



Winner

Optimizing for speed without sacrificing stability

Recognizes the ability to deliver software with more speed and better stability to quickly meet end-user needs

About

[Virgin Media O2](#) is a British provider of telephone, television, and internet services with 48 million connections across the United Kingdom and 18,000 staff. Its mobile network covers 99 percent of the population.

Challenges

Virgin Media O2 emerged from the 2021 merger of cable operator Virgin Media and Telefónica's wireless company. This created a new integrated telecoms competitor in Britain and ignited a digital transformation that puts the customer at the center of every decision.

Embarking on this drive, the company realized its technology stack and ways of working impeded its efforts to accelerate innovation in converged network services and customer experience.

Some of the challenges it sought to address were:

- Complexity and fragmentation of its systems
- Untapped potential of data
- Inefficiencies like manual processes
- Long development cycle and lead times

Objectives

Against this backdrop, Virgin Media set out to shorten its time to market, improve the productivity of its engineering and data teams, and strengthen the resilience of its systems. The company targeted change in how its people collaborate and in its computing infrastructure.

Among the key objectives were:

- Eliminate a mosaic of niche tools
- Unlock the power of its data
- Modernize data storage and computing architecture

The biggest enabler was adopting a cloud-first approach using a hybrid public-private cloud structure. The team realized that simplicity and reusability were crucial to improve efficiency and avoid repeating its old problems.

Solution

Virgin Media implemented its new cloud architecture using Google Cloud with a dedicated engineering team focused on accelerating the adoption and embracing best practices. Within six months, Virgin Media built and deployed three high-value, carefully orchestrated, 24/7 systems using open-source tooling and core Google Cloud services.

This core stack is highly reusable and has enabled the company to build new services with more features and enhancements, rather than rebuilding from scratch.

For its data operations, Virgin Media:

- Migrated its data storage to Google's [BigQuery](#), Google's serverless multicloud data warehouse
- Adopted [Google Cloud Composer](#) and [Dataflow](#) for workflow orchestration and analytics
- Implemented Google's [Vertex AI](#) as the development environment for its machine-learning prediction models
- Moved to Google [Cloud Run](#) serverless compute platform with automated scaling of containers

On this foundation, Virgin Media built a new pricing engine in four months. The team used Google Cloud's managed services such as Cloud Run, [Firestore](#) database, and [Google Cloud Armor](#) network security.

The pricing engine made it easy for customers to change their packages. They can now choose any combination of products and services flexibly and online. Virgin Media's pricing engine is a major innovation for an industry built on service bundles. This data product also allows the company to run pricing experiments.

Virgin Media also used Google Cloud APIs for automated routing of calls to its call center. This enabled the company to tailor the solution to its needs and save money on third-party tools.

Results

Virgin Media's modernization initiative has brought positive results for customers, the business, and staff. The company has radically shortened its development and deployment times by eliminating complexity, encouraging releases that are smaller and more frequent, and using managed Google Cloud services. The serverless system easily scales to handle traffic spikes, increasing resilience.

Some of the key results include:

- Lead time for deployments has gone from four to six months to less than **60 minutes**.
- Data queries that previously could take up to 17 hours now run in **seconds or minutes**.
- Instead of manual test and deployment lasting up to **two months**, features are deployed **multiple times a day**.
- Stability has improved with **99.9 percent** achievement of production SLAs running on Google Cloud due to automated testing.

"This has completely transformed how the organization thinks and works. It will unlock so much potential for years to come," Virgin Media notes.

The new pricing engine has enabled the company and its customers to tailor product selection and adjust pricing quickly. The tool uses customer data to make recommendations. This has contributed to higher revenue per order, and customer satisfaction is up too. Automated call routing has enhanced interactions between customers and agents. This is reducing repeat calls, cutting costs, eliminating manual processes, and increasing lifetime customer value.

The changes have increased job satisfaction and morale as well. "We're seeing a huge uplift in our team's happiness, having the modern tooling to do their job effectively. Our analysts are able to solve problems faster, meaning they're far more productive and have far more focus, flow, and joy in their days," the team says.



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-Virgin Media

Working with Google

Virgin Media says strong support from the Google Cloud teams contributed to its success, especially noting opportunities to consult Google product teams. Virgin Media appreciated insights into how the Google product roadmaps were evolving so it could align its plans.

To learn more about Virgin Media's successful project, [check out this video](#).

