

# SAP Cloud Platform API Management: Customer Use Cases and Best Practices

**INT203** 

**PUBLIC** 



# **Speakers**

### Las Vegas

September 24–27, 2019

Harsh Jegadeesan

### **Barcelona**

October 8-10, 2019

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Digital businesses strive to deliver simple connected experiences to customers, partners and employees



Do not disrupt

existing business

Keep the core clean



Foster the pace of innovation





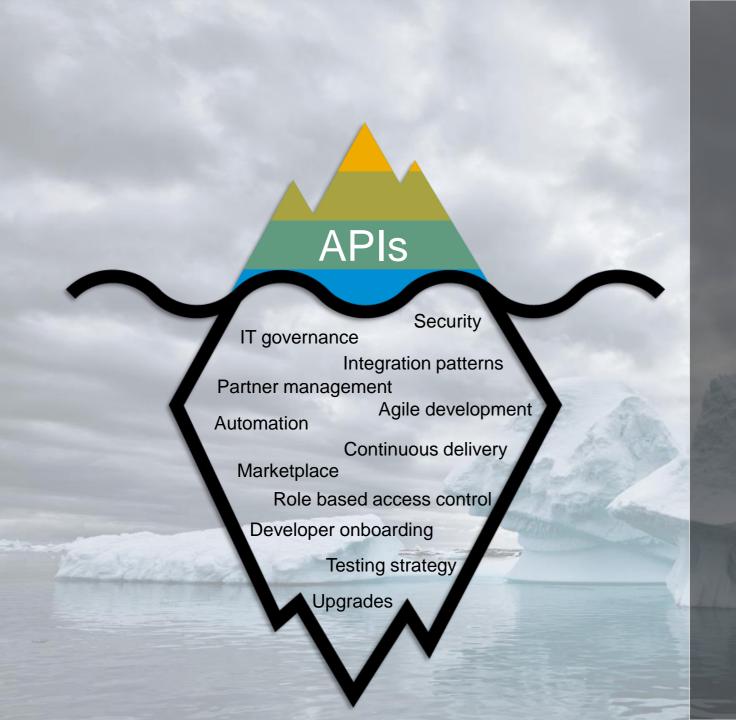
Hybrid, multi- clouds



Devices and bots



Business networks, collaboration



# APIs support simple digital experiences by hiding Enterprise complexity

2017 2018

2019





Digital Building blocks

APIs as Products Invest in API Programs

# **Connected** experiences for customers

are facilitated by real-time open APIs and simplified integration



Farm to Fork



Digital Banks #no-banks



**Personalized Products** 



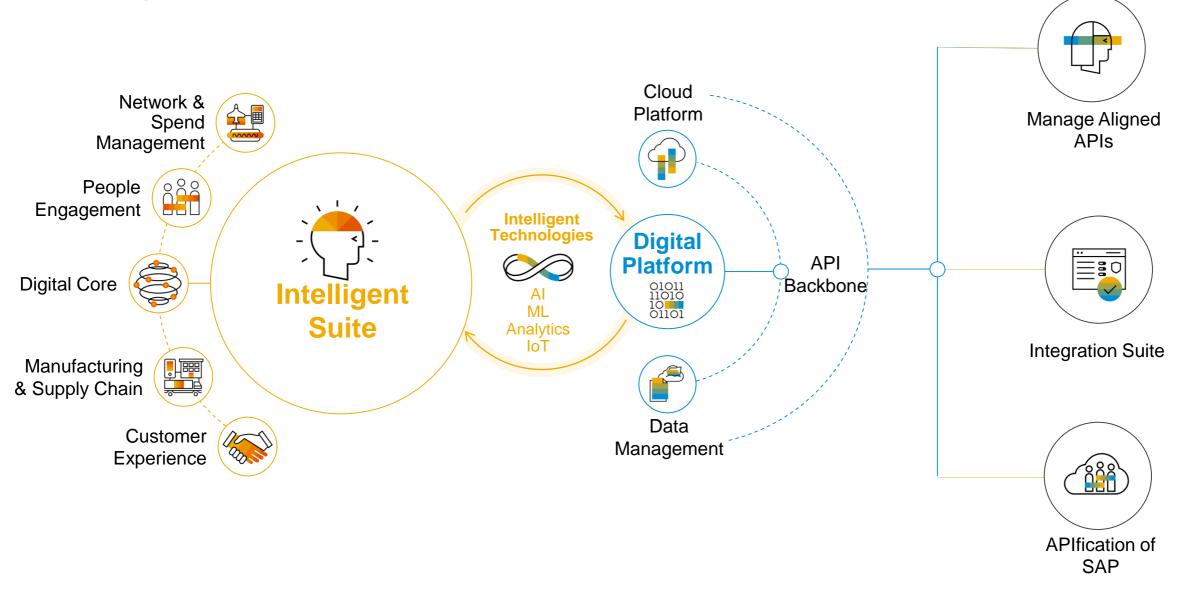
Connected Products
#keep-the-promise



Patient Experience

- - -

# **Intelligent Enterprise and APIs**



# Reach all developers











**SAP API Business Hub** 

A public repository of **all available APIs** for each SAP product to build extensions and integrations.

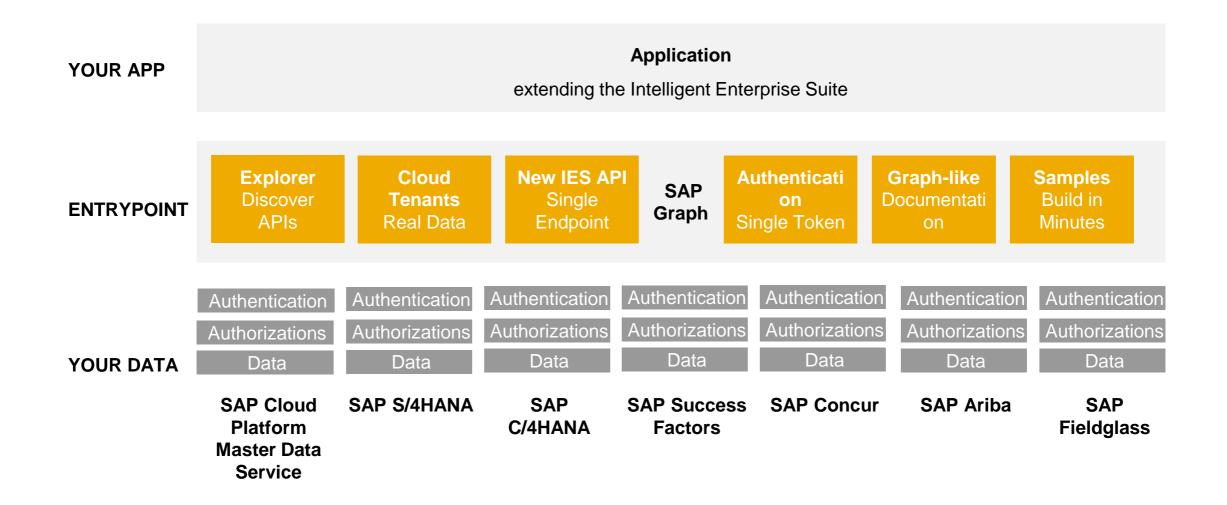
SAP Cloud Platform API Management

Allow partners and customers to register and **orchestrate APIs** into a harmonized enterprise API layer.

**SAP Graph** 

Allow every developer to build **extensions within minutes** for SAP's Intelligent Enterprise.

# **Build applications in minutes**



# **SAP Cloud Platform Integration Suite**

#### SAP Enterprise Integration Platform-as-a-Service

#### **Users**



#### **Developers/Experts**

Develop integrations, APIs, workflows, or apps



#### **Business Users**

Works with tasks, digital process, and apps



#### Citizen Integrators/ Developers

Develops integrations and apps using APIs with low-code productivity tools



#### **Data Analyst**

Analyze data from pattern detection and knowledge acquisition

#### **Use Cases**

Omni-Channel API Access

Application
Extension
Scenarios

A2A/B2B/B2G Integration Data Insights & Intelligence

Data
Integration,
Processing
& Pipelines

Agile Data
Grids and
Micro services

**Event-driven** 

Marketplace and Monetization

#### SAP API Business Hub

Out-of-the-box Business Integrations | Open APIs | Business Events | Accelerators and Best Practices from SAP and partners

#### **Services**



- Cloud Integration
- · Integration Advisor
- Connectivity



- API Management
- Open Connectors
- API/Microservices Development in Cloud Foundry



- IOT Foundation device | digital twin
- Edge Services



- Workflow, Business Rules and Inbox
- Blockchain and Distributed Ledgers



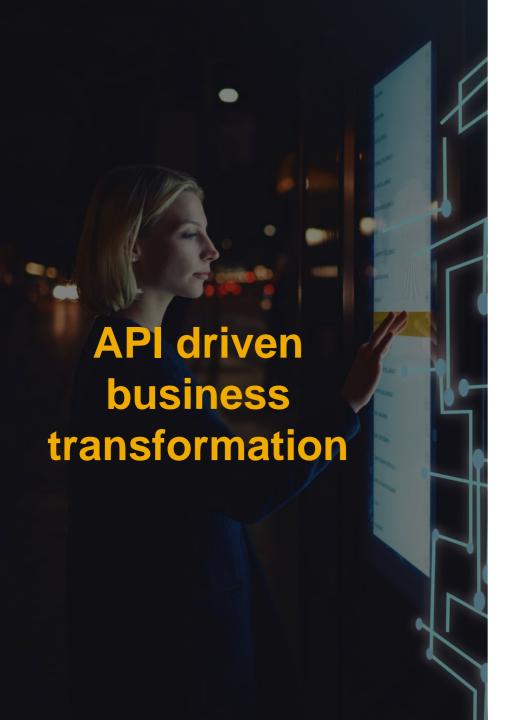
- · Enterprise Messaging
- Functions-aaS
- Streaming Analytics



- SAP HANA-aaS in-memory data grid
  - Data Intelligence
- Smart Data Integration

# Customer use cases







Point based loyalty programs by retail chains



Smart lighting helping better illuminate the world

### **SCHAEFFLER**

Track and trace transparency into transport logistics and predictive assessments



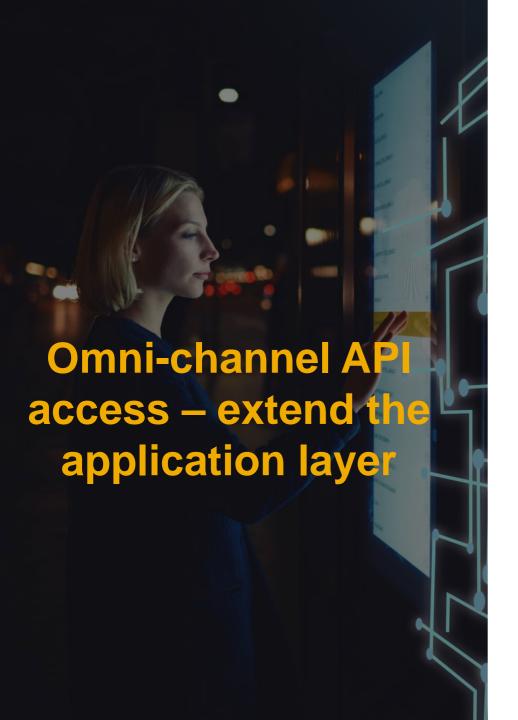
Monetize real-time parcel data and e-commerce integration



Crop disease alert to avert potential disaster

# centrica

Real time replication of data from CRM systems into SAP HANA and use SAP Cloud Platform API Management as a central governance layer for access to all actors and channels.





Dealers' spare parts and vehicle ordering processes is managed via a SAP Fiori application



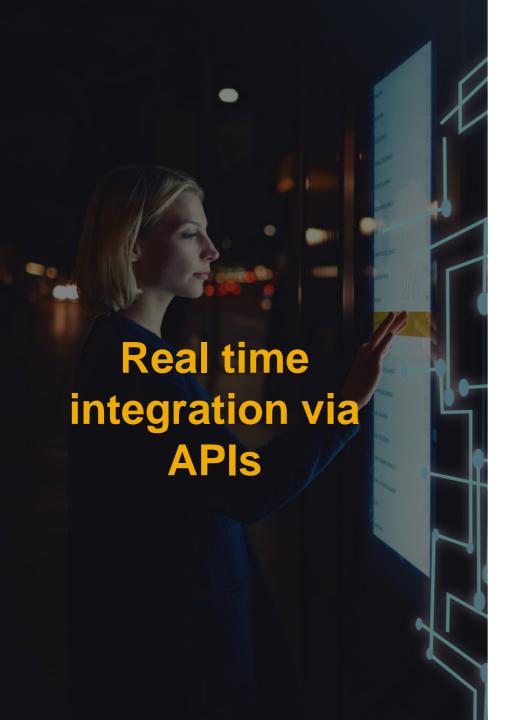
Front end processes integration with order management for 360° view



Onboarding external partners to a developer portal and facilitate secure API access



Facilitating digitization of elderly patient care



#### **UBER FREIGHT**

Real time pricing solution



Track the work progress from their partner team. Real time alerting from devices on technician wellness



Onboarding external partners to a developer portal and facilitate secure API access



An API led strategy to manage campaigns, understanding customer preferences and real time sharing of product and pricing information with the online pharma



Real time gas price insights to customers



Visibility across all supply chain points and systems integration





Real-time transparency on lastknown locations of assets



Global deployment to connect regional outlets



Developer portal for vendor onboarding and central governance layer



Digital means to manage lifecycle of C parts for industrial equipment

### **Full lifecycle API management**





**SAP Subscription** Billing

APIs as digital building blocks

Marketplace for enterprise **APIs** Search, discover, test and subscribe to the right APIs

SAP API **Business Hub** 

SAP WebIDE

**Developer Portal** 

Mobile Services

App Developers

and Blueprin

Design

Develop

Manage

Meter and Monetize

Engage

**EA Modeler** 

API Designer

Define Domain, Align Process models

Design easy to use APIs

Implement highly scalable APIs and microservices using platform services

App Runtimes

Cloud Integration

Persistence

Messaging

On-premise middleware Cloud Connectivity API Portal (Security | Traffic Management | Mediation)

API Gateway (Cloud | Hybrid)

Secure, govern, document and publish APIs Analyze and gain insights

Enterprise Threat

SAP Cloud Identity

Gigya



Micro

gateway

Service Broker





**API Backends** 

SAP® C/4HANA



SAP Apps, HANA, Middleware

SAP Cloud Platform **Business Services** 

















# Simplifying integration and innovation with API-first approach

in partnership with Cloud Elements









# SAP Cloud Platform Open Connectors



#### **Common Resources**

Canonical data model to extend pre-build connectors



#### **Formula**

Easily build API composition across connectors



Feature rich, out of the box connectivity to over 175 non SAP cloud or on premise applications



Normalized Authentication



Harmonized Errors



Bulk Operations

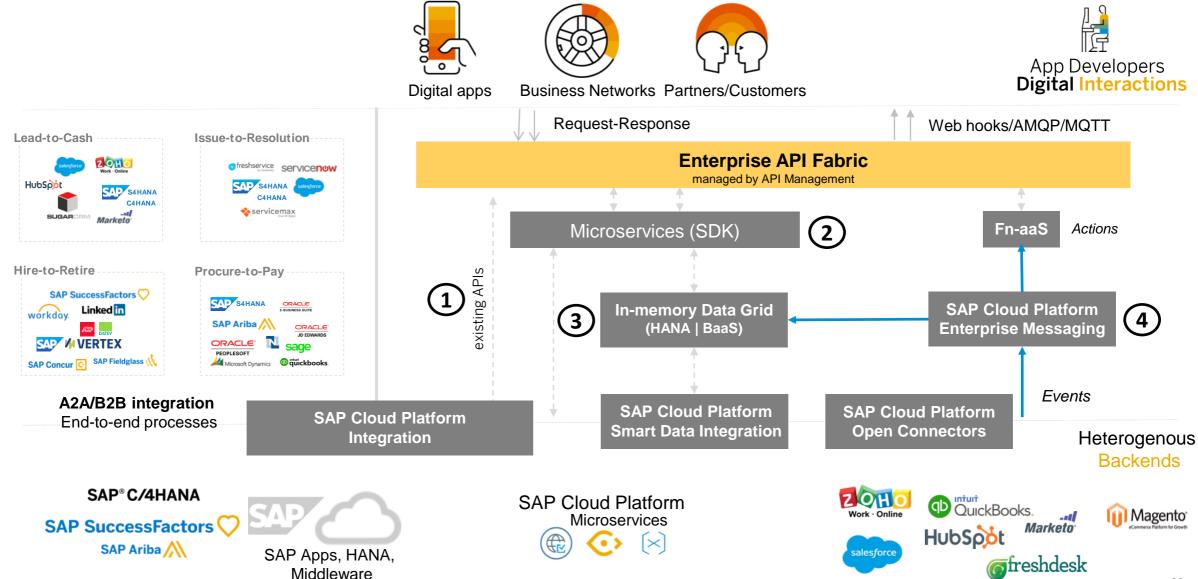


Events and Polling



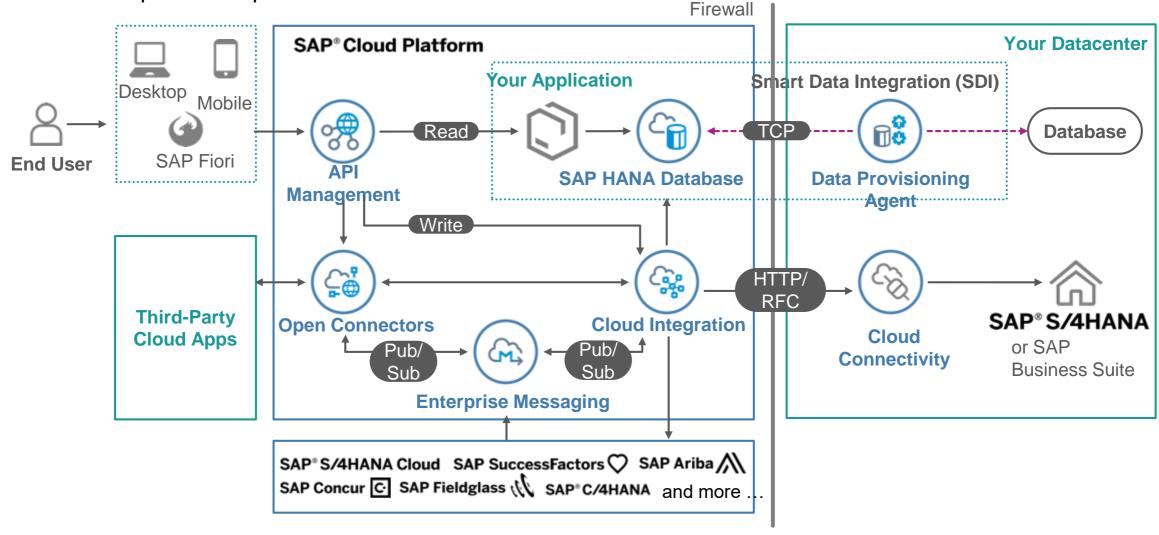
# **Enterprise API Fabric**

#### API-based digital integration hub



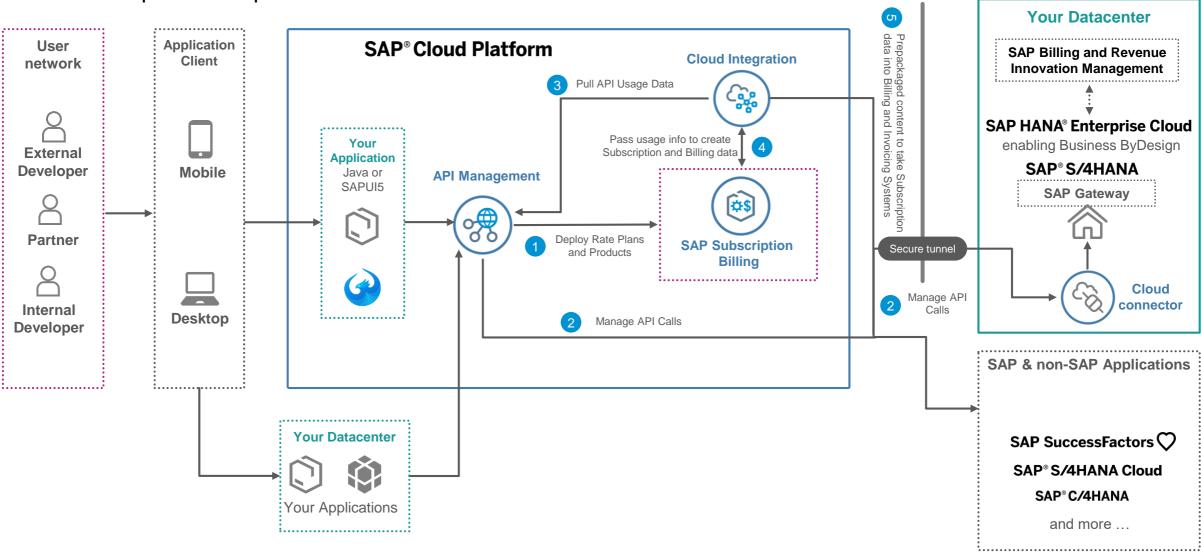
# Digital integration hub

Solution blueprint example



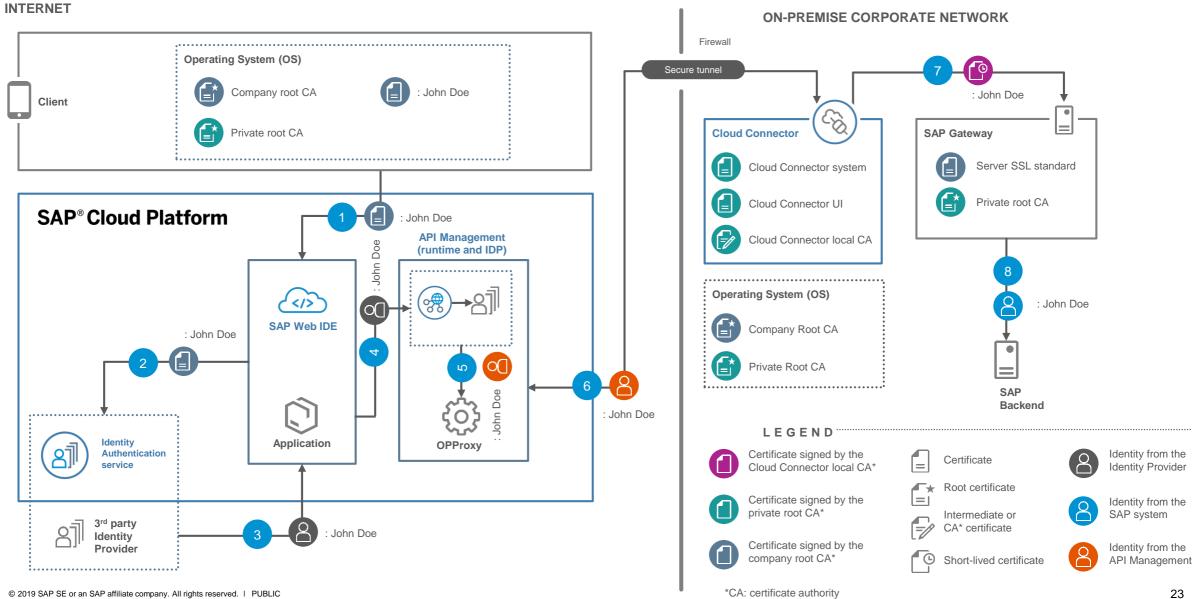
# Monetize your APIs

Solution blueprint example



Firewall

# Secure your APIs - Single Sign on Example



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\*CA: certificate authority

# Demo

# **SAP Cloud Platform API Management**

Product road map overview – Key innovations

#### **Recent innovations**

#### **API lifecycle management**

- New Analytics experience with API Management in CF Regions
- Support for native policies that perform JWT tokens handling (verify, generate, parse)
- Enhanced Search and navigation in Developer Portal
- Managing Custom Attribute on Products and Applications

#### **API** development

- Support for Code snippets and SDK generation in Developer portal (Q3)
- CLIs/SDK for CI/CD support in API portal
- Policy enhancements XMLToJSON Policy supports tertiary, Message Logging policy supports SSLInfo

#### Multi-cloud and resilience

 SAP Cloud Platform API Management in AWS Singapore regions

#### Planned Q3/2019<sup>1</sup>

# API lifecycle management New Analytics to support Custom

- New Analytics to support Custom Dimensions, Detailed call info, Geo Maps, multiple time zones & Export of Reports
- Self service support for onboarding and virtual host settings (in AWS regions)
- Capability to publish unmanaged APIs into the Developer Portal
- Single Developer Portal to support publish from multiple API Portals
- Fiori 3.0 layout across the entire DT user experience

#### **API** development

- Integration with CPI for API provider discovery
- Enable smart discovery & consumption of APIs from SAP systems within customer landscape
- Open API Spec 3.0 support for API Design semantics
- Support for notion of a Company in Developer Portal to onboard developers

#### Multi-cloud and resilience

 SLA and availability information from Cloud Available Center

#### **Planned Q4/2019**<sup>1</sup>

#### **API lifecycle management**

- Alerting capabilities into the Analytics experience based on Business thresholds
- UI editor enhancements in API Portal for advanced operations e.g. manage multiple target end points, Wizard based build experience
- Fine granular Access Control for API Portal operations

#### **API** development

Support for Code snippets and SDK generation in Developer portal

#### Multi-cloud and resilience

- Azure-based Enterprise API gateway
- Design time availability natively in Cloud Foundry regions

#### **Planned Q1/2020**<sup>1</sup>

#### **API lifecycle management**

- Transport management for moving API assets across Accounts
- Support for API versioning
- Revenue Cloud Integration for API Monetization use cases

#### **API** development

- Support for Shared Flows as a means to develop reusable Policies
- Integration with SAP S/4HANA SDKs for developer tooling experience
- Support for rendering OdataV4 based Services

#### Multi-cloud and resilience

 Support for OnDemand migration from Neo to AWS based API Management running Cloud Foundry regions

<sup>1.</sup> This is the current state of planning and may be changed by SAP at any time without notice.

# SAP leverages SAP's API platform

Grow platform business and business networks with cloud APIs



Global API program

**API Program reporting** to board office, establishing lightweight governance



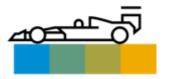
API makers community

Community to share best practices with API design, architecture and development



SAP **API Business Hub** 

Public catalog of APIs and accelerators from SAP and partners



Pre-packaged accelarators

Pre-packaged best practices, policy templates and integration packages

SAP SuccessFactors



SAP Ariba



SAP Concur



SAP Fieldglass



SAP C/4HANA



SAP S/4HANA



+ partners



**Predictive** Services



Localization **APIs** 



**SAP Banking** API



Commerce Services



Machine Learning







# Planning and initial design

#### **SAP Leonardo Innovation**

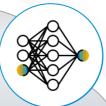
Services Guided approach to digital transformation with design thinking, iterative PoC for value scenarios and easy go-lives





#### Scenario-driven API design

sessions to design, validate and test the right APIs.



# Engage customers through Design Thinking



# Craft and execute your enterprise API strategy

Align API strategy to business goals, design an API program and leverage API design, architecture and management platform



#### **Global API evangelists**

supporting setup of API Programs, applying best practices, running hackathons

#### **Customer discovery and Influence**

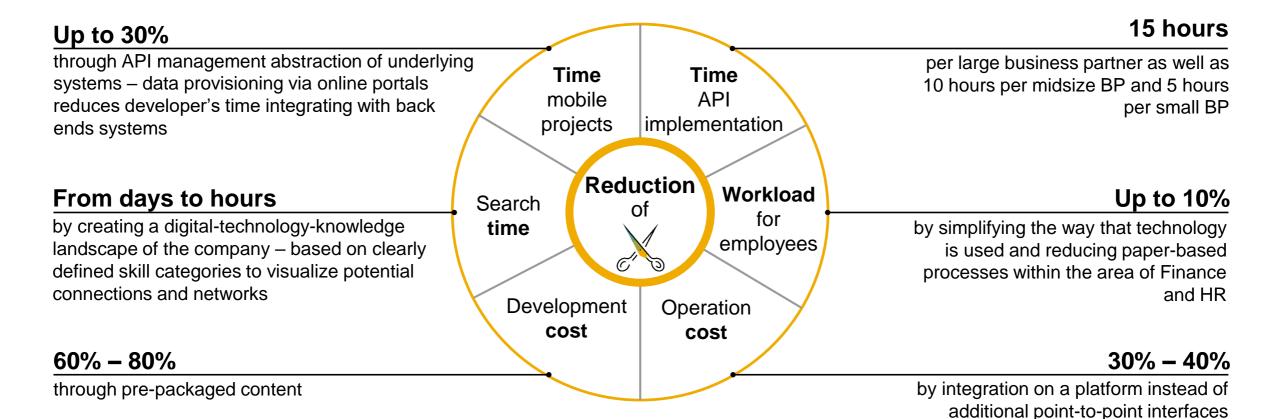
design partner councils for co-innovation

# **Business transformation** consulting

Offers business case development and ROI calculation services

# **SAP Cloud Platform API Management**

**KPIs** 



# SAP Cloud Platform API Management found to provide 303% return on Investment and payback time of less than 3 months

Source: Forrester Total Economic Impact report of SAP Cloud Platform API Management

# **SAP API Management – top differentiators**

# Embrace new business models/revenue streams

pay-per-use and consumeto-cash business models to engage in the API economy

# Deep LoB and industry experience

25+ industries (PSD2 APIs for Banking, FIHR for Healthcare, Connected Agriculture, Connected Fleet Management, etc. SAP provides technology, methodology and a global ecosystem for successful digital projects

# Deep integration within the SAP Cloud Platform

Ready access to a rich Service layer and platform capabilities facilitates faster integrations, digital application development

#### **An Open Platform**

offers native integration to SAP (apps, platforms, business networks) with end-to-end identity, easy discovery of interfaces and support for OData. The solution is open with any API confirming to open standards (OAS, RAML, OData, SOAP/WSDL).



# Rich Set of Connectivity Options

Provides a rich set of connectivity options to on premise and 3<sup>rd</sup>party applications

#### Focus on an API Program

SAP is just not a technology vendor in this category, we are using the technology and our methodology to run SAP's Global API Program under the Board Office.

SAP has strategic goal to grow platform business through cloud APIs by 2020

#### Full competitive integration platform

SAP's strategic iPaaS for all end to end Integration needs. Out of the box connectivity to various SAP and non SAP sources

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# i

#### Related SAP TechEd Learning Journeys

- INT1 Connect with an intelligent suite in a hybrid landscape
- INT2 Master integration technologies uniting your intelligent suite
- iENT1 Deliver the Intelligent Enterprise along key end-to-end processes
- CAA5 Extend, integrate, and embed intelligence into SAP S/4HANA

#### Related SAP TechEd sessions

- iENT200 Experience the Next-Generation Processes of the Intelligent Suite from SAP
- INT100 The Hybrid Integration Platform from SAP for Your Integration Needs
- INT102 How to Apply the Integration Solution Advisory Methodology
- INT103 Discover the Integration DNA of the Intelligent Suite from SAP
- INT202 AI-Driven and Open Integration to Customize Intelligent Suite Scenarios
- INT203 SAP Cloud Platform API Management: Customer Use Cases and Best Practices
- INT823 Road Map for SAP Cloud Platform Integration Suite
- INT833 SAP Process Orchestration Software Road Map
- LT116 Digital Integration Hub: Building Agile Data Grids and Microservices

#### **Public SAP Web sites**

- SAP Community: <a href="https://www.sap.com/community/topics/cloud-integration.html">https://www.sap.com/community/topics/cloud-integration.html</a>
- SAP products: <a href="https://cloudplatform.sap.com/integration.html">https://cloudplatform.sap.com/integration.html</a>



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# **Contact for further topic inquiries**

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