



CASE STUDY

The Connected Customer: Ensuring
a Ubiquitous Connection for Liberty
Global with the Connect App

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Life today is all about being connected. Broadband, WiFi, hotspots, smart devices, smart homes and even smart cities – the internet has catalyzed the largest connectivity boom we've ever seen.

As one of the world's leading converged video, broadband and communication companies, Liberty Global—the parent company of Virgin Media, Telenet and UPC—is dedicated to keeping its 11 million customers across six European countries connected to the 25 million TV, broadband internet and telephone service offerings they subscribe to.

With the vision of creating a connected community, Liberty Global turned to its long-standing technology partner EPAM to develop the Connect App, a mobile platform that revolutionized their existing, UK-based app. The new app allows users to easily configure their home modems and boosters, connect to the internet, check data usage, monitor devices in the home and automatically connect to one of the company's 10 million hotspots, allowing Liberty Global to achieve its goal of making it easy for customers to connect wherever they are whenever they want.

PROJECT OVERVIEW

GOALS

- Build a connected ecosystem in the home
- Provide an easily navigable user interface
- Integrate with existing and future third-party applications
- Enable users to control their home networks
- Scale across multiple locations and regional sub-brands

TECH STACK

- Reference Design Kit (RDK)
- Spark Kubernetes
- Mobile Native: iOS, Android
- Web: AEM, React
- Cloud-native Microservices: Java, AWS, Kubernetes, Docker
- E2E testing: performance, security, test automation – including mobile and integration testing

KEY RESULTS

- Active in the United Kingdom, Austria and Switzerland under brands Virgin Media and UPC with no additional costs to users' existing services
- Over three million downloads on both iOS and Android mobile devices



- More than 400,000 active users per month seamlessly access WiFi through the app both in and outside of the home to manage their own network service
- Users can access over 10 million hotspots throughout Europe, allowing customers to stay connected

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GIVING CUSTOMERS UNPARALLELED INTERNET ACCESS

Liberty Global wanted to re-invent the traditional in-home connectivity experience, which was cumbersome and frustrating to many customers. Often, customers could only troubleshoot connectivity issues via a router interface that used technical language, providing a poor customer experience. In Liberty Global's first, UK-based app, the functionalities were limited and often restrained to basic router features, like WiFi configuration, while customers were also unable to control their network from outside of their homes. The lack of connection to Liberty Global's existing cloud service, Connect Cloud, and analytics also limited the company's ability to optimize customers' experience.

Working with Liberty Global, EPAM began to tackle each of these challenges in order to create a seamless experience for Liberty Global's customers. As EPAM embarked on this work, the complexity of the application rose exponentially as each country's individual legal requirements grew. For example, the UK needed its own customized application based on specific requirements and unique features that were not developed for other locations. EPAM and Liberty Global's delivery teams worked together to build one harmonized abstraction layer for unified functionalities, moving away from the existing complex and multi-faceted backend systems.

EMPOWERING CUSTOMERS TO MANAGE THEIR CONNECTIVITY

Together, EPAM and Liberty Global developed the Connect App – Liberty Global's first app that offers customers seamless access to the internet both in and outside of the home. Customers use the same user-friendly interface to connect to their WiFi network at home as they do to connect to one of Liberty Global's 10 million hotspots when they're on-the-go.

With the abstraction layer from the country-specific infrastructure, Liberty Global was able to attain its goal of having one pan-European solution that optimizes delivery and time-to-market across the company's multiple regional sub-brands.

The app, which plugs into Liberty Global's greater connectivity ecosystem comprised of Connect Web, Connect Care and Connect Cloud, makes all of these features more accessible to its customers. It also allows the company's customer service teams to collect data that is essential to making product improvements and solving connectivity problems, enabling them to proactively serve the customer. The final product was built on Reference Design Kit (RDK), utilizing the same framework as Liberty's video product, Horizon 4 – thus enabling the company to use one common data layer to better serve the customer.

Together, Liberty Global and EPAM introduced a new agile approach for the app based on regular fixed launch dates agreed upon with the teams and stakeholders. By delivering services in shorter cycles—generally on a monthly basis—EPAM helped Liberty Global deploy changes faster and more consistently, decreasing the time-to-market for the app dramatically.

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THE CONNECT APP ALLOWS USERS TO,



CONFIGURE THEIR MODEM AND BOOSTER, AND MANAGE OR TROUBLESHOOT ISSUES VIA THE APP

With step-by-step instructions and detailed images, customers can easily solve their own problems or access support if needed.



USE THE APPLICATION TO OPTIMIZE THEIR NETWORK BASED ON DATA

By collecting relevant analytics, the app easily diagnoses connectivity issues, improving customer experience.



ENJOY STRONG SECURITY

The app detects threats and vulnerabilities—such as password breaking, traffic disruption attempts and viruses—protecting customers both at home and when they're on-the-go.



GET FREE ACCESS TO 10 MILLION HOTSPOTS THROUGHOUT SIX COUNTRIES

The hotspots are displayed on a map, and users can connect to them automatically and at no additional cost.



CONNECT TO THE NETWORK VIA CONNECT CLOUD

An innovative new option, users can work with their modems via the cloud and manage their home network from anywhere in the world.



CONTROL THEIR CHILDREN'S USAGE OF THE INTERNET

EPAM and Liberty Global plan to add a feature called Family Time, which will enable parents to give their children WiFi access at specific times of the day, define what they can and cannot do on the web, and pause connection if needed.

The Connect App paves the way for Liberty Global to fully serve the digital home of their customers, moving from a pure “broadband only” proposition to a holistic customer-centric digital services firm.

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PROVIDING SEAMLESS CONNECTIVITY BOTH IN AND OUTSIDE OF THE HOME

As of today, Liberty Global's Connect App is already available in app stores in the UK, Austria and Switzerland, and has been downloaded around three million times and has over 400,000 active users per month. In 2019, there were 310 planned builds with 30 releases across the three countries. In 2020, EPAM will help roll out the Connect App in Irish, Dutch and Polish stores, as well as introduce new features—such as Family Time—and launch C-Web, the web version of the application.

The app allows users to connect to over 10 million hotspots and gives them the ability to view their mobile billing plan through the app. It also empowers users to self-diagnose and troubleshoot home connectivity problems, which has led to a reduction in site visit operating expenses.

Regular product updates driven by EPAM will continue to provide continuous improvements for customers. The Connect App has laid the foundation for users to connect wherever and whenever they want.



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ABOUT EPAM

Since 1993, EPAM Systems, Inc. (NYSE: EPAM) has leveraged its software engineering expertise to become a leading global product development, digital platform engineering, and top digital and product design agency. From telecom service providers to television networks and game developers, EPAM helps its media and telecommunications customers envision and develop innovative, next-gen digital solutions that deliver subscriber satisfaction and forecast future consumer needs. EPAM's global teams serve customers in over 25 countries across North America, Europe, Asia and Australia.

ABOUT LIBERTY GLOBAL

Liberty Global (NASDAQ: LBTYA, LBTYB and LBTYK) is one of the world's leading converged video, broadband and communications companies, with operations in six European countries under the consumer brands Virgin Media, Telenet and UPC. Liberty Global invests in the infrastructure and digital platforms that empower its customers to make the most of the digital revolution. Liberty Global's substantial scale and commitment to innovation enables the company to develop market-leading products delivered through next generation networks that connect 11 million customers subscribing to 25 million TV, broadband internet and telephony services. Liberty Global also serves 6 million mobile subscribers and offers WiFi service through millions of access points across our footprint. In addition, the company owns 50% of VodafoneZiggo, a joint venture in the Netherlands with 4 million customers subscribing to 10 million fixed-line and 5 million mobile services, as well as significant investments in ITV, All3Media, ITI Neovision, LionsGate, the Formula E racing series and several regional sports networks.

QUESTIONS?

Contact us at Sales@EPAM.com
or visit us at EPAM.com

