SAP Integration Suite
Monthly Updates – February 2022

Product Management Team & Guests, SAP Integration Suite

THE BEST RUN **SAP**

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Agenda

- Cloud Integration OEM Adapters

- Cloud Integration

- Trading Partner Management

- International Focus Group for Integration

  - Global Integration Survey 2022

  - Virtual International Day of Integration 2022

- #AskAnythingIntegration

Cloud Integration OEM Adapters
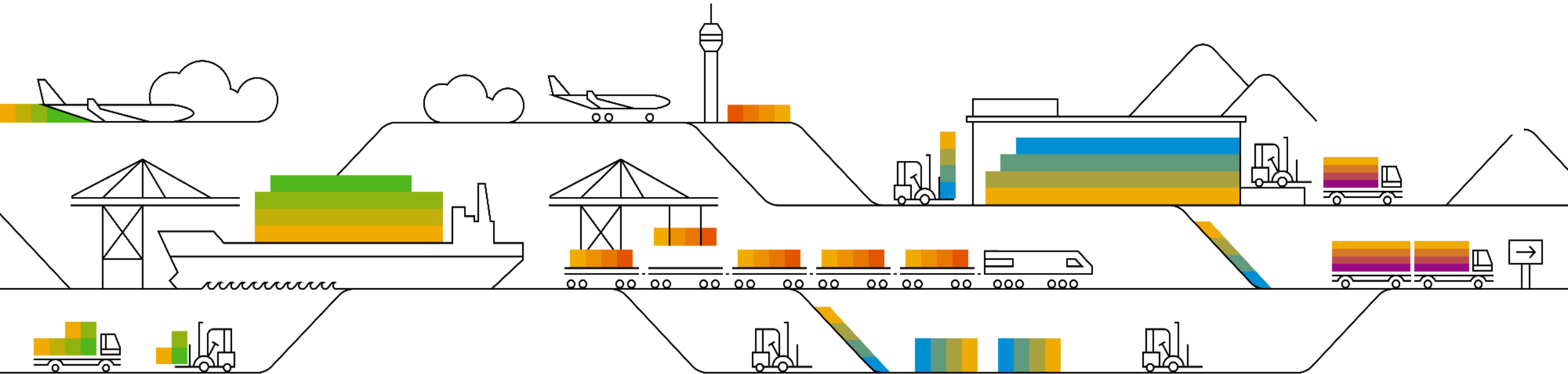
SAP Integration Suite: Connectivity Options

27 Standard Adapters

- **Technical adapters**
  - AMQP, AS2, AS4 J MS
  - HTTP, HTTPS (incl. REST), SOAP
  - JDBC, LDAP
  - Kafka (planned for March 2021)
  - SFTP, FTP, FTPS
  - Mail (SMTP, IMAP, POP3)
  - OData V2 & V4

New adapters

* All licenses of SAP Integration Suite & SAP Cloud Integration

* SAP Integration Suite standard and premium edition customers

Full list of adapters by SAP in SAP User Documentation

Where can I download the adapters?

Navigate to:

https://launchpad.support.sap.com/#/softwarecenter >> SUPPORT PACKAGES & PATCHES >> By Alphabetical Index (A-Z) >> C >> look for "**SAP CP IS ADAPTER ADVANCE PACK**" & "**SAP CP IS ADAPTER BASE PACK**"
Alternatively, you can directly go to:

- SAP CP IS ADAPTER ADVANCE PACK
- SAP CP IS ADAPTER BASE PACK

▪ Base pack: All licenses of SAP Integration Suite & SAP Cloud Integration.
▪ Advanced pack: SAP Integration Suite standard and premium edition customers.

Amazon Web Services – Sender
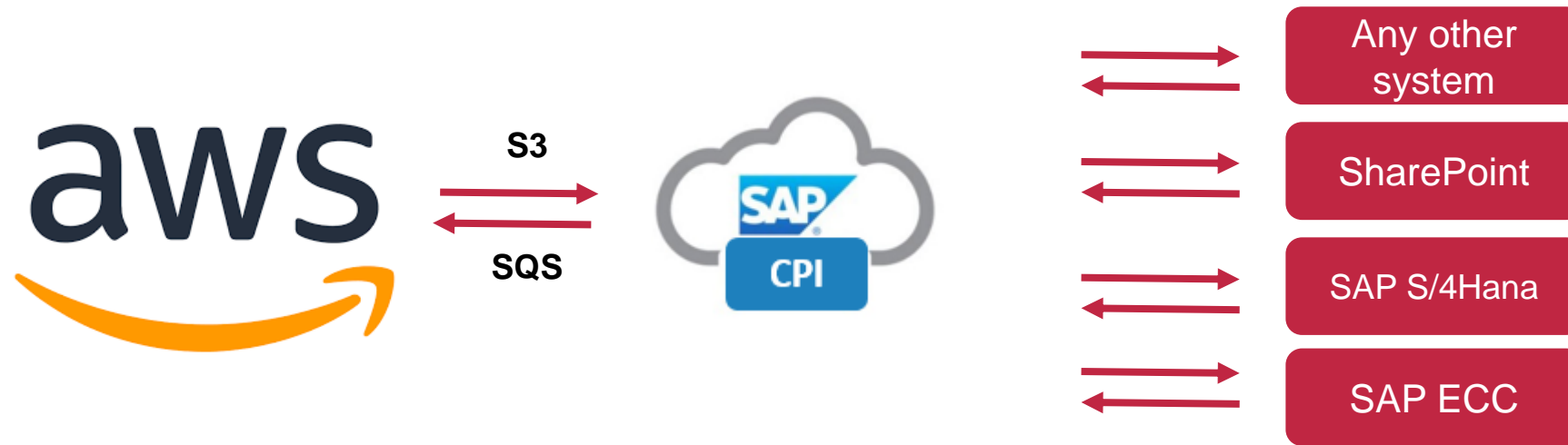
AWS Sender
Read data from AWS

Read AWS S3:
- Support for patterns in filename from root or sub-directories.
- Archive processed files to the same bucket or different bucket.
- Possibility to sort files based on Filename, Filesize, and Timestamp.
- Retrieve additional metadata/attributes for file in S3 bucket.
- Support for Server-Side Decryption.
- Post-processing options, including deleting, moving, and copying files.
- Support for dynamic properties and headers.
- Functionality to generate pre-signed URL.

AWS Sender

Read data from AWS

Read AWS SQS queue:
- Support for Standard and FIFO queues.
- Possibility to delete the message from the queue after reading as part of the post-processing step.
- Possibility to keep a message in the queue after processing.
- Capability to retrieve additional metadata/Attributes maintained for a message on the SQS queue.

Amazon Web Services – Receiver
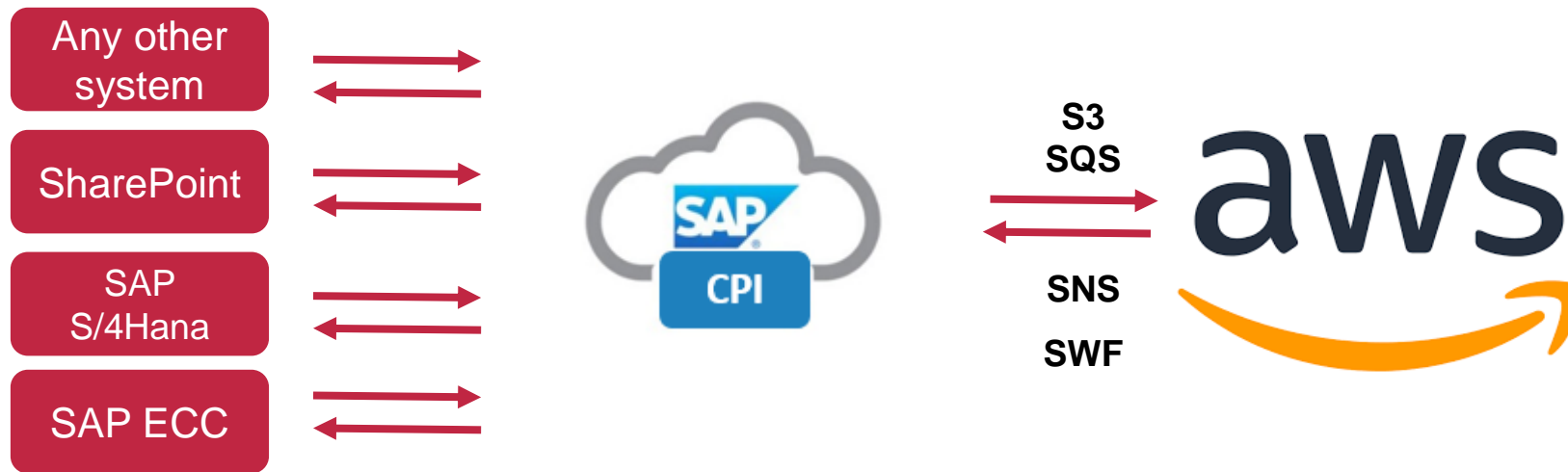
AWS Receiver
Read data from AWS

Push files to AWS S3 :
- Option to select a storage class.
- Different handling options for existing S3 bucket files
- Option to upload attachments to the S3 bucket.
- Server-Side Encryption.
- Capability to read a file from the S3 bucket using the Read operation of the receiver adapter.

Send message to AWS SQS queue:
- Support for Standard and FIFO queue.
- Add multiple message attributes while writing a message to queue.
- For Standard queue, option to provide delay seconds to avoid subsequent processing by any other consumer.
- For a FIFO queue, the option to provide message deduplication id and message group ID.

AWS Receiver
Read data from AWS

Push real-time notification messages to AWS SNS:
- Support for Standard topics.
- Option to provide Identical Payload for all consumers.
- Provide custom payload for different consumers.
- Format the response in XML and JSON formats.
- Provide multiple Message attributes.
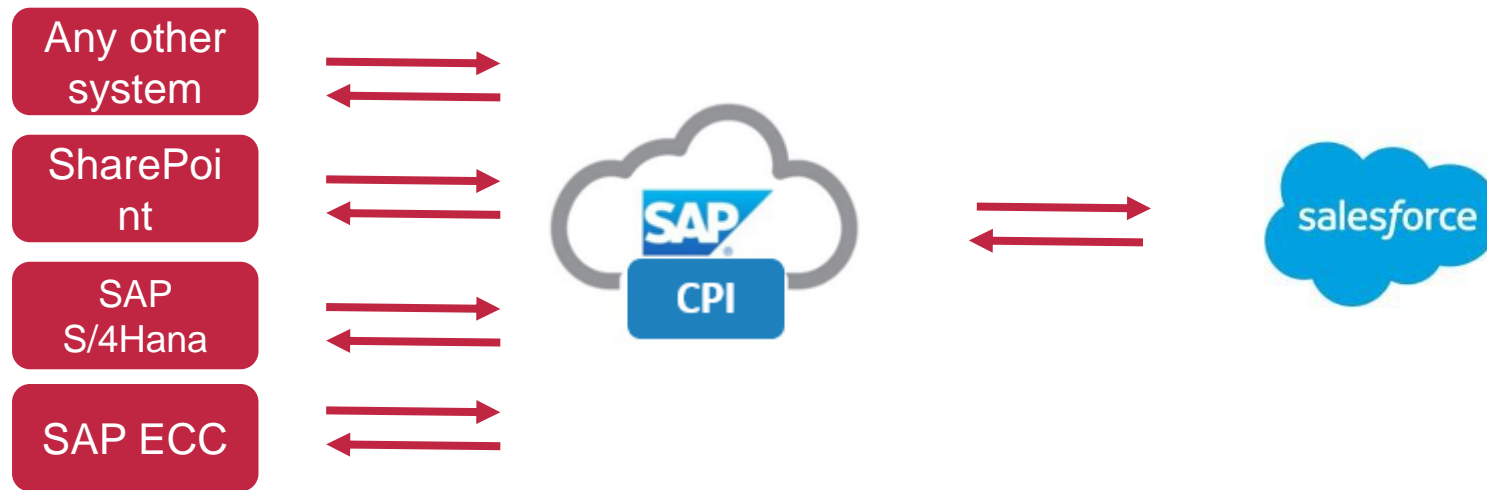
Implement & coordinates tasks via AWS SWF:
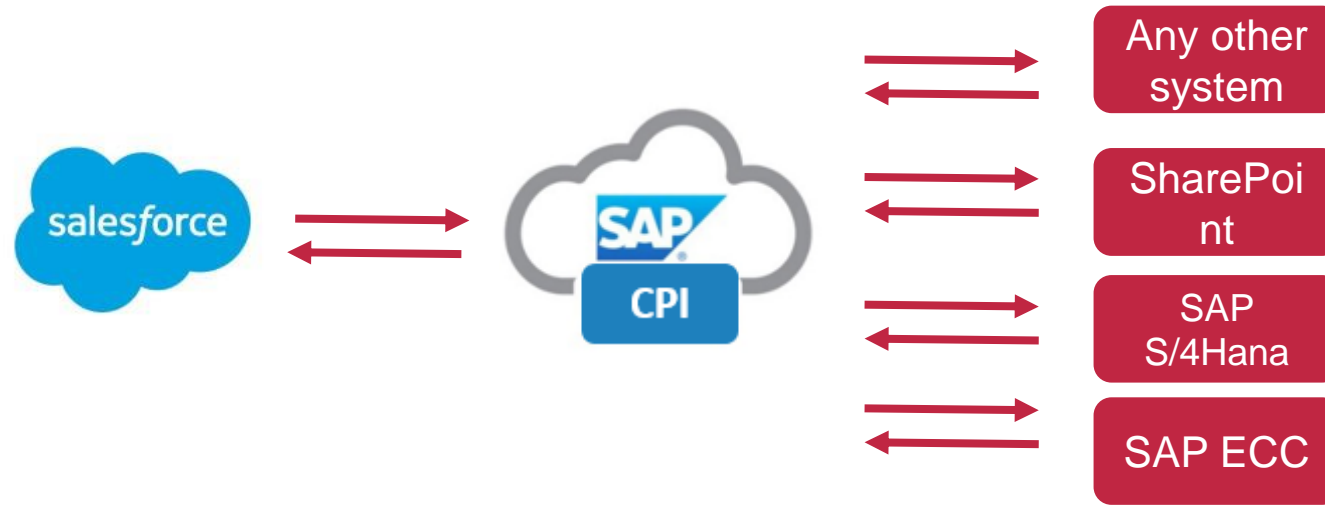- Multiple SWF tasks/operations.

Roadmap
What is ahead...

- Support for Amazon SNS FIFO – First-In-First-Out Messaging.
- Support for Request-response messaging pattern (virtual queues).
- Protecting data using client-side encryption.
- Support for Amazon DynamoDB.
- Support for Amazon EventBridge.

Salesforce – Receiver

Salesforce – Sender

Features

- Multiple operations: create, read, update, upsert, delete, query, etc.
- Perform query and search Salesforce using SOQL and SOSL.
- Retrieve binary content files from your Salesforce (document & attachment).
- Pretty-print and format the XML and JSON messages returned by Salesforce to improve readability.
- Support for custom Salesforce objects and custom fields.
- Sender adapter supporting the Streaming API for event-based message processing: PushTopic Events, Generic Events, Platform Events and Change Data Capture Events.
- Authentication to Salesforce using OAuth 2.0.
- Most attributes in the adapter support dynamic properties and headers.
- Support for Salesforce Object dependencies/relationships between objects in the adapter. It enables the inclusion of referenced SObjects in the Salesforce.
- Eclipse Workbench/Plug-In to query & Generate XSD.
- APEX REST Web Service functionality.
- BULK API version 2.0.
- Eclipse Workbench/plug-ins to support the creation and generation of Streaming-based queries and XSDs.

Features

Composite:
- Support Composite: combine different operations on multiple Salesforce Objects in a single request.
- Roll back preferences for the actions on Salesforce Objects

Bulk:
- Asynchronously process large sets of data with BULK processing using XML, JSON, and CSV.
- Support for processing of ZIP files.
- Query large sets of data via BULK Batch query operations, via SOQL.
- Retrieve the status of any BULK job, (query) batch, or all batches in a job.

Place Order:
- Process composite contract, order, and order product data in a single request.
- Add products to existing orders and contracts.
- Retrieve order and product records under a specific order or contract.
- Retrieve filtered lists of orders or products under a given order or contract.

Roadmap
What is ahead...

- Enhanced Composite resource: Tree and Batch object.
- Periodic update of adapter to support new Salesforce API versions.

Suggest features
Influence the capabilities

For any new feature suggestions, use the Influence session on SAP Integration Suite at:
https://influence.sap.com/sap/ino/#/campaign/2282

For upgrade questions:

Register an incident under the component "LOD-HCI-PI-CON-TPRO" with the title "Help with upgrading to the OEM adapter".

SAP Notes:
https://launchpad.support.sap.com/#/notes/3001980

Cloud Integration
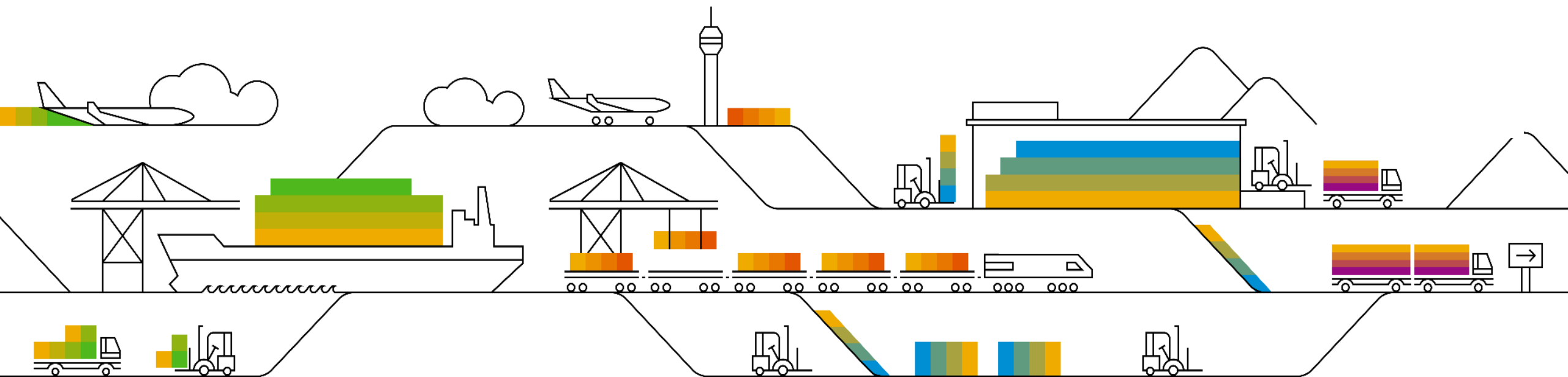
Kafka Adapter Supports TLS 1.3

The Kafka adapter now supports Transport Layer Security (TLS) 1.3 protocol for outbound and inbound communication.

See: [Configure the Kafka Sender AdapterConfigure the Kafka Receiver Adapter](#)

Archiving Destination Supports OAuth Authentication

The archiving function now supports the OAuth authentication for the archiving destination.

See: [Configuring Destination](#)

Integration Flow Design Guidelines
Quality of Service Exactly Once

Exactly Once = Guaranteed Delivery + Idempotent Receiver

Building blocks to ensure guaranteed delivery

- Unique ID
- ID Mapping
- Acknowledgement
- Sender with Retry
- Idempotent Receiver
- Idempotent Process Call

Sender handles retry	Integration flow handles retry	Integration flow idempotent	Integration flow with ID mapping	Receiver idempotent	Characteristics / side effects / constraints
✔		✔			Idempotent process call handles duplicates

Integration Process: Scenario 05a with idempotent local integration process at receiver side

Sender → SOAP → Start → Keep order header → Filter items → Combine all pieces → Idempotent Process Call → End

Local Integration Process: Send message to receiver

Start 1 → Request Reply → End 1

SOAP → Receiver
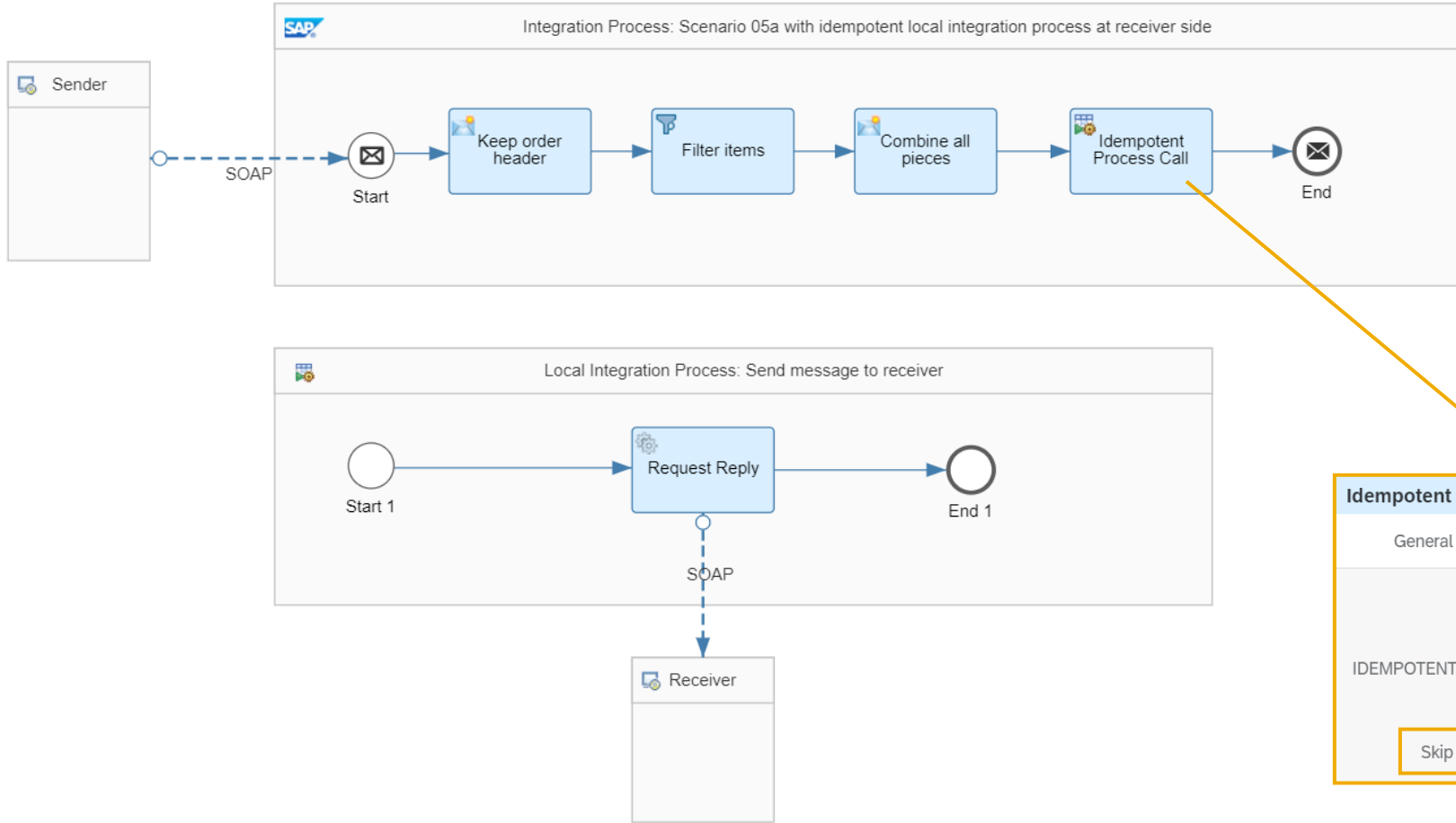
Idempotent process call is **skipped** for message with same **SapMessageIdEx**

Idempotent Process Call

General   Processing

Local Integration Process:* Local Integration Process: Send mess…   Select

IDEMPOTENT CONDITION DETAILS

Message ID:* ${header.SapMessageIdEx}

Skip Process Call for Duplicates: ☑

Sender handles retry	Integration flow handles retry	Integration flow idempotent	Integration flow with ID mapping	Receiver idempotent	Characteristics / side effects / constraints
✔		✔			Side effects lead to non-deterministic behavior

Idempotent process call is **not skipped**
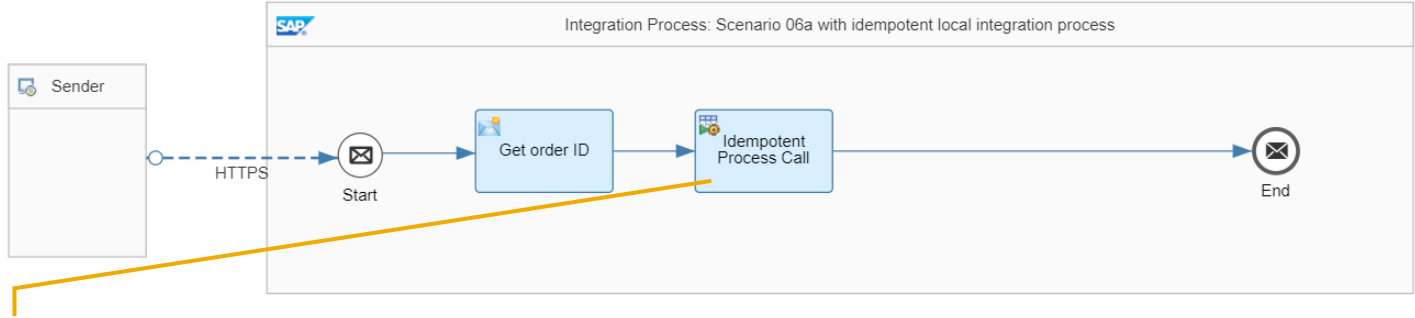
Integration Process: Scenario 06a with idempotent local integration process

Sender

HTTPS → Start → Get order ID → Idempotent Process Call → End

Idempotent Process Call

General   Processing

Local Integration Process: * Local Integration Process: Send mess...   Select

IDEMPOTENT CONDITION DETAILS

Message ID: * ${property.orderNumber}

Skip Process Call for Duplicates: ☐

Local Integration Process: Send message to receiver and reply

Start 1 → Duplicate? → Yes → Body in case of duplicate → End 1

No → Request Reply → Default message body

SOAP

Receiver
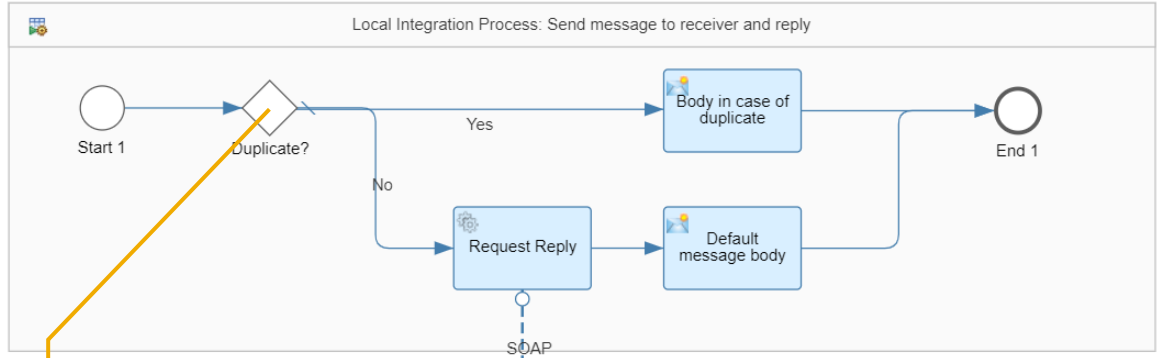
Router

General   Processing

ROUTING CONDITION

Order	Route Name	Condition Expression	Default Route
1	No		☑
2	Yes	${property.CamelDuplicateMessage} = 'true'	☐
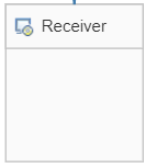
Order won't be posted in case of duplicates (property **CamelDuplicateMessage** equals **true**)

Trading Partner Management
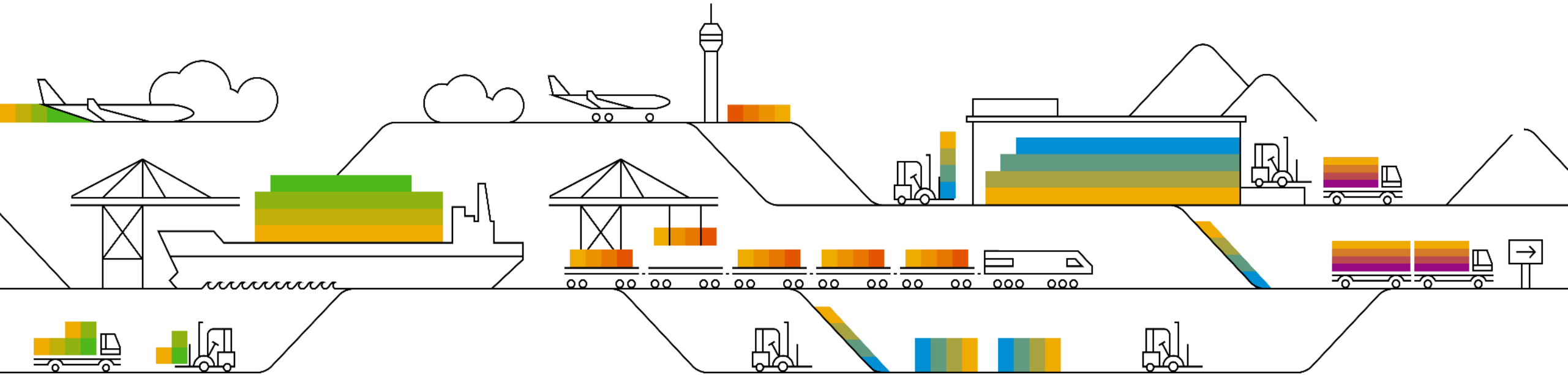
Trading Partner Management (TPM)

Onboarding of trading partners - leveraging SAP Integration Suite capabilities

- **Accelerated onboarding of Trading Partners**
- Trading partner specific interface and mappings design from Integration Advisor
- Optimized operational effort through dynamic integration
- Monitoring of integrations with business partners
- Archiving
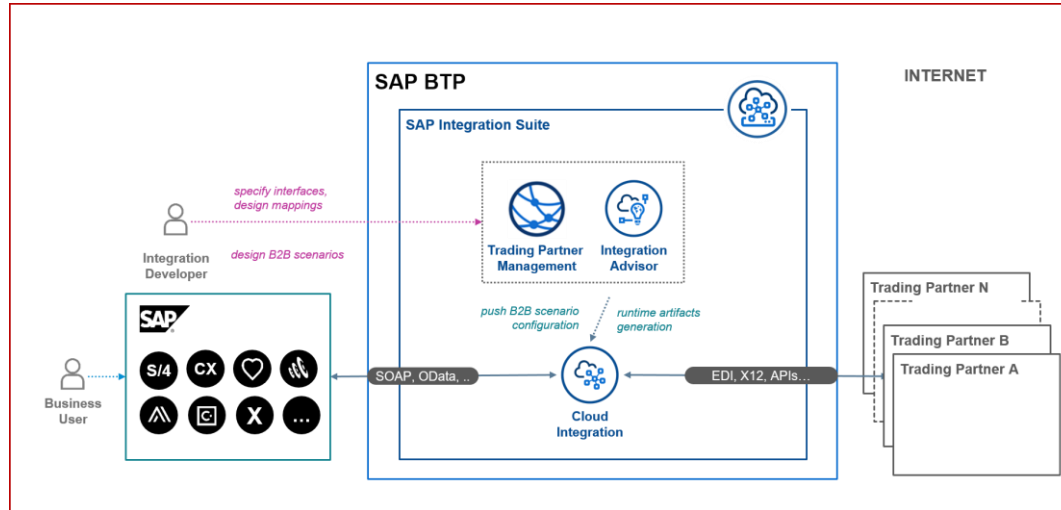
One-stop shop

- Simplified B2B integration scenario management with multiple trading partners
- crowd-sourced content
- lift and shift scenarios in transformation projects to the cloud

Integration Advisor and Trading Partner Management at a Glance

Integration Advisor (IA)

- Definition and Documentation of Interfaces and Mappings
- Central documentation of B2B and SAP libraries
- Intelligent and crowd-sourced proposal service

Trading Partner Management (TPM)

- Creation and maintenance of B2B scenarios
- Consideration of individual aspects and requirements per trading partner
- Push B2B scenario configuration to Partner Directory

SAP Cloud Integration

- Stores configuration in Partner directory
- Processes B2B transactions with one integration flow

B2B Monitoring

- Monitors the B2B transactions at runtime in corporation with Trading Partner Agreement data
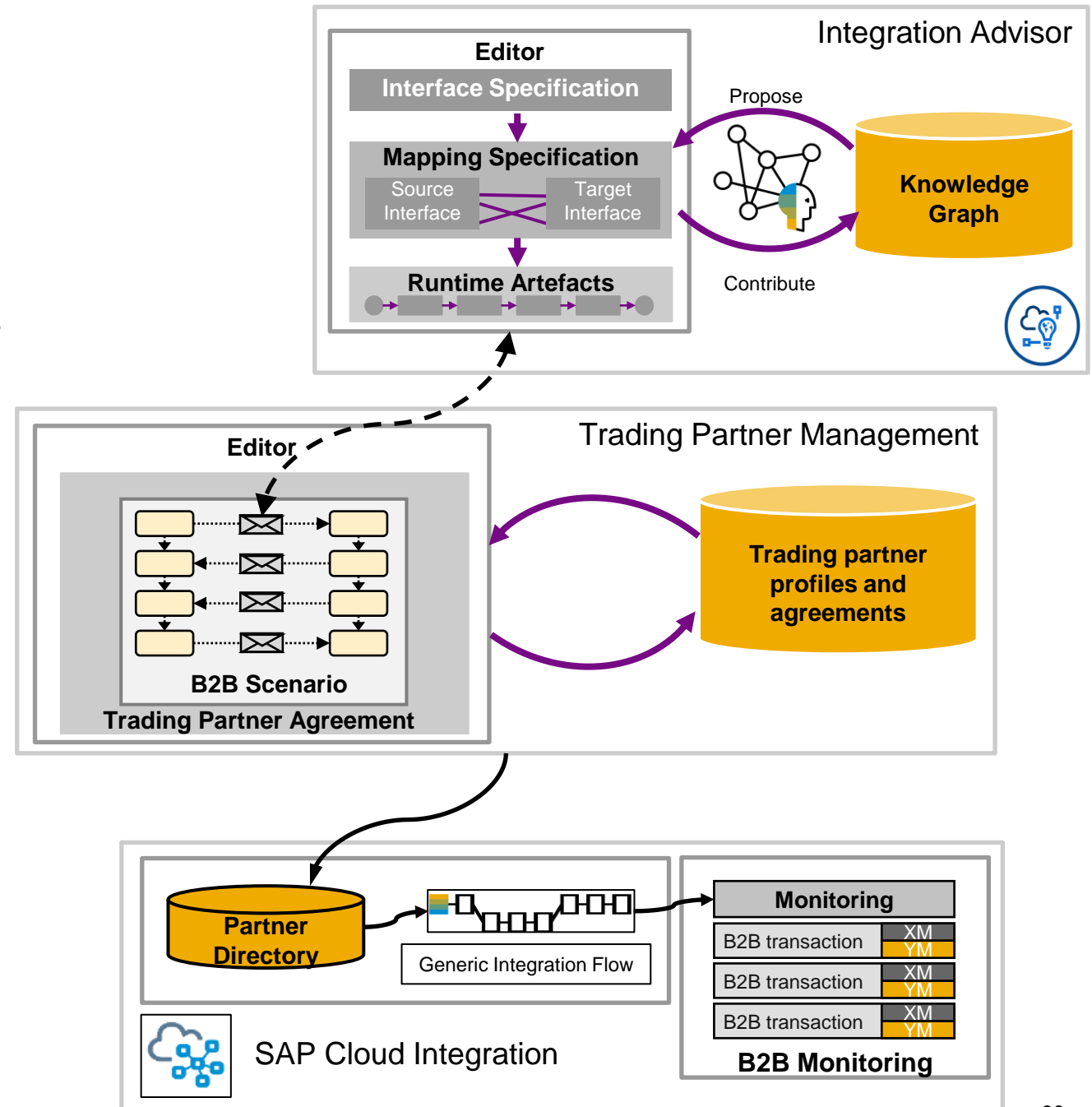
Trading Partner Management
Entities

More information: https://blogs.sap.com/2021/12/17/announcement-sap-trading-partner-management-and-b2b-monitoring-brand-new-capabilities-of-sap-integration-suite-is-released/
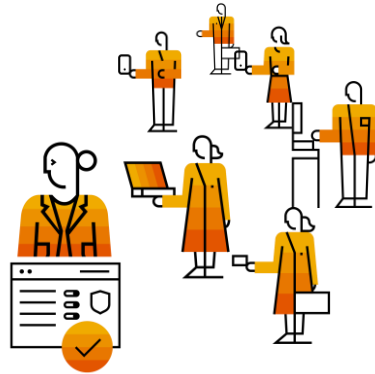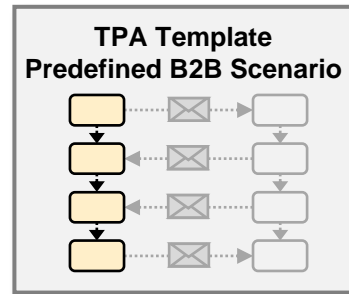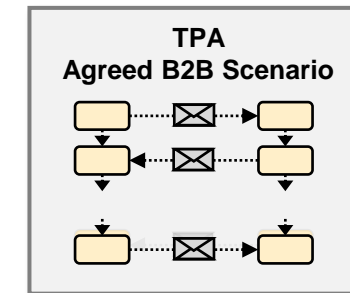
API Business Hub
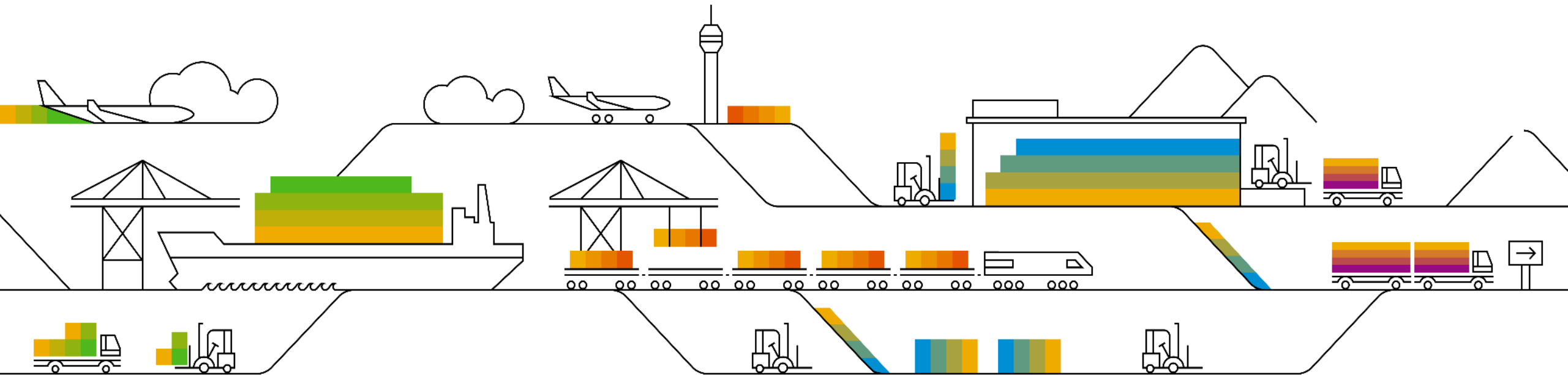
Community packs for Partner Ecosystem

Community packs reuse in
- Consulting Projects
- Monetization via SAP Store

Discovery via
SAP API Business Hub
and GitHub

Community packs
licensed **Apache 2.0**
for reuse by the
partners.

Partner Ecosystem
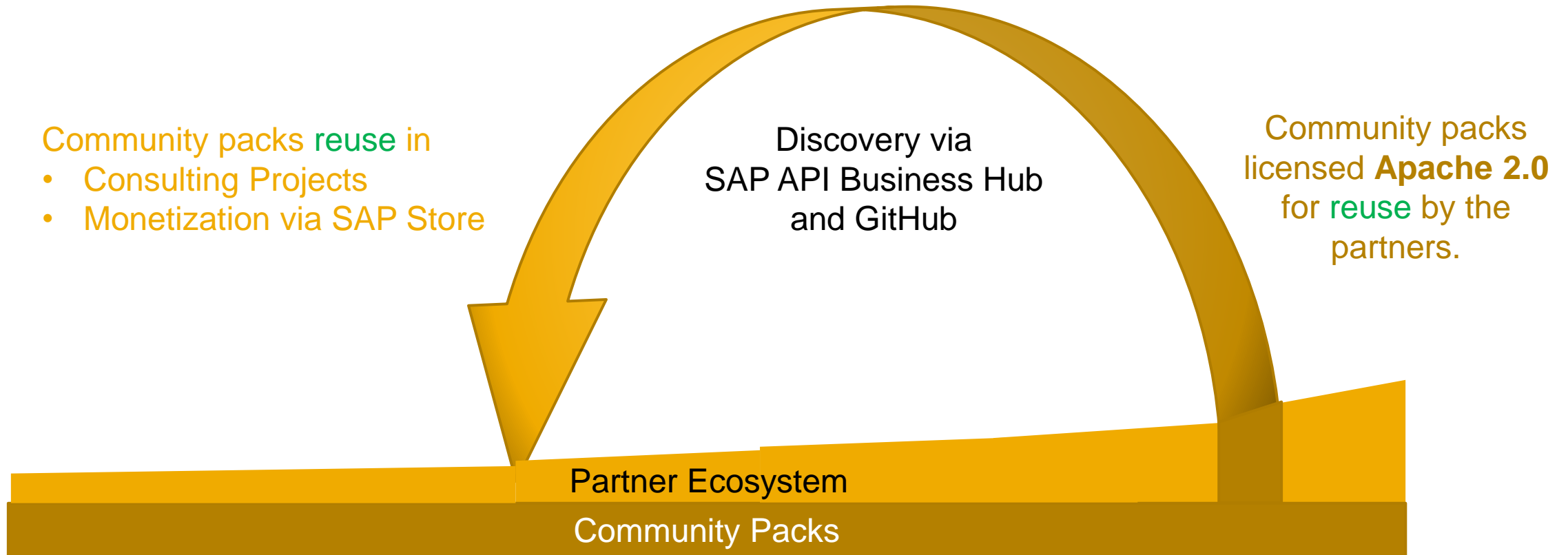
Community Packs

Problems to solve for Partner Ecosystem
- ⊖ Whitespace discovery
- ⊖ Risk mitigation/ Cost management
- ⊖ Best practice adherence

Community packs deliver
- ✓ Customer relevant scenarios
- ✓ 60 % - 80% reusable scenarios
- ✓ Best practice adherence guaranteed

Dual Publication model for Community Packs

GitHub.com/SAP

- OSPO Governance
- 4 degrees of Open Source Freedom

API Business Hub

- Cloud Integration Governance
- Native Visualization and Consumption

- Dual Publication model to leverage unique capabilities of both platforms for maximum benefit.

- Publications on both platforms to have independent evolution.

- Listings to be linked with each other.

Demo

International Focus Group for Integration

- **Global Integration Survey 2022**
- **Virtual International Day of Integration 2022**
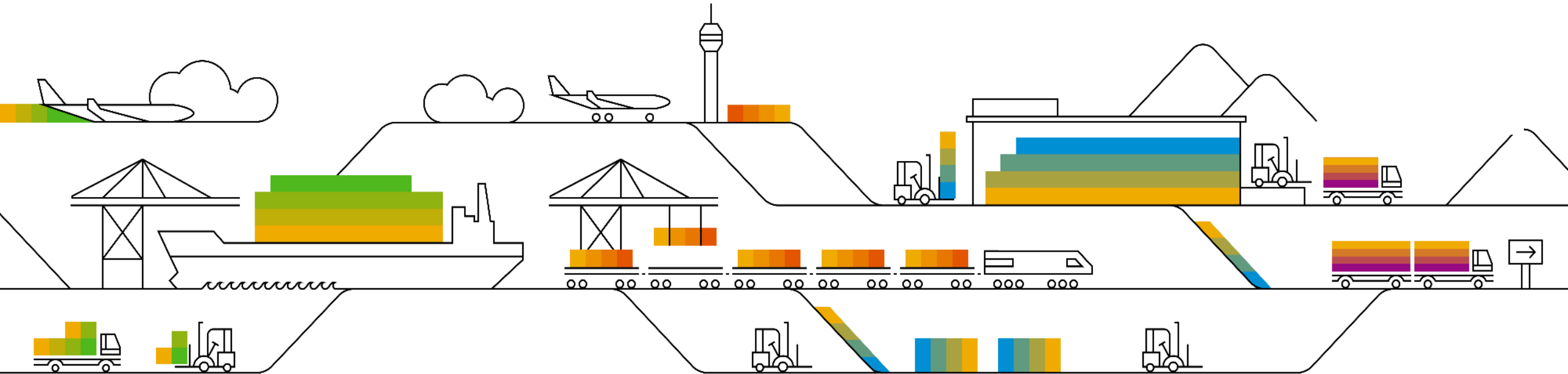
13th IFG Integration Survey 2022 – Your chance to influence the SAP Integration Roadmap

The International Focus Group for Integration (IFG for Integration) is a collaboration platform of representatives of 13 user groups and communities across the world. The focus areas of this group include exchanging experiences and knowledge, working on best practices, and influencing SAP.
Every year, we conduct a global survey to collect input from the integration community across the world.

As in the past, the survey results will enable the IFG for Integration to better address the needs of the integration community and to discuss and influence the requirements with SAP product development.

The **13th** annual survey has been launched, which is your unique opportunity to influence the SAP Integration Roadmap (<u>survey will be open until April 30th</u>).

The survey is available in three different languages (English, German, Spanish) and can be accessed at the following link and QR Code:

https://www.surveymonkey.de/r/WQ3HVT3

Survey Results 2020:
https://blogs.sap.com/2020/06/02/global-survey-for-sap-integration-2020/
Survey Results 2019:
https://blogs.sap.com/2019/05/23/global-survey-for-sap-integration-2019/
Survey Results 2018:
https://blogs.sap.com/2018/11/11/results-of-the-global-survey-for-sap-integration-2018-part-1/
https://blogs.sap.com/2018/12/10/results-of-the-global-survey-for-sap-integration-2018-part-2/
Survey Results 2017:
https://blogs.sap.com/2017/11/30/result-of-the-global-survey-for-sap-integration-2017/

International Focus Group:
https://blogs.sap.com/2010/10/07/introducing-global-special-interest-group-for-process-integration/

Use of local Cloud Integration (CPI) runtime on SAP PI /PO 7.50
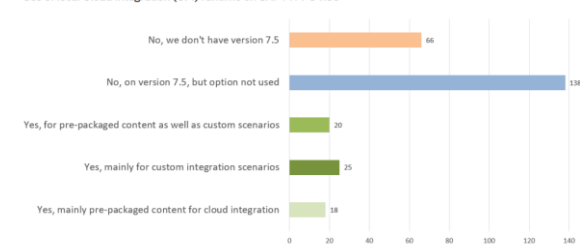
Virtual International Day of Integration 2022 – Your chance to share your experience with SAP Integration Suite

The International Focus Group for Integration (IFG for Integration) is a collaboration platform of representatives of 13 user groups and communities across the world. The focus areas of this group include exchanging experiences and knowledge, working on best practices, and influencing SAP.

This year we want to offer a virtual International Day of Integration on June 23, 2022, with presentations from SAP, customers and partners. Each presentation should be around 20 – 25 minutes long.

Kindly provide your proposals for topics until mid of April 2022 to
Hermann.steinroetter@bp.com

At the end of the International Day of Integration we will offer an open "Ask the expert" Q&A session.

Presentations and recordings will be published here:
https://webinars.sap.com/sap-user-groups-k4u/en/ifgintegration

#AskAnythingIntegration
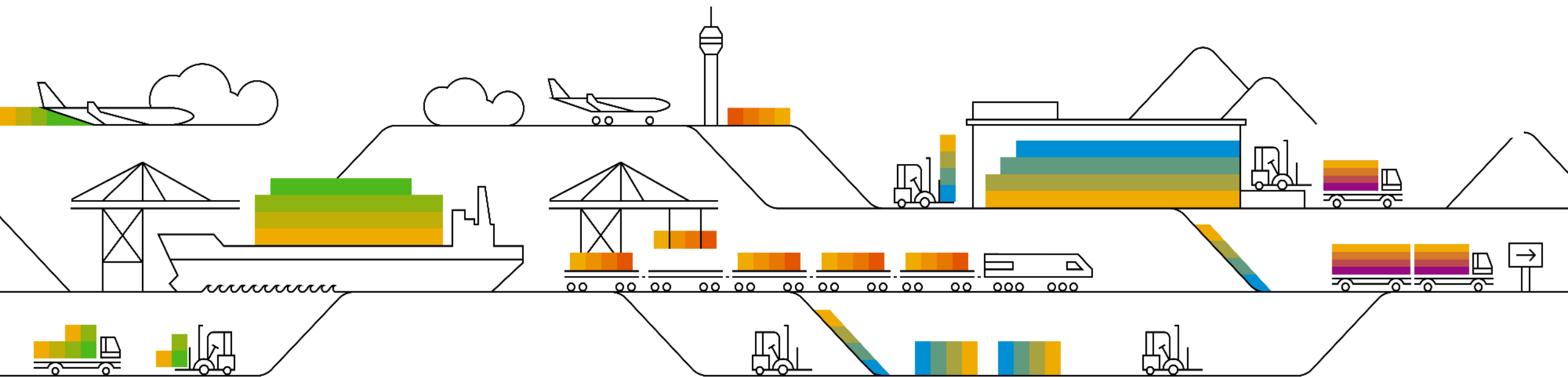
What is #AskAnythingIntegration?

Provides a platform for customers, partners, consultants, and participants to ask their most important and top priority questions and get them answered by the panel of experts.
- Questions can be sent upfront or posted directly in the call
- Questions and answers will then be published as a public FAQ document with regular updates and additions

Panel of Experts: Speakers of the monthly webinar + product Management team
Schedule: Runs every alternate month
Duration: 20 mins
Moderator: Gautham (gautham.krishna@sap.com)

Note: "Interact with #IntegrationBlackBelt" section will transition to alternate months.

Thank you.

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