

Vodafone UK revitalizes with new omnichannel experience

Who?



What?

A customer experience transformation to implement a new digital experience layer and launch new offers faster, increase digital sales and end-to-end automation, reduce costs, implement a culture of innovation and a complete NPS turnaround.

How?

By replacing aging and redundant IT stacks; retiring an outdated content management system; adopting CI/CD/CT and DevOps methodology; leveraging TM Forum Open APIs; implementing a new microservices-based digital experience layer; and launching intelligent, omnichannel customer experiences including a new app, web store and chatbot

Results

Digital sales increased by more than 50%

End-to-end automation for more than half of all customer interactions

30% increase in sales conversions

Launch of VOXI youth brand to counter competitors

3x improvement in NPS

It was a difficult situation for Vodafone UK. NPS and customer trust were at an all-time low and management was under pressure. Competitors were rolling out new digital offers and the company could not respond fast enough. Application performance was troubled, customer channels were out of sync, and its first-generation mobile app was not delivering. Vodafone UK turned to Infosys to consolidate IT silos, retire aging systems, synchronize channels, and create a new digital experience layer to accelerate speed to market, reduce cost and provide a long-term solution for automated, omnichannel customer experiences.

Vodafone UK is a major, Tier 1 mobile operator in the UK offering a variety of innovative services to nearly 18 million subscribers. Several years ago, it had been ahead of the game in implementing new systems to support sales channels and introduce a first-generation app, but the pace of the market meant these systems aged fast and the communications service provider (CSP) was soon playing catch-up with competitors.

A fundamental problem was that everything operated in silos. Its app was a stand-alone solution. Each of its customer-facing channels operated in a separate IT silo and data was not synchronized. The CSP's content management system sprawled and was difficult to manage. New product introductions could take up to 18 months, requiring significant changes to downstream systems of record. Business units could not roll out new offers fast enough and IT complexity restrained their creativity. It was time for an aggressive change.

Consolidation, migration and a new digital experience

Introducing a new digital experience that matched leaders like Netflix became the priority. In response to an RFP, Infosys introduced a bold notion. The company argued that Vodafone UK should eliminate its silo approach and bring in a single, common digital experience layer. This layer would be built on microservice components residing in the AWS cloud. It would enable common customer journeys across all channels; leverage lightweight front ends using technology like React JS; and accelerate development with reusable components. Vodafone's online e-shop would be the first target, followed quickly with a new mobile app.

This new customer experience that resulted spanned sales, commerce, service and care. New customer journeys were defined once with this model and pushed to any supported channel. Furthermore, new technology components like chatbots, Google Home and Amazon Analytics could be exposed to any channel with a "build-once, reuse-many" approach.

On the back end, the new digital experience layer uses abstraction to eliminate the need for changes that impact the legacy IT stack. Microservices using open source Amazon Docker containers underpin customer journeys. They can be reused and applied to different channels.

When a new experience is defined in the digital experience layer, the relevant microservices are called to obtain the required data from back-end content management systems to contextualize the customer experience. With a single API gateway, changes made in the digital experience layer are abstracted into interactions with downstream APIs to provide updates to the large scale, legacy systems of record like CRM and fulfillment engines.

Culture of innovation

To govern and execute this critical program, Vodafone UK introduced a new culture of innovation based on DevOps methodology and a continuous integration/continuous deployment/continuous testing (CI/CD/CT) approach. IT culture had to change from a Waterfall-based model to Agile. Great effort went into educating teams, including engineers and executives across business units and downstream IT teams. Joint trainings were conducted to gain certifications in activities like scrum management. A DevOps pipeline was established along with a mindset where everyone could analyze, optimize and improve continuously to bring experience benefits to users and customers rapidly.

An important backdrop to this story is that Vodafone is in the process of driving transformation group wide. "Our customer experience transformation leverages TM Forum assets, particularly [TM Forum's Open APIs](#). We are working to make our APIs compliant with the Vodafone Group model and TM Forum specifications. Our overall goal is to enable a modular platform architecture that provides interoperability, scalability and well-defined interfaces between omnichannel solutions and downstream systems," says Ben Connolly, Head of Digital Engineering at Vodafone UK.

Examples of the TM Forum APIs underway include:

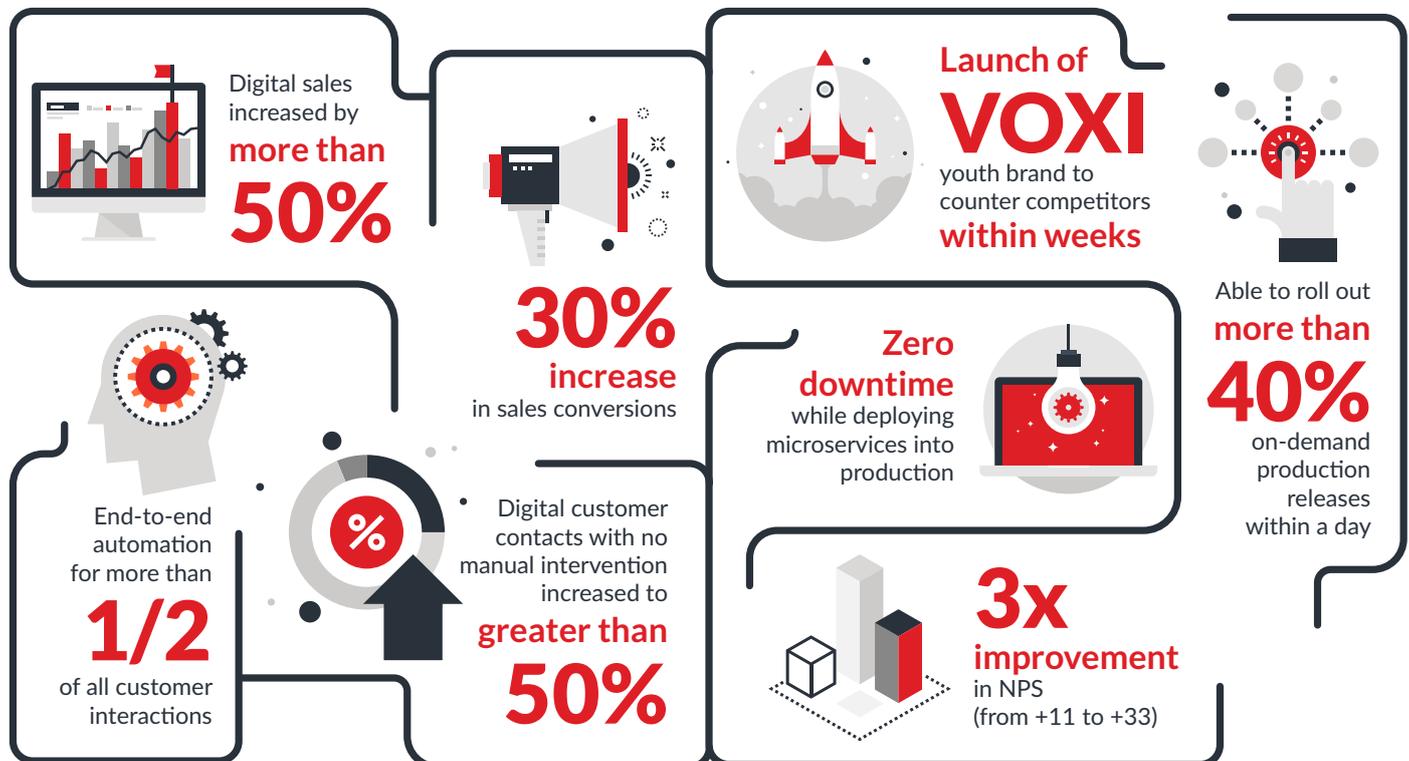
- [Customer Bill Management API](#)
- [Party Management API](#)
- [Product Inventory Management API](#)

In general, there are journey and entity microservices defined, relating mainly to sales and service customer journeys. The entity services comprise roughly 20 TM Forum Open APIs. Vodafone UK also leverages TM Forum assets for discoverability, loose-coupling, reusability and abstraction principles. Vodafone Group is also creating a groupwide standard for TM Forum Open API adoption, to which Vodafone UK is a key contributor.

A measurable turnaround

From a low of +11, Vodafone UK's NPS score increased to a +33. Digital sales increased by more than 50% and sales conversions increased by 30% overall. Digital customer contacts with no manual intervention increased to greater than 50%.

Results of Vodafone's new digital customer experience



TM Forum, 2020

In direct response to its chief competitor, Vodafone UK launched its VOXI youth brand within weeks. It also launched its AI-based chatbot, ToBi, within 3 months; this chatbot is on pace to manage more than 15 million transactions per year. Staff-driven contacts were reduced by 15% as well due to new digital communications channels. Both VOXI and ToBi contributed substantially to Vodafone UK's NPS turnaround.

Vodafone UK's IT group has gained the ability to roll out more than 40 on-demand production releases within a day. It has also achieved zero downtime while deploying microservices into production. Total cost of ownership has been reduced as a result of reuse, adoption of cloud applications and an automated CI/CD pipeline. Optimization of non-production environments has delivered an additional cost savings of £500K per year. Furthermore, the Vodafone UK customer experience solution has become the Vodafone group-wide model.

A range of lessons learned

Success in a transformation like this starts with defining clear business objectives. Vodafone UK set out to become number one in customer experience; leaders in cost; to simplify radically; and to increase revenue per 1000 visits to digital channels.

"Culture change was crucial to the success of this effort and it was driven from the top," says Connolly. "Our leadership's commitment to digital transformation and adoption of new methods was critical," he says. This included clear customer experience goals such as shifting from multi-page to single

page journeys; implementing new channel experiences, like ToBi the chatbot and a reinvented app; launching VOXI, its new youth segment brand; and becoming "always on" with functionality like offline checkout.

It was also clear that APIs and microservices are the way to go for digital transformation. A focus on cloud native components; a "build-once, use-many" approach; and a spirit of automate, automate, automate are clear takeaways.