

SAP Cloud Platform Integration

Product Overview

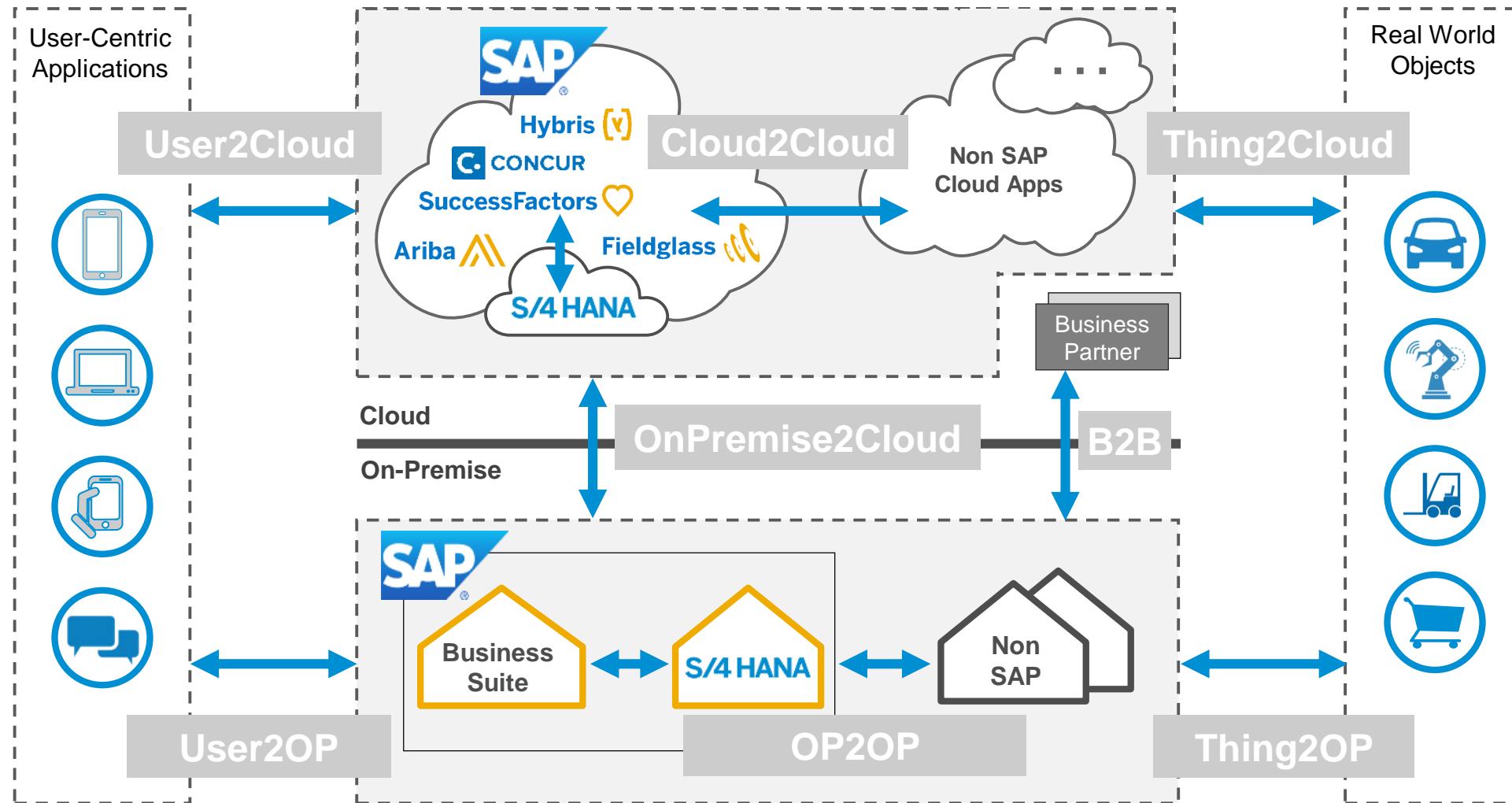


Disclaimer

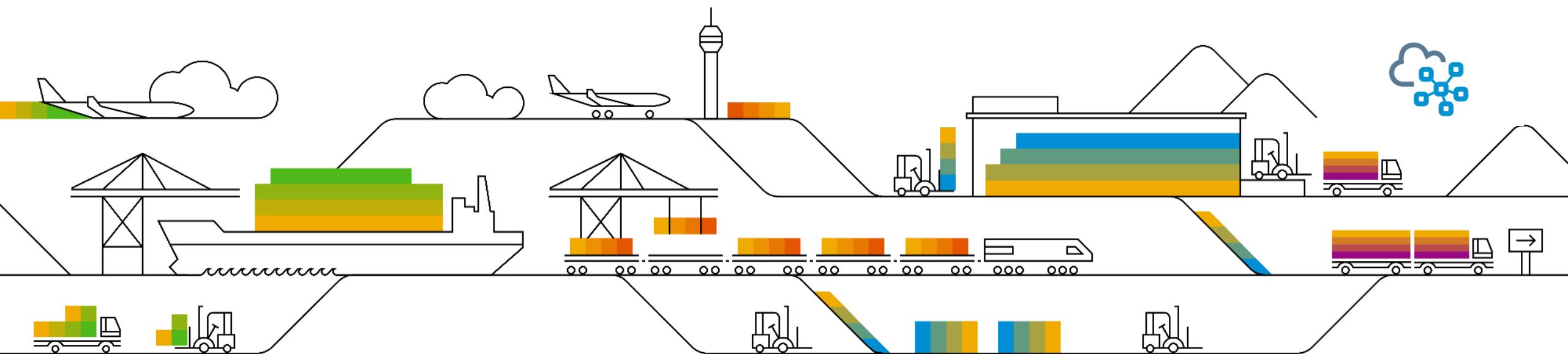
This presentation outlines our general product direction and should not be relied on in making a purchase decision. This presentation is not subject to your license agreement or any other agreement with SAP. SAP has no obligation to pursue any course of business outlined in this presentation or to develop or release any functionality mentioned in this presentation. This presentation and SAP's strategy and possible future developments are subject to change and may be changed by SAP at any time for any reason without notice. This document is provided without a warranty of any kind, either express or implied, including but not limited to, the implied warranties of merchantability, fitness for a particular purpose, or non-infringement. SAP assumes no responsibility for errors or omissions in this document, except if such damages were caused by SAP intentionally or grossly negligent.

Integration Domains

High Level Scoping of Integration Areas



SAP Cloud Platform Integration at a glance



SAP Cloud Platform Integration

Integrate Cloud Applications into your Application Landscape with Ease

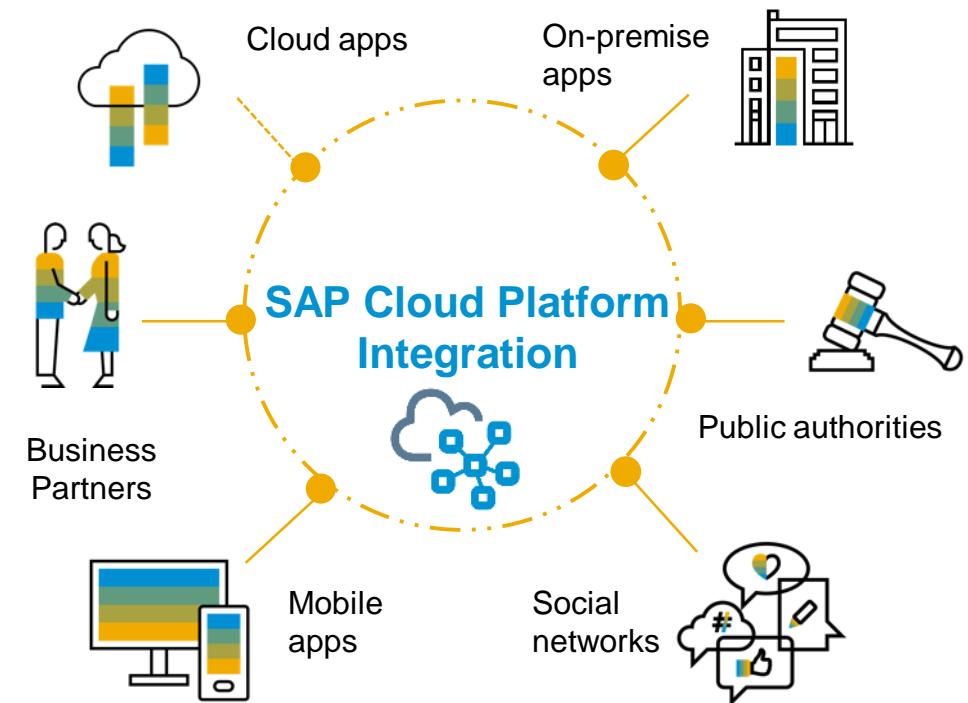
Seamlessly connects cloud applications with other cloud and on-premises apps, both from SAP and third-party providers.

Key Capabilities

- Prepackaged content to integration SAP and non-SAP apps
- Web based tool for modeling and monitoring integrations
- Strong security focus including data isolation
- Choice of application, B2B and technical protocol connectors
 - incl. adapter SDK

Key Benefits

- Cloud-native technology with subscription-based usage
- Safeguard and accelerate your integration projects with out-of-the box integration content
- Suited for citizen integrators and system integrators
- Enhanced productivity, reliability and quicker access to data
- Complements SAP Process Orchestration
- Open to partners for developing content and connectivity adapters

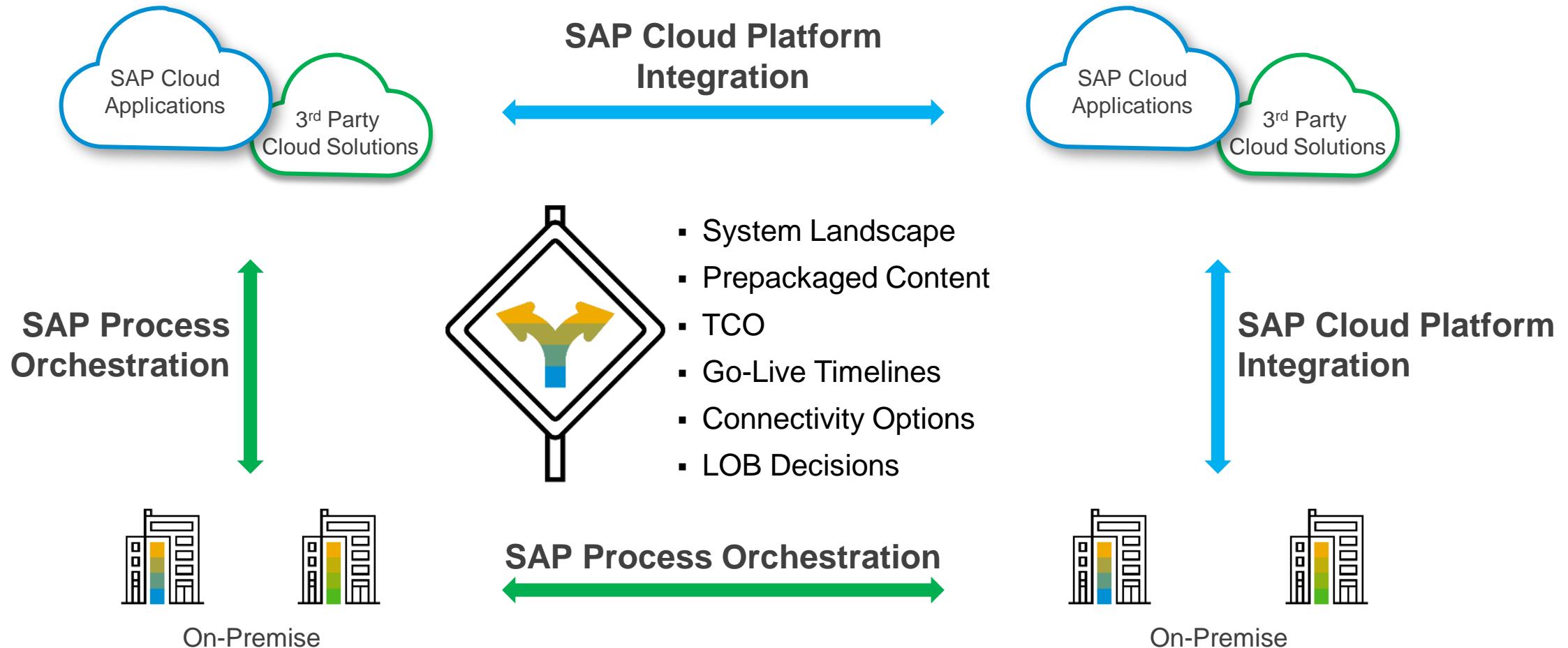


When to use what?



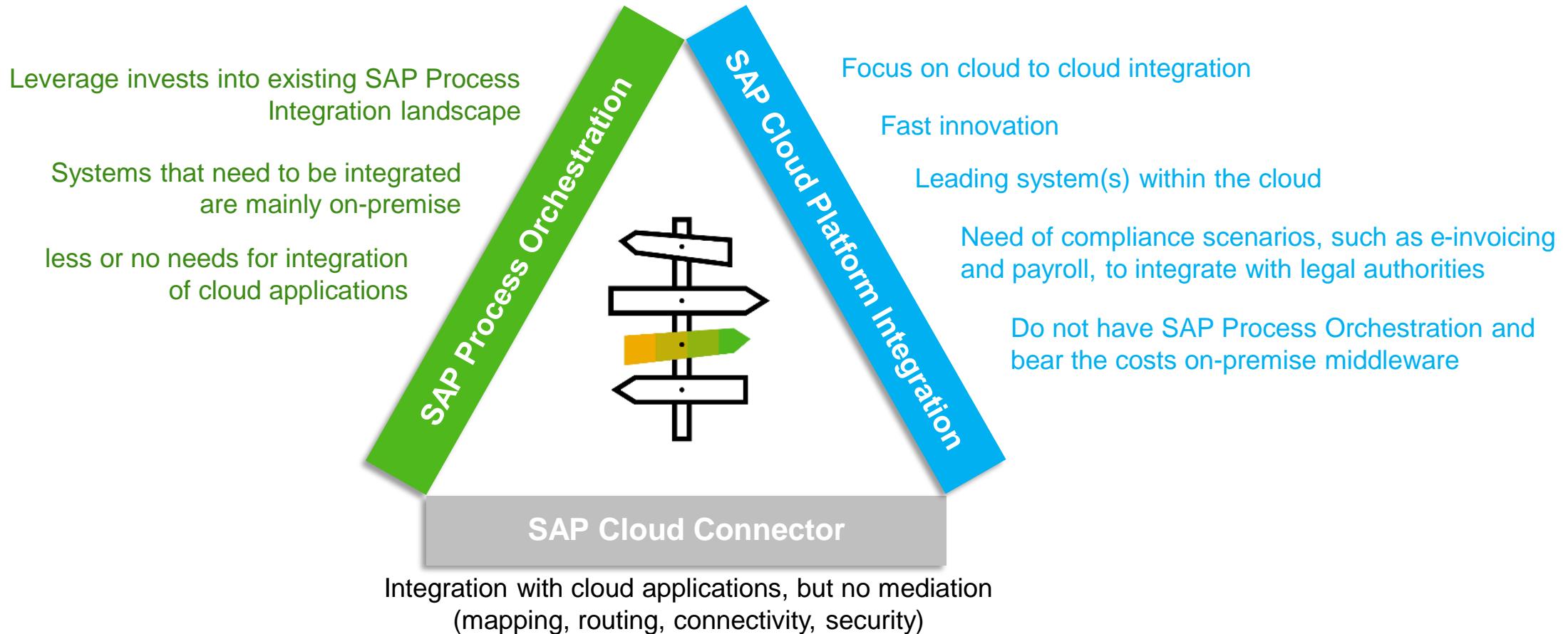
SAP Cloud Platform Integration

A complementary offering to SAP Process Orchestration



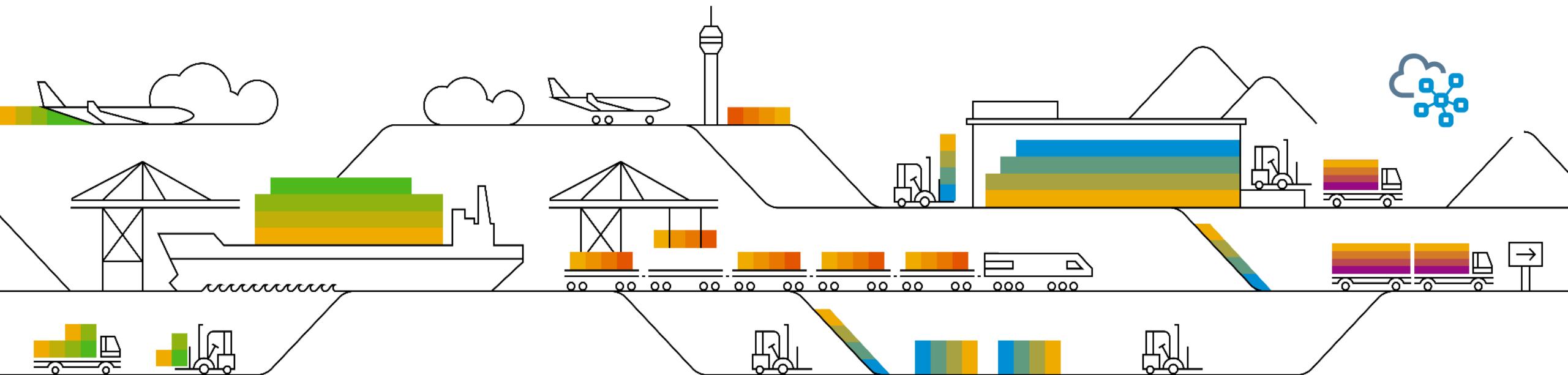
When to use what?

SAP Cloud Platform Integration, SAP Process Integration, SAP Cloud Connector



- All products will be developed and marketed in parallel and are fully complementary
- Prepackaged integration content is shipped for SAP Cloud Platform Integration as well as SAP Process Integration

Accelerated Integration Through Pre-Configured Content Packages



Where to **explore** pre-packaged integration content?

Publicly available

The screenshot shows the SAP API Business Hub interface. At the top, there's a banner with the text "Welcome to SAP API Business Hub". Below the banner, there's a sidebar with icons for search, filter, sort, and refresh. The main content area is titled "Catalog" and features four "Featured" integration offerings:

- SAP Banking Platform**: Not rated yet.
- SAP Vehicles Network**: Not rated yet.
- SAP SuccessFactors - HCM Suite OData API**: ★★★★☆ (4.5 stars) based on 16 ratings.
- SAP Hybris Cloud for Customer - OData API**: ★★★★☆ (4.5 stars) based on 5 ratings.

At the bottom left, there's a "Subscriptions" section with a "1" icon. A large blue button at the bottom right says "Get Started".

[SAP API Business Hub](#)

Accelerated Integration Through Pre-Configured Content Packages

Highlights

SAP Hybris Cloud for Customer

with SAP ERP/CRM, SAP Hybris Marketing, S/4HANA Cloud

VAT Register Books for Spain

with Spanish tax agency's system

SAP Localization Hub, digital compliance service

for electronic transfer of tax invoices and reports in India

SAP SuccessFactors

Employee Central with SAP S/4HANA Cloud, SAP ERP, 3rd party vendors

SAP Hybris Marketing Cloud

with SAP ERP/CRM, Twitter, Facebook, Google AdWords

eDocuments

Electronic Invoicing for Chile, Peru, Spain

Concur Expense

with SAP S/4HANA Cloud and SAP ERP

SAP Ariba Network

with SAP Business Suite

Short facts

630+

Pre-packaged integration flows and mappings by SAP and Partners

Additional connectivity options

developed with Adapter SDK by partners as Advantco, Rojo Consultancy, and KaTe

Salesforce, AMQP, MS Dynamics CRM, SugarCRM, Amazon Web Services, MQTT, MS SharePoint, ServiceNow
and more ...

New pre-built integration content

SAP Hybris Marketing Cloud

with SAP Hybris Customer Attribution, SAP S/4HANA Cloud for Enterprise Management Cloud and on-prem, and Content Management System

SAP Asset Intelligence Network

with SAP Hybris C4C and SAP Cloud Platform IoT

SAP Hybris Service Engagement Center

with SAP Hybris Commerce

SAP Hybris Revenue Cloud

with SAP S/4HANA Cloud

Showcasing B2B Capabilities

with ASC X12 and UN/EDIFACT message types for mapping and converting messages

Best practices

in forms of code snippets, iFlow templates, FAQ and how-to-guides



Explore integration packages in the SAP API Business Hub

Discover, configure and manage pre-packaged integration content for SAP cloud applications and 3rd party integration scenarios here:

<https://api.sap.com/>

Connectivity and Converter Options of SAP Cloud Platform Integration

Adapters

- **HTTP****, **HTTPS***
- **SOAP** over HTTP
- **OData**, **ODC**** over HTTPS
- **SFTP**
- **RFC****
- **LDAP**** over TCP/IP
- **Mail** receiver (SMTP) and sender (IMAP or POP3)
- **IDoc** over SOAP
- SuccessFactors over SOAP, REST, or OData**
- **Ariba**: cXML over HTTPS
- **Facebook****, **Twitter**** over HTTP
- **JMS**, **AS2***** over HTTP
- OEM (Advantco)
 - Salesforce: over REST
 - Microsoft Dynamics CRM
 - Amazon Web Services
 - SugarCRM

*as sender adapter | **as receiver adapter | ***available only with Enterprise edition

Message Converters

- CSV ↔ XML
- JSON ↔ XML
- EDI (EDIFACT and ASC-X12) ↔ XML ***



... full list of adapters
by SAP in [SAP Help Portal](#)

... more info on
adapter certification
process for partners [here](#)

Adapter Development Kit

- Framework to create new adapters
- Certification available

Cloud Integration Content at SAP Process Orchestration

Content re-use across SAP's integration platforms

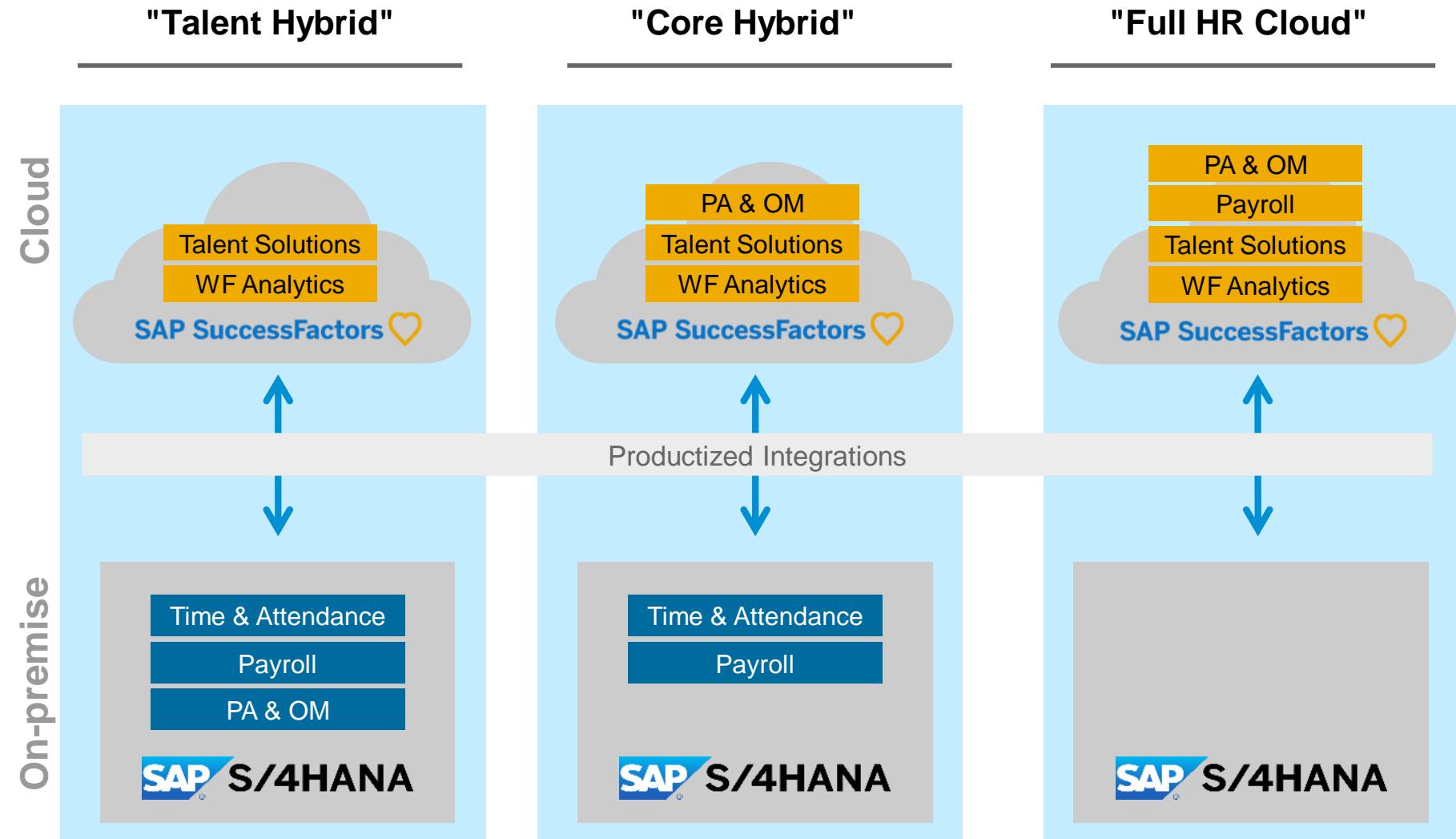
Deploy, run, and monitor cloud integration content on SAP Process Orchestration

- SAP Cloud Platform Integration capabilities as documented in [Supported Components, Adapters, and Events](#)
- Deployment either via file export/import or directly accessing the SAP Cloud Platform Integration tenant
- Mass deployment supported
- Show cloud integration content messages in message overview monitor
- Show deployment and un-deployment of cloud integration content in audit log
- Scheduler jobs for cleaning up message processing log (MPL) store, data store and message store
- Grouping of deployed cloud integration content in the Cloud Integration Content Management Cockpit
- Display endpoints in the Cloud Integration Content Management Cockpit
- Navigate from the deployed cloud integration flow to either MPL or endpoint view
- See FAQ note [2428801](#)

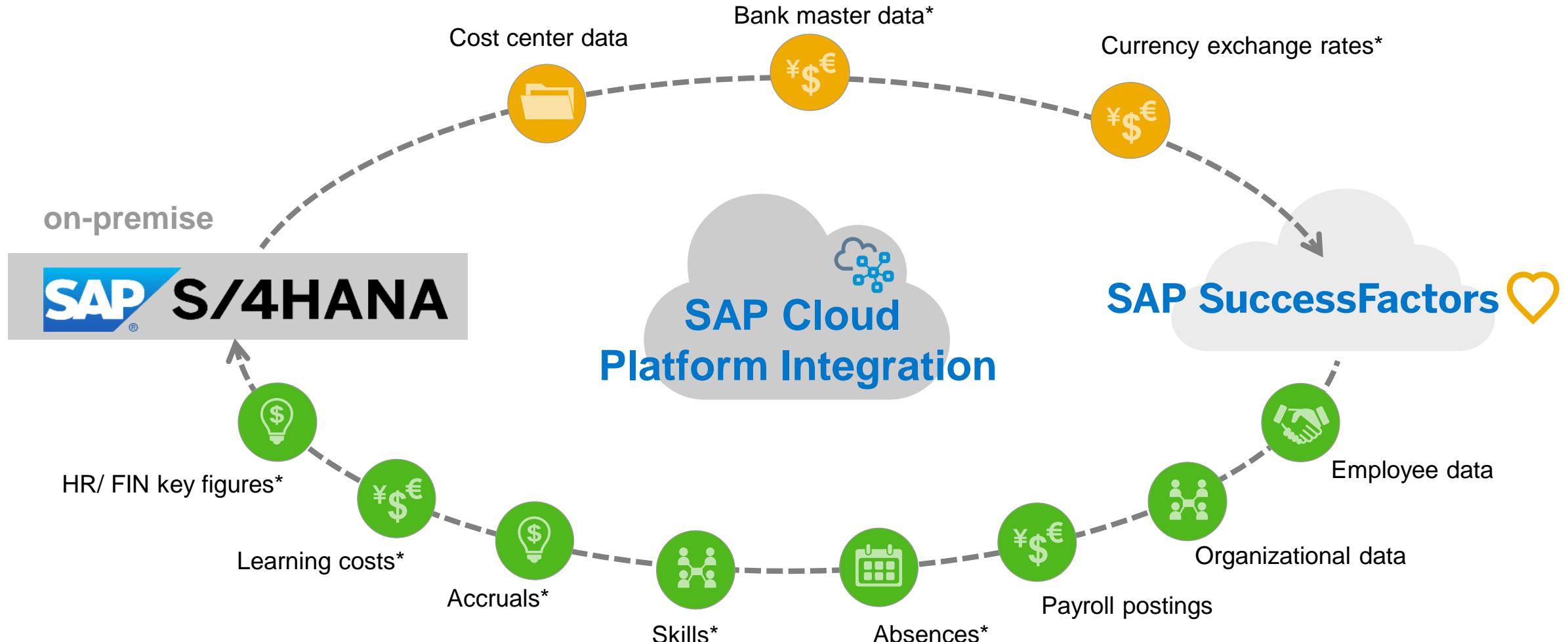
Name	Overall Status	Type	Vendor
+ Default			
+ MappingViewerQ2			
+ C5250257			
+ com.prism.csv2xml.converter			
+ C5176520			
SuccessFactors LMS Curricula with SAP HCM Qualificatio...			
• LMSValueMappingProject	Started	Value Mapping	content.sa
• SFSF Curriculum Catalog	Started	Integration Flow	content.sa
+ Aqua_Q2			
+ SAP Hybris Cloud for Customer Integration with SAP ERP			
+ New Integration Package 1484651580066			
+ Concur Integration: Data Replication and FI Posting			
+ <TestGBDeployServlet>			
+ com.prism.sfsf.odataV4.createOps			
+ Team Red Test Tool			

Deployment Options

SAP SuccessFactors with SAP S/4HANA on-premise

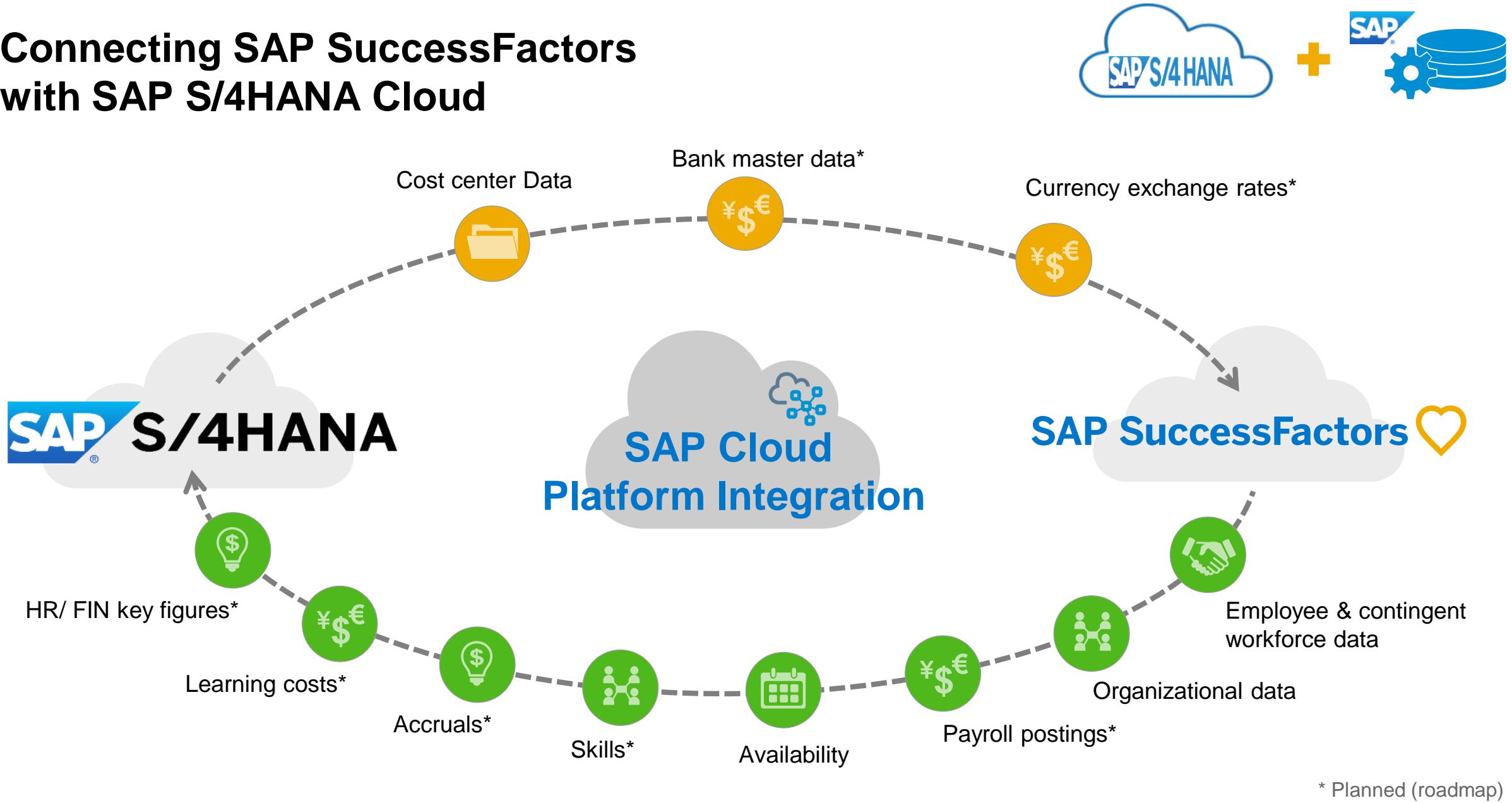


Connecting SAP SuccessFactors with SAP S/4HANA

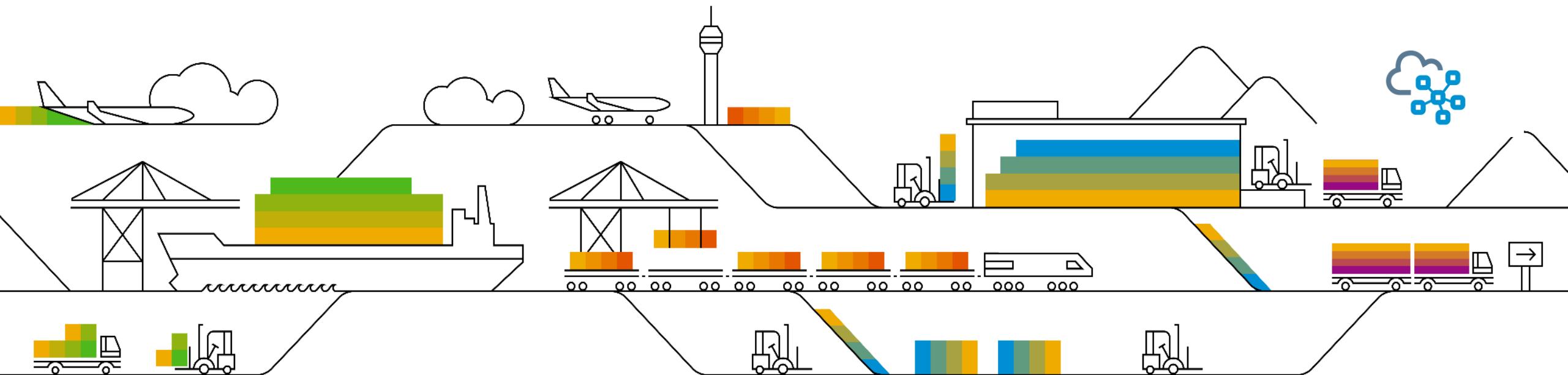


* Planned (roadmap)

Connecting SAP SuccessFactors with SAP S/4HANA Cloud



Discover → Design → Monitor



SAP Cloud Platform Integration

Discover and Design

The screenshot shows the SAP Discover (Integration) interface. It displays a grid of integration packages under the 'Featured' and 'Latest' sections. Each package card includes a title, icon, rating, and a brief description. A large purple button labeled 'DISCOVER' is overlaid on the bottom left of the interface.

Name	Type	Version
Confirm Business Activity Replication to SAP Hybris Marketing	Integration Flow	1.1.1
Business Activity Replication from SAP Hybris Marketing		
Confirm Lead Replication to SAP Hybris Marketing	Integration Flow	1.1.0
Lead Replication from SAP Hybris Marketing		
Replicate Business Activity from SAP Hybris Marketing	Integration Flow	1.0.3
Business Activity Replication from SAP Hybris Marketing		
Replicate Business Activity to SAP Hybris Marketing	Integration Flow	1.1.1
Business Activity Replication to SAP Hybris Marketing		
Replicate Business Attribute Assignment to SAP Hybris Marketing	Integration Flow	1.0.1
Business Attribute and Assignment Replication with SAP Hybris Marketing		

The screenshot shows the SAP Integration Process Designer interface. It features a 'Message Digest' configuration panel on the left and an 'Integration Process' diagram on the right. The process diagram starts with a 'Start' node, followed by a 'Content Modifier' step, a decision diamond ('Gateway'), and a sequence of steps: 'Curriculum Data exists', 'LMSCurriculaToSAPQualMap v3', and 'BatchMapping'. A large purple button labeled 'DESIGN' is overlaid on the bottom right. A central callout box contains the text: 'Discover and browse pre-packaged integration content. Create/edit/configure flows and packages. Versioning management. Deploy'. Below the diagram, a 'Version history' section shows details for a specific version: 'Last Modified: 9/21/14', 'Last Modified By: ID 504', 'Date Created: 9/21/14', 'Created By: ID 504', and a 'More' dropdown. A blue 'Import' button is located at the bottom left of the main area.

SAP Cloud Platform Integration

Monitoring

Integration Content (13)

Name	Version	Type	Deployed On	Status
SFSF_CurriculumCatalogue	1.0.4	Integration Flow	Apr 18, 2016, 13:17:17	Started (1)
SFSF_UserCurriculaStatus	1.0.4	Integration Flow	Apr 12, 2016, 00:03:59	Started (1)
Demo_Customer Master replication from C4C to ERP	1.1405.2	Integration Flow	Apr 10, 2016, 23:05:29	Started (1)
Demo_Customer Address Replication from C4C to ERP	1.1405.1	Integration Flow	Apr 10, 2016, 23:05:04	Started (1)
SFSF_CurriculumCatalogue	1.0.4	Integration Flow	Apr 06, 2016, 15:13:59	Started (1)
Monitoring_Demo	1.0.0	Integration Flow	Mar 24, 2016, 11:13:21	Started (1)
SFSF_CurriculumCatalogue	1.0.4	Integration Flow	Mar 04, 2016, 13:59:27	Started (1)
SFSF_CurriculumCatalogue	1.0.4	Integration Flow		
SFSF_CurriculumCatalogue	1.0.4	Integration Flow		
SFSF_CurriculumCatalogue	1.0.4	Integration Flow		
SFSF_CurriculumCatalogue	1.0.4	Integration Flow		
LMSValueMap	1.0.0	Value Map		

Integration Content Monitor

Integration Process

```
graph LR; SF[SuccessFactors] --> CM[Content Modifier]; CM --> G{Curriculum Data exists}; G -- no data --> End([End]); G --> LMS[LMSCurriculaT oSAPQualMap binding v3]
```

Monitor

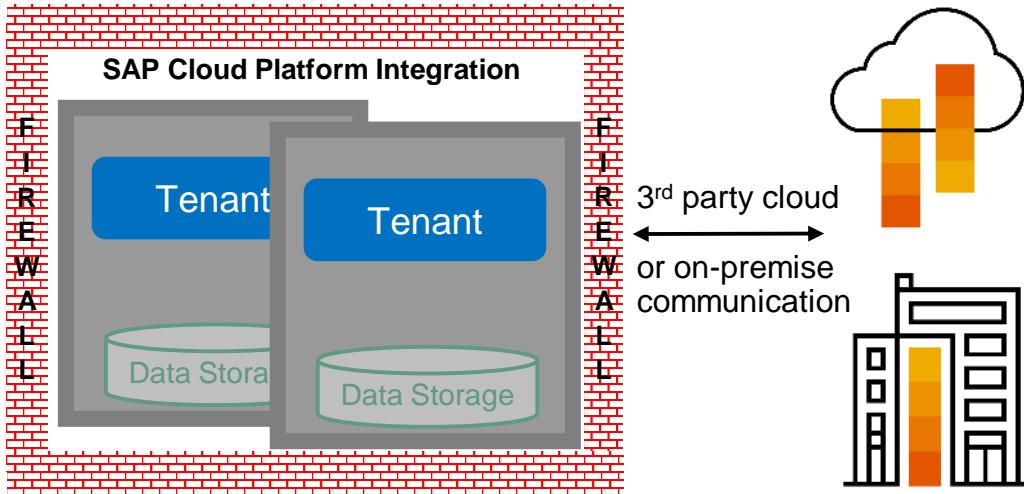
- Deployment Status
- Run Time Visual representation
- Quick Configure
- Flexible monitoring tiles
- Deployed Artifacts status
- Detailed Logs
- Message Status

Message Processing Monitor

Date	Status	Artifact	Type
Apr 11, 2016, 23:58:48	Completed	SFSF_CurriculumCatalogue	Integration Flow
Apr 11, 2016, 12:47:45	Completed	SFSF_UserCurriculaStatus	Integration Flow
Apr 11, 2016, 12:47:43	Failed	SFSF_UserCurriculaStatus	Integration Flow
Apr 11, 2016, 07:47:57	Completed	Demo_Customer Address Replication from C4C to ERP	Integration Flow
Apr 11, 2016, 07:36:57	Failed	SFSF_CurriculumCatalogue	Integration Flow
Apr 11, 2016, 07:31:42	Failed	SFSF_CurriculumCatalogue	Integration Flow
Apr 11, 2016, 07:31:42	Failed	SFSF_CurriculumCatalogue	Integration Flow

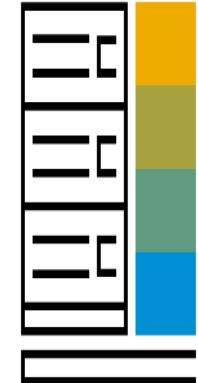
SAP Cloud Platform Integration

Security



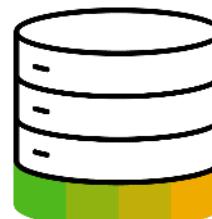
Secure ISO/IEC 27001 Certified Data Centers

- Hundreds of surveillance cameras with digital recording
 - Fully monitored doors
 - Tens of thousands of environmental sensors
 - Security and facility support team onsite 24x7
 - Biometric access to secured areas
 - Multiple redundant internet connections from multiple carriers
 - Redundant data storage in two data center locations
- [How Secure is the SAP Data Center?](#)



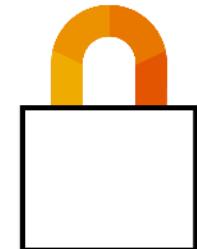
Secure Provisioning and Infrastructure

- Multi-tenancy
- Data isolation
- Audit logs
- Roles based access
- Data privacy and protection
- Data storage and backup



Secure Communication

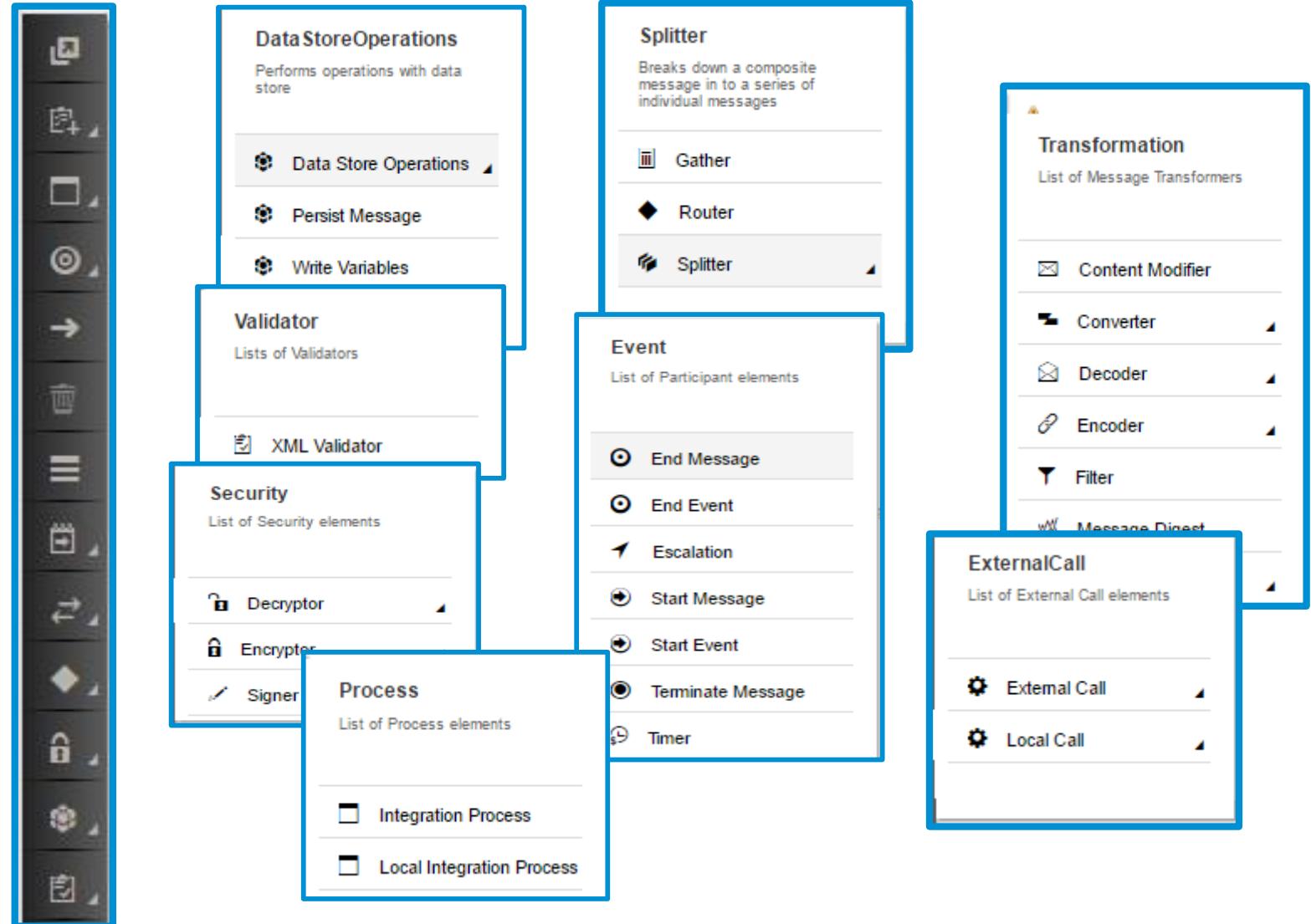
- Transport level: HTTPS, SFTP, basic authentication
- Payload level: Encryption, decryption, signing, signature verification
- Cryptographic message syntax PKCS#7
- XML digital signature (signing)
- WS security (encryption + signing)
- PGP (encryption and signing)
- Secure storage of key stores in data base
- Encrypted data persistency



SAP Cloud Platform Integration

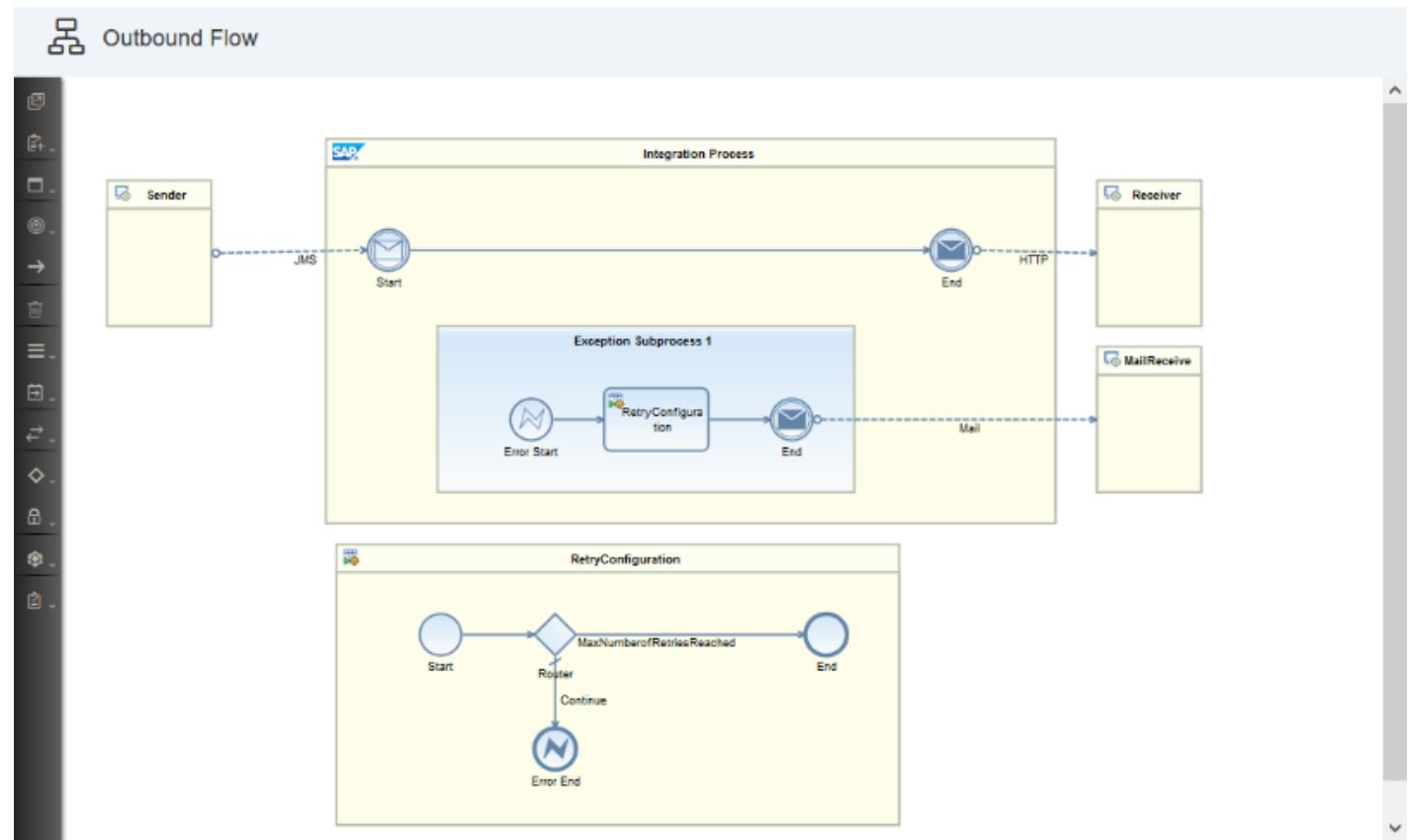
Light-weight orchestration capabilities

- Flexible design pipeline
- Independent and reusable process steps
- 40+ different steps available
 - Message Transformation
 - Message Mapping
 - Message Routing
 - Security Elements
 - Scripting
 - Tasks
 - Data Store Operations
 - Events
 - Many more...



Asynchronous Messaging with Retry using JMS Adapters*

- JMS queue for decoupling of communication with option of message encryption
- JMS receiver adapter storing messages in JMS queue
- JMS sender adapter polling from queue
- Out of the box restart of failed messages and of dead letter handling
- Explicit modeling of integration flow transaction handling

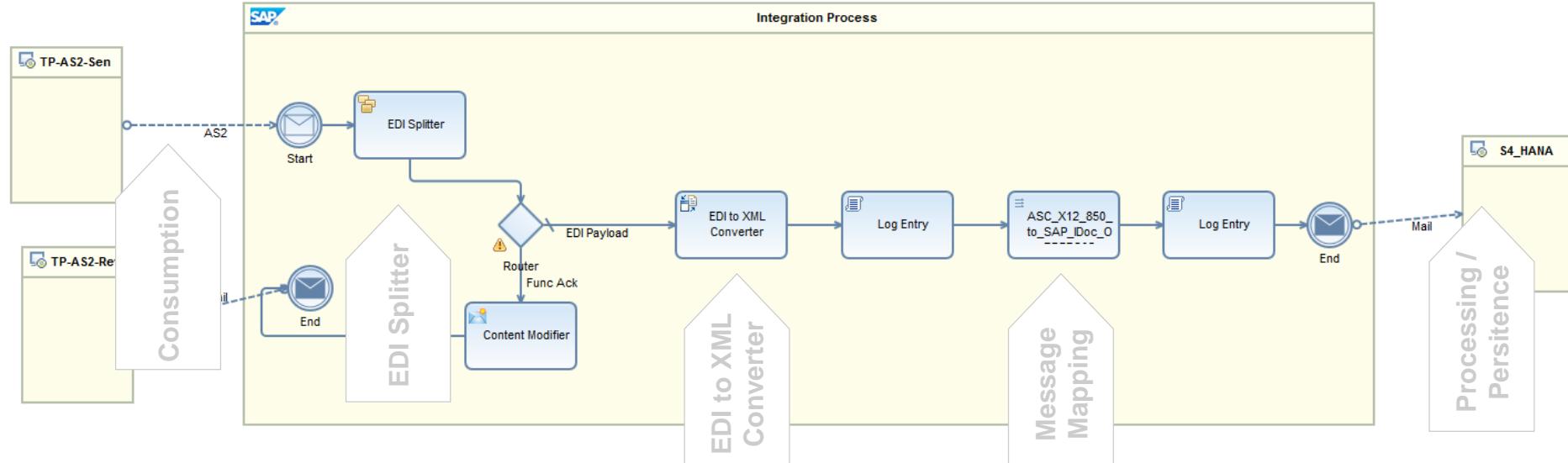


Sample integration flow with explicit retry handling (optional)

Read also the community blog [Configuring asynchronous messaging with Retry using JMS adapter](#)

* Embedded consumption of SAP Cloud Platform Enterprise Messaging service -- included only in SAP Cloud Platform Integration enterprise edition

B2B Capabilities* with the Enterprise Edition of SAP Cloud Platform Integration

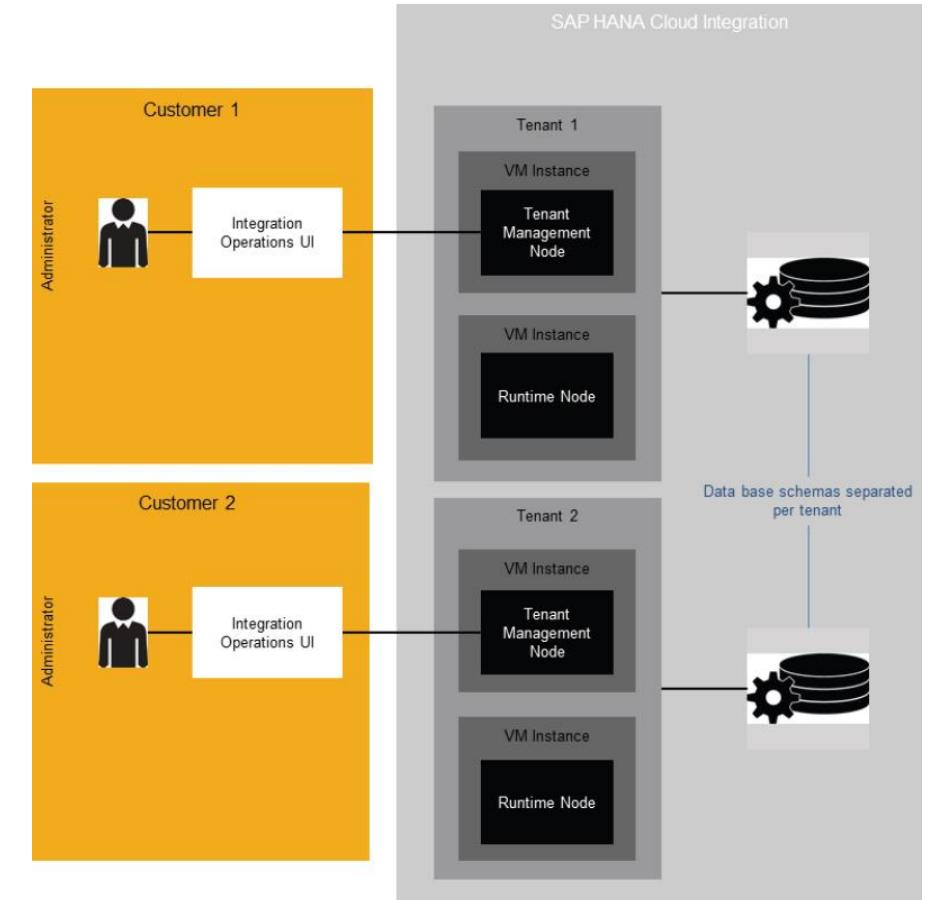


- **AS2 Adapter**
- **EDI Splitter**
Split inbound bulk EDI messages and validate messages according UN/EDIFACT or ASC X.12 message type structures
- **EDI to XML Converter**
- **XML to EDI Converter**
- **Number Range Objects**
adding unique interchange number to each EDI document

* At the moment, some B2B capabilities are only available in enterprise edition, not via the SAP Cloud Platform packages or other packages which include Cloud Integration.

Runtime Concepts SAP Cloud Platform Integration

- Composed of a cluster of virtual processes
- Message processing tasks for a tenant are performed within a dedicated Java Virtual Machine
- An SAP Cloud Platform Integration cluster for a tenant (shortly referred to as tenant cluster) is composed of one (or more) tenant management nodes and one or more runtime nodes
- Tenant clusters of different participants (customers) are strictly separated from each other and are unable to interfere
- The individual processes are also referred to as nodes of the cluster



One Platform for Process and Data Integration

Both covered in SAP Cloud Platform Integration

Process Integration		Data Integration
Chaining of process steps	Objective	Synchronization of data
System-2-system	Interaction type	System-2-system
Process-level	Coupling to application	Data-level
Application event	Primary trigger	Schedule
Near real-time / real-time	Urgency of completion	Batch
Single business objects	Unit of data exchange	Bulk-Data
<ul style="list-style-type: none">▪ Transactional process integrity▪ Reliability (Guaranteed delivery)▪ Message orchestration	Specific requirements	<ul style="list-style-type: none">▪ Data quality services: matching, consolidation▪ Complex transformation from multiple data sources▪ Mass data handling

Get started today with SAP Cloud Platform Integration!

The image shows two screenshots of SAP Cloud Platform Integration. The top screenshot is a product documentation page titled 'Getting Started' under 'SAP Cloud Platform Integration'. It features a sidebar with navigation links like 'Product Profiles', 'Developing Adapters', and 'API Documentation'. The main content area includes sections on 'Understanding the Key Concepts' and 'Product Profiles', with a large image of shipping containers representing integration. The bottom screenshot is the official SAP Cloud Platform Integration landing page. It features a hero section with the text 'Connect and Integrate with SAP Cloud Platform Integration' and a video player. Below the hero section, there's a callout for 'Easily Exchange Data in Real-Time'.

[SAP Cloud Platform Integration product documentation](#)

[SAP API Business Hub w/ pre-packaged integration content](#)

[SAP Cloud Platform Integration](#)

Easily Exchange Data in Real-Time

Questions & answers



Thank you.

Contact information:

Nicholas Holshouser

Nicholas.Holshouser@sap.com

© 2018 SAP SE or an SAP affiliate company. All rights reserved.

No part of this publication may be reproduced or transmitted in any form or for any purpose without the express permission of SAP SE or an SAP affiliate company.

The information contained herein may be changed without prior notice. Some software products marketed by SAP SE and its distributors contain proprietary software components of other software vendors. National product specifications may vary.

These materials are provided by SAP SE or an SAP affiliate company for informational purposes only, without representation or warranty of any kind, and SAP or its affiliated companies shall not be liable for errors or omissions with respect to the materials. The only warranties for SAP or SAP affiliate company products and services are those that are set forth in the express warranty statements accompanying such products and services, if any. Nothing herein should be construed as constituting an additional warranty.

In particular, SAP SE or its affiliated companies have no obligation to pursue any course of business outlined in this document or any related presentation, or to develop or release any functionality mentioned therein. This document, or any related presentation, and SAP SE's or its affiliated companies' strategy and possible future developments, products, and/or platform directions and functionality are all subject to change and may be changed by SAP SE or its affiliated companies at any time for any reason without notice. The information in this document is not a commitment, promise, or legal obligation to deliver any material, code, or functionality. All forward-looking statements are subject to various risks and uncertainties that could cause actual results to differ materially from expectations. Readers are cautioned not to place undue reliance on these forward-looking statements, and they should not be relied upon in making purchasing decisions.

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.

See <http://global.sap.com/corporate-en/legal/copyright/index.epx> for additional trademark information and notices.