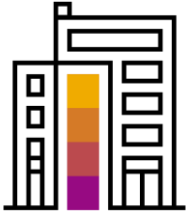




SAP® Innovation Awards 2020 Entry Pitch Deck

Delivering Connected Digital Experiences and Revenue Growth through APIs to SAP Cloud Platform

Centrica plc



Company Information

Headquarters Windsor, England, UK

Industry Energy

Web site <https://www.centrica.com/>

Centrica plc is a British multinational energy and services company with 2018 revenues of £29.7bn, Its principal activity is the supply of electricity and gas to businesses and consumers in the United Kingdom, Ireland and North America. Centrica customer focus includes addressing changing needs from decentralization, customer choice and power, and digitalization. Centrica's focus for growth is therefore on the customer businesses in its Centrica Consumer and Centrica Business divisions.

Across the Consumer division Centrica made significant improvements in their customer-facing capability over the past four years by continuing to invest technology to improve customer experience. Therefore, there is a focus on the customers' digital experience, as customers who interact online having higher satisfaction levels. 60% of Centrica's customers are now signed up to interact through digital channels, 50% of all UK transactions are now completed online, Net Promoter Score (NPS) for digital customers in the UK is 5pts higher than those who manage their accounts offline. Centrica provides customers real time access to its engineers and technicians through their mobile app in the UK and North America.

This entry is using SAP technology to further improve the Internet and mobile app experience for British Gas in the UK, a Centrica company. This is the first use case being delivered in a global rollout of a new API based architecture that will support enhanced digital experiences for customers, partners and employees. Centrica has been an SAP customer for more than ten years.

Modernizing Digital Customer Service - APIs to SAP Cloud Platform



Centrica



Our new API Strategy transforms Centrica to a truly API-first company allowing us to provide a better digital experience to our customers and partners.

Darren Miles,
Global Vice President
Enterprise Systems,
Centrica

Challenge

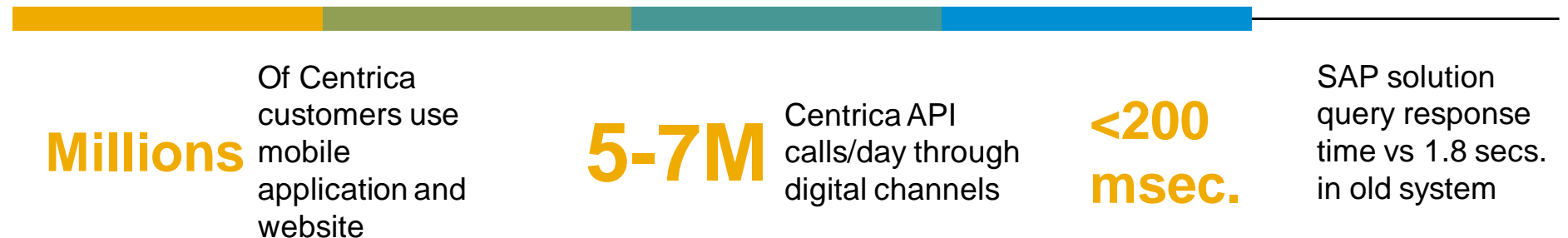
Transform our ten year old ERP & CRM system APIs layer to meet our customers' digital experience expectations to transact with them in a 24/7 digital world with improved stability and availability provided by SAP Cloud Platform.

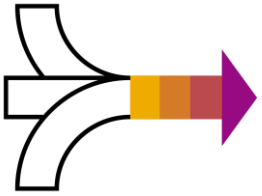
Solution

Built APIs utilising SAP Cloud Platform services to expose data from old ERP & CRM systems, so that the Digital team can feed mobile and Internet channels in order to provide best customer service as measured by responsiveness and new capability.

Outcome

Implemented 6 key APIs so far out of 100+ which support the website/mobile app journeys and are responsible for at least 40-50% of the total volume of calls. Customer satisfaction greatly improved and new revenue streams possible as a result through customer acquisition and retention.





Business Challenges and Objectives

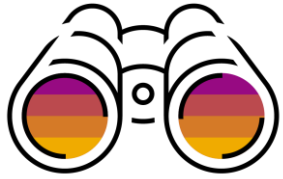
Millions of British Gas customers use the Centrica mobile app and company website for account interactions which translates into 5-7M service calls/day.

Rapid response times are expected in a digital interaction. The ten+ year old ERP-CRM system is slow (takes 1.8 seconds or longer) to bring up customer information for account interactions. Thus, customer service expectations are not aligned with the digital experience world.

Access customer data from a 70 TB, 10+ year old ERP-CRM system with APIs to SAP Cloud Platform. Thus access to customer data is at the digital era speed of <200 msec.

Six new REST APIs are exposed via this integration architecture pattern to provide customer, account, contract and products information, which has led to much improved customer experience and other revenue streams through customer acquisition and retention.

Many more new APIs based on this architecture will be implemented to satisfy the needs of the multiple journeys of the company's website and mobile app.



Project or Use Case Details

British Gas customers access account information (check account balance, submit meter readings, change payment options, etc.) and make service requests through a landline talking to an agent or digitally through a website and/or mobile app. These interactions require access to the existing ERP-CRM systems. The existing systems are 10+ years old at 70 TB of data. The older SOAP APIs (XML-based protocol for accessing web services over HTTP) are slow (several seconds in some cases of customers with multiple contracts) for customer data access. Also, the current SOAP APIs do not provide truly 24/7 online access as they depend on the availability of the ERP & CRM systems.

At the end of 2018 the VP Enterprise Systems, Centrica called the Head of Integration, Centrica and requested that the digital customer facing APIs be upgraded to current best industry standards. In Q1'19 the API Architecture Team worked with SAP to create an architecture that uses new APIs to extract and visualize data from the existing ERP-CRM systems to improve the digital experience of customers and employees. Specifically, SAP Cloud Platform APIs reduced customer data access to <200 msec. and the 6 most critical SOAP APIs were redesigned and exposed as REST APIs. SAP Cloud Platform, SAP HANA service was selected as the cloud based, high performance database required for the architecture. The SAP HANA XSA component of SAP HANA was utilized to implement the APIs. Q2'19 was focused on coordinating global teams, Q3'19 was spent in development and Q4'19 went into production. Customer usage will ramp up to millions in 2020. The digital customer facing services are the first to be rolled out with other services planned globally.



Benefits and Outcomes

Business or Social

Improve customer, partner, employee satisfaction due to rapid response times.

Unlock data to create new revenue streams through customer acquisition and retention.

24/7 and faster availability of website journeys/services originally depending on backend system (ERP/CRM) that are now served by SAP HANA.

IT

Database queries expedited.

Decommissioned older architectural components and saved money in the process.

APIs hid process complexity.

Decoupling backend system from integration layer frees cycles for backend system to execute other processes.

Improved security, monitoring and alerting.

Improved API Governance and Control.

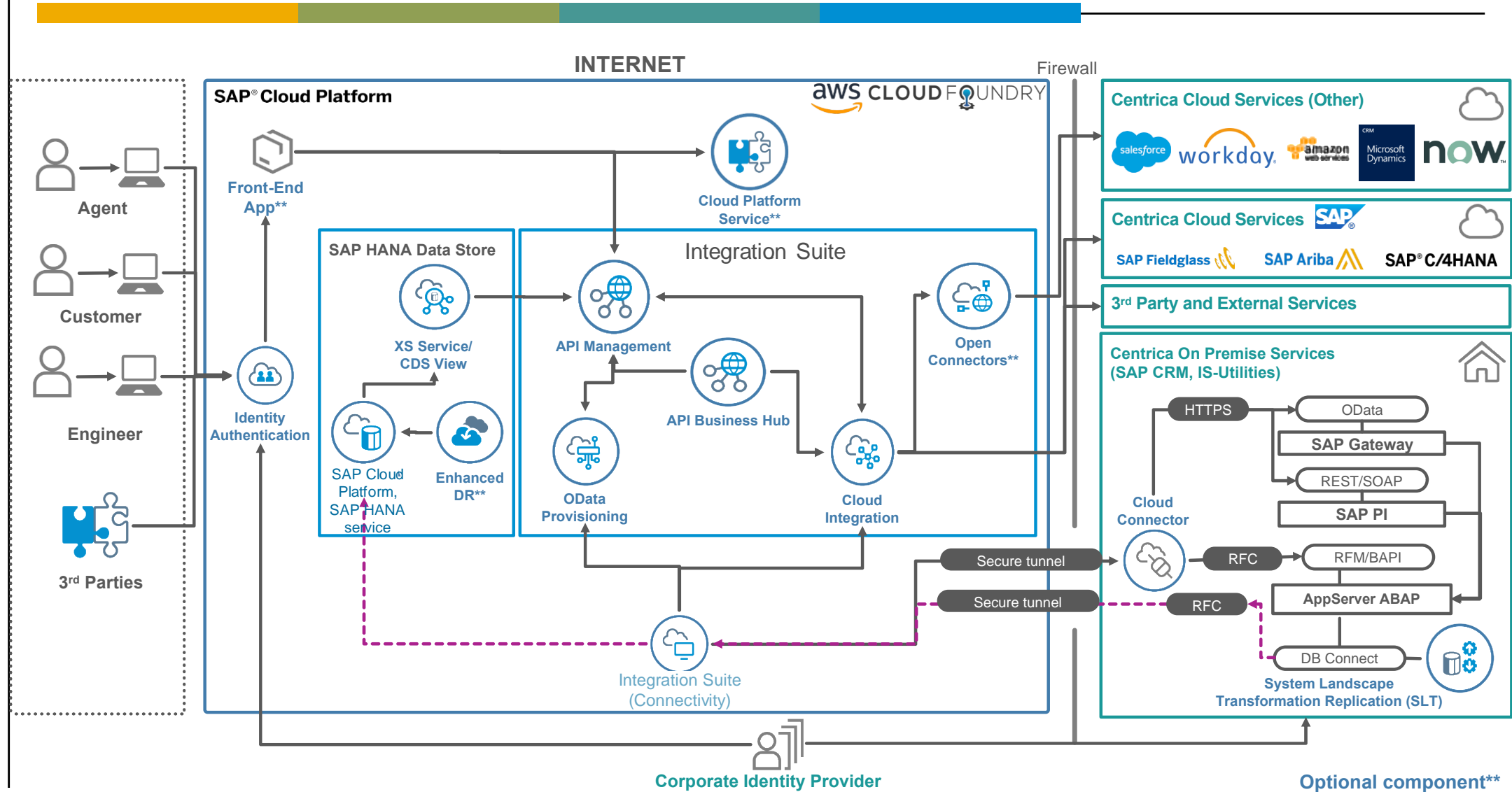
Human Empowerment

Call center agents more productive as data more accessible at a faster rate.

Increased reuse of API's, discoverability and understanding of existing API's impacting the adoption and speed to market of new solutions.



Architecture





Deployment

Deployment status Live

Date December 26, 2019

Number of users TBD as API architecture goes live, ramp to millions in 2020

SAP technologies used:

	SAP product	Deployment status (live or proof of concept [POC])	Contribution to project
1	SAP Cloud Platform	Live	Implementing Cloud Native/Event Based Architecture/Open Connectors-Cloud Elements
2	SAP Cloud Platform, SAP HANA service	Live	Fast, high performance database, SAP HANA XSA component used to implement APIs
3	SAP Cloud Platform Integration Suite	Live	API Management, Open Connectors, Cloud Integration, OData Provisioning, Connectivity
4			

If you have used one of the services or support offerings from SAP Digital Business Services during the implementation or deployment phase, please select with one or more of the following offerings:

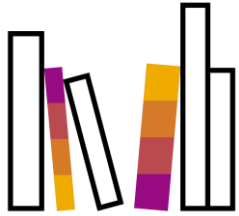
- | | | |
|---|--|--|
| <input checked="" type="checkbox"/> SAP MaxAttention™ | <input type="checkbox"/> SAP ActiveAttention™ | <input type="checkbox"/> SAP Advanced Deployment |
| <input type="checkbox"/> SAP Value Assurance | <input type="checkbox"/> SAP Model Company | <input type="checkbox"/> Others: |
| <input type="checkbox"/> SAP Innovation Services | <input type="checkbox"/> SAP Innovative Business Solutions | |



Advanced Technologies

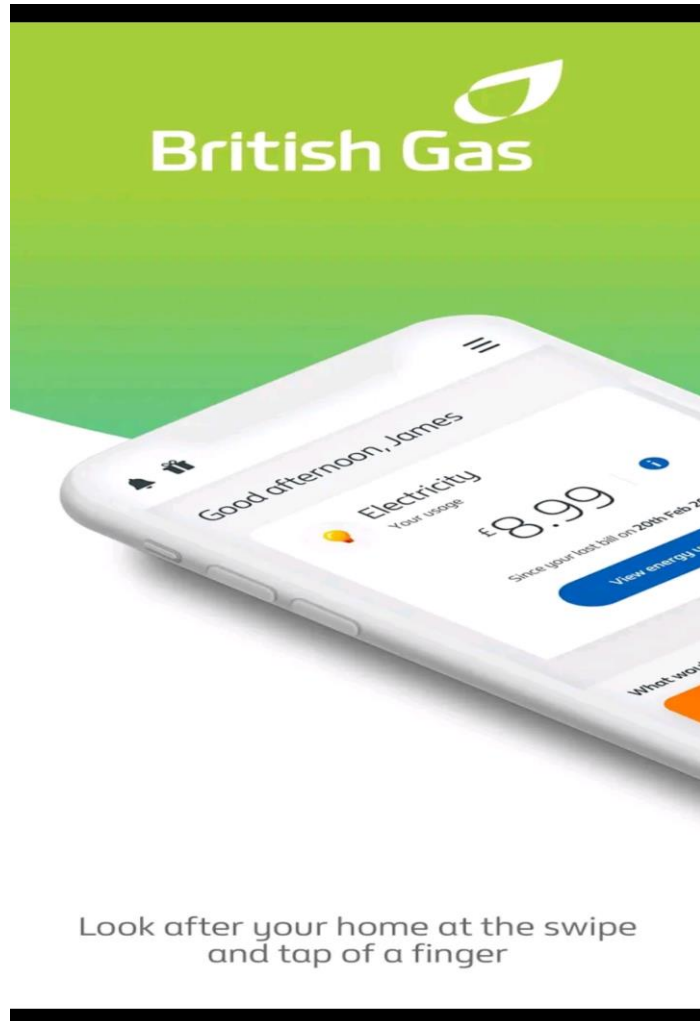
The following **advanced technologies** were part of the project.

	Technology or use case	Yes or No	Contribution to project
1	3D printing	No	
2	Blockchain	No	
3	Internet of Things (IoT)	No	
4	Machine learning or AI	No	
5	Conversational AI	No	
6	Robotic process automation	No	
7	Data anonymization	No	
8	Augmented analytics	No	



Additional Information

Examples of British Gas Mobile App UI based on API Architecture



Look after your home at the swipe and tap of a finger

