

CASE STUDY: VIRGIN TRAINS

How Spherica helped Virgin Trains move its data centre infrastructure to Microsoft Azure in record time

Virgin Trains is one of the largest train operating companies in the UK and is owned by Virgin Rail Group.

It operates long-distance passenger services on the West Coast Main Line between London, West Midlands, North West England, North Wales and Scotland. And, it connects six of the UK's largest cities – London, Birmingham, Manchester, Liverpool, Glasgow and Edinburgh.

With more than 3,500 employees, carrying 34.5 million passengers a year across 23 stations – with its head office located in London Euston and major operations in Birmingham – effective communication and a strong IT infrastructure is key to keep the business running at optimal levels.





THE CHALLENGE

In July 2017, Virgin Trains was notified by its data centre provider that it would be closing down its current centre.

The data centre had provided the home for Virgin Trains' entire back end infrastructure since 2013, which included rail applications that were critical to its business operations.

In addition, the centre announced it would close completely in just seven months, which introduced an incredibly aggressive time frame for Virgin Trains to move its entire IT operations – an activity that would have the potential to bring its entire business to a halt if it went wrong.

Dean Underwood, head of technology services and support at Virgin Trains, said: ***“We received notice of the closure of our data centre just seven months before, and it was a huge concern for us as a business.***

“However, with the support of Spherica we turned it into an opportunity to accelerate our move into cloud infrastructure and away from traditional alternatives.”

THE SOLUTION

Virgin Trains had two options. It could either move to a new data centre with its current provider, or use the opportunity to take advantage of new technologies.

The IT team could see the opportunity that the forced move presented and saw the data centre move as a positive, enlisting long term partner Spherica to help migrate its systems to Microsoft Azure. Early in the planning phase it became apparent that some of the legacy rail industry applications would still require a physical data centre for hosting, but where possible, all other systems would be moved into Azure.

Steve Jennings, managing director at Spherica, said: ***“If Virgin Trains opted to move its data centre with its old provider, it would’ve effectively taken a sideways step.***

“By opting for a hybrid, on premise and cloud hosted data centre, it was able to future-proof its business, and reap the benefits that cloud computing offers including high availability, scalability, better control over costs and increased productivity.”





THE OUTCOME

Spherica partnered with Virgin Trains' IT team to ensure the project was delivered on time and caused minimal disruption for end users.

Steve said: *"Our team was at the front and centre of the project and provided expert advice on Microsoft Azure and what was required to make Virgin Trains' vision, a reality."*

Nick Apps, technical architect at Spherica, said: *"Working alongside Virgin Trains' IT team, we created a core technical team."*

"Our role was to design and build the new infrastructure, migrate all existing systems, and then provide the ongoing support to maintain it."

Spherica helped Virgin Trains undertake a stringent due diligence process to choose the new physical data centre before selecting a modern, latest generation centre which is more efficient, provides better performance, reduces costs and uses energy efficient hardware.

First, its team scoped out the rail companies server requirements, detailed the licensing requirements and put the designs for the applications together.

Once the funding for the activity was approved by Virgin Trains, Spherica focused on the physical data centre build.

The core technical team sourced new servers and switches, and installed the rail applications. In addition, a Citrix solution was designed and implemented to allow end users to access the rail applications.

Nick said: *"Virgin Trains' existing servers were four years old and we always recommend replacing them after three, so the new servers had an immediate, positive impact on its processes."*

"And, we took the opportunity to select a data centre that is close to its office in Birmingham."

To set up Virgin Trains' Azure cloud platform, Spherica used Azure Expressroute – a system that allows you to extend your on-premise networks into the cloud over a private connection.

Then, Spherica added the firewalls, Active Directory, a system for external companies to migrate applications to Virgin Trains' cloud data centre, and Azure multi-factor authentication to enhance end user security.





Nick added: *"Virgin Trains wanted to transform and streamline its operations, so everything that could be moved to the cloud, was."*

"Overall, the project went as planned and was delivered within the extremely tight time frame we were given. And, both our team and Virgin Trains' IT team, achieved the desired outcome of migrating all systems to the new hybrid environment."

Once the systems were up and running, Spherica passed the project onto its support team that manages the day-to-day operations of the platforms and ensures all systems are kept up to date and running smoothly."

Steve said: *"There was a huge potential for high levels of disruption due to moving the data between two platforms, but we ensured downtime was kept to a minimum, with virtually no impact on day-to-day business operations."*

Dean said: *"During the design phase of the project Spherica supplied much needed experience in the cloud infrastructure space and ensured that the environment we created was sized correctly."*

"This meant that we delivered an environment that was cost effective but delivered on specifications, performance and availability."

Phil Whittingham, managing director at Virgin Trains, said: *"Well done everyone [Virgin Trains IT team and Spherica] - a great effort and the fact that no one noticed is a job well done"*



4200 Waterside Centre
Solihull Parkway
Birmingham Business Centre
Birmingham, B37 7YN

+44 (0)845 862 1794
info@spherica.co.uk
www.spherica.co.uk

© 2018 Spherica Business Solutions Limited

