



# Connecting the Intelligent Enterprise with SAP Integration Suite

Kevin Wu, SAP Solution Advisor  
March 28, 2023



# Agenda

## Why BTP

- Business Technology Platform Overview

## Integration Suite Overview

- Services and Use Cases

## Demo

- SAP API Business Hub
- Intelligent Invoicing

## Advanced Event Mesh

- Event Driven Architecture

## Roadmap

- Priorities Moving Forward



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## Why SAP BTP

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# Intelligent Enterprises are Integrated Enterprises

- Integration in the cloud is a key pillar of SAP's Strategy
- A strategic corporate priority for SAP Executive leadership



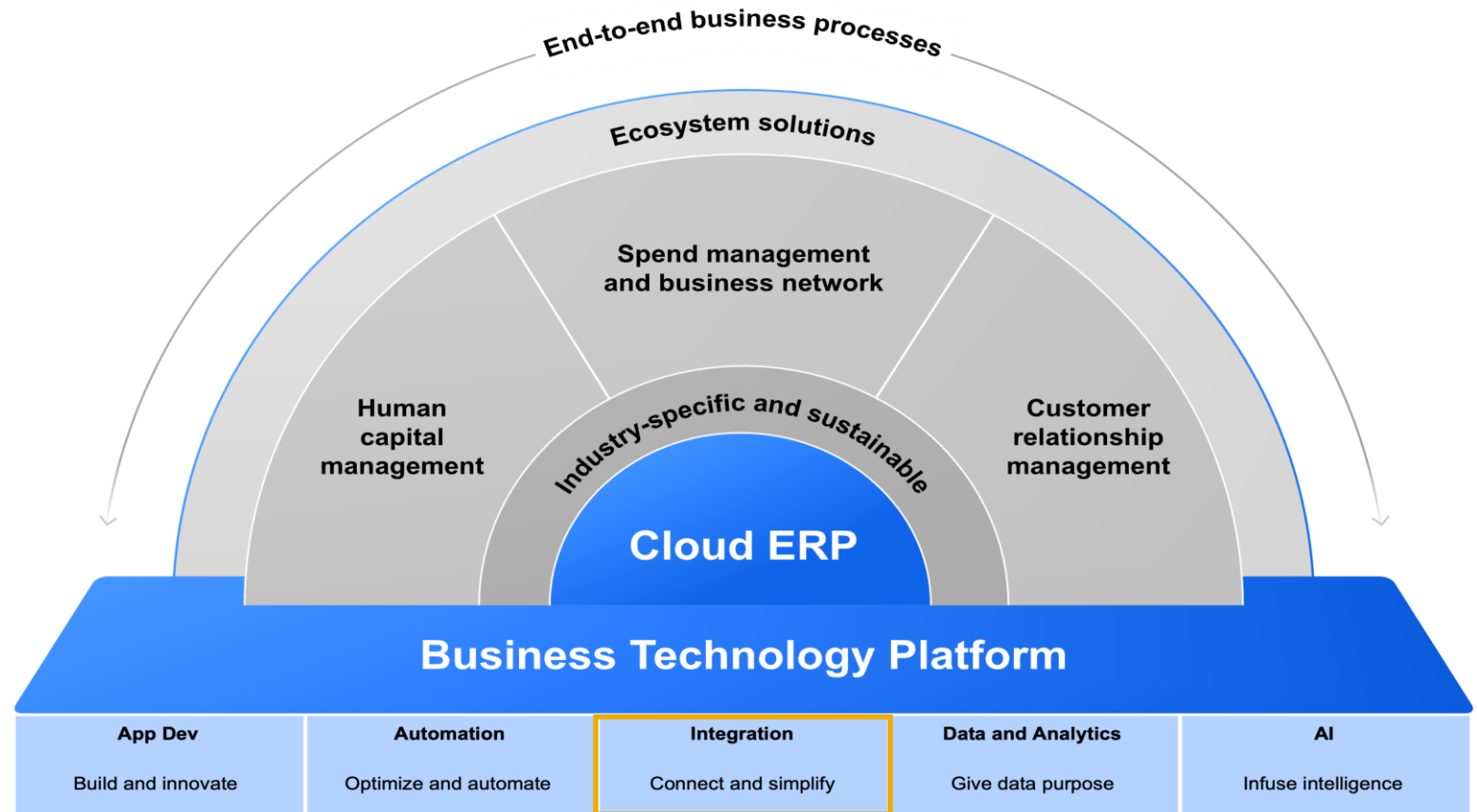
**Christian Klein**  
CEO, SAP



**Jürgen Müller**  
CTO & Member of the Executive Board Technology & Innovation



**Thomas Saueressig**  
Member of the Executive Board  
SAP Product Engineering



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## Integration Suite

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# Integration has become the key enabler for intelligent enterprises

Accelerate business outcomes with simplified integration

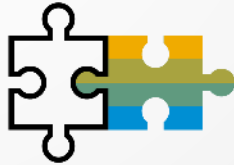


Holistic  
integration

## Versatile, multi-cloud platform

Support all types of integration use cases required in cloud and hybrid landscapes

Open  
integration



## Integrate anything, anywhere

~3.600 APIs and 200+ connectivity options for third-party solutions and custom extensions by SAP and partners



Out-of-the-box  
integration

## Accelerated time to value

Mission critical business processes with pre-defined 2.800+ integrations for cloud and on premise

AI-Driven



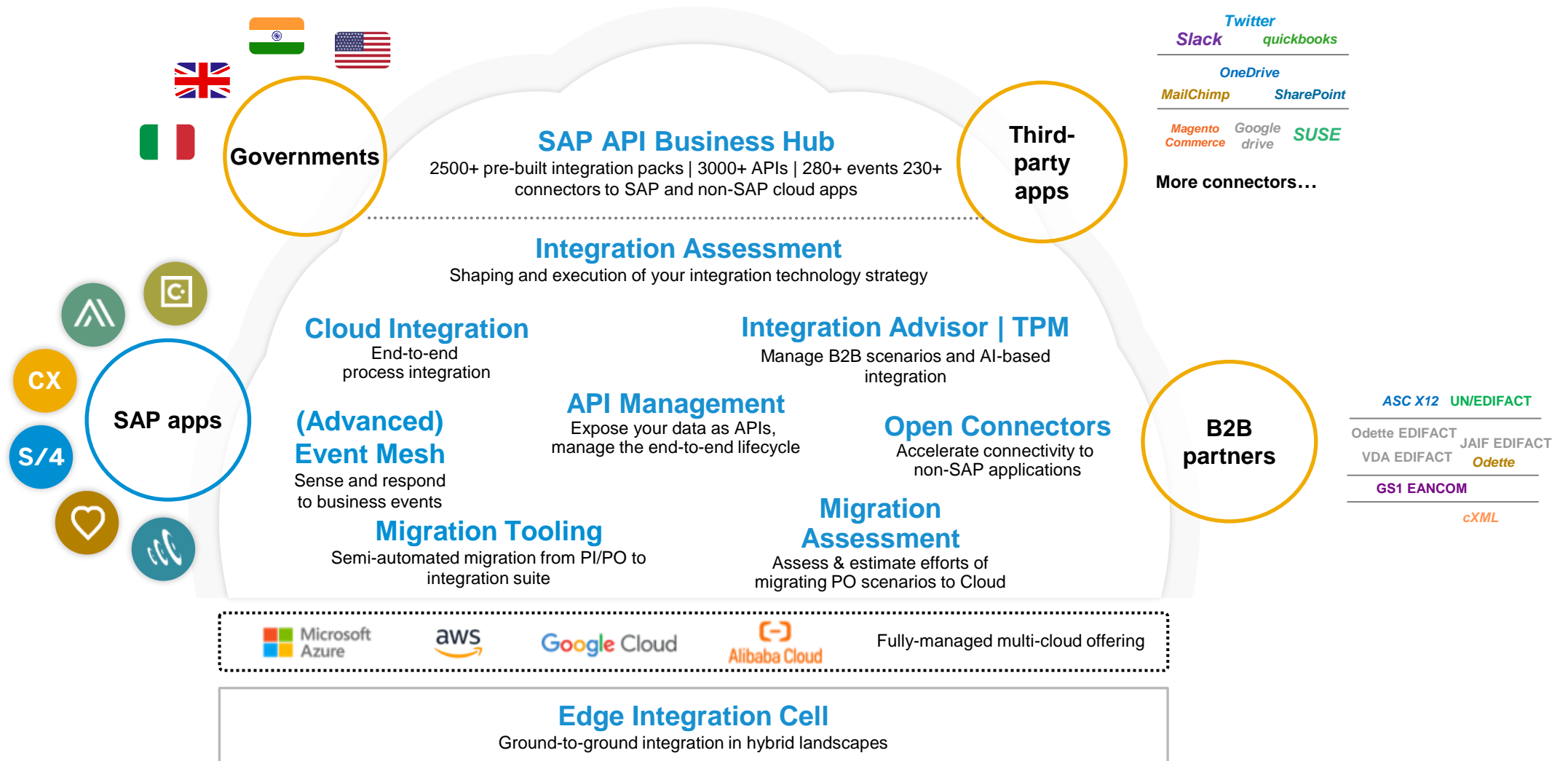
## AI-assisted to speed integration

Accelerate the speed of intelligent integrations to attain desired business outcomes



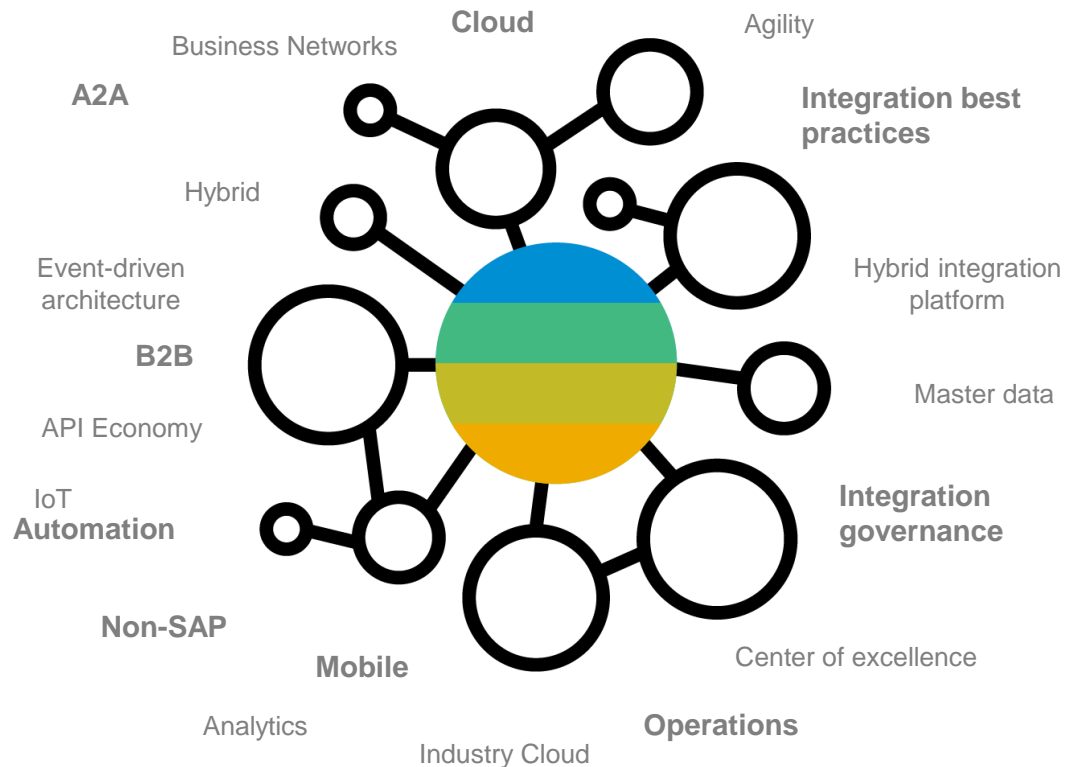
# SAP Integration Suite

SAP's hybrid integration platform for the Intelligent Enterprise



# Use Cases

## Fast evolving hybrid landscapes



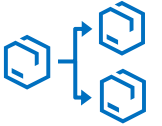
### A2A integration

Chaining of business process steps between business applications by the exchange of transactional data



### Master data integration

API-based exchange of master data across business applications



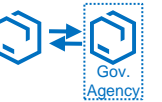
### B2B integration

Chaining of business process steps between business partners by the exchange of transactional data leveraging standard B2B protocols



### B2G integration

Transforming transactional data into predefined exchange formats and transfer it electronically to external legal or tax authority systems



### API-managed integration

Provisioning of omni-channel and secure access to business applications



### Event-based integration

Decoupling of applications, extensions or IoT data by messaging principles (pub/sub)



### Digital integration hub

Large-scale, high-throughput APIs



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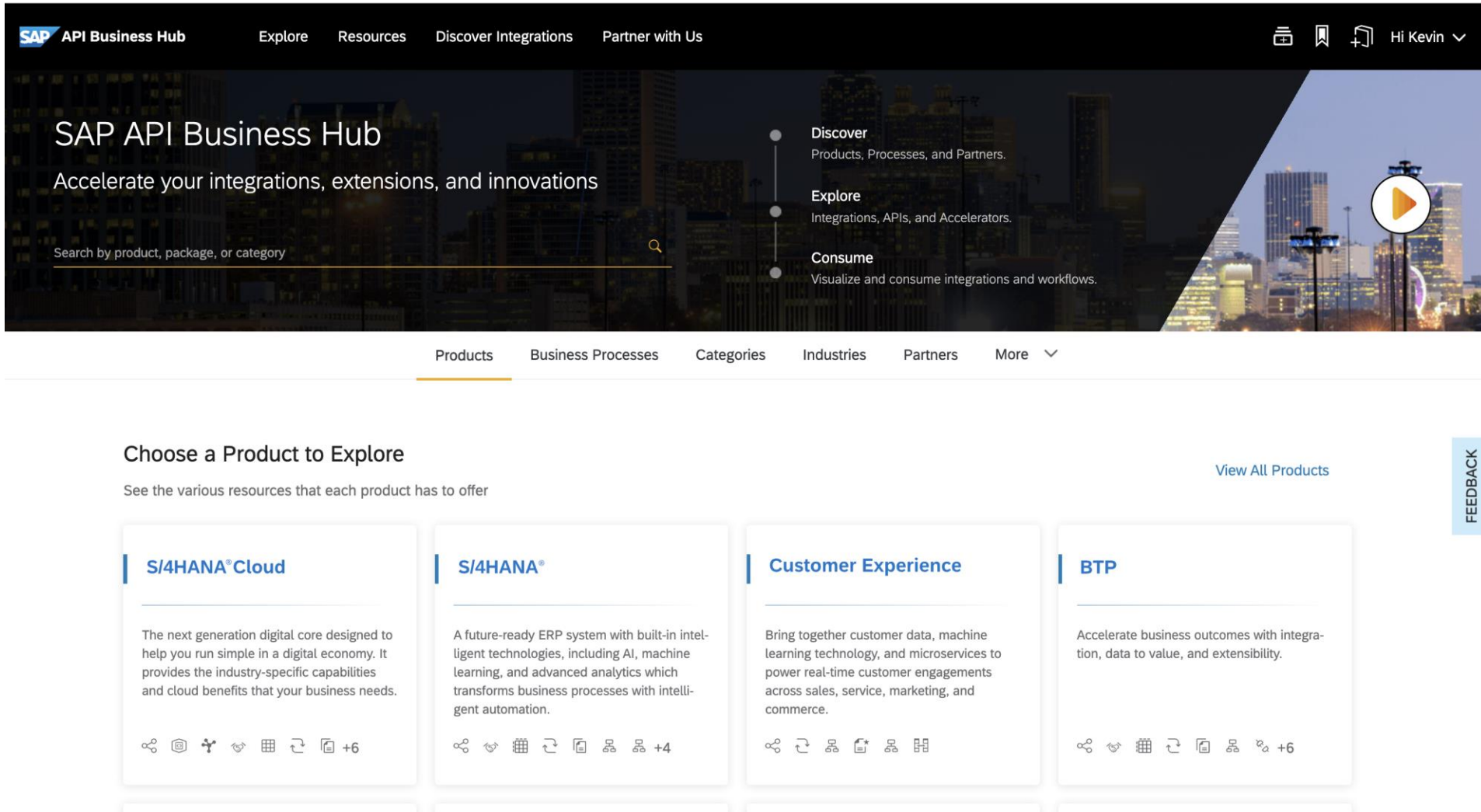
Demo

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# API Business Hub

## Comprehensive pre-built content for integrations ready to use



# API Business Hub

Comprehensive pre-built content for integrations ready to use

API Business Hub

ExploreResourcesDiscover IntegrationsPartner with Us

Discover Integrations

Find integration package

Integrations between S/4HANA and SuccessFactors

View all Integrations

Integration Package

SAP SuccessFactors Learning and SAP ERP Financials Integration

Post course fee for completed learning transactions between SuccessFactors Learning and SAP ERP Financials, or for on-premise S/4 HANA Finance.

SAP ERP S/4 +1 2

Integration Package

SAP ERP or SAP S/4HANA Integration with SAP SuccessFactors Employee Central: Cost Center

Replicate cost center data from SAP ERP or SAP S/4HANA to SAP SuccessFactors Employee Central

S/4 SAP ERP +1 2

Integration Package

SAP SuccessFactors Employee Central Integration with SAP ERP or SAP S/4HANA: Employee Data

Replicate employee master data from SAP SuccessFactors Employee Central to SAP ERP or SAP S/4HANA

S/4 SAP ERP +1 1

Integration Package

SAP Build Process Automation

Integration Package

SAP SuccessFactors Employee Central Integration with SAP ERP or SAP S/4HANA: Organizational Data

Replicate organizational objects and employee organizational assignments from SAP SuccessFactors Employee Central to SAP ERP or SAP S/4HANA

S/4 +1 2

Integration Package

SAP S/4HANA Integration with ServiceNow API

Abusiness package delivers iflow to create a ticket in the ServiceNow application. ServiceNow Access variable is externalized and must be maintained by the user.

S/4 +1 1

Integration Package

SAP SuccessFactors Employee Central Integration with SAP ERP or SAP S/4HANA: Push Notification

Use the push notification for employee master data replication from SAP SuccessFactors Employee Central to SAP ERP or SAP S/4HANA

S/4 SAP ERP +1 1

Overview

Replicate cost centers from SAP ERP or SAP S/4HANA to SAP SuccessFactors Employee Central

Version: 9.0.0

Last Modified: 29 Mar 2022

Type: Integration Flow

Integration SAP-to-SAP

Documents (3)

Integration Guide: Replicating Cost Centers from SAP ERP to Employee...

Version 2.5.0

SAP SuccessFactors Release Information

Version 1.0.0

Change Log

Version 1.0.0

SAP to S/4HANA Cost Center Replication

Integration Flow

Start SAP\_ERP IDOC Set Properties Log Externalized Parameters Router Perform Consistency Checks Split the Data Payload Check to Add Inactive Records Add Inactive Record Mapping Cost Center Fields Router Log Intermediate Message Transform Language Fields and CompanyID Log Log Final Outbound Message Base IDoc Headers for Response Check to Log Outbound Message Send to EC SuccessFactors S/4HANA\_EC

Check Response for Errors Log Response Message Write Response Message Header Check to Log Response Message

End

# Business Problem – Manual non-PO Invoice Posting

## Demo Scenario

Mark



- Non PO invoice are hard to assign a GL account
- Takes too much time to do it
- Higher workloads in non valuable tasks
- Higher error prone



- Supplier sends non-PO invoice via email
- Accountant downloads the pdf and start reviewing its data manually over and over again
- Manually enters the invoice data into the S/4HANA system, causing error prone and bottlenecks in the AP process
- Manually sends the Document number back to the user of the posted invoice



# Intelligent non-PO Invoice Creation

## Demo Scenario

### Benefits:

- Minimization of repetitive tasks
- Reduction of manual errors and therefore rework
- Focusing your talent on value-added tasks



- Supplier sends non-PO invoice via email



- Integration Suite connects Outlook email with SAP S/4HANA via iFlow



- SAP AI Business Service:
  - SAP Document Information Extraction extracts invoice description details
  - SAP Invoice Object Recommendation uses ML to suggest a GL account



- Posts the Invoice into S/4HANA system
- Sends the Document number back to the user of the already posted invoice.

# INVOICE

Receipient Address:

Werner GmbH & Co.

Stahlgruber Ring 7A  
10232, Berlin  
Deutschland

Sender Address:

Best Run Company

200 Doe Street, DoeCity, NY USA  
Phone: +1 234567-9876  
Email: johndoe@sampleto.com

DOCUMENT DATE: 19.03.2020

DOCUMENT NUMBER: INVBM02

MATERIAL NO.	DESCRIPTION	QUANTITY	UNIT PRICE	LINE TOTAL
SG-LAPTOP	Laptop	001	750	750

Subtotal	750.00
Sales Tax	0.00
Shipping	0.00
Total	750.0

Run Steps (34)

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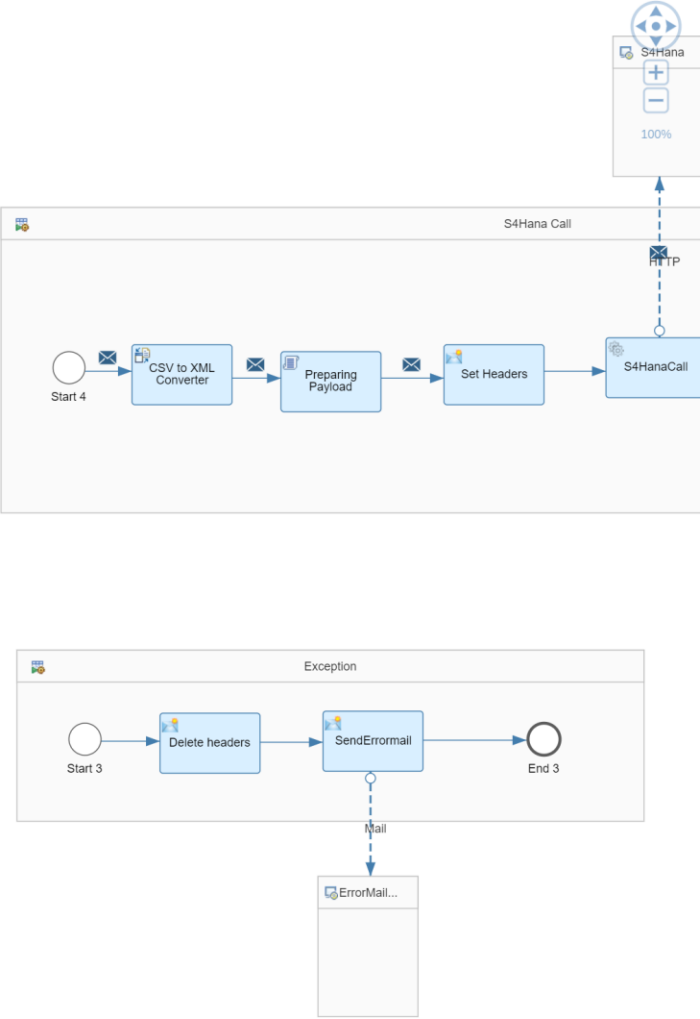
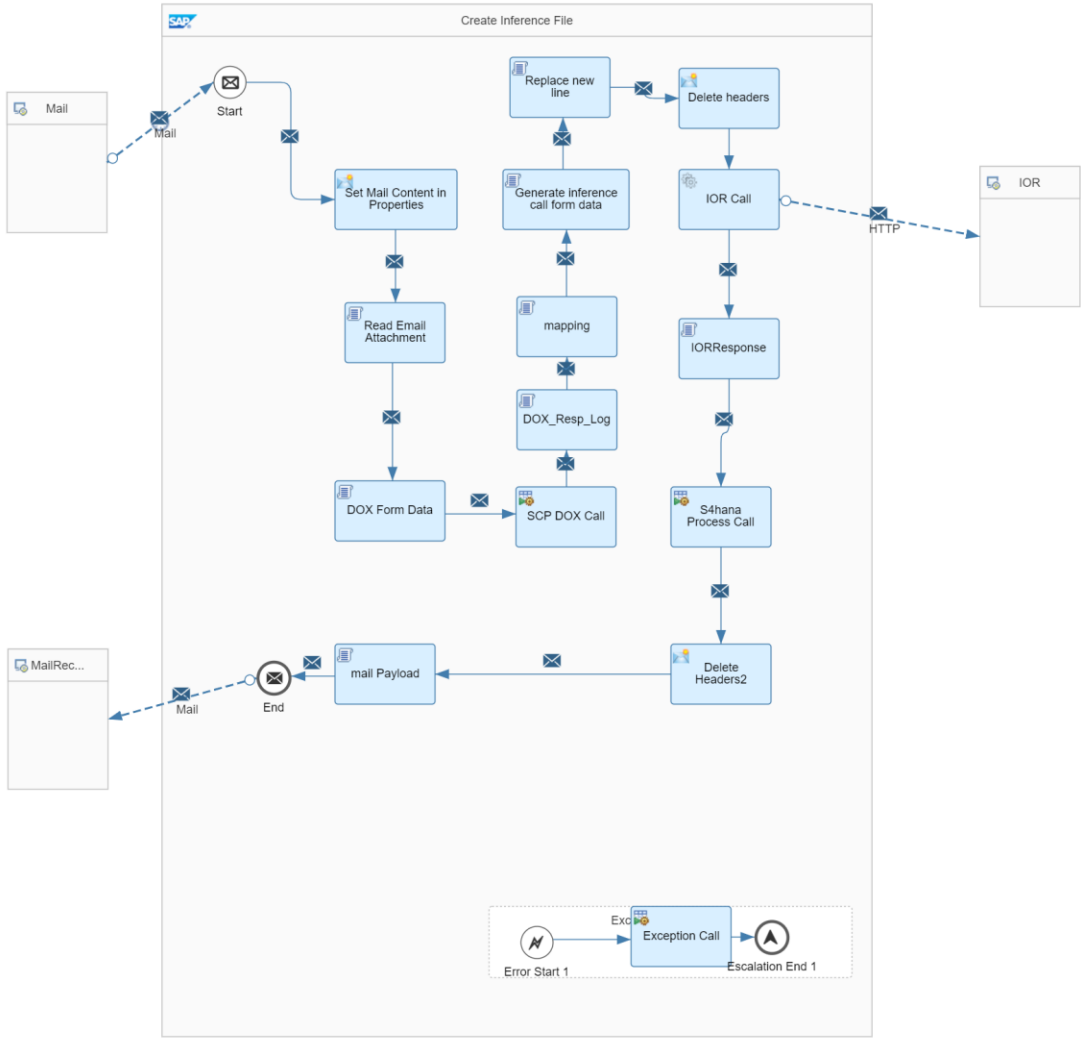
No integration flow element selected

Mail	
Segment 1	< 3 ms
Mail	
Segment 1	1 sec 833 ms
End	
Segment 1	< 3 ms
mail Payload	
Segment 1	3 ms
Delete Headers2	
Segment 1	1 ms
S4Response	
Segment 1	380 ms
HTTP	
Segment 1	2 ms
HTTP	
Segment 1	< 3 ms
HTTP	
Segment 1	827 ms
Set Headers	
Segment 1	1 ms
Preparing Payload	
Segment 1	5 ms
CSV to XML Converter	
Segment 1	22 ms
S4hana Process Call	
Segment 1	1 sec 237 ms
IORResponse	
Segment 1	525 ms
HTTP	
Segment 1	2 ms
HTTP	
Segment 1	< 3 ms
HTTP	
Segment 1	4 sec 109 ms
Delete headers	

Integration Flow Model

Log Content

Message Content



SCP DOX Call

Extract values from PDF

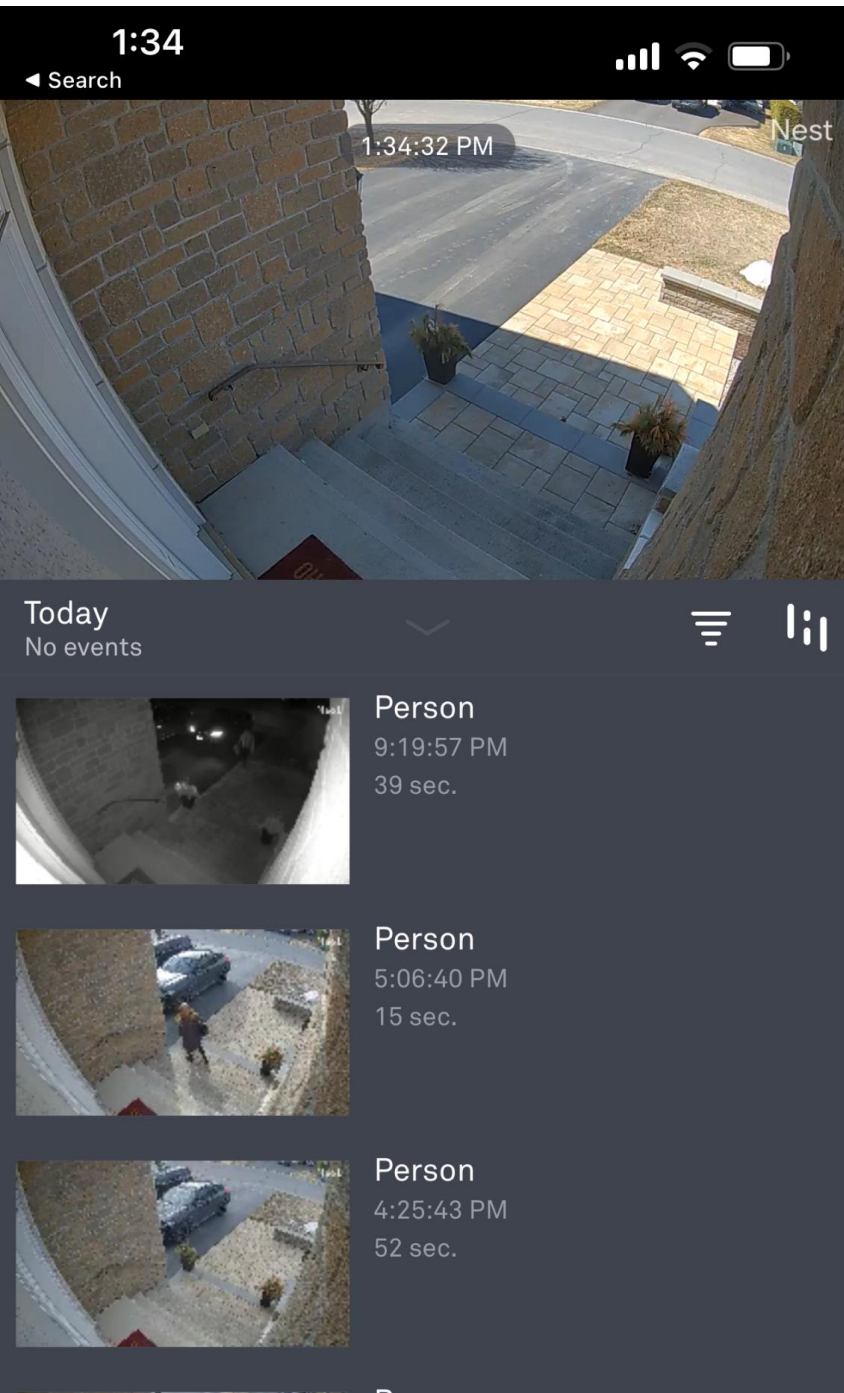
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## Advanced Event Mesh

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# Event Definition

“a significant change in state” which we want to be informed about

## Examples

- Water Leak Detected
- Ship Stopped
- Car Impact
- **Person Detected via Nest Camera**
- High Priority Work Order
- Goods Receipt
- Order Picked
- Car Sold
- Phone Activated

# Timeliness and Context is Important



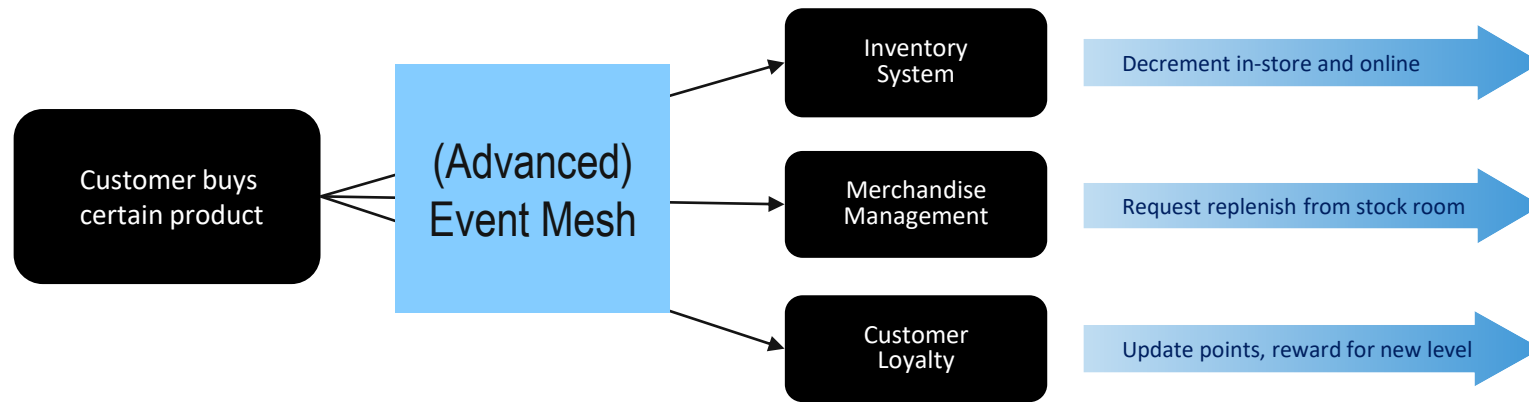
## Examples

- Water Leak Detected – do you want to know after it's been leaking for 3 hours?
- Car Impact – If you're in an accident, you want people notified right away
- High Priority Work Order – customer experience, proactively notifying customers of an issue builds brand/loyalty.
- **Person Detected via Nest Camera – what if the person is a thief?**

# Event-Driven Architecture Example

In modern businesses,  
when something happens...  
(i.e. an *event* occurs)

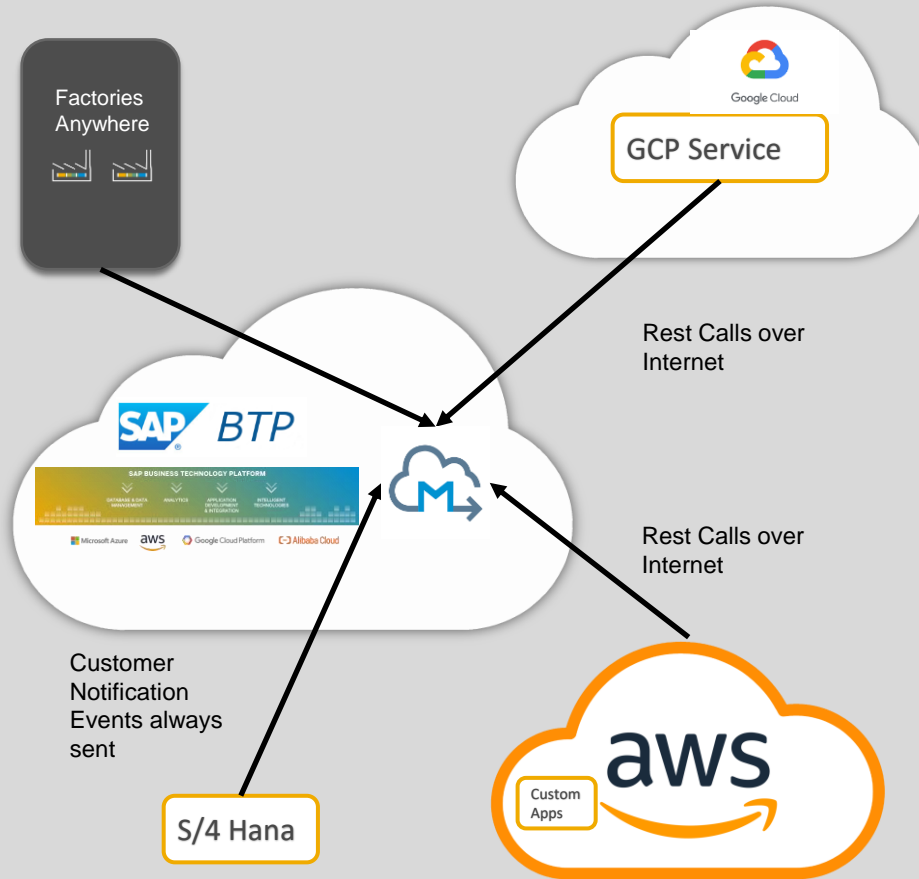
And (frequently) do  
something about it



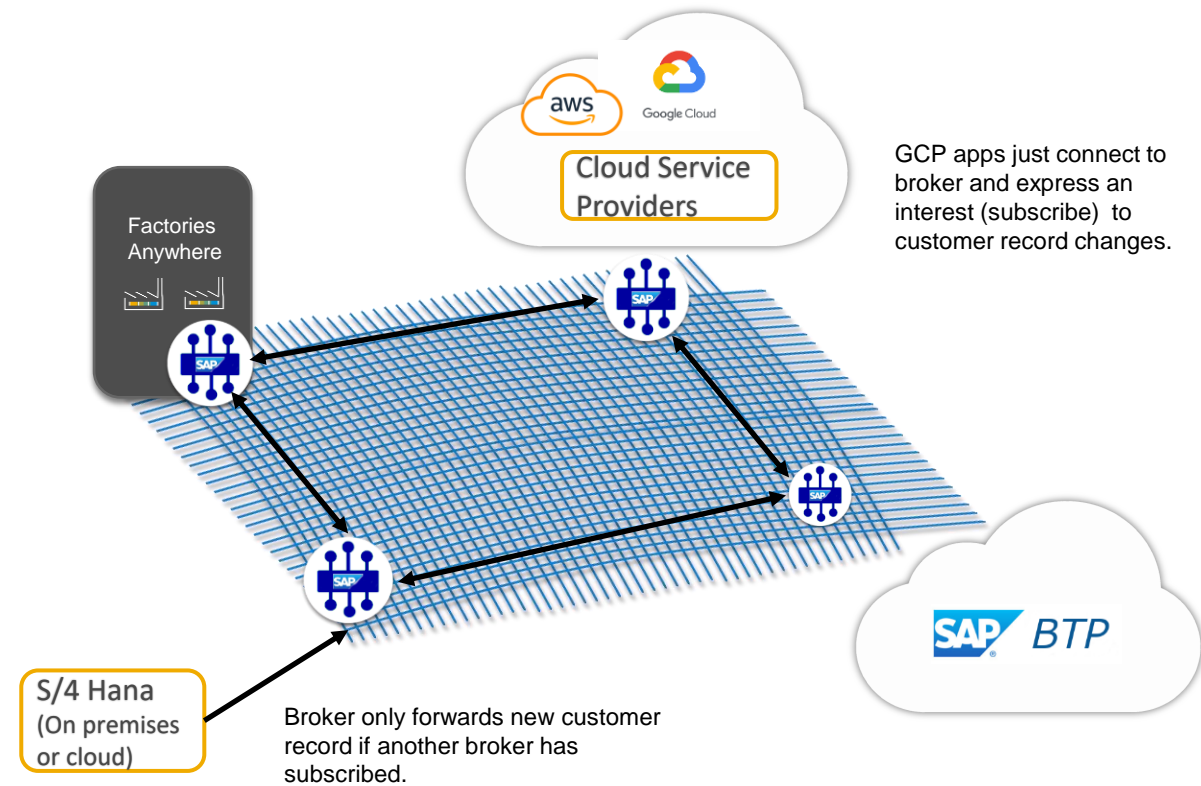
# SAP Event Mesh vs. SAP Advanced Event Mesh

(MDM Example)

## Event Mesh



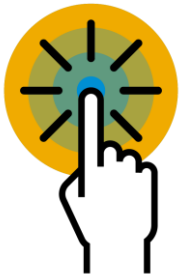
## Advanced Event Mesh





# What are the Benefits of Event-Driven Architecture with SAP?

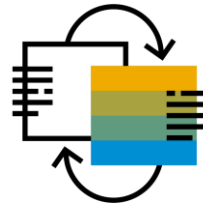
**Real Time  
Response**



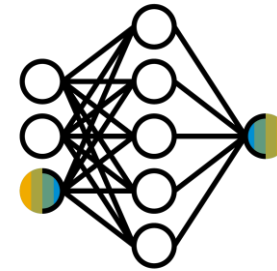
**Events  
Discovery**



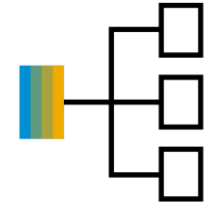
**Decoupled  
Connectivity**



**Dynamic  
Routing**



**Fan Out  
Calling**



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## Roadmap

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# Road ahead: 5 big moves\* we focus in 2023

1

## Next-gen hybrid integration runtime

*(Already available as beta)*

On-premise process orchestration runtime for integrations  
On-premise API Gateway, execution of API policies & mediations on-premise  
On-premise event bridge from SAP “legacy” to SAP Event Mesh and/or non-SAP event brokers

2

## Migration from SAP Process Orchestration

*(Already available as beta)*

Ease the move from SAP Process Orchestration to SAP Integration Suite  
Assessment, migration, and regression test tooling for customers planning move to SAP Integration Suite

3

## Full lifecycle API management

Graph as part of API Management capability *(Already available as beta)*  
Enhanced API analytics, operations, proactive API security leveraging machine learning

4

## Additional integration content and connectors

Strong collaboration and ecosystem engagement for partner/community adapters and content  
Enrich B2B libraries in Integration Advisor for business partner & network integrations  
Additional connectivity options for integration with non-SAP systems (Microsoft Azure, RabbitMQ, ...)

5

## Increased developer productivity and monitoring

Extended tenant health (insight to action), integration resources and B2B monitoring

# Thank you.

Contact information:

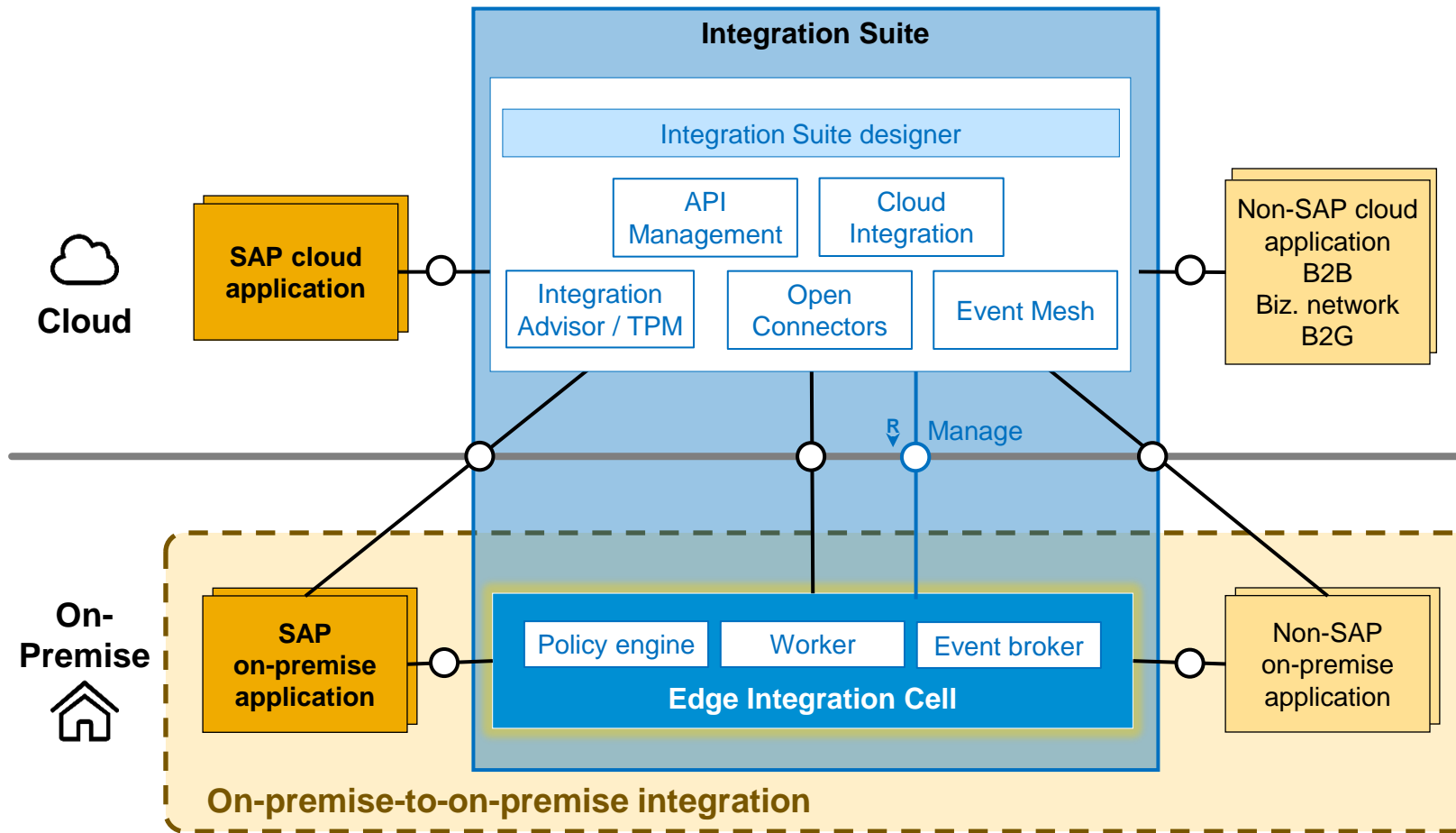
Kevin Wu  
kevin.wu07@sap.com





# New next-generation hybrid runtime: Edge Integration Cell (in Beta)\*

Extend SAP Integration Suite in customer environments



- **Integration Suite designer** in cloud
  - Integration flow design including simple API policies as configurations
- Optional deployment in customer environments leveraging container technology
- **Edge Integration Cell** on premise
  - Run integration flows
  - Execute API policies
  - Expose business events to any broker
- Monitoring in cloud or in custom-owned on-premise monitoring tooling through remote API's
- Software lifecycle in sync with cloud delivery speed
- Migration path for SAP Process Orchestration customers

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## Customer Stories

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# Bacardi – A2A and API Managed Integrations

- Bacardi needed to create a new Sales Force Automation Platform enabling sales employees to make their work more effective, providing an integrated system linked to all the markets, teams **and 1200+ existing integration flows**
- Implement a **hybrid integration platform** based on **SAP Business Technology Platform Integration Suite** to work with their existing **SAP Process Orchestration** system on premise
- Integration components were delivered in less than one month, while achieving new, reusable building blocks. Low-level API aps were covered without requiring new development on the backend

Region: LATAM

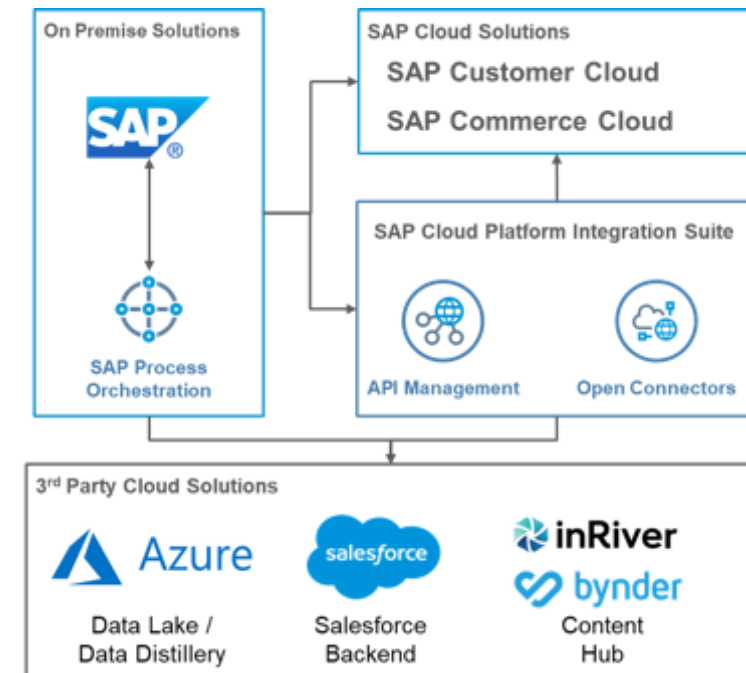
Industry: Consumer products

<https://www.sap.com/bin/sapdxc/inm/attachment.7923/pitch-deck.pdf>



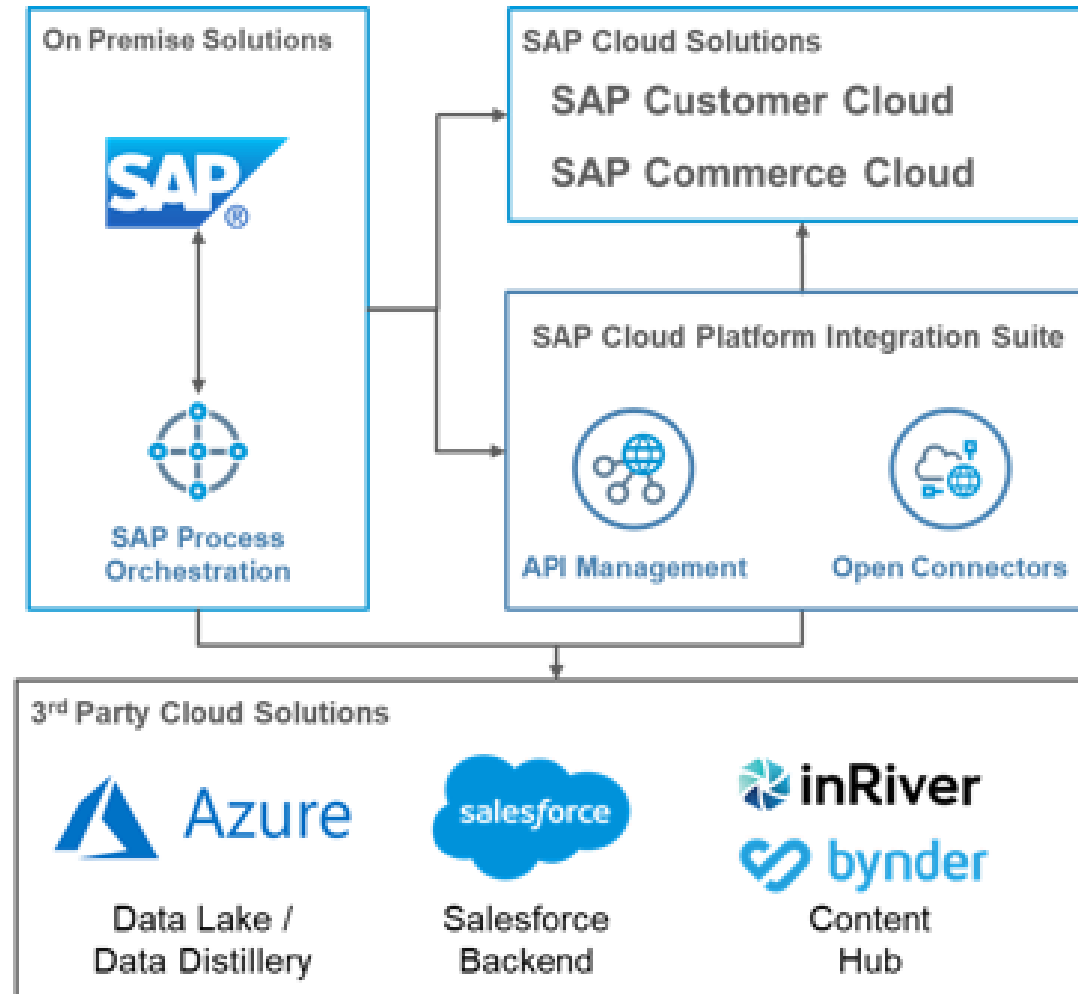
“By creating a new Sales Force Automation toolset tailored to the specifics of the on-trade channel, sales employees have been enabled to make their work more effective. This was made possible by providing a single integrated system linked to all the markets, teams and IT Solutions.”

Sergio Morales, Manager  
Global IT Service Integration



# Bacardi – A2A and API Managed Integrations

## Integration Architecture





# Centrica – A2A and API Managed Integrations

- Transform and modernize against 10-year old backend systems without re-coding, adopting an API-first strategy to deliver an amazing digital experience for customers

- Leverage the **SAP Cloud Platform Integration Suite** to link SAP on premise, SAP Cloud Solutions, Workday, Salesforce, Dynamics, ServiceNow, AWS, and other third-party services

- Millions of Centrica customer use the website and app daily, making 5-7 million API calls per day through digital channels with <200 msec. response time, handling 40-50% of the total calls, increasing customer satisfaction

Region: EMEA North

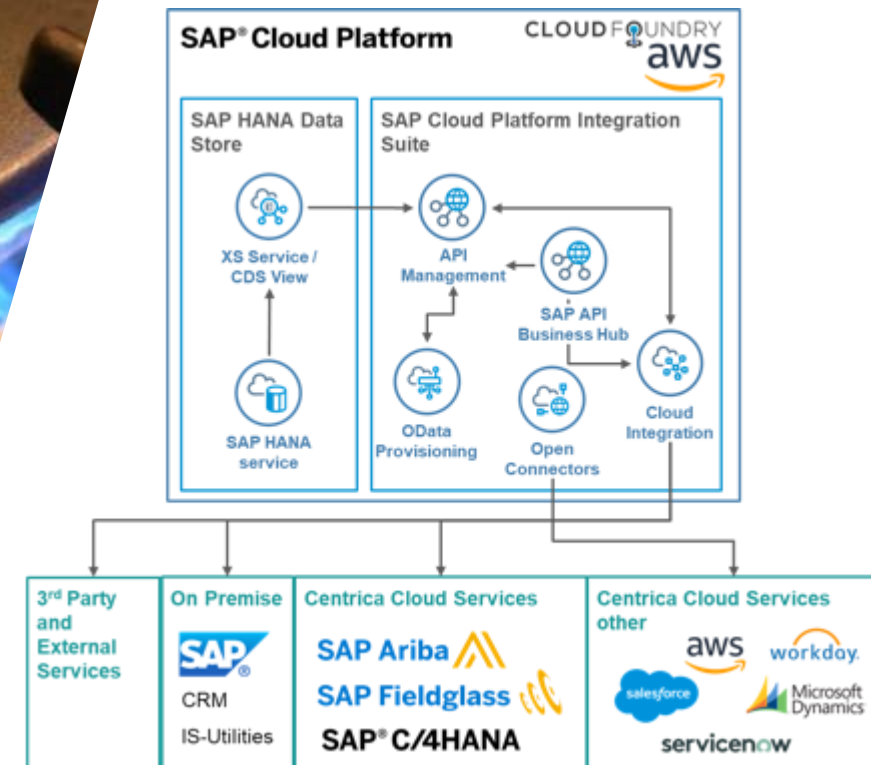
Industry: Oil & Gas

<https://www.sap.com/bin/sapdxc/inm/attachment.7909/pitch-deck.pdf>

**centrica**

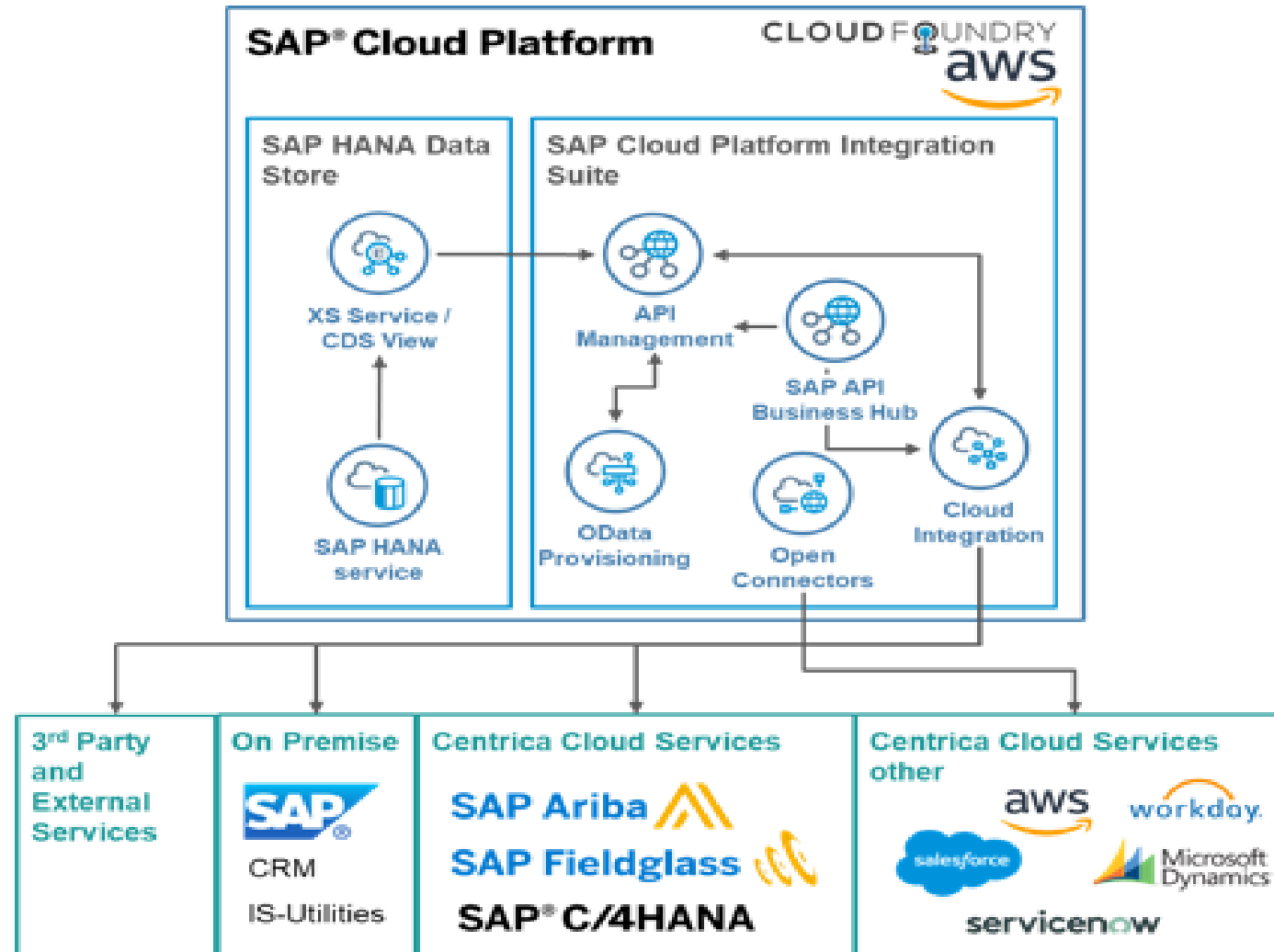
“Our new API Strategy transforms Centrica to a truly API-first company, allowing us to provide a better digital experience to our customers and partners.”

Darren Miles, GVP Enterprise Systems,  
Centrica



# Centrica – A2A and API Managed Integrations

## Integration Architecture



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## Appendix

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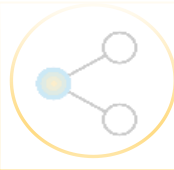




## Integration Assessment



## Cloud Integration



## API Management



## Open Connectors



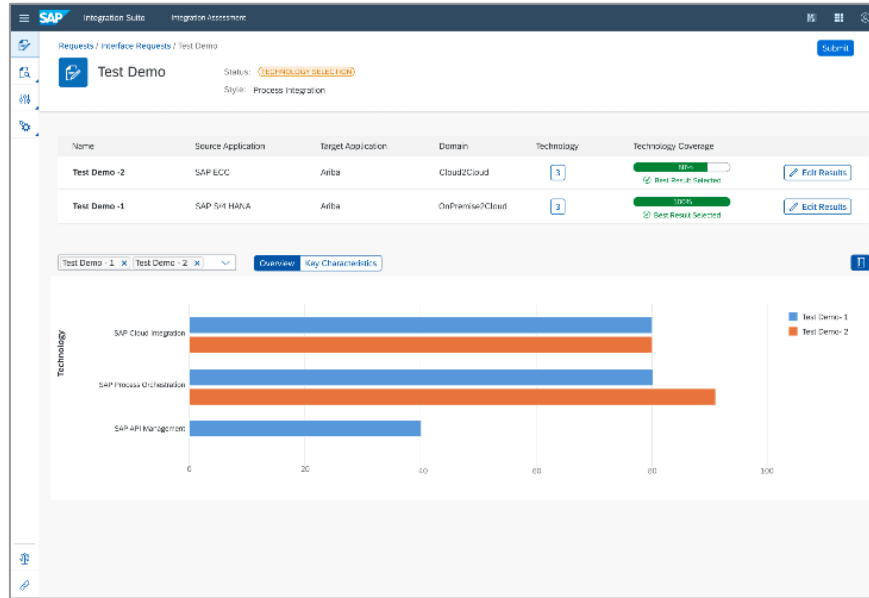
## Integration Advisor



## Event Mesh\*



## Trading Partner Management



## Introduce integration governance

- Establish clear guidelines and standards.
- Select suitable technology based on criteria.
- Foster collaboration for successful outcomes.

## Gain insights into your integration landscape

- Identify and assess existing technologies.
- Understand how technologies are used.
- Document requirements, proposals, and selections.

## Shape your integration technology strategy

- Evaluate, select and customize technologies.
- Identify gaps, align with objectives.
- Integrate third-party applications.

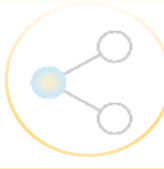




Integration  
Assessment



Cloud  
Integration



API  
Management



Open  
Connectors



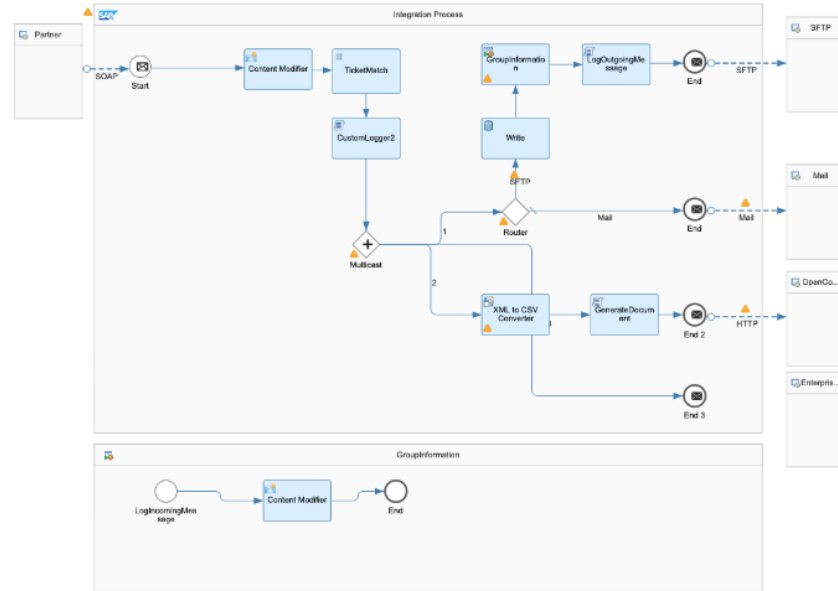
Integration  
Advisor



Event Mesh\*



Trading  
Partner  
Management



## 1. Hybrid and cloud application integration

- Supports SAP and non-SAP apps for hybrid and cloud scenarios.
- Supports A2A, B2B, and B2G scenarios with open standards.

## 2. Cloud technology

- Built on cloud tech with strong security and high availability.
- Accessible via public OData APIs.

## 3. Pre-packaged content for accelerated integration

- Pre-built content for fast integration projects.
- Customizable and compatible with SAP Process Orchestration.



Integration  
Assessment



**Cloud  
Integration**



API  
Management



Open  
Connectors



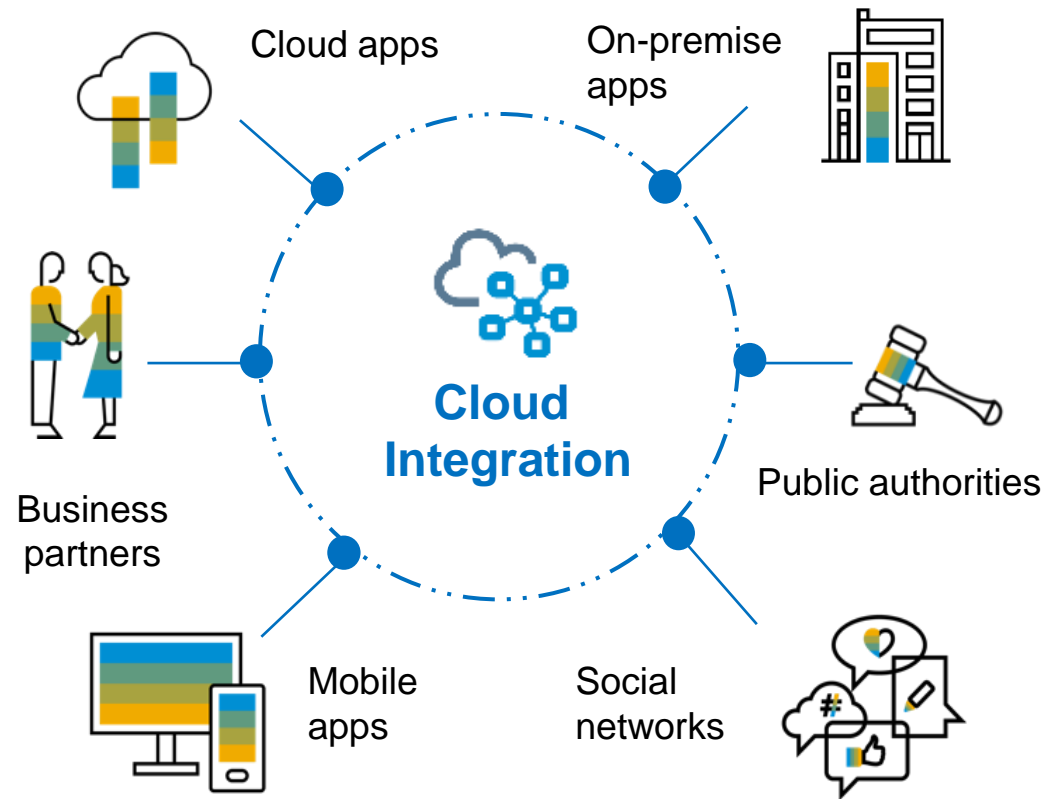
Integration  
Advisor



Event Mesh\*



Trading  
Partner  
Management



#### 4.Ecosystem integration

- Integrates with business networks.
- Partners can develop content and adapters.

#### 5.Visual development and monitoring

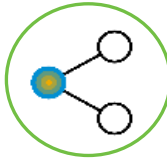
- Includes pre-built templates for easy integration.
- Offers strong security and business network integration.



Integration  
Assessment



Cloud  
Integration



**API  
Management**



Open  
Connectors



Integration  
Advisor



Event Mesh\*



Trading  
Partner  
Management

