

## IN181: Achieving Composability with a Digital Integration Hub

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Public



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#### **Agenda**

- 1. Lecture: Introduction and Context
  - SAP Integration Suite: APIs as the digital building block characteristics and challenges
  - Digital Integration Hub : characteristics and reference blueprint
- 2. Virtual Hands-on: Product demonstration and Exercise walkthrough
- 3. Lecture : Graph
  - Product demonstration
- **4**. **QA**



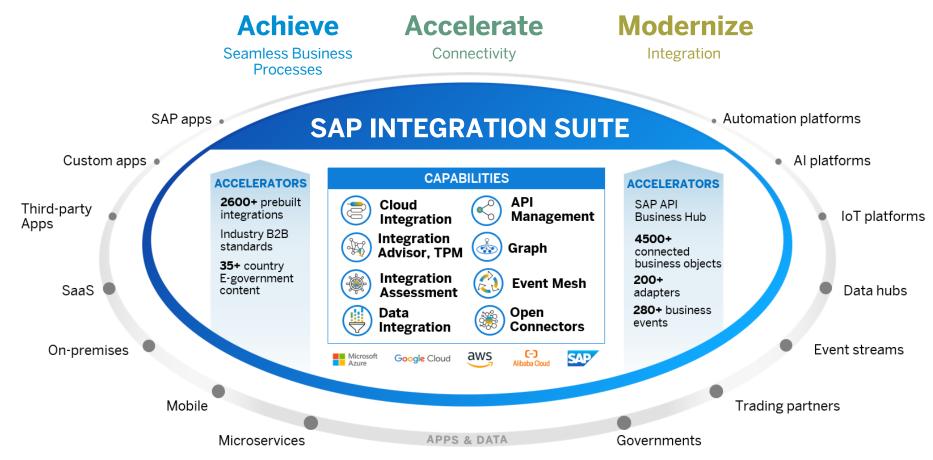
#### Structure of the Virtual Hands-on – Operational details

- You will need access to a BTP Account, SAP Integration Suite subscription to start the exercises.
- 2. You could either use your BTP Trial Account, a Pay-as-you-Go Account (Free Tier) or your Productive BTP Accounts.
- 3. Adding entitlements, activating the Services will take time. You may not be able to follow along in the window available for this session.
- 4. Recommendation is to attempt the exercises offline.

#### **SAP Integration Suite**

Connect and automate your business

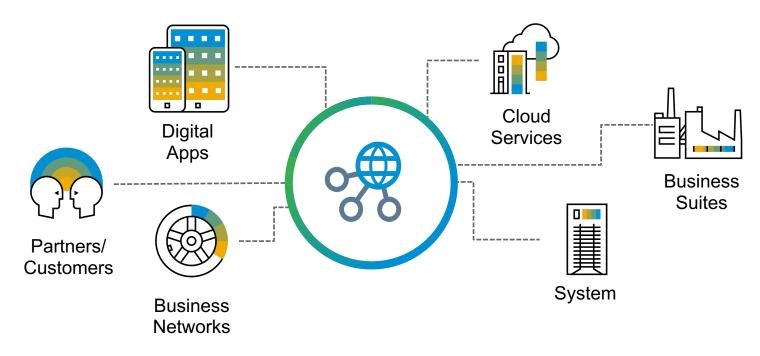
#### SAP Integration Suite is SAP's premier integration platform for the Intelligent Enterprise



## "Application programming interfaces (APIs) are the ubiquitous and mainstream enablers for digital modernization."

Source: Gartner Research

#### **APIs, The Digital Building Block**







Powers apps and digital interactions

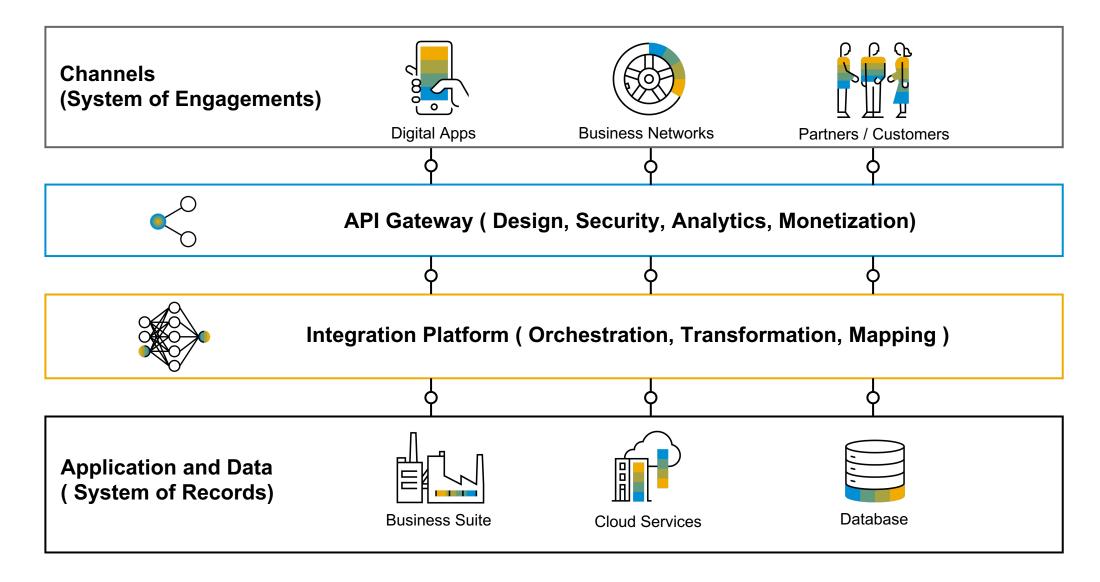


Foster collaboration and coinnovation between partners, developers for Omni channel access, Business collaboration



Insights & analytics on the APIs traffic, usage, error reporting and monitoring

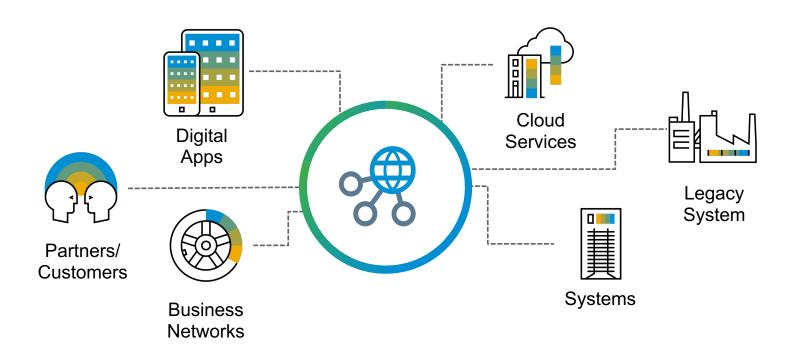
#### **An API-based Integration Architecture**



# "API-based fast access to data dispersed across multiple sources is costly and needs notable integration work."

Source: Gartner Research

#### **Challenges with API Based Integration Architecture**

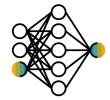




Large enterprise applications are difficult and costly to scale to handle the massive API calls.



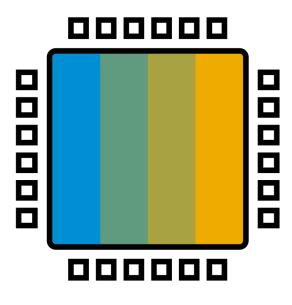
Difficult to leverage cloudnative, high available APIs over legacy business systems.



Fragmented data across multiple applications and data sources makes integration complex.

#### **Introducing Digital Integration Hub**

Digital integration is an architecture for implementing large-scale, high-throughput APIs, aided by composition and introducing a high performance inmemory data store layer between the API service layer and the system of record.



#### **Key Components of Digital Integration Hub**



#### High-performance data store

- Stores relevant subset of the back-end data in data grids.
- A single consolidated view of entities (e.g. Graph), the data for which is stored in one or multiple system of records.



#### **Front-end API Services**

- Low-latency front-end API services connecting to highperformance cache for read queries.
- Composition by optimizing server roundtrips via GraphQL
- Updates calls can be performed directly on the back-end systems (Command Query Responsibility Segregation).

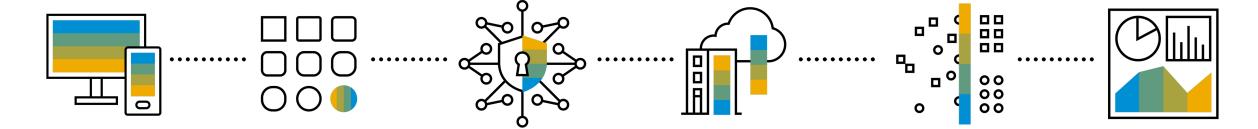


#### **Integration Layer**

- Keeps the system of records sources and high-performance data store in sync.
- Event driven integration



#### **Key Benefits of Digital Integration Hub**



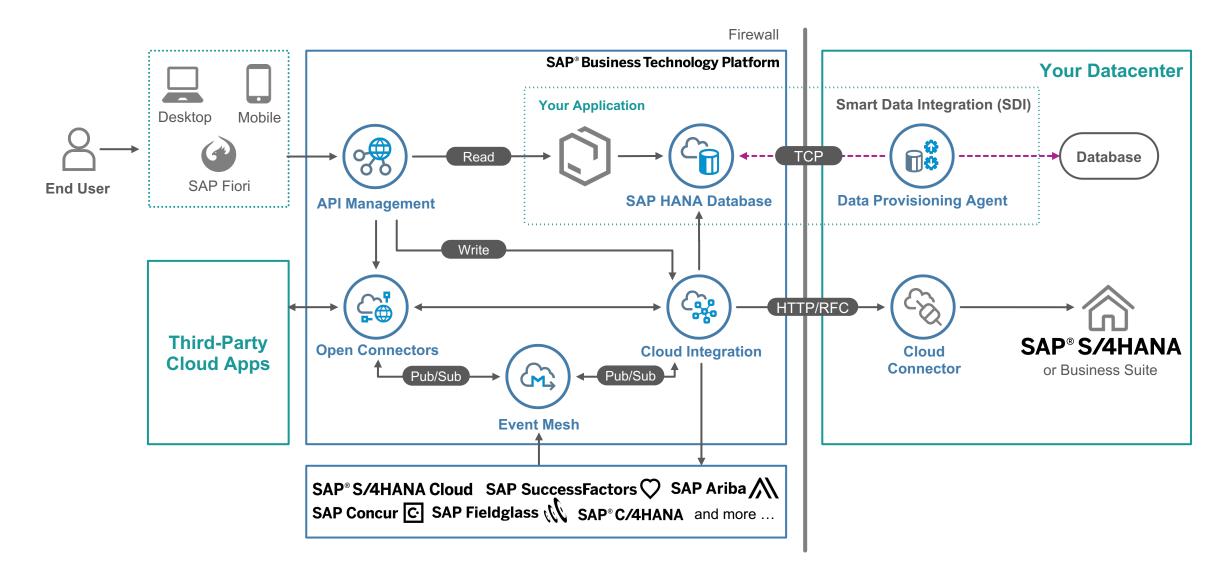
Responsive user experience

Decoupling of the back-end data sources from front-end API Protection of back-end systems from excessive front-end APIs Modernization
of legacy
system following
a cloud-native
approach

Normalization of the APIs for certain domains accessing data held in multiple data sources Real time business insights and Analytics



#### **SAP Integration Suite Solution Blueprint Example**



### Thank you.

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