



aws SUMMIT

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MIG301

Accelerate business process innovation with the AWS SDK for SAP ABAP

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Amazon Web Services

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Amazon Web Services



Agenda

Introducing the AWS SDK for SAP ABAP

Developer experience

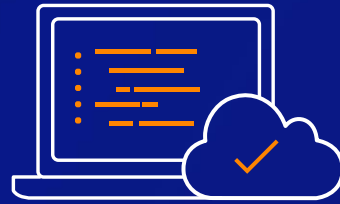
Example use case demo and reference architecture

Q&A

Customers innovate by combining SAP and AWS services



Business **process modernization** and re-invention are table stakes



Mission-critical **business processes** and **data** reside in SAP



200+ AWS services for nearly every imaginable use case including **IoT**, **AI/ML**, **analytics**, and more

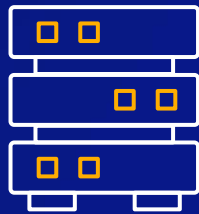
Introducing the AWS SDK for SAP ABAP



Why has integrating AWS services with SAP ABAP traditionally been difficult?



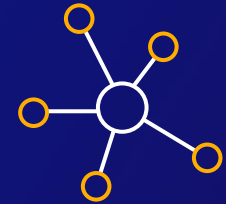
Security and authentication



Data formatting



Complex connectivity



Multiple point to point integration

Introducing the AWS SDK for SAP ABAP

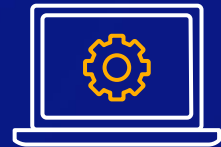


Makes it easy for ABAP developers to extend and transform SAP-based business processes by harnessing the power of AWS services using the SAP ABAP language



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

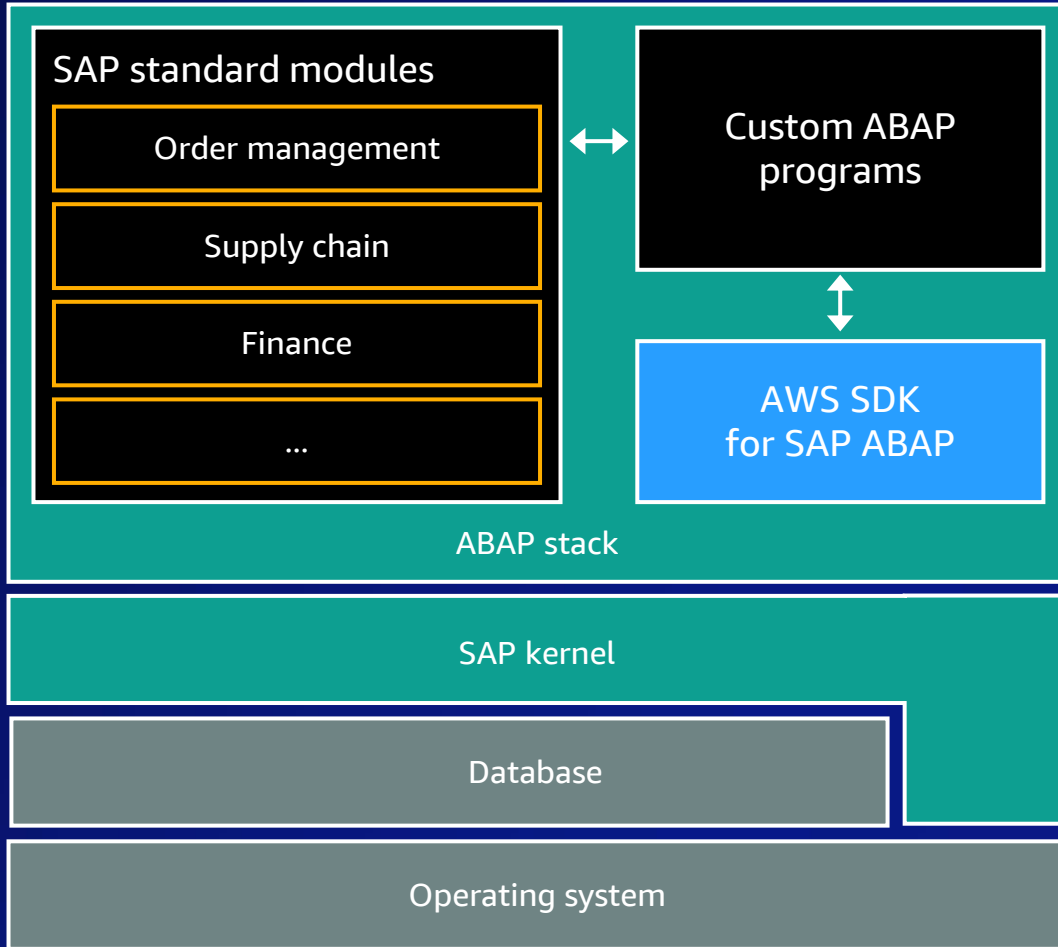
by encrypting all payloads with HTTPS and enforcing SAP-level permissions



Upskill ABAP development teams

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

High-level architecture



SAP ABAP based applications
(SAP S/4HANA, ECC, CRM, etc.)

Rest APIs



Unlock innovation potential with AWS services

MORE SERVICES AND MORE FUNCTIONALITY WITHIN THOSE SERVICES

200+

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



Amazon SageMaker



Amazon Polly



Amazon Transcribe



Amazon AppFlow



AWS IoT Analytics



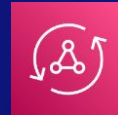
Amazon Forecast



AWS DeepLens



Amazon Translate



AWS AppSync



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



What can you build with AWS SDK for SAP ABAP?

Intelligent document processing

with Amazon Textract, Amazon Translate, and Amazon SNS



Secure file transfer

with AWS Transfer Family and Amazon S3



Language translation

with Amazon Translate



Address correction

with Amazon Location Service



Event-driven architecture

with Amazon Simple Queue Service and Amazon Lambda



Syntax accelerates SAP transformation with “game-changer” AWS SDK for SAP ABAP



As a CTO, I am thrilled with the potential the AWS SDK for SAP ABAP has to transform the SAP industry. It is not just a technological breakthrough but a game-changer that immensely benefits our SAP customers. Now, **businesses can quickly streamline their operations and enrich their business processes by leveraging the world’s best-class cloud services.**

Marcelo Tamassia

Chief Technology Officer, Syntax



Developer experience



Developer experience

TRY.

```
DATA(lo_file) = lo_s3->getobject(  
  iv_bucket = iv_bucket_name  
  iv_key = iv_object_key  
).
```

```
parse_excel( lo_file->get_body( ) ).
```

```
CATCH /AWS1/CX_S3_INVALIDOBJECTSTATE INTO DATA(lo_ex) .
```

```
" need to pull from glacier first
```

```
CATCH /AWS1/CX_S3_NOSUCHKEY INTO DATA(lo_ex2) .
```

```
" handle file not found
```

ENDTRY.

Pull a file from Amazon S3 with a simple ABAP method call

Process the data using your own business logic

Handle errors in an idiomatic way, with ABAP exceptions

Team roles and responsibilities



IAM admin

Create IAM roles granting SAP access to AWS APIs



Basis admin

Import SDK transports

Technical prerequisites



SAP security

Map SDK profiles to IAM roles

Authorize SDK profiles in PFCG roles

Assign PFCG roles to users



SAP ABAP dev

Enhance business processes using ABAP and the SDK



AWS SDK for SAP ABAP

ABAP code invokes SDK profiles

SAP security checks (PFCG roles)

AWS security checks (IAM roles)

AWS service invocation

SAP trace files

AWS telemetry

Continuous improvement

AWS SDK for SAP ABAP supports 200+ services

- Up to daily service updates
 - New service features
 - Service definition bug fixes
- AWS SDK for SAP ABAP runtime updates
 - Features
 - Bug fixes
 - Packaging improvements

AWS SDK for SAP ABAP

Runtime

- Configuration
- Security
- Trace
- Metadata client

API Modules

- 200+ services
- 300+ APIs

Release strategy

AWS SDKs commit to non-breaking changes within the same version

- SDKs can have multiple versions:
 - Javascript SDK v1, Javascript SDK v2, Javascript SDK v3
 - Java SDK v1, Java SDK v2
 - ABAP SDK v1 (namespace /AWS1/)
- Within ABAP SDK v1, minor version updates represent new SDK features
- Daily builds (1.x.y) represent bug fixes and service changes

Release strategy (cont'd)

The ABAP SDK lifecycle:

- **Installation** – import transports
- **Patch** – import latest transports (overwrite)
- **Uninstallation (new!)** – import “deletion” transports

Transports are cumulative:

- To ensure you have the latest runtime features, API clients, and bug fixes, just import the latest transports

Intelligent document processing demo



Intelligent document processing

Document processing is essential to business, serving as a primary tool in many mission-critical processes in industries as varied as finance, insurance, medical, legal, and more

Benefits of intelligent, automated processing:

- Faster processing time
- Improved accuracy
- Lowered personnel costs



Document processing can be challenging and error prone

EXISTING APPROACHES FAIL TO MEET REQUIREMENTS OF LEADING BUSINESSES



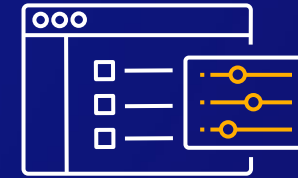
Manual processing

Manual approach is expensive, error-prone, and time consuming. Limits business velocity, delays payments and resolutions.



Optical character recognition

Applicable to simple documents only. Often error prone and returns unstructured text.



Rules and template-based extraction

Limited by OCR accuracy and requires development and management overhead. Rigid templates can be brittle, breaking at minor changes.

Intelligent document processing

WITH AMAZON Textract, AMAZON TRANSLATE, AMAZON SNS, AND THE AWS SDK FOR SAP ABAP

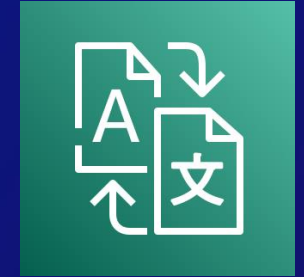
Working within your SAP environment, AWS services can help you gain additional intelligence from your documents and automate time-consuming document processing

AWS advantage:

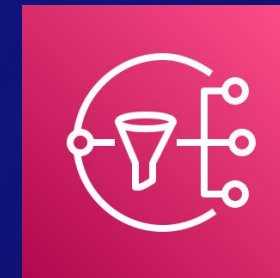
- Integrate Amazon Textract, Amazon Translate, and Amazon Simple Notification Service (SNS) into SAP processes using familiar ABAP code
- Extract key insights and translate as needed with high accuracy from virtually any document
- Notify users with automated alerts
- Full Amazon intelligent document processing solution delivers 73% ROI¹



Amazon Textract



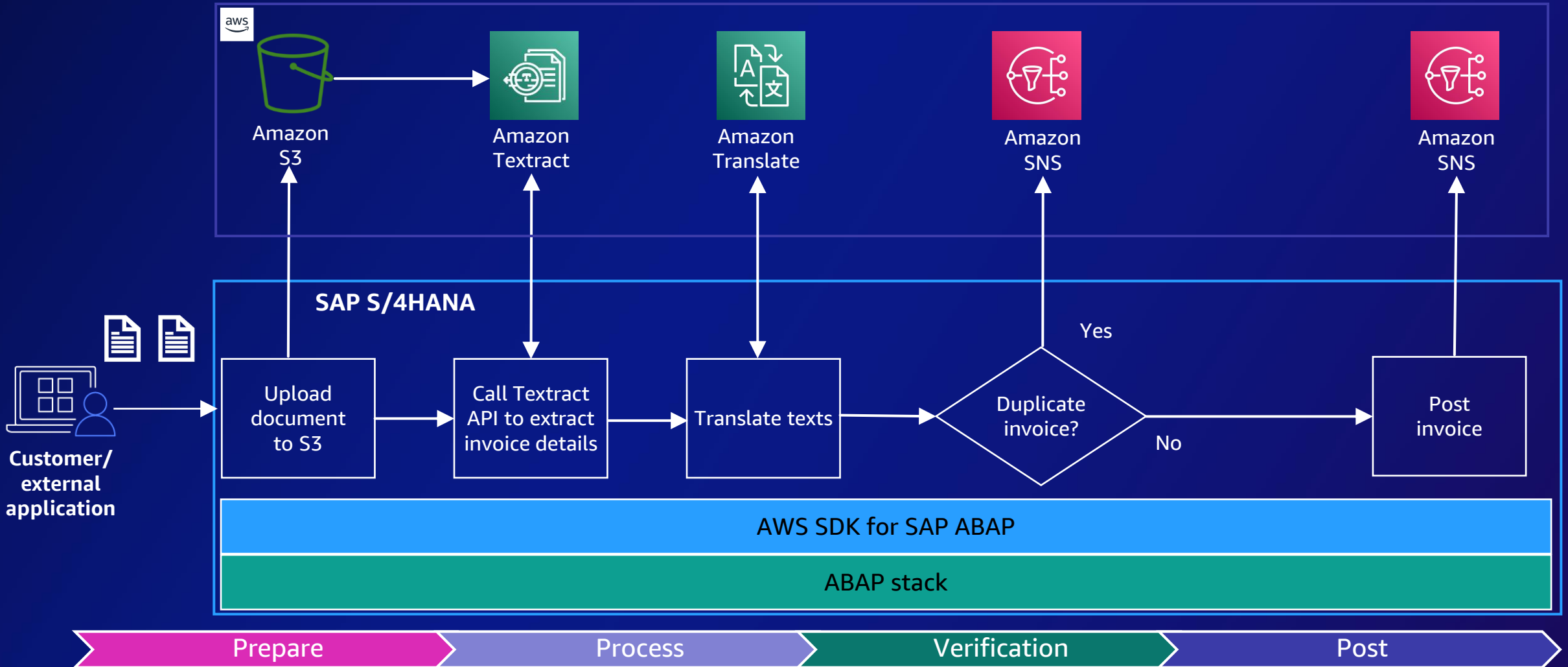
Amazon Translate



Amazon Simple Notification Service

1: <https://pages.awscloud.com/GLOBAL-In-GC-400-ML-TEI-Forrester-Report-Learn.html>

Document processing using Amazon Textract



Demo



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Q&A



Getting started



Next steps

1. Download the SDK and install it in your sandbox SAP system
2. Read the Getting started with the AWS SDK for SAP ABAP Blog
3. Read the Developer Guide to learn about the capabilities and how to use them
4. Develop your own proof of concept



<https://aws.amazon.com/sdk-for-sap-abap/>



<https://aws.amazon.com/blogs/awsforsap/getting-started-with-aws-sdk-for-sap-abap/>

Join our SAP Innovation Hackathon Event

HARNESS THE POWER OF AWS CLOUD SERVICES FROM THE CORE OF SAP SYSTEMS

Why attend

- Convert use case ideas into prototypes
- Collaborate with experts, partners, and AWS customers
- Explore innovative solutions with 200+ AWS and BTP Services
- AWS SDK with SAP ABAP, AWS Supply Chain, and analytics
- Win exciting prizes

Event details

- Date: Week of October 10th–12th, 2023
- Location: AWS HQ2 (WAS13), 510 14th St S., Arlington, VA

Registration

- Scan the QR code for the Registration page



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Your time is now

Build in-demand cloud skills *your way*



Thank you!

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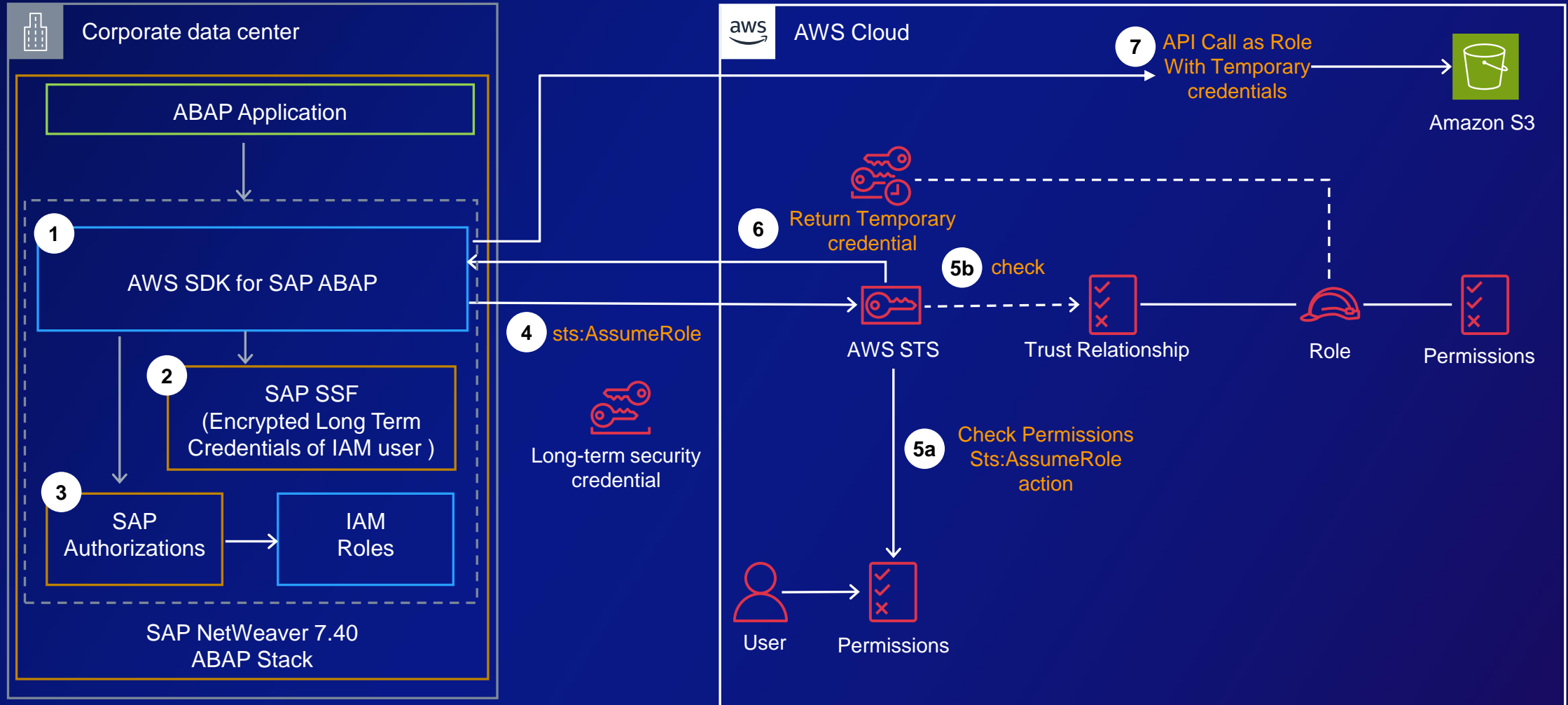
Appendix



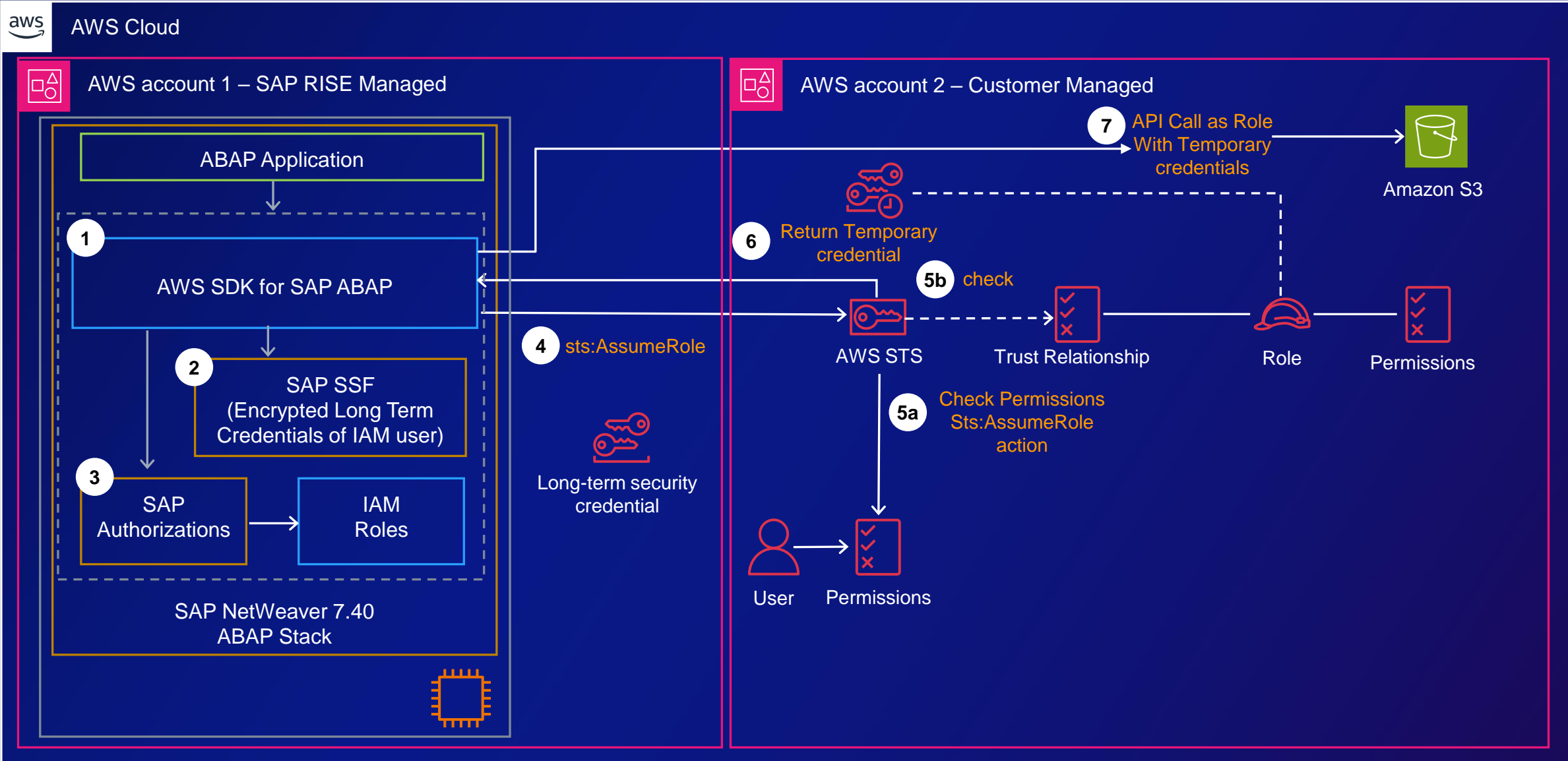
Authentication patterns



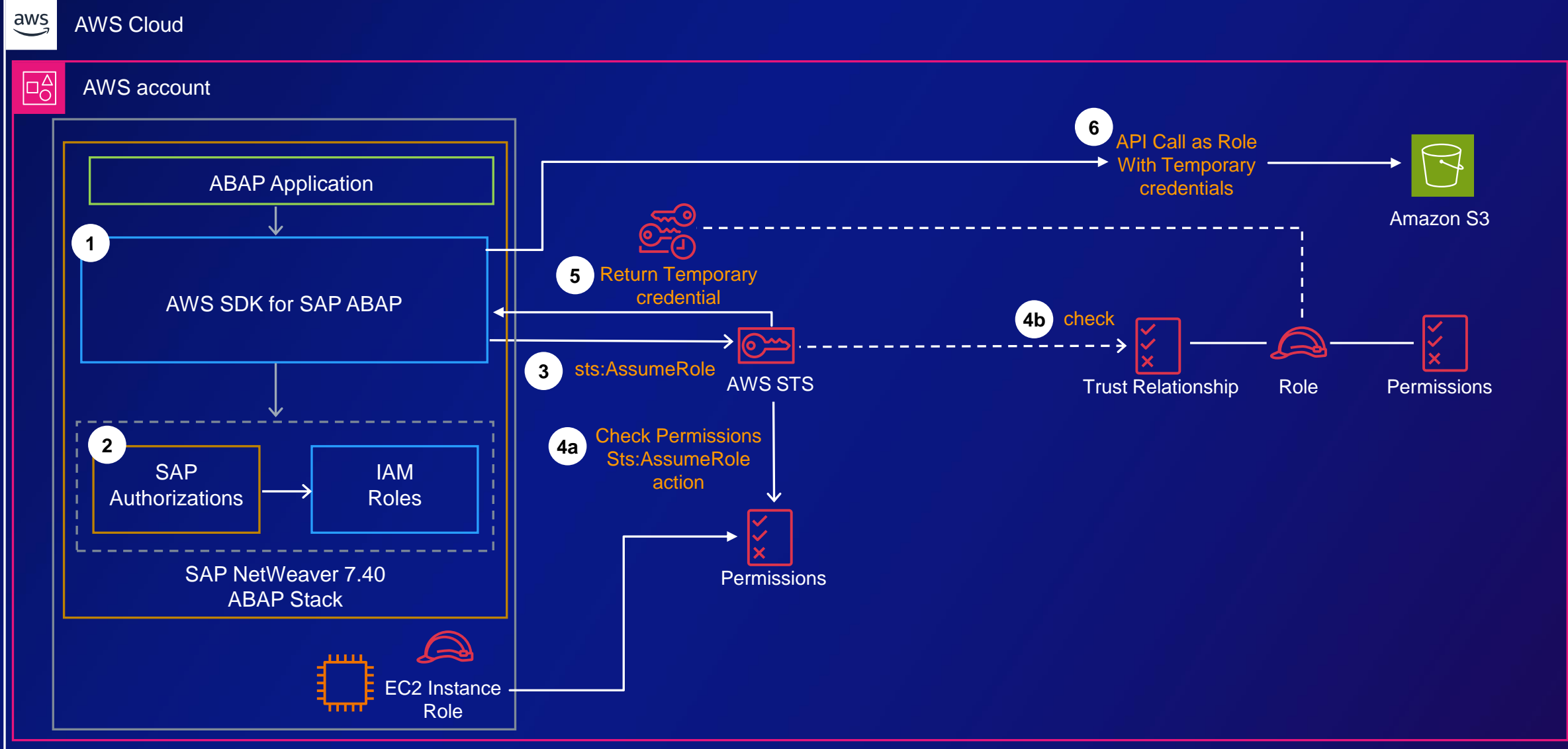
SAP running on-premises



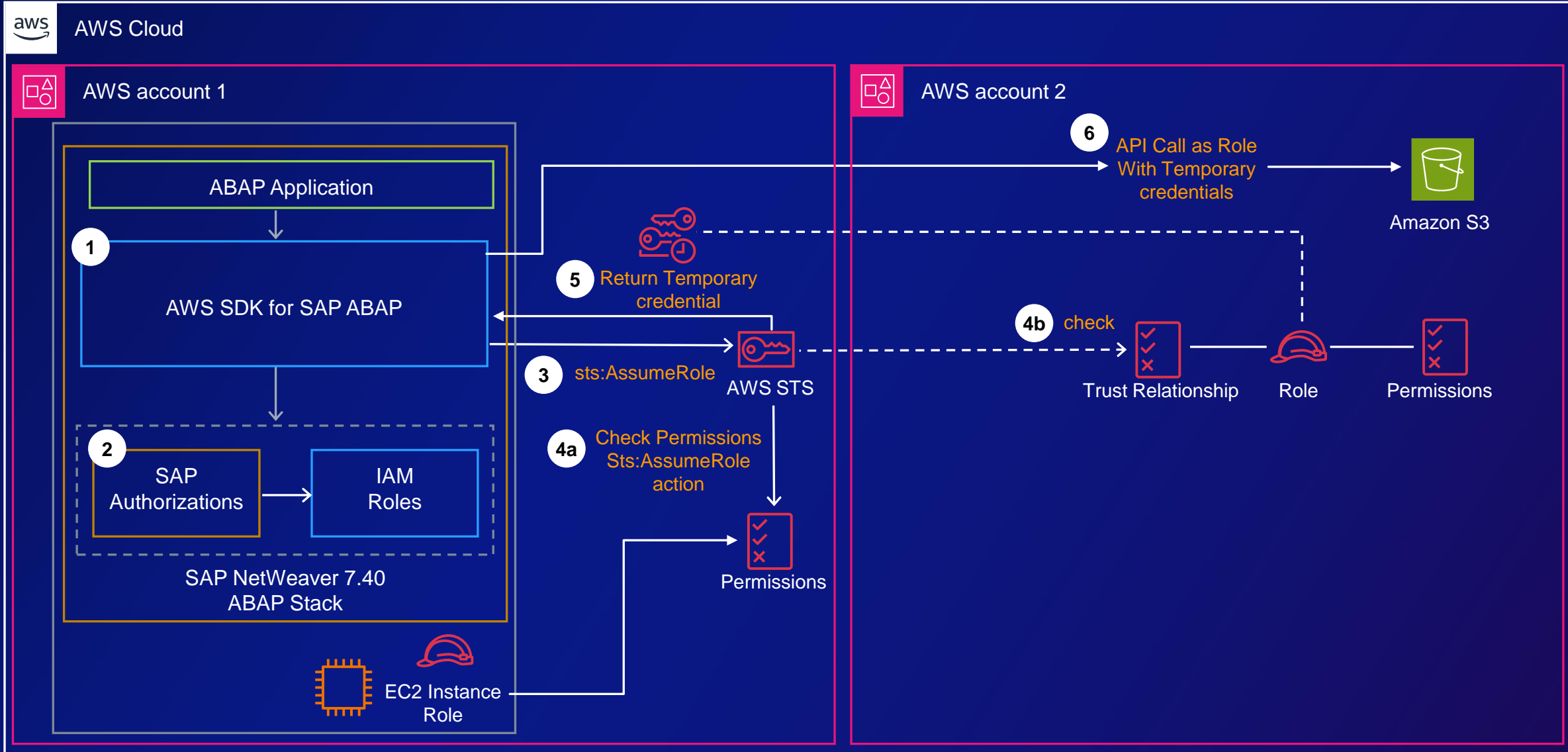
SAP running on RISE with SAP



SAP running in AWS – single account



SAP running in AWS – multi-account



Language translation



Language translation

In today's interconnected world, language translation is an empowering tool, helping individuals of different cultures and languages understand one another

Benefits of automated machine translation:

- Facilitate communication with customers, partners, and employees worldwide
- Enter new markets in multiple countries
- Translate large volumes of text or respond to on-demand translation needs with minimal effort



Language translation

WITH AMAZON TRANSLATE AND THE AWS SDK FOR SAP ABAP

Amazon Translate is a neural machine translation service that delivers fast, high-quality, affordable, and customizable language translation. With Amazon Translate, you can localize content and activate cross-lingual communication.

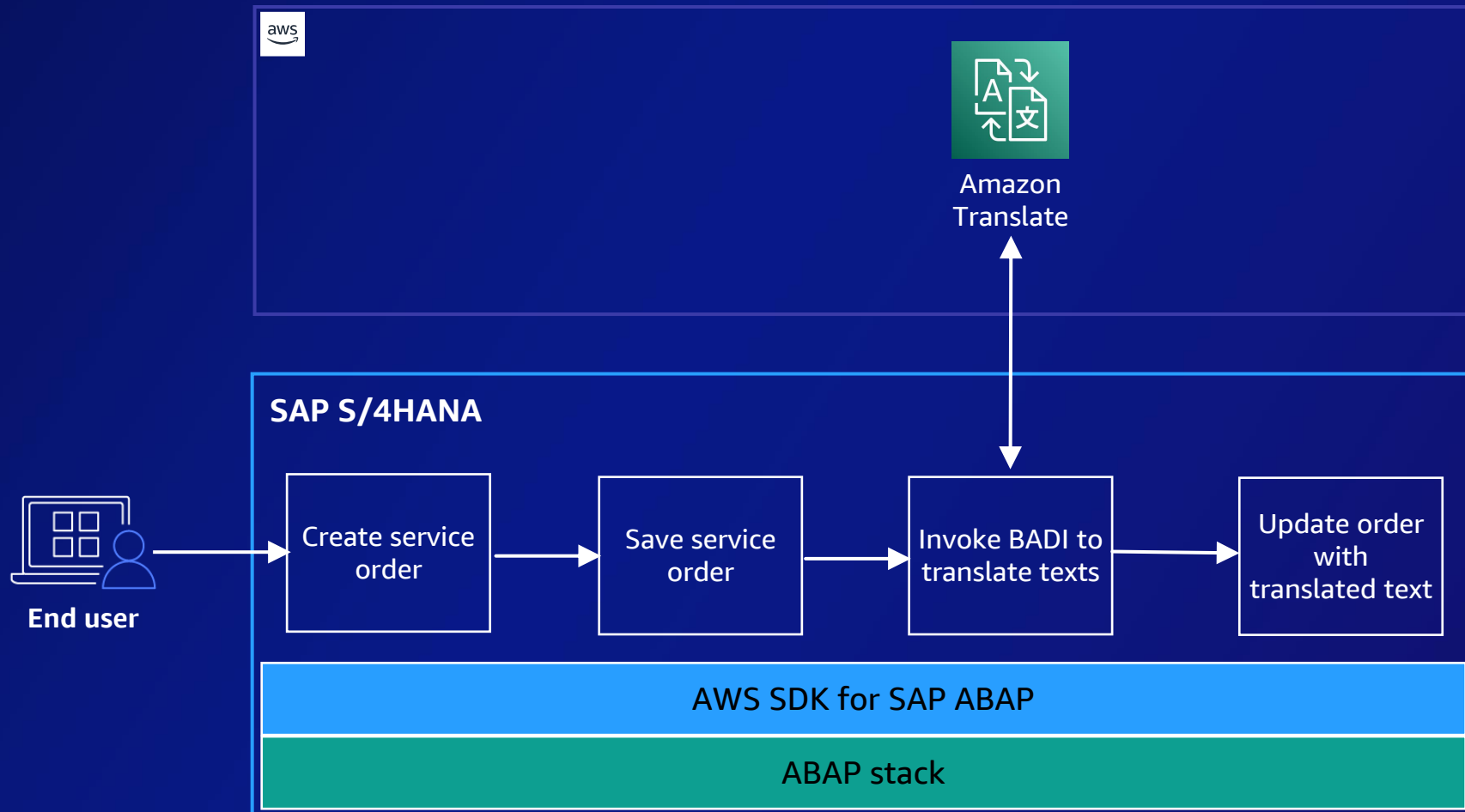
AWS advantage:

- 5,550 supported language combinations
- Build batch and real-time translation into applications with a single API call
- Add real-time translation within chat, email, helpdesk, and ticketing applications
- Analyze sentiment using an application that analyzes text in multiple languages

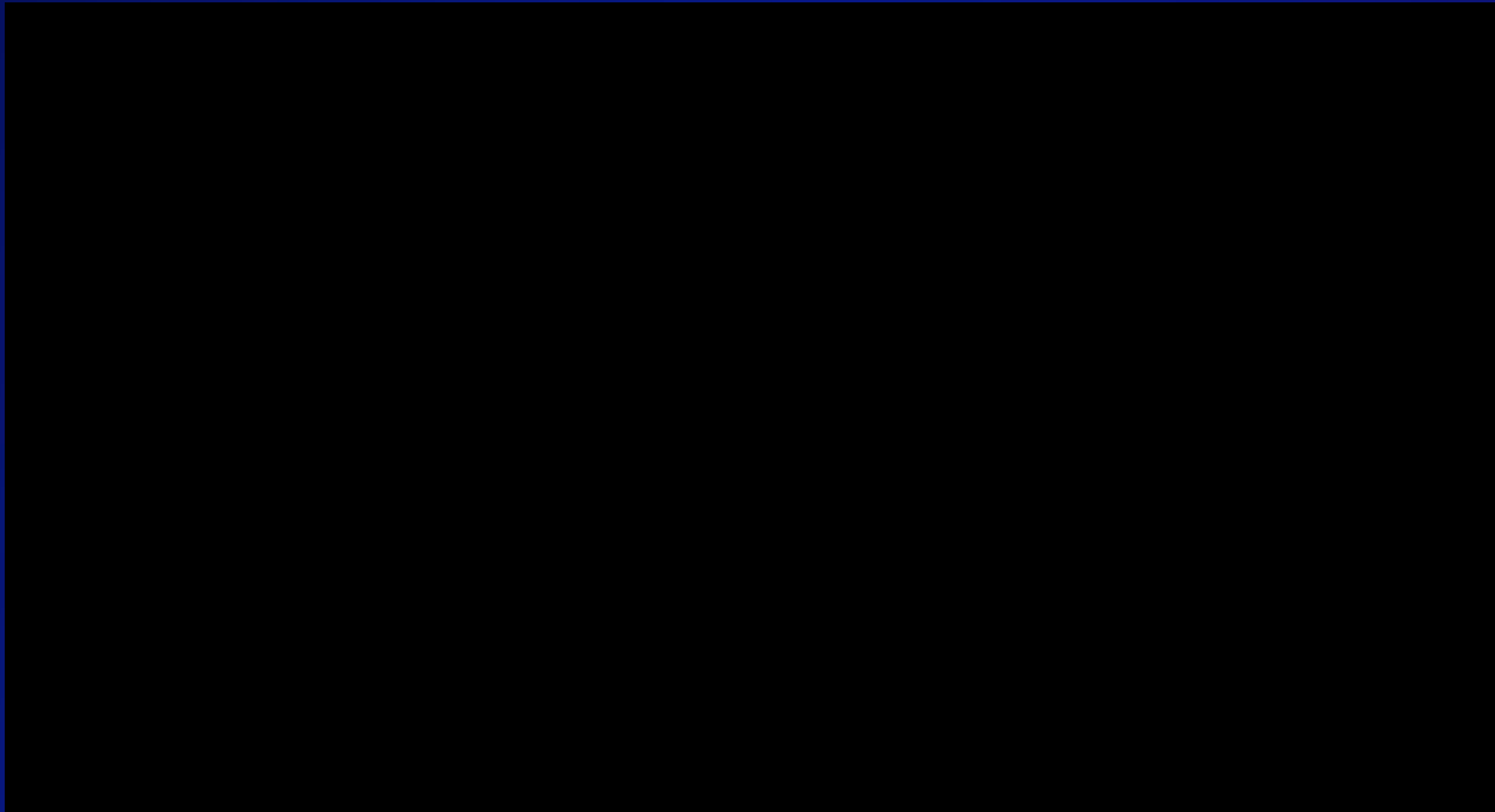


Amazon Translate

Language translation with Amazon Translate



Language translation demo



Address correction



Address correction

Ensuring accurate addresses is key to financial transactions, shipping and logistics, sales and marketing activities, and other geotargeting applications

Benefits of automated address correction include:

- Eliminating costly shipping and financial errors
- Lowering costs for manual investigation and correction
- Preserving data quality



Address correction

WITH AMAZON LOCATION SERVICE AND THE AWS SDK FOR SAP ABAP

Integrating with your SAP environment via AWS SDK for SAP ABAP, Amazon Location Service makes it easy for developers to add location functionality to their applications without sacrificing data security and user privacy

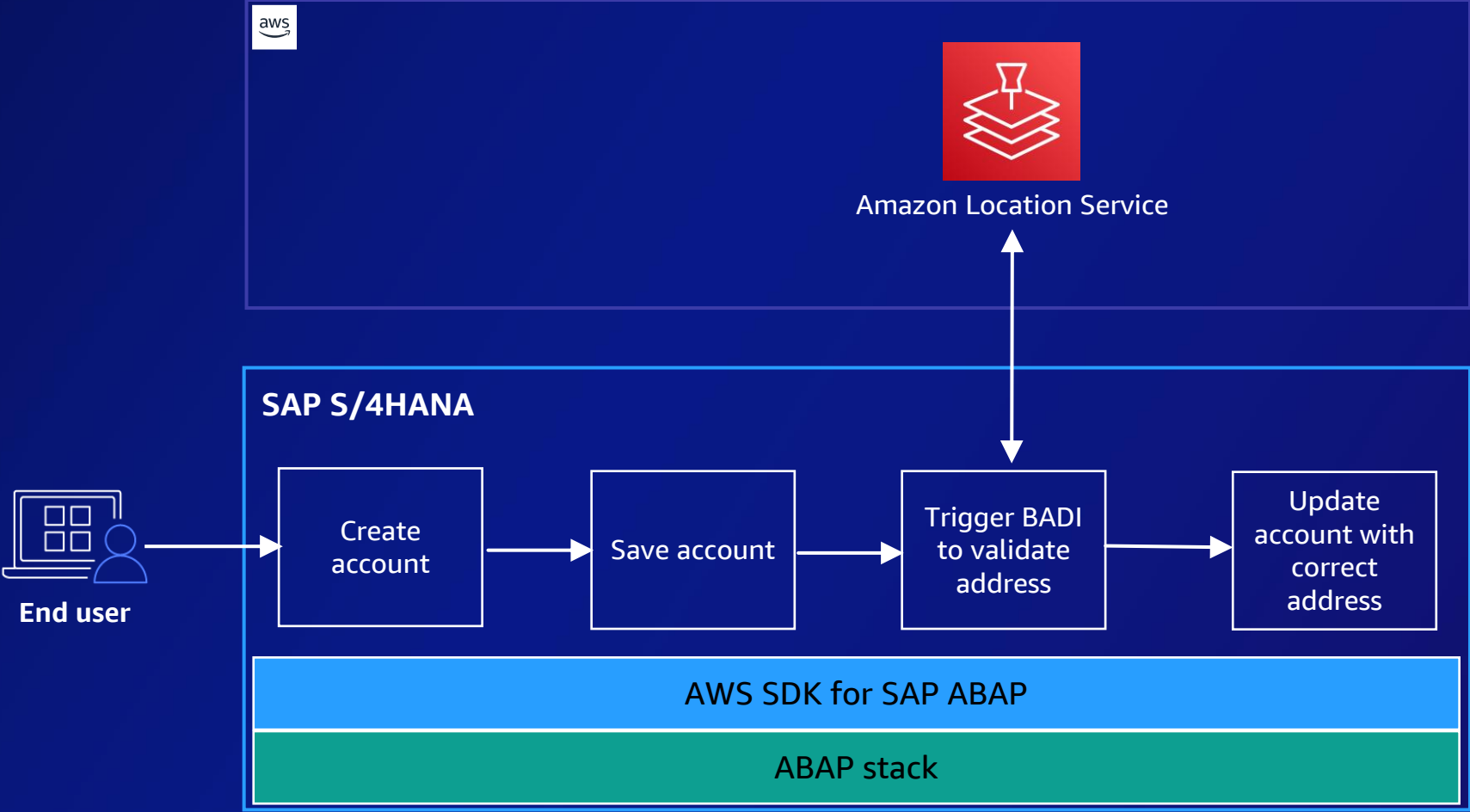
AWS advantage:

- Integrate Amazon Location Service into SAP processes using familiar ABAP code
- Access cost-effective, high-quality geospatial data from trusted data providers
- Add maps, points of interest, geocoding, routing, tracking, and geofencing with ease



Amazon Location Service

Address correction with Amazon Location Service



Address correction

