



Node4 Keeps DB Systel UK on the right track with managed, colocated data centre services for Europe’s biggest rail transport providers

Customer	Industry	Size
DB Systel	Transport	50 Employees Circa £5m turnover

The solution Managed data centre solution with peer-to-peer connectivity and DDoS protection.



8 Racks of Servers



10gb high-performance DWDM fibre link



Reduced Overheads



Cyber Security Support

“Node4 provides DB Systel UK with a highly stable platform — and is a very well-run organisation. This gives us great confidence on a day-to-day basis while also letting us develop a sustainable long-term IT strategy that benefits our customers and us.”

The Customer

DB Systel UK, the digital partner of Deutsche Bahn and subsidiary of DB Systel GmbH, provides managed IT services across the DB Group and selected European public transport companies, including the Arriva Group in the UK, Arriva Netherlands, Arriva Denmark, and XC Trains Ltd. DB Systel UK has a strong rail heritage and a deep knowledge of the public transport sector, with many of its employees joining from British Rail before its privatisation in the late 1990s. The organisation’s core services include IT hosting, compute resources, consultancy, cyber security protection and database management.

DB Systel UK has to pitch on the open market for many of its contracts — even for those relating to other DB Group companies. Because of this, DB Systel UK’s services need to demonstrate value for money, strong security posture, scalability, and reliability — just like any other managed service provider. The choice of data centre provider is therefore of paramount importance.

The Challenge

DB Systel UK approached Node4 in 2017 when the company was given 12 months to migrate from its on-premises data centre. The pressure was on because if DB Systel UK remained in the data centre with its 800+ servers, it would be hit with extremely high single occupancy service charges.

At the time, DB Systel UK only provided managed services to other DB Group companies and some of these organisations saw the changes at the data centre as an opportunity to move from DB Systel UK’s private infrastructure to public cloud— using AWS and other providers.

“We had to find a suitable colocation partner for those internal customers that wanted to carry on using our private infrastructure services, but that was only part of the story,” comments Darren Unwin, IS Operations Director at DB Systel UK. “We still had to provide support for those businesses wanting to use a public cloud architecture. The DB Group is understandably very strict when it comes to security. We couldn’t just switch them to regular public cloud providers with a direct feed from the internet. The connection would still need to pass through our internal security architecture — including our firewall and various perimeter protections. This meant we needed an IT partner that could help us assemble and manage a highly complex IT infrastructure — and integrate it with our existing security protocols.”

The Solution

After successfully winning the contract, Node4 began the data centre migration process. Today, the company hosts eight racks of servers for DB Systel UK split between Node 4's data centres. The data centres are linked by a 10GB high-performance DWDM fibre link and a resilient 1GB backup capability for added redundancy.

DB Systel UK runs Active/Active clustering between both data centres. This prevents either location from getting overloaded and balances workloads between both sites — thereby improving throughput and response times even during peak usage.

In addition, Node4 manages several direct peer-to-peer links that connect with DB Systel UK's Doncaster HQ and additionally into AWS. The solution also includes backup and recovery services, business continuity, tape archive management and project-based consultancy — and DB Systel UK receives remote support for day-to-day data centre management from Node4's operations and network teams.

"DB Systel UK's IS Operations team visited several data centre providers. We had a substantial evaluation process covering the key onsite facilities, including security, fire protection, CCTV and perimeter defences. We also looked deeply into cultural alignment and concluded that Node4 had the same values and priorities as us," Darren recalls. "From day one, we had an unspoken agreement. We'd always talk honestly and openly about our IT needs — and any issues on either side — to make sure there were no bottlenecks or potential issues that could be detrimental to our operations. Three years down the line, and this policy continues to work extremely well for us — I have total trust in our Node4 account manager."

Node4 also provides DB Systel UK with DDoS protection to mitigate against distributed denial of service and phishing attacks — some of the biggest current cyber threats faced by the business. The service delivers additional cybersecurity support and builds on the existing firewall protection. It monitors for attacks round the clock, ensuring minimal disruption to DB Systel UK's IT services and securing against potential data loss.

The Results

The benefits of Node4's managed data centre solution include reduced management overheads, improved profitability and increased resiliency. It has enabled the company to successfully bid for more commercial work outside of the DB Group — generating more revenue and acting as a catalyst for growth.

Darren notes that Node4 has also changed the way that DB Systel UK manages its data centre. He explains: "Working with Node4 brought about a raft of positive changes, and we've learned a lot from the team — particularly about data centre management and customer communications. We've always been used to walking into our data centre and carrying out upgrades and maintenance ourselves. But with Node4, it's all done by a team of remote hands — the company's specially trained data centre and managed cabling experts that troubleshoot problems on our behalf and handle planned maintenance."

He continues: "When COVID struck, we'd already got remote data centre management down to a fine art and were able to work seamlessly with Node4's remote hands to keep our operations up and running. In fact, we've been so impressed by the way Node4 communicates with us ahead of any upgrades that we've actually adopted those processes and principles ourselves when talking to our customers."

The solution also delivers on reliability. DB Systel UK's data centres support traveller-facing technology and systems, including ticket sale machines and train service coordination — so they're essential to revenue generation and customer experience. Outages can disrupt journeys, freight movement around the UK and mainland Europe and behind-the-scenes business processes.

Darren expands: "Fortunately, we've never had an data centre outage or issue with Node4, so it's one less worry for me to have to think about — and it's particularly appreciated as we couldn't always say the same thing about our previous provider."

He concludes: "Node4 provides DB Systel UK with a highly stable platform — and is a very well-run organisation. This gives us great confidence on a day-to-day basis while also letting us develop a sustainable long-term IT strategy that benefits our customers and us. We're planning to take on more services from Node4 in the future — so watch this space to see how the project develops."