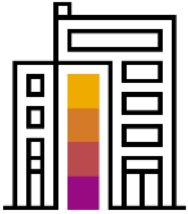


SAP Innovation Awards 2021 Entry Pitch Deck

API Driven - Vodafone Global Digital HR Integration Platform

Vodafone Group Plc

PUBLIC



Company Information

Headquarters	Vodafone Group Plc. Vodafone HQ, The Connection Newbury, Berkshire, RG14 2FN
Industry	Telecommunications
Web site	www.vodafone.com

We are a leading telecommunications company in Europe and Africa, founded in 1991. It is the largest mobile and fixed network operator in Europe, the world's largest IoT connectivity provider. Our M-Pesa technology platform in Africa enables over 42 million people to benefit from access to mobile payments and financial services. We operate mobile and fixed networks in 21 countries and partner with mobile networks in 48 more.

Our Purpose: We are a communications technology company connecting over 334 million people and organizations of all sizes to the digital society. We are optimistic about how technology and connectivity can enhance the future and improve people's lives. Through our business, we aim to build a digital society that enhances socio-economic progress, embraces everyone, and does not come at our planet's cost.

Vodafone Digital Global HR Integration Platform



Vodafone Group Plc.



Implementing an API based HR Integration Platform is a central element of our digital transformation. This has enabled us to have a more secure and controlled integration architecture that simplifies information exchange and reduces the costs for Vodafone and current and future applications.

Our HR API Market Place will future proof our integration environment and enable new HR products and services.

Marc Starfield
Group Head of HR Systems
Vodafone Group Plc

Challenge

- Integration Architecture not aligned with the digital ambition of Vodafone.
- High number of point-to-point Integrations which cannot be standardized, not easy to scale up, and challenging to manage.
- Providing markets with more autonomy on the local data and reducing Vodafone's overall cost in the long run.
- Adhering to agile delivery and API-only strategy in cloud-based environment.
- On-boarding new vendors integrated with our global core HR system in a short period.

Solution

- Message-based architecture to integrate with the local markets implemented using asynchronous architecture via SAP Integration Suite.
- Launch of HR API Market Place using SAP API Management Hub to on-board new vendors.

Outcome

The project supported Vodafone HR business to have a simplified and standardized global HR integration landscape. It provided markets with more autonomy on the data for local processes like payroll, benefits, and T&A. It also helped us become agile in our delivery approach and reduced our operational efforts.



75%

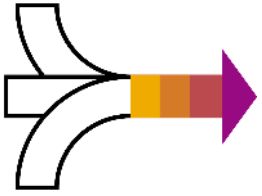
Decrease in the number of connections.

60%

Decrease in the operational efforts.

60%

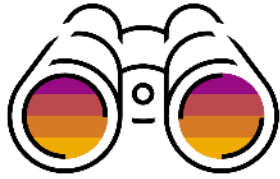
Reduction in the implementation efforts at the group-end.



Business Challenges and Objectives

- HR senior management wanted to simplify information exchange to 20+ local markets /countries more and also reduce the overall cost for Vodafone in a long run.
- Vodafone is on the digital transformation journey, thereby moving to API-only strategy in a cloud-based environment and adapting to the agile delivery method, which was difficult to achieve with the current architecture.
- There were more than 100+ point-to-point integrations that cannot be standardized, were not scalable, and difficult to manage.
- As part of the enhanced employee experience, Vodafone needs to on-board new vendors. On-boarding these vendors with tightly coupled integration in a short time is the challenge that business is facing.

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- The project's key objective was to move all 100+ point to point integrations between on-premise SAP ERP Human Capital Management (HCM) and local market and global systems to the new API-based integration between SAP SuccessFactors and Local market and global systems using SAP Integration Suite.
 - Launching of the HR API Marketplace to launch Integration as self-service for easy on-boarding of the new vendors.



Project or Use Case Details

Vodafone had a global on-premise ERP system (ECC6.0) HCM suite integrated with SAP Global Finance, 20+ local market systems, and global SAP and non-SAP applications through Process Integration and Informatica. This was point-to-point architecture with more than 100 integrations.

Challenges:

- In sufficient scalability
- Complex landscape to enhance and operate
- High cost
- Did not support the digital ambition of Vodafone

In 2017 Vodafone embark on the digital transformation journey. One of the core pillars was to shift the on-premise system to a cloud-based architecture. SAP SuccessFactors replaced the global on-premise HCM system. Integrations needed a new approach to deliver the following additional challenges:

- Simplify the information exchange to local markets.
- Adopt to support agile delivery approach.
- On-board new vendors/applications in the fastest possible way.
- Doing all the above in the most secure way.

How we solve the problem by using SAP Integration Suite:

- Designed a new API-based pull integration architecture.
- Launched Vodafone HR API marketplace.

Technical details:

- Consumer application initiate request via the API management Hub. The response to each such request is sent via the SAP Cloud Platform Integration from SAP SuccessFactors.
- Vodafone HR API market placed was implemented using API management hub-developer portal.



Benefits and Outcomes

Business or Social

- Integration architecture supported businesses in transferring the simplified information exchange to local markets and / or third-party vendors, thereby providing them with more autonomy on data to manage local processes.
- Architecture supported program to be able to support agile delivery methodology.

IT (optional)

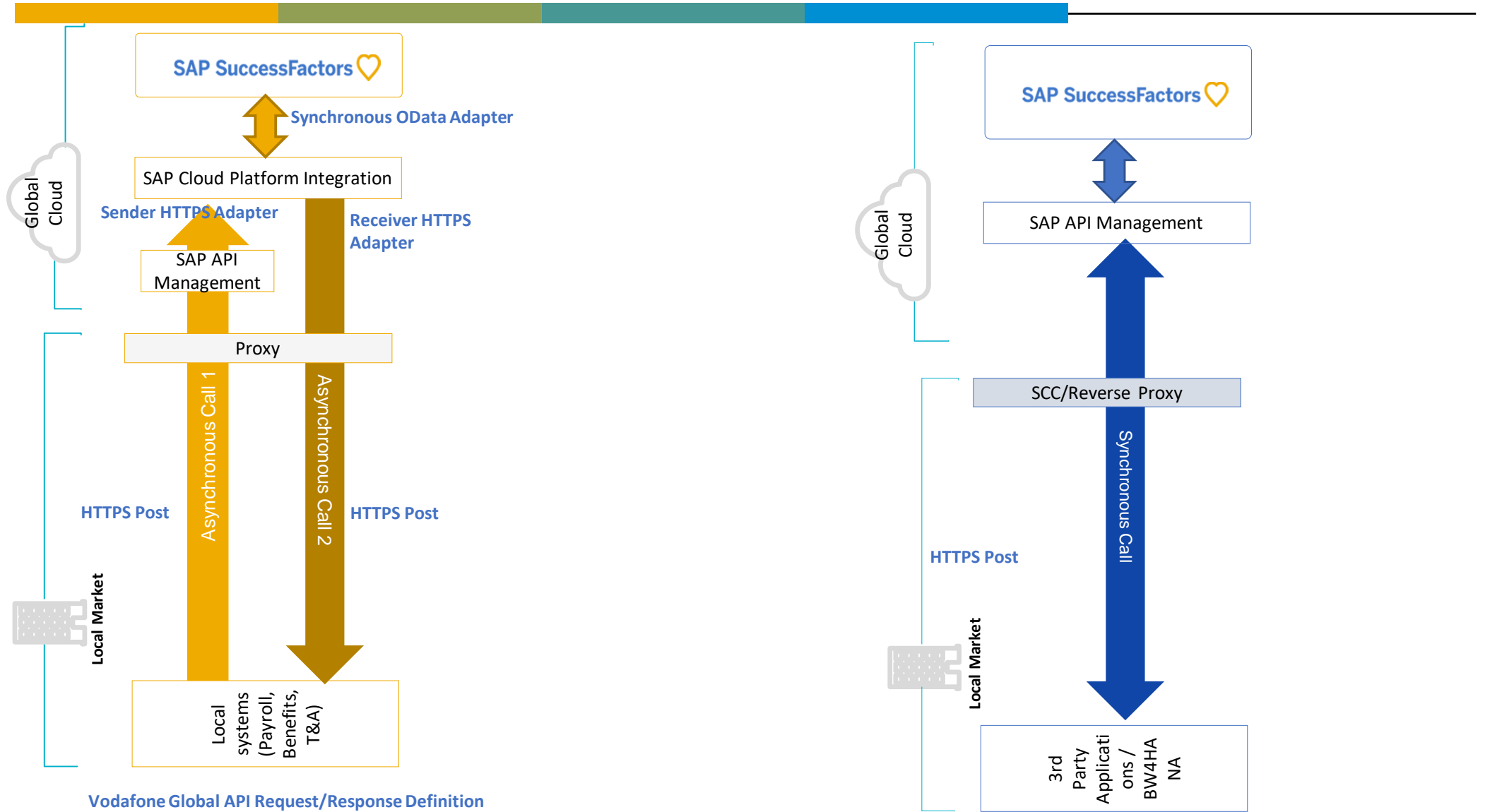
- IT landscape simplified from 80+ integrations to 20 connections for local market integrations.
- 60% reduction in the operations.
- 60% reduction in the implementation cost at group.

Human Empowerment

- With this approach integration deployment model is more agile than a build-based approach. It is now a subscription-based approach.
- On-boarding and prototyping for new vendors/customers are more comfortable and faster.



Architecture



Vodafone Global API Request/Response Definition

Bulk Data Integration

Micro-service Integration



Deployment

Deployment status Live

Date 21.01.2021

Number of users 100K Employee Data

SAP® technologies used:

	SAP product	Deployment status (live or proof of concept [POC])	Contribution to project
1	SAP Integration Suite	Live in some countries and In Progress in Others	SAP Cloud Platform Integration and SAP API Management Integration Capabilities – Framework, Best Practices, Agile delivery
2	SAP SuccessFactors	Live	Core HR system in Cloud
3	SAP BW/4HANA	Live	SAP Cloud Integration via SAP API Management capabilities and support real-time analytics

If you have used one or more of the services or support offerings from SAP Services and Support during the implementation or deployment phase, please indicate which one(s) below with an

SAP MaxAttention™

SAP ActiveAttention™

SAP Advanced Deployment

SAP Value Assurance

SAP Model Company

Others:

SAP Innovation Services

SAP Innovative Business Solutions



Advanced Technologies (1 of 2)

The following **advanced technologies** were part of the project.

Technology or use case	Product used*	Contribution to project and how product used integrates with SAP products
1 Machine learning or artificial intelligence Robotic process automation, conversational AI, AI-based knowledge graph		
2 Intelligent data management Multi-cloud, data virtualization and governance, smart data tiering, persistent memory, data privacy		
3 Advanced and augmented analytics <ul style="list-style-type: none">• Real-time and streaming analytics, spatial analytics• Natural language query and generation• AutoML to identify trends, patterns, outliers• Predictive analytics (time series analysis and forecasting, regression, classification)		
4 Data and analytics solutions in the cloud <ul style="list-style-type: none">• Unified data and analytics cloud platforms by SAP• Modern/self-service data to analytics		



Advanced Technologies (2 of 2)

The following **advanced technologies** were part of the project.

Technology or use case	Product used*	Contribution to project and how product used integrates with SAP products
5 Advanced cloud integration <ul style="list-style-type: none">• API economy (monetization and API marketplaces)• AI-based or crowdsourced integration• High throughput, low-latency digital integration hub	SAP Integration Suite	Cloud Integration, API Management, and API Management Hub capabilities – Framework, Best Practices, Agile Delivery, and Security Framework to build integrations in cloud. It also supports us in integrating SAP SuccessFactors with SAP S/4HANA, SAP BW/4HANA, and SAP Fieldglass.
6 Industry cloud platform		
7 Blockchain		
8 Internet of Things		
9 3D printing		