systems monitoring



Automate

- SAP Start/Stop Automation
- Convert CloudFormation tasks to Ansible
- DR Automation

Where we are today

SAP modernization and innovation in the cloud

SAP modernization and innovation

- Musket SAP S/4HANA deployment on AWS
 - From a monolithic ECC to purpose-built SAP S/4HANA deployments
 - Supporting business diversification from bulk sales to retail sales, from tankers to store shelves
 - Goal to rapidly deploy and automate to scale.
- Implementation details
 - 10 month implementation with no notable disruption
 - Utilized existing AWS security infrastructure
 - Utilized AWS automation to build S/4HANA app servers
- Two waves of deployment coming soon



SAP Roadmap Planning

SAP Strategy Team

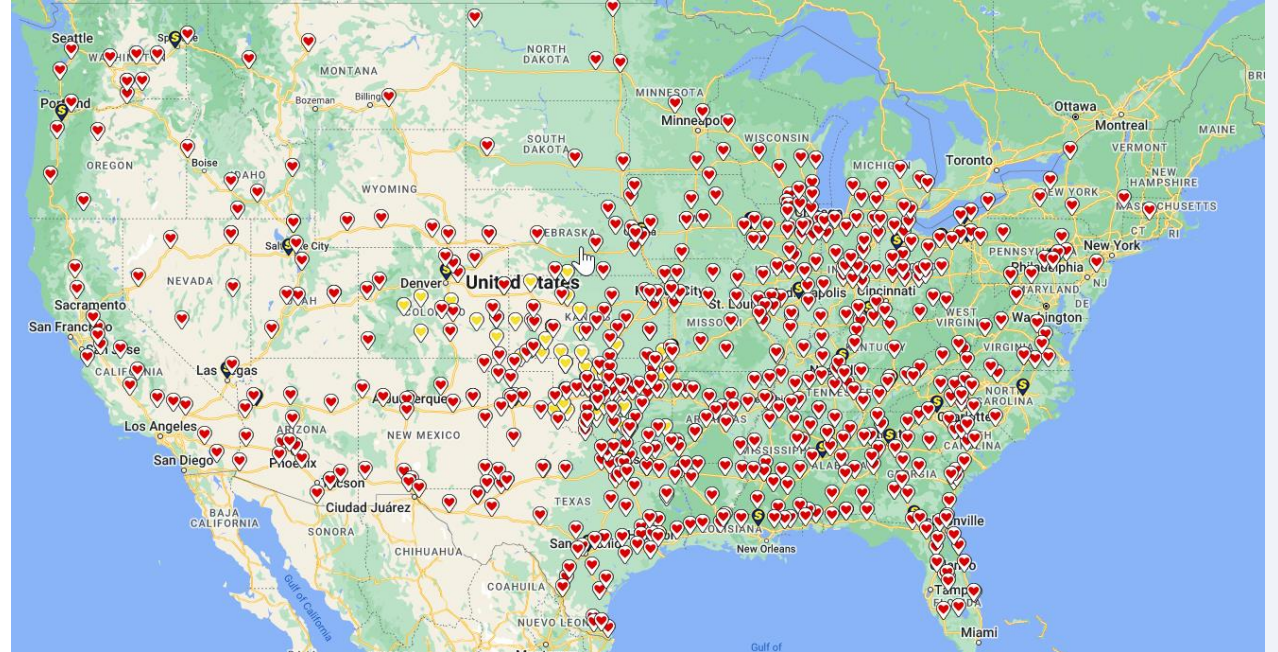
- Business / Program Management / IT
- Business focus and commitment to drive value up front

Intelligence Gathering

- SAP – latest and greatest on RISE / GROW
- Marketplace – Upper Edge, Gartner, Rimini Street
- Partners – EY and Accenture

Business Conversations

- Current pain points / solution scale issues
- Appetite for transformation
- Impact of future growth
- Impact of M&A activity



SAP landscape modernization benefits



\$2M annual
infrastructure savings



Reduced infrastructure
and licensing costs



Reduced unplanned
outages and shrunk
maintenance windows



Built cloud skills and
leadership confidence
in AWS

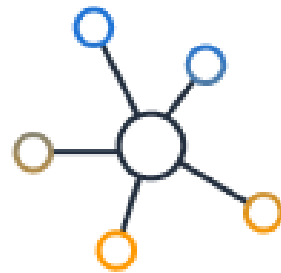
Where we are going

Cloud maturity and SAP S/4HANA roadmap

Innovating faster and transforming Love's Travel Stops



Focus on solutions to our most pressing challenges



Optimize supply chain to increase resiliency, profitability, and customer delight



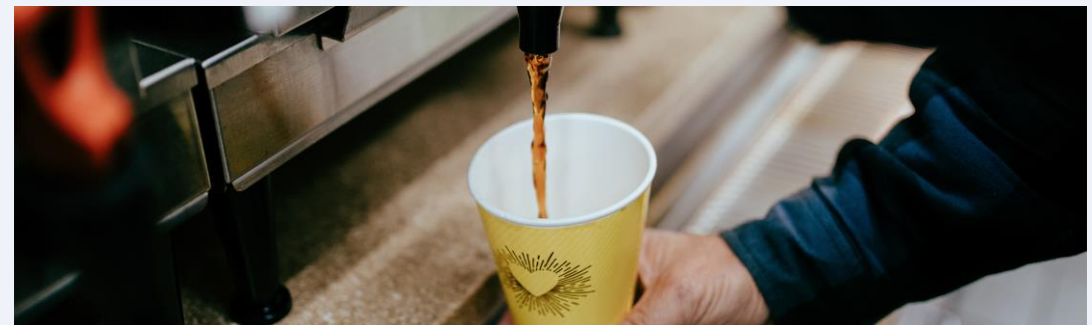
Automate backend processes to set foundation for further scale



Innovate with the right tools, capabilities, and partners

Supply chain optimization with SAP and AWS

- Hired Supply Chain EVP
- Need 1 system to support 8 separate supply chain initiatives
- Planning Supply Chain **SAP S/4HANA on AWS** to address needs across enterprise
- Anticipated benefits:
 - Diversification to reduce **supply shocks** (e.g. COVID-19)
 - Improving **pricing and purchasing power**
 - **Optimize re-ordering**, avoiding waste, event driven sales
 - Support new distribution strategy
 - **\$10M's** in potential savings



Accelerating AR and more with SAP and AWS services

- Focus on modernizing systems with **integrations**
- Automation is key to supporting further scale and acquisitions
 - Developing architecture and patterns for **AWS SDK for SAP ABAP** usage, to satisfy emerging needs
 - Stringent prioritization on potential use cases
 - Exploring **generative AI** use cases
- Developing automated Accounts Receivable Factoring process for Love's Financial Services
 - Automating electronic documents processing
 - Utilizing **Intelligent Document Processing with Amazon Textract**
 - Solution in development with trusted AWS partner



How AWS supports SAP customers

Accelerating business transformation with AWS



Thousands of SAP customers trust AWS



The benefits of running on AWS

Reliability

58%

less unplanned downtime
for S/4HANA on AWS
vs. on-premises¹

Performance

35%

better price performance for
SAP's analytic workloads with
Graviton-based processors²

Cost Savings

503%

3-year ROI moving from legacy
ERP to S/4HANA on AWS¹

Security

45%

reduction in security incidents
for enterprise applications
vs on-premises³

Sustainability

88%

lower carbon footprint
vs on-premises data centers⁴

Certainty

6x

ISG SAP HANA Infrastructure
Services Provider Lens Leader

1. The Business Value of SAP S/4HANA on Amazon Web Services, IDC, 2023

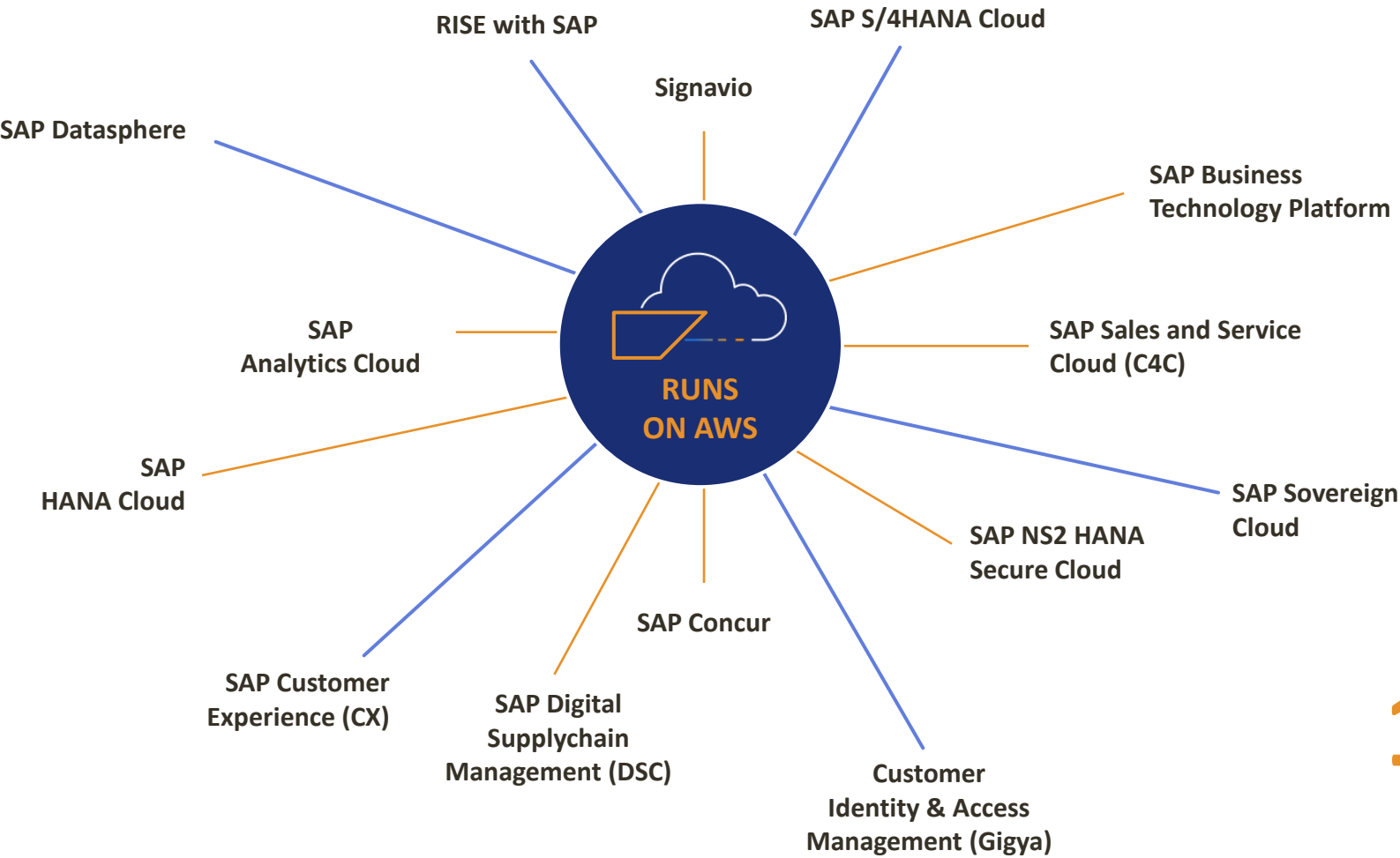
2. https://www.youtube.com/watch?v=9W0j__k5afg

3. The Business Value of Migration to Amazon Web Services, The Hackett Group, 2022

4. <https://aws.amazon.com/sustainability/resources/>

SAP has trusted AWS for over 15 years

AWS HAS THE LONGEST TRACK RECORD PARTNERING WITH SAP IN THE CLOUD



81

BTP services run on AWS, the full extent available on CSPs¹

19

BTP services powered only by AWS¹

9

Publicly available regions for BTP services, more than any other CSP¹

100%

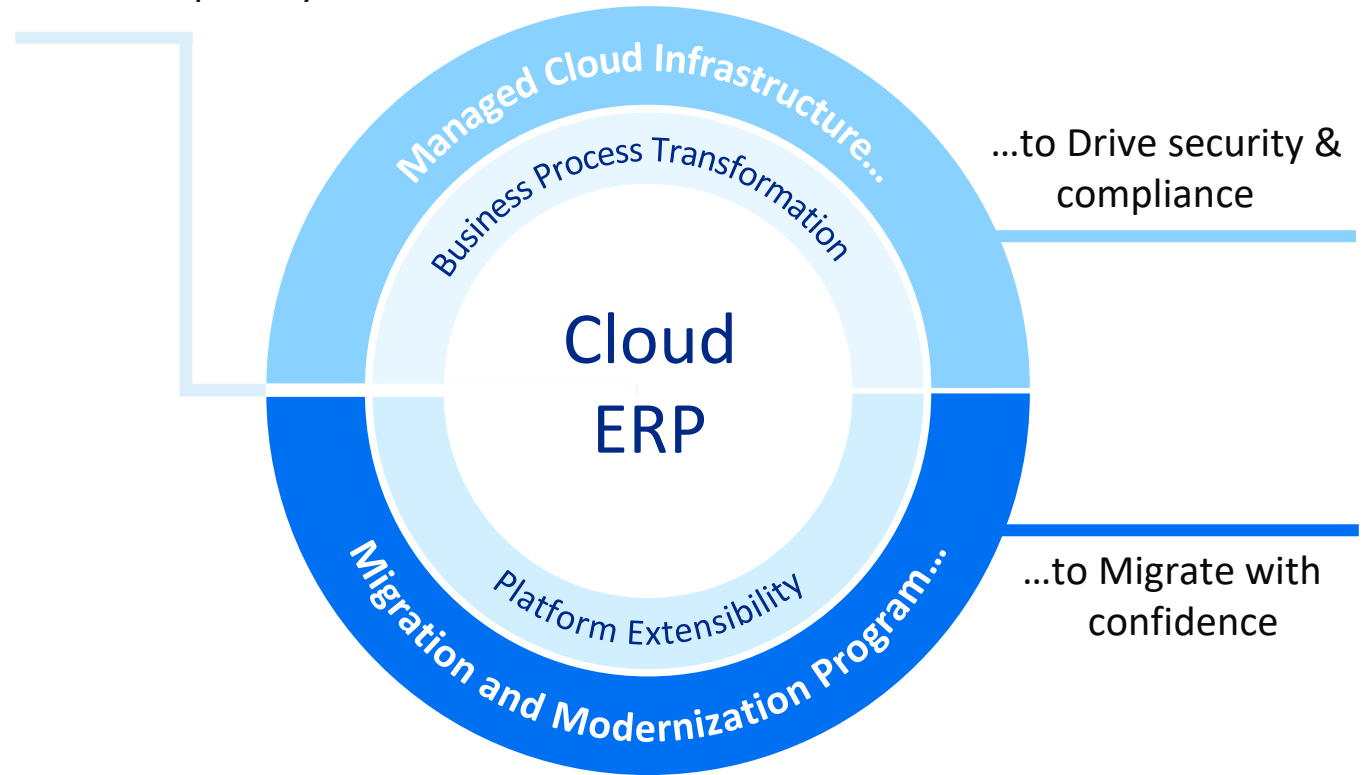
Signavio services run on AWS¹

AWS is the proven cloud for RISE with SAP

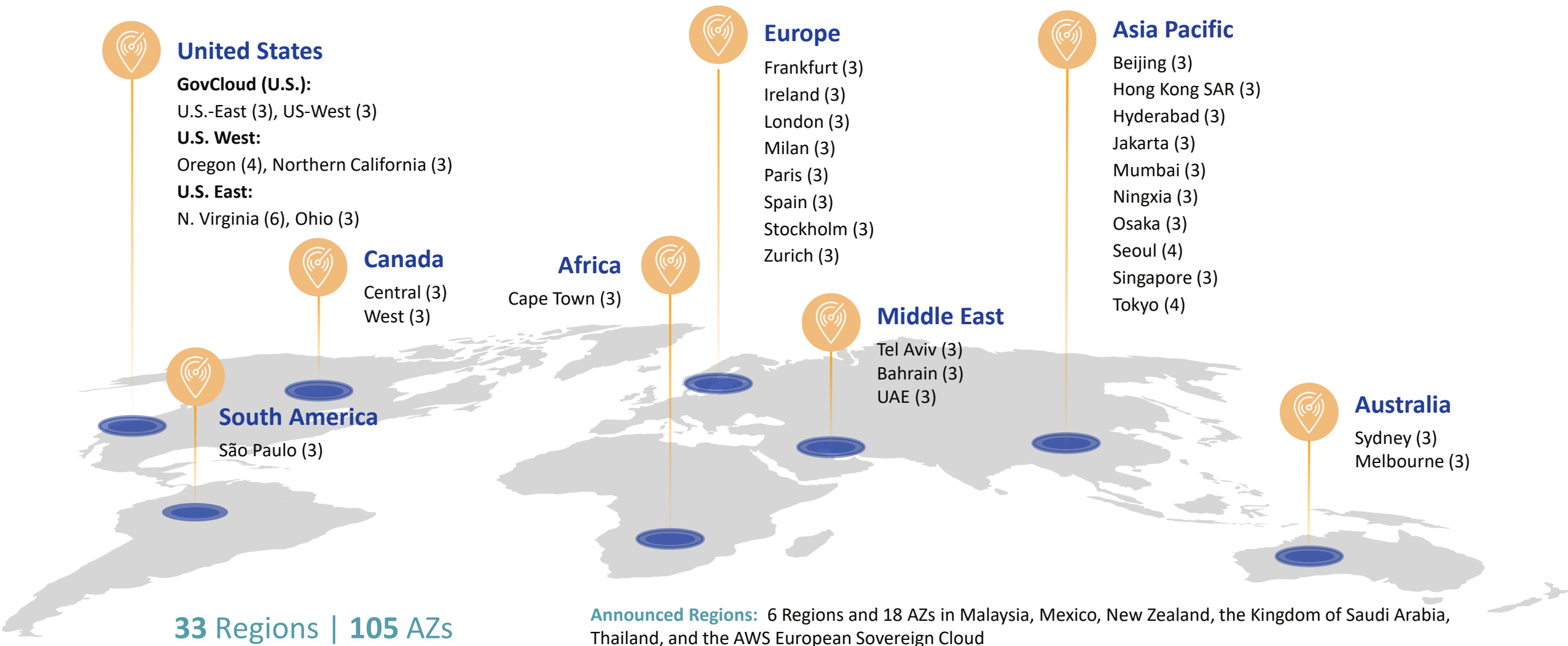
- RISE with SAP is a comprehensive offering designed to transition your current SAP ECC and SAP S/4HANA on-premise installation to the cloud.
- *“Only the cloud provides the **speed** and **agility** our customers need to take their businesses to the next level and **drive innovation**.”*
- **Christian Klein**
- CEO and member of the Executive Board of SAP SE

Cloud Solutions

to Future-proof your business



AWS Global infrastructure



ISG Provider Lens

“AWS offers **the highest configurations of virtual machines (VM) and cloud service options** for hosting SAP workloads.”

“AWS also has a rigorous program for its SAP partners that reflects AWS' commitment to **delivering top-tier solutions and support.**”

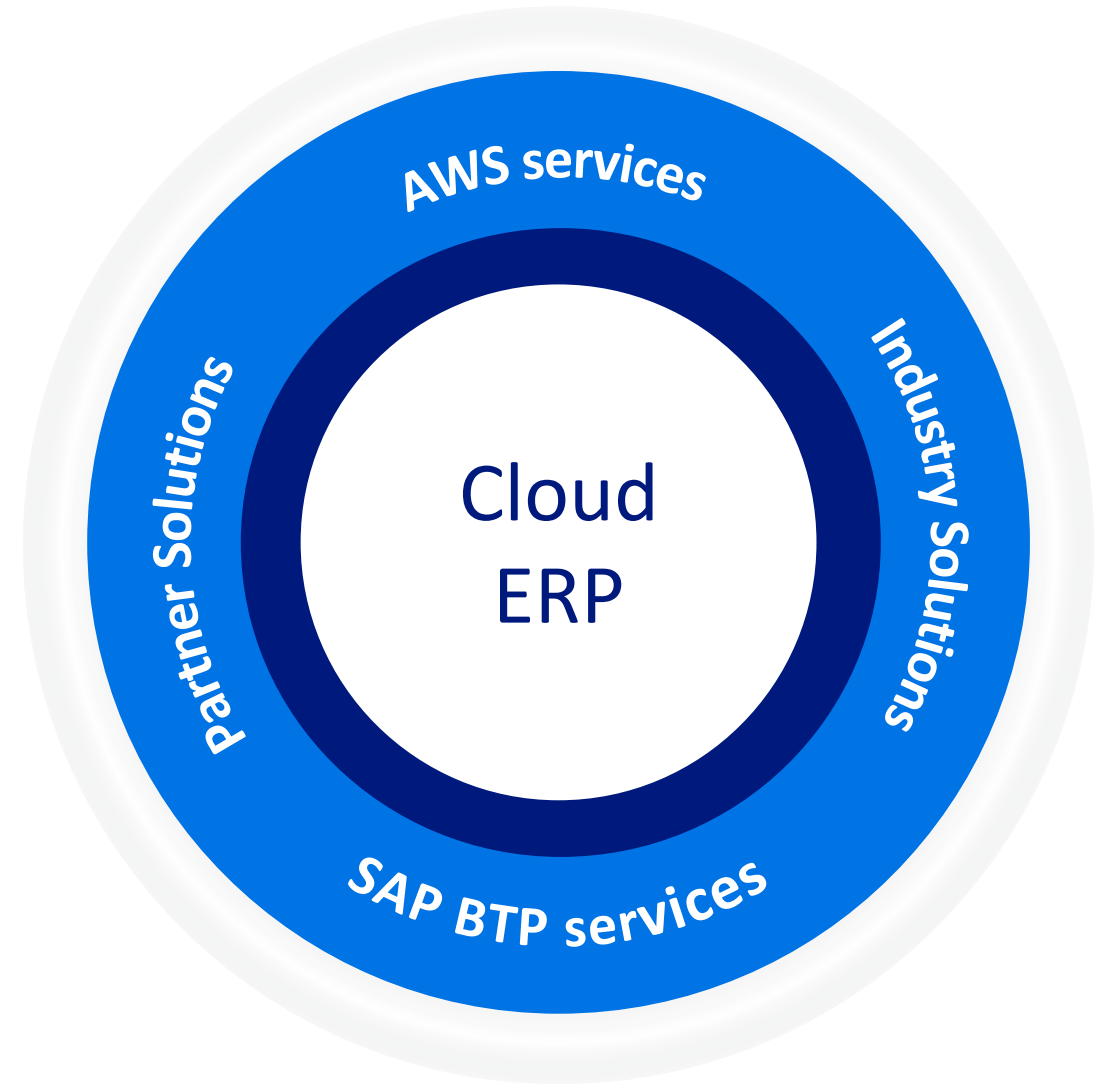


Per ISG 2023 Provider Lens Quadrant Report for SAP HANA Infrastructure Services

Proven architecture

Innovate faster with a clean core

Future-proof your business



Reimagine your business processes with AWS and SAP BTP

81

SAP BTP services run on AWS,
more than any CSP¹

200+

AWS services in analytics, IoT,
AI/ML, and more



1. As of November 2023: <https://discovery-center.cloud.sap/viewServices>

Innovate with the world's broadest and deepest set of cloud services

200+

**AWS services in
analytics, IoT, AI/ML,
and more drives new
innovation and
business value**



Amazon Bedrock



Amazon Polly



Amazon Transcribe



Amazon AppFlow



AWS IoT Analytics



Amazon Forecast



AWS DeepLens



Amazon Translate



Amazon Sumerian



AWS IoT Greengrass



Amazon Rekognition



Amazon Lex



AWS Lambda



Amazon API Gateway



AWS IoT TwinMaker



Amazon Lookout
for Equipment



Amazon Lookout
for Vision



AWS Wavelength



Amazon Kinesis



AWS IoT Core



Amazon Personalize



Amazon Textract



Amazon Location Service



Amazon EMR



AWS Ground Station

GENERALLY AVAILABLE

Amazon Bedrock

The easiest way to build and
scale generative AI
applications with foundation
models



Access a range of leading FMs through a single API



Privately customize FMs using your organization's data



Build agents that execute complex business tasks by dynamically invoking APIs

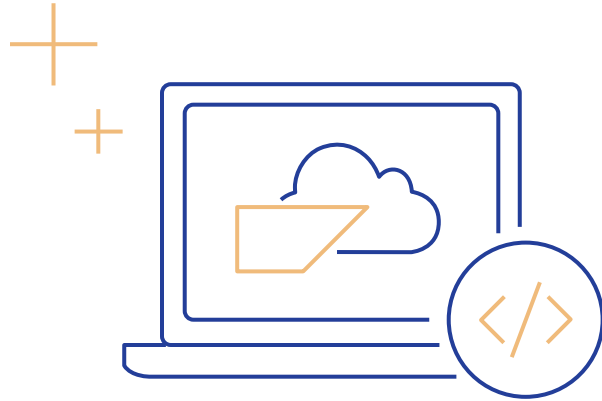


Extend the power of FMs with your data using Retrieval Augmented Generation (RAG)



Enable data security and compliance

Innovate faster with AWS SDK for SAP ABAP

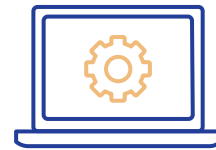


Makes it easy for ABAP developers to extend and transform SAP-based business processes by harnessing the power of AWS services natively using the SAP ABAP language.



Accelerate business process innovation

by giving ABAP developers access to all 200+ AWS services



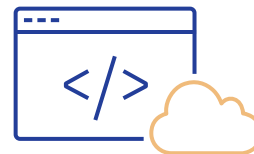
Reduce architectural complexity

by eliminating the need to manually create complex integrations between SAP and AWS services, in both **self-managed** and **RISE with SAP** deployments



Maintain a strong security posture

by encrypting all payloads with HTTPS and enforcing SAP-level permissions



Upskill ABAP development teams

by making it easy to for them to build cloud-based solutions

Join our workshop:

Transform your SAP Accounts Payable processes with AWS and generative AI

Wednesday, March 20, 2:30-4:30PM

Cezanne 1

Discover how the AWS SDK for SAP ABAP makes it easy to reinvent SAP-based business processes using 200+ AWS services, including the latest in generative AI.

Follow step-by-step as we automate a paper-to-post invoice management process utilizing generative AI, speeding up approvals, providing anomaly detection, reducing errors, and saving costs. Laptop required.



Beth Sharp

Worldwide Tech Lead
– SAP Modernization
Amazon Web Services



Krishnakumar Ramadoss

Sr. Specialist Innovation Architect
- SAP on AWS
Amazon Web Services



AV Vivekanandha

SAP Solutions Architect
Amazon Web Services

Wrap Up

- Love's Travel Stops migrated core SAP ERP applications to AWS, boosting **reliability, performance, security, and cutting costs** in the process.
- AWS is supporting Love's **SAP S/4HANA** transformation, **supply chain** optimization, and **AR automation** efforts.
- Maximize SAP performance and reliability with the most **extensive global cloud infrastructure** from AWS.
- Innovate with **200+ AWS** services via the **AWS SDK for SAP ABAP**, as well as **80+ SAP BTP services** running on AWS.

Where to Find More Information

youtube.com/watch?v=aLBPPxxNZFo

- Love's Travel Stops re:Invent 2022 presentation

aws.amazon.com/sap/

aws.amazon.com/sap/rise/

- Learn why AWS is the proven cloud to innovation for any SAP workload, including RISE with SAP

pages.awscloud.com/global-ln-gc-a4ea-sap-rise-ebook-learn.html

- Transform your business with AWS for RISE with SAP

aws.amazon.com/sdk-for-sap-abap/

- Download the AWS SDK for SAP ABAP



Key Points to Take Home

- Running SAP in the cloud is a **proven approach** to improving performance, reliability, cost-savings and more.
- Migration is **just the beginning**.
Modernizing unlocks further gains.
- **Automation enables productivity** and business scalability.
- Choosing the **right cloud provider** to support you on your journey is key.

Additional sessions

Visit AWS booth : #640

Additional Sessions



Date	Time	Session Type	Content Title	Room
March 19th	10:30AM-12:10PM	Sponsored	Best practices to save millions of dollars from business disruption on AWS	Da Vinci 4
March 19th	2:10-2:50PM	Customer	The Under Armour transformation: Secure and scale your business with AWS for SAP	Da Vinci 4
March 20th	10:30-11:10AM	Sponsored	Accelerate the move to SAP S/4HANA while protecting existing investments	Da Vinci 3
March 20th	10:30AM-12:30PM	Workshop	Modernize your SAP Accounts Payable reporting with an AWS Data Lake and AI/ML services	Cezanne 1
March 20th	11:30-11:50AM	Impact20	SAP Journey to Open Hybrid Cloud with Red Hat and AWS	Theater 1
March 20th	1:10-1:50PM	Customer	Love's Travel Stops' road to SAP modernization with AWS	Da Vinci 4
March 20th	2:10-2:50PM	Customer	Molson Coors' Journey to S/4HANA and AWS with Basis Technologies	Ballroom 3
March 20th	2:30-4:30PM	Workshop	Transform your SAP Accounts Payable processes with AWS and generative AI	Cezanne 1

Thank you! Any Questions?

Bob Armstrong

[Linkedin.com/in/bobarmstrong100/](https://www.linkedin.com/in/bobarmstrong100/)

Cristina Greysman

[Linkedin.com/in/cristinamartingreysman/](https://www.linkedin.com/in/cristinamartingreysman/)

Please remember to complete
your session evaluation.



SAPinsider.org

PO Box 982Hampstead, NH 03841
Copyright © 2024 Wellesley Information Services.
All rights reserved.

SAP and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP SE (or an SAP affiliate company) in Germany and other countries. All other product and service names mentioned are the trademarks of their respective companies. Wellesley Information Services is neither owned nor controlled by SAP SE.

**SAPinsider
comprises the
largest and fastest
growing SAP
membership group
with more than
800,000 members
worldwide.**
