

# SAP Cloud Platform Integration Suite

## Monthly Updates – October 2019

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# Agenda



- SAP Cloud Platform API Management & API Business Hub
- SAP Cloud Platform Integration
- SAP Process Orchestration
- Q&A



# What's New!! - SAP Cloud Platform Integration Suite

- What's New Initiative -
  - Newsletter: **First Monday**
  - Webinar: **Last Tuesday**
- One time subscription - no need to register for individual webinars
- Consolidated **Landing page** for all the Suite services – monthly aggregation
- Links to blogs, upcoming events, important news, updates, recordings, etc. for all Suite services in one newsletter

SAP® Cloud Platform **Integration Suite** THE BEST RUN 

## August Newsletter - What's New!!

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### Upcoming **Webinar**

Aug 29: [SAP Cloud Platform Integration Suite – Monthly Update](#)

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### Connectivity Tests

Perform connectivity test against the Cloud Connector or test connection via the Cloud Connector to the backend.

[Learn how](#)

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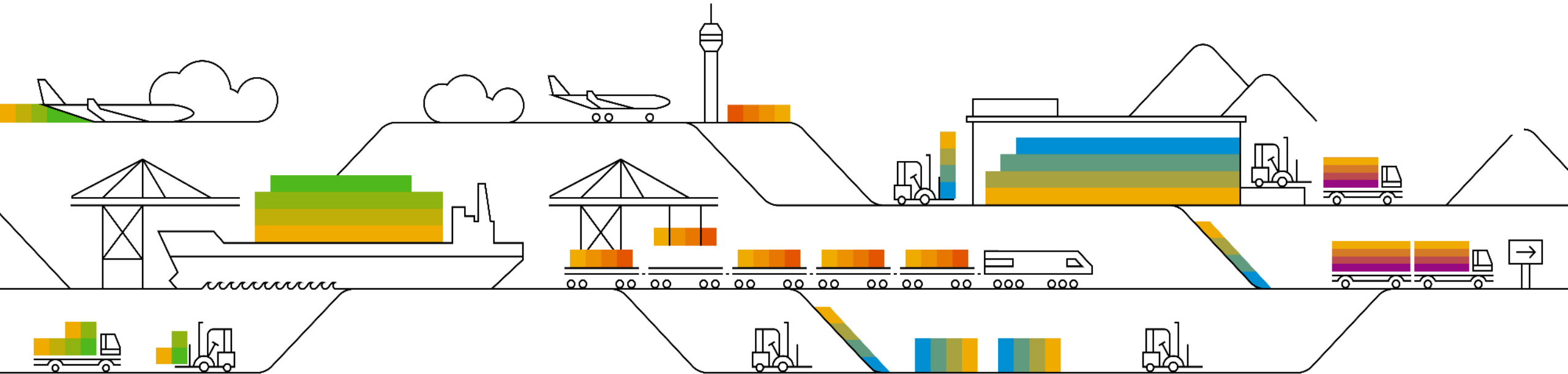
### Self-service enablement

Enable Cloud Integration service on consumption-based commercial model for SAP Cloud Platform via self-service.

[Learn more](#)

**Subscribe Now!!**

# SAP Cloud Platform API Management and SAP API Business Hub



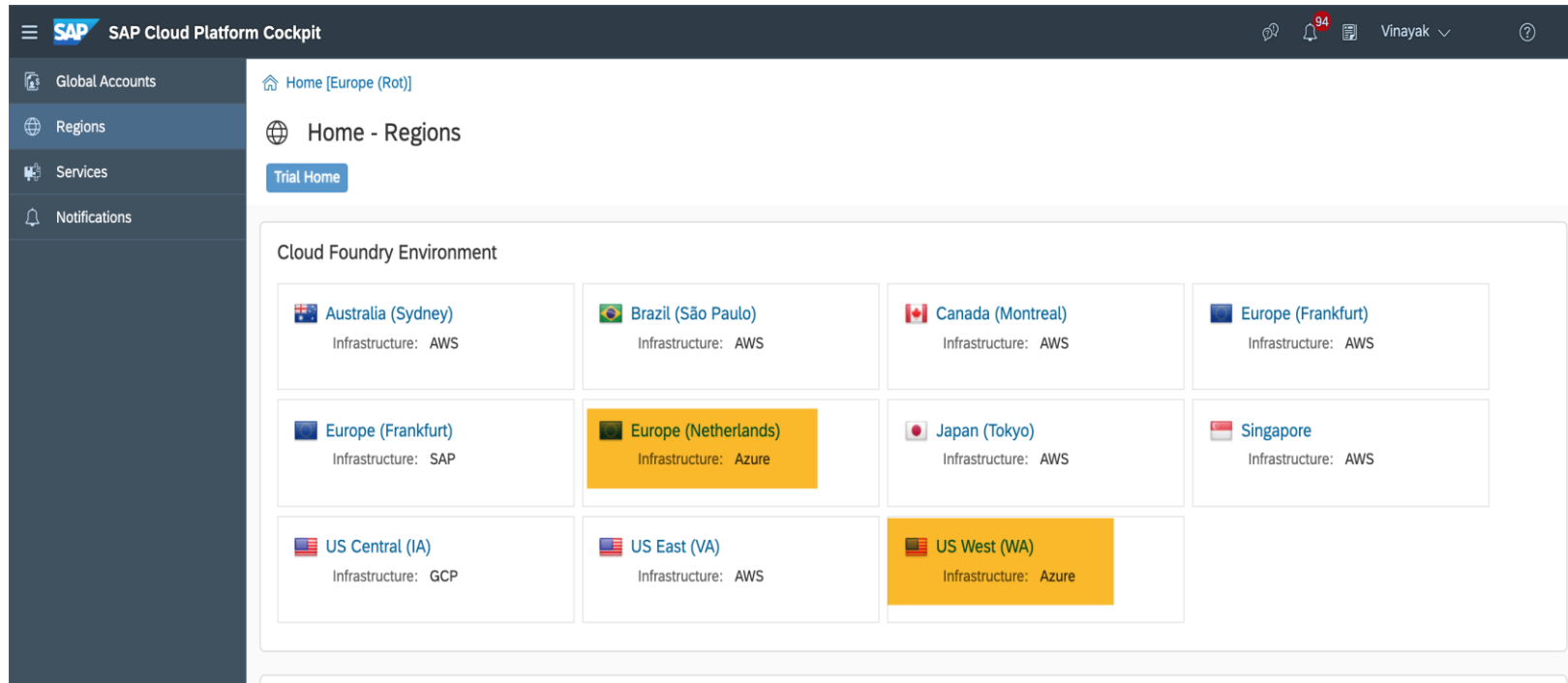
# Agenda



- Multi-Cloud : API Management is now live on Azure DCs
- Self-Service Onboarding – A complete automated experience
- Removing CF ‘Org’ restrictions for binding multiple API Management instances
- API Management Client SDK – Enabling CI CD pipelines
- Developer Portal Enhancements :
  - Sourcing external Application Keys and Secrets
  - Sourcing external Application IDs
  - Admin on-behalf Application Creation
- Miscellaneous



# Multi-Cloud : API Management is now live on Azure DCs



- API Management is now available (Starter Plan) in US20 and EU20 Cloud Foundry Data Centers in Azure
- Advanced Analytics is not yet enabled (expected Jan 2020)

# Self-Service Onboarding – A complete automated experience

- Complete provisioning experience has been automated
  - Service enablement from Cloud Foundry Account
  - Sanity testing of onboarded tenants
  - CLD Integration for Account management
  - Release notification emails
  - Sanity Testing of Accounts
  - Administrator Role Assignments
  - Virtual Host availability on default domain and DNS



# DEMO

# Removing CF 'Org' restrictions for binding multiple API Management instances

## Current Scenario

- Starter Plan: Enables / provisions APIM on one Neo tenant, initiated from CF service instance. Unable to create multiple Starter plans within an Org.
- Preview Plan: Maps already provisioned APIM on a Neo tenant with the given Org; Supports multi-space scenario by reusing the Neo coordinates of the first Preview plan.

## Proposed Solution

- Since Starter Plan gives 1:1 mapping from CF Org to Neo tenant, the same Neo coordinates can be used to create other service instances of Preview Plan in same / other spaces within the given Org.
- Both Starter and Preview plan facilitates Route Service binding

## Steps to Proceed

- Within an Org in any space, first APIM service instance has to be a Starter Plan (mandatory)
- And then multiple service instances of Preview plan can be created and used.

# API Management Client SDK – Enabling CI CD pipelines

- Easy and scalable way to connect to API assets via command line and external tooling environments
- Limited feature set to begin with. Will have a broader Entity coverage in future.

# DEMO

# Developer Portal Enhancements

## Sourcing external Application Keys and Secrets

- Application Keys and secrets from external 3<sup>rd</sup> party systems can be reused while creating Application in API Management. (Can be used in conjunction with the feature to set up OAuth verification Policies in API Management with 3<sup>rd</sup> party OAuth Authorization Servers)
- Facilitates DEV/QA to PROD movement (however it's not fit for a general purpose tenant movement)

## Sourcing external Application IDs

- Application ID (via a Service) from one tenant can be reused while creating an Application in another tenant
- Part of a bigger workstream : to facilitate Migration from one Instance to the other, Transport Management.

## Admin on-behalf Application Creation

- Content Admin role would permit an Admin to be able to create an Application on behalf of other users

# DEMO

# Miscellaneous

## JWT Policies and blogs

- Blog [Series](#) on how to leverage the JWT Policies with common Identity Providers.
- API Management Trial now includes JWT Policy sets as well.

## API Management Trial experience

- SAP Cloud Platform [Trial](#) now has a [new](#) navigation experience
  - Starter scenarios showcasing the platform capabilities along our solutions
  - Guided tours for learning the basics
  - API Management Trial will continue to be Neo based for now.
- Enhanced API Management Product [Help Page](#)

## Get in touch with us in case you need higher timeout capabilities

- API Management currently supports 55 sec of timeout on the Target Endpoints.
- Possible to go for higher timeouts if your use case demands so. Note that enabling this is on a 'case-by-case' basis

# SAP API Business Hub updates

## New Integration Packages

- SAP S/4HANA Integration with SAP Field Service Management
- SAP Document Compliance: Electronic Invoicing for **South Korea** with SmartBill
- SAP Subscription Billing Integration with SAP Entitlement Management
- **SAP Cloud Platform API Management Monetization using SAP Subscription Billing**
- SAP Cloud Platform Integration with SAP Cloud Platform Alert Notification
- SAP Commerce Cloud, Context-Driven Services Integration with SAP Marketing Cloud
- SAP Commerce Cloud, Telco and Utilities Accelerator Integration with SAP S/4HANA Utilities
- SAP Commerce Cloud Integration with SAP CPQ
- SAP Cloud for Customer Integration with SAP Field Service Management

## New Partner Integration Packages

- SAP SuccessFactors Employee Central Payroll Integration 2.0 with **NGA HR**
- **CELUM** Digital Asset Management Integration with SAP Marketing Cloud
- SAP SuccessFactors Integration with **ADP** Tax Credits
- Utility XML to Flat File Converter by **delaware**

## New API Package

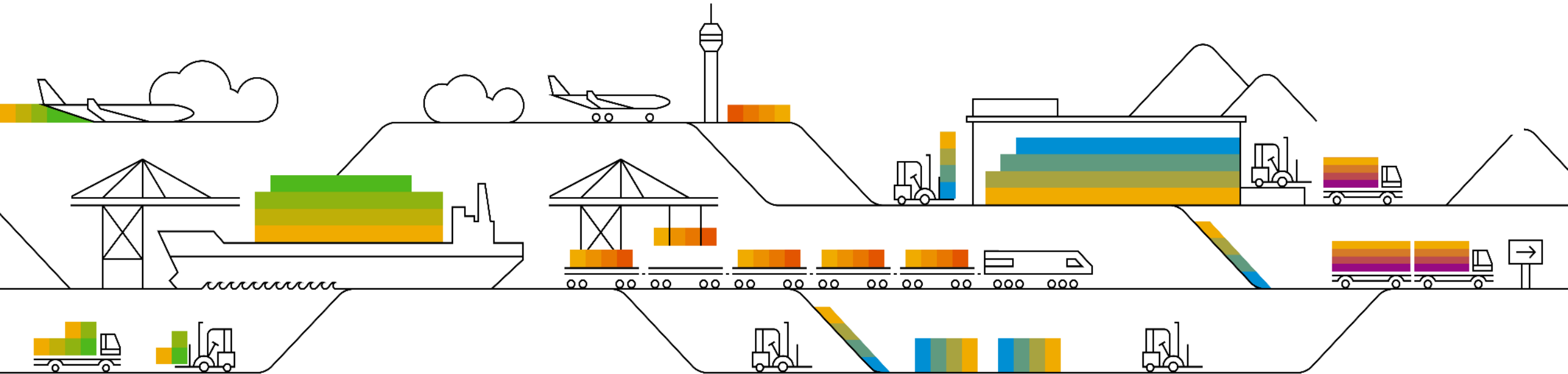
- SAP Cloud Platform Workflow
- Equipment Determination Business Rules
- SAP Concur Shared APIs

## API Updates

- Concur Request
- Concur Expense
- SAP Fieldglass



# SAP Cloud Platform Integration



# Agenda

- Remote OData API's - Enhanced ServiceEndpoints API
- Design Time Enhancements
- Monitoring Enhancements
- Integration Flow Design Guidelines



# Remote OData API's - Enhanced ServiceEndpoints API

Service Endpoints entity enables you to obtain information about the service endpoints exposed by SAP Cloud Platform Integration on a tenant.

- Service Endpoints API is now enhanced with adapter specific protocol information
  - You can now apply filter based on Protocol while retrieving the service endpoints
  - Protocol is the type of the APIs, for example:

Adapter	Protocol Type
SOAP	SOAP
IDoc	SOAP
OData V2	ODATAV2
AS2	AS2
AS4	AS4
HTTPS	REST

- [Documentation](#) & [blog](#)

# Example requests for accessing the endpoints information

- `https://<tmn>/api/v1/ServiceEndpoints`

Returns information about all the service endpoints on a tenant. By default, the information is displayed in XML format.

- `https://<tmn>/api/v1/ServiceEndpoints?$format=json`

Returns information about all the service endpoints in JSON format.

- `https://<tmn>/api/v1/ServiceEndpoints?$expand=EntryPoints`

Returns information about all the service endpoints with only the endpoints information expanded.

- `https://<tmn>/api/v1/ServiceEndpoints?$select=EntryPoints`

Returns only the entry points information for all the service endpoints.

- `https://<tmn>/api/v1/ServiceEndpoints?$select=ApiDefinitions`

Returns only the API definitions information for all the service endpoints.

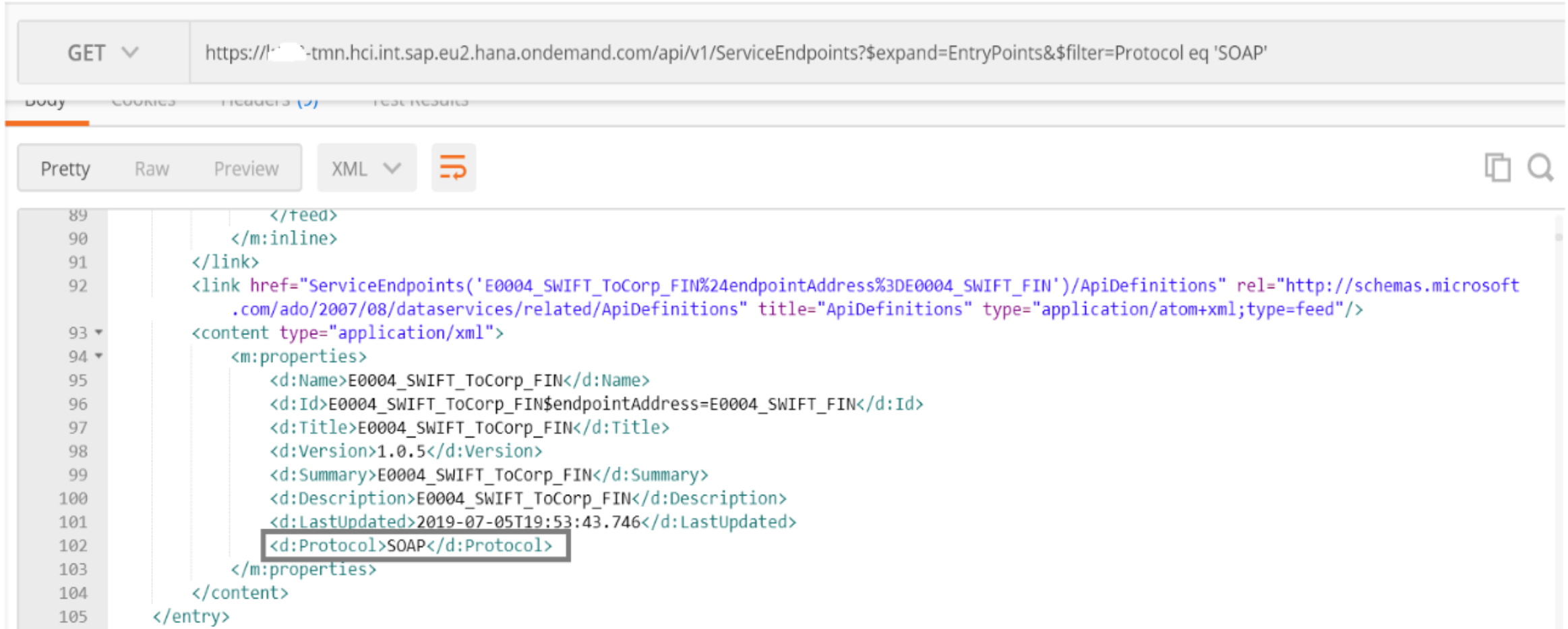
- `https://<tmn>/api/v1/ServiceEndpoints?$expand=EntryPoints&$filter=Name eq 'Getting Started Flow'`

Returns the service endpoints only for the integration flow named "Getting Started Flow".

- `https://<tmn>/api/v1/ServiceEndpoints?$expand=EntryPoints&$filter=Protocol eq 'SOAP'`

Returns only the service endpoints information of protocol type SOAP

# Service Endpoints based on the Protocol



```
GET https://[redacted]-tmn.hci.int.sap.eu2.hana.ondemand.com/api/v1/ServiceEndpoints?$expand=EntryPoints&$filter=Protocol eq 'SOAP'
```

```
89     </feed>
90     </m:inline>
91 </link>
92 <link href="ServiceEndpoints('E0004_SWIFT_ToCorp_FIN%24endpointAddress%3DE0004_SWIFT_FIN')/ApiDefinitions" rel="http://schemas.microsoft
93     .com/ado/2007/08/dataservices/related/ApiDefinitions" title="ApiDefinitions" type="application/atom+xml;type=feed"/>
94 <content type="application/xml">
95     <m:properties>
96         <d:Name>E0004_SWIFT_ToCorp_FIN</d:Name>
97         <d:Id>E0004_SWIFT_ToCorp_FIN$endpointAddress=E0004_SWIFT_FIN</d:Id>
98         <d:Title>E0004_SWIFT_ToCorp_FIN</d:Title>
99         <d:Version>1.0.5</d:Version>
100        <d:Summary>E0004_SWIFT_ToCorp_FIN</d:Summary>
101        <d:Description>E0004_SWIFT_ToCorp_FIN</d:Description>
102        <d:LastUpdated>2019-07-05T19:53:43.746</d:LastUpdated>
103        <d:Protocol>SOAP</d:Protocol>
104    </m:properties>
105 </content>
</entry>
```

# DEMO

# Design Time Enhancements

## Create/Upload an Integration Flow

You can now edit the ID field while creating or uploading an integration flow.

### [Creating an Integration Flow](#)

The screenshot shows a dialog box titled "Add integration flow artifact". It has two radio buttons: "Create" (selected) and "Upload". Below the radio buttons are four input fields: "\*Name:" with the value "my integration flow", "\*ID:" with the value "my\_integration\_flow\_for\_webinar", "Product Profile:" with a dropdown menu showing "SAP Cloud Platform Integration", and "Description:" with a text area containing "<Description>". At the bottom, there are two more input fields: "Sender:" with the value "<Sender>" and "Receiver:" with the value "<Receiver>". The dialog box has "OK" and "Cancel" buttons at the bottom right.

## Content Transport

You can now see the mode of the transport configured by the tenant administrator while triggering the transport.

The screenshot shows a dialog box titled "Transport Comments". It has a "Mode:" label and a text input field containing "Transport Management Service". Below this is a "Comments:" label and a large text area with a vertical cursor. The dialog box has "Transport" and "Cancel" buttons at the bottom right.

# DEMO



# Monitoring Enhancements

## Increased Size Limit for KeyStore Monitor and Certificate to User Mapping

The size limit for the key store and the User to Certificate Mapping increased from 1MB to 2MB.

[Managing Keystore Entries](#)

[Managing Certificate-to-User Mappings](#)

The maximum size of a keystore is 2 MB.

- The 2 MB limit corresponds to around 2000 X.509 certificates.
- A key pair with a chain of three X.509 certificates consumes about 3 KB, so if the keystore only contains key pairs of this type, then you can store around 600 key pairs in the keystore.

# Monitoring Enhancements

## Decorate Integration Flow Runtime Model

Decorate integration flow runtime model for specific processing run

Runs (3)

#	Started At	Duration	Log Level	Process ID	Status
3	Oct 28, 2019, 14:13:53	1 sec 367 ms	Trace	c7cf7cd	Completed
2	Oct 28, 2019, 14:12:53	2 ms	Trace	c7cf7cd	Processing
1	Oct 28, 2019, 14:12:33	1 ms	Trace	c7cf7cd	Processing

Run Steps (15)

Integration Flow Model | Log Content | Message Content

No integration flow element selected

1 / 1

SFTP Segment 6 479 ms

End 1 Segment 6 11 ms

PGPEncryptor Segment 6 45 ms

Sequential Multicast 1 Segment 6 535 ms

SFTP Segment 5 517 ms

The diagram illustrates an integration process flow. It begins with a 'Start' node connected via 'SOAP' to a 'Tax Data Aggregation' step. This leads to a 'Sequential Multicast 1' node, which branches into two paths: 'Branch 1' leading to 'PKCS7Encryptor' and 'Branch 2' leading to 'PGPEncryptor'. Both paths converge and lead to 'PKCS7 Signer', which then connects to an 'End' node. An 'Exception Subprocess 1' is shown below, containing 'Content Modifier 1' and 'Send 1' steps, connected to 'Error Start 1' and 'Error End 1' nodes. The process is decorated with SFTP icons and arrows indicating data flow to external systems like 'Insuranc...', 'Pension...', and 'Error\_Mail'.

# DEMO

# Integration Flow Design Guidelines

A new section provides an overview of patterns how to design enterprise-grade integration flows.

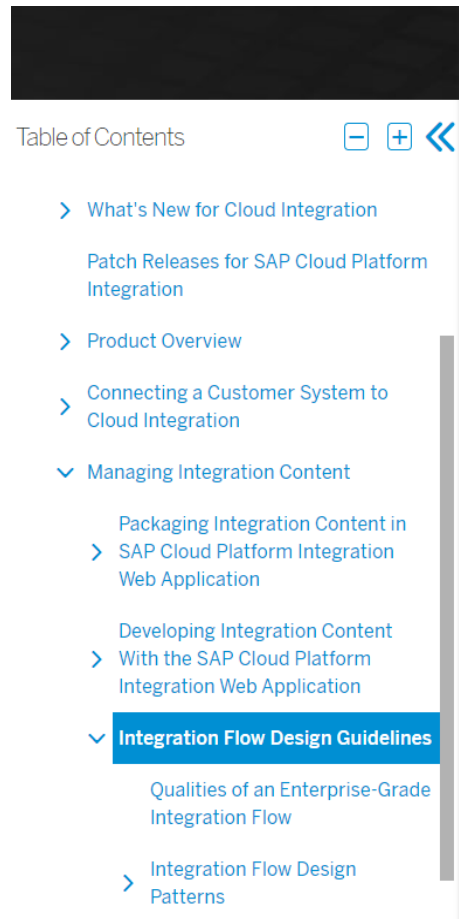


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  - ✓ **Integration Flow Design Guidelines**
    - Qualities of an Enterprise-Grade Integration Flow
    - > Integration Flow Design Patterns

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## Integration Flow Design Guidelines

[Send feedback](#)

As an integration developer, you need to make sure that you design integration flows in a robust fashion in order to safeguard your company's mission-critical business processes.

An integration flow is *enterprise grade* when it is designed in such a way that it is qualified to implement parts of the mission-critical processes of an enterprise. A poorly designed integration flow might lead to non-functional flaws. In the worst case, the integration flow will break resulting in a service disruption for the business process. It is your responsibility to design an integration flow in such a way that it does not impair the overall availability of the business process. To fulfill this requirement, you need to embrace certain characteristics constituting an enterprise-grade integration flow.

In this section, we introduce patterns for designing enterprise-grade integration flows in SAP Cloud Platform Integration.

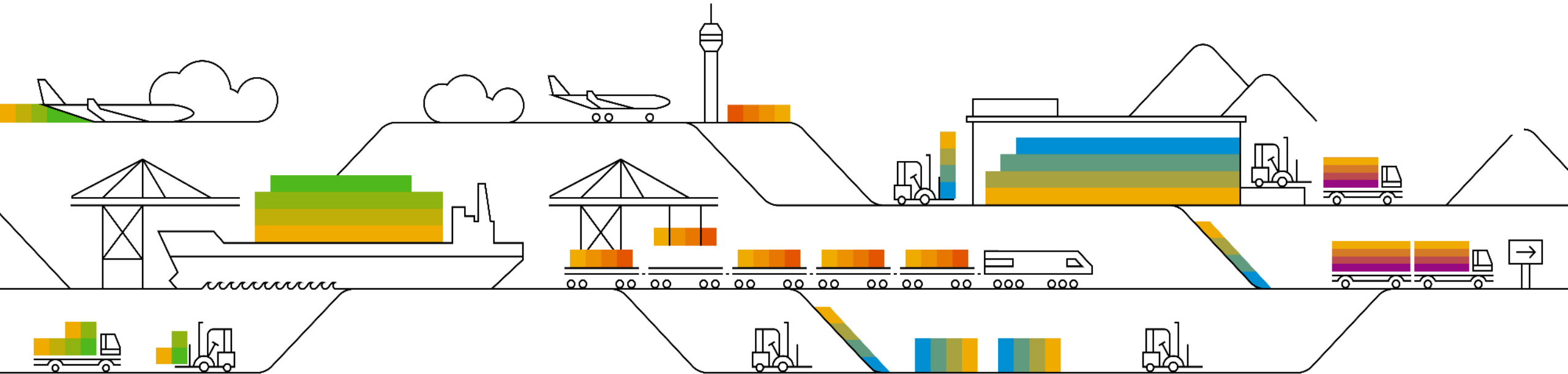
### Related Information

[Qualities of an Enterprise-Grade Integration Flow](#)

[Integration Flow Design Patterns](#)

[Integration Flow Design Guidelines](#)

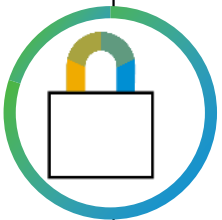
# SAP Process Orchestration



# Agenda



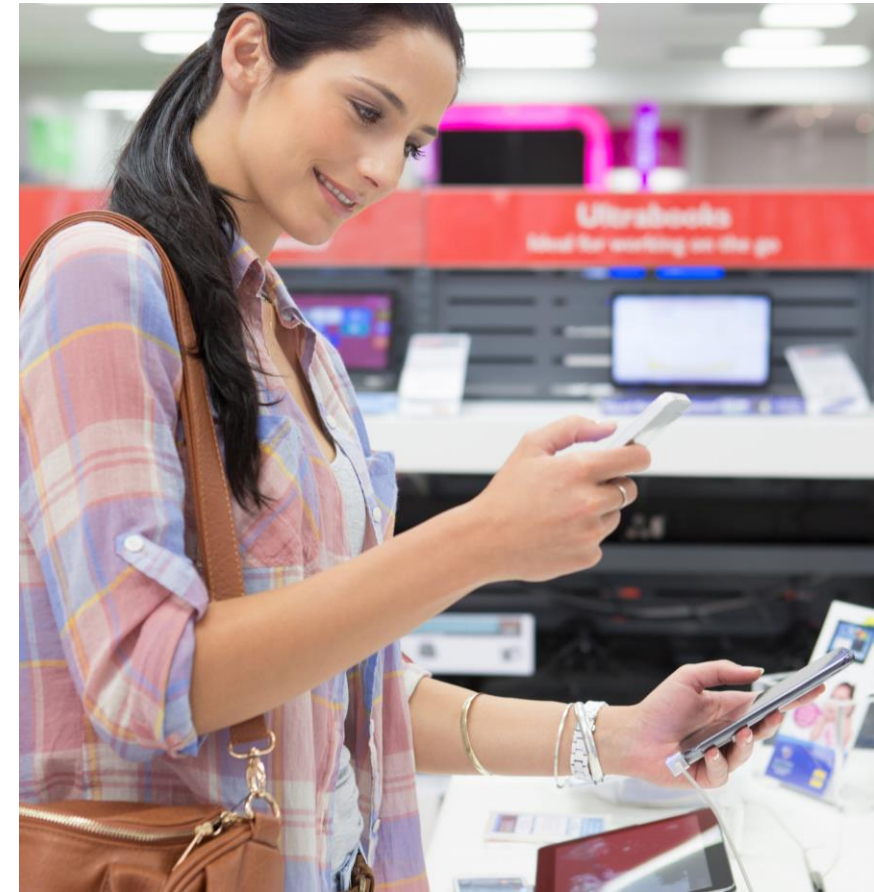
- Latest features of SAP Process Integration Test Tool



# New Process Integration Test Tool (PIT) in SAP Process Orchestration

With the latest Support Package 7.5 SP14, SAP Process Orchestration comes with a new test tool that helps our customers to automate the testing of their integration scenarios

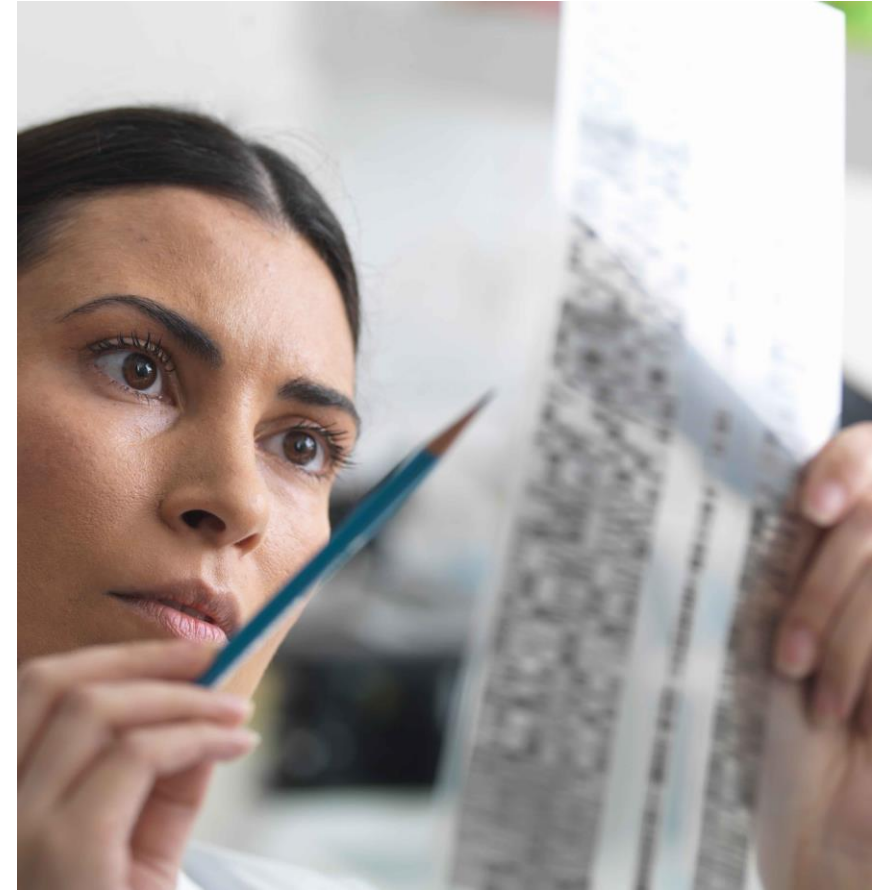
- Reduce business downtime via automated testing for both the **migration** as well as the **regression use case**
- Verify that integration scenarios run as before a migration or a system update/upgrade
- Create and **maintain test cases**
- Fetch and **store test data sets**
- **Replay** messages, and **verify** test result
- See [blogs](#)



# New Process Integration Test Tool (PIT) in SAP Process Orchestration

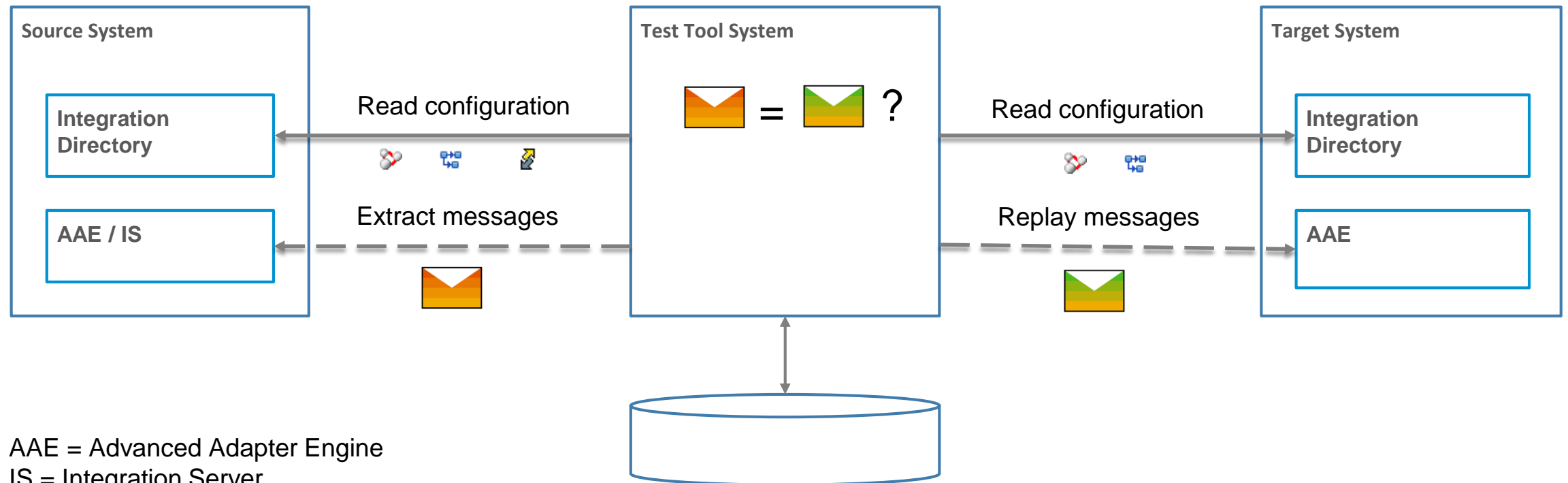
## Characteristics

- Replayed messages go through the standard XI pipeline
- Replayed messages on the target system can be identified as “test messages”
- Message is not delivered to receiver per default
- Sender adapters are out of scope in the current PIT version
- Long running tasks like message extraction or test execution are scheduled as background jobs
- NWDS Plugin *SAP Process Integration Test* as UI





# Process Integration Test Tool (PIT) in SAP Process Orchestration



AAE = Advanced Adapter Engine  
IS = Integration Server

# Process Integration Test Tool (PIT) in SAP Process Orchestration

## Latest features and outlook

### SP15

- Supporting de-central Adapter Engines
- UI for verification completely reworked
- Start run configuration based on test case
- Start verification based on test case

### SP16

- Grouping of all jobs belonging to a test run, so called action log
- Automatically define exemptions based on test result
- Definition of test suites incl. test case, test data, and test runs

### SP17 Outlook\*

- Schedule test runs
- Schedule test runs together with verification jobs
- Save launch configuration on server
- Maintain and schedule test suites in SAPUI5
- Test runs supporting multiple test data
- Read test data automatically from production system
- Read test data from erroneous messages
- Mass creation of exemptions

\* This is the current state of planning and may be changed by SAP at any time without notice.

## Further information

[SAP Process Orchestration product page](#)

[SAP Process Orchestration community](#)

[Blog about Process Integration Test tool](#)



# Q&A

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