New infrastructure receives top marks from academy

Industry

Education

Key challenges

- Big issues with internal domain access and core infrastructure
- Microsoft Active Directory configuration preventing admin of key systems
- Impacting access to applications and services for 1300 students and staff
- Compromising security and impacting learning environment

Solution

- Internal domain migration and migration of email services
- Hybrid solution mixing on-premise and cloud-based services
- Harnessing on-premise Active Directory services and Office 365 for email

Business benefits

- Internal systems that now work properly together
- Welcomed commercial savings

Highlander enrolled to share advice on new course for IT

The Bulwell Academy is a large, contemporary academy situated in Bulwell, Nottingham; an area of social deprivation. Sponsored by the Creative Education Trust (CET), through superb facilities and excellent staff, the school strives to nurture student creativity for the good of future economic and personal success.

Building a modern learning environment means technology needs to work seamlessly. However, the school ethos of 'everyone achieves' was being held back by issues with the core infrastructure which was becoming an obstacle to progress. After two previous attempts to put things right, The Bulwell Academy drafted in the help of Highlander to get things on track.

Company overview

With more than 1300 staff and students, The Bulwell Academy is an excellent example of what many modern academies are striving to achieve. Residing inside a state-of-the-art, purpose-built facility, everything about the Academy is designed to stimulate young minds. Technology is a cornerstone of the student experience and an essential learning and teaching aid.

The challenge

Like many schools, the day-to-day IT of the Academy is operated by a modest staff of two. Ensuring the important applications and services the school relies on can work together and are easily available to students and staff is Microsoft Active Directory. This system is instrumental in moderating sign-on, controlling access to their internal domain and Exchange email system, as well as helping other important systems to work properly together.

Mohammed Faroug, the IT Manager explains: "This was one of the first projects I tackled when I joined the Academy. A poorly configured Active Directory (AD) and internal domain were impacting everything, creating issues as wide-ranging as our servers getting tied up in pointless processing cycles, to SIMS – our management information system – not connecting with AD itself, and even resulted in loop holes

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such as seeing students able to add themselves to open email distribution lists. It meant lots of security flaws and simple management tasks like changing application group policies could not be reliably employed."

The system challenges were having a direct impact in the classroom as students and staff were suffering accessibility issues and experiencing poor performance of key school services. Future initiatives would continue to be compromised unless the problems could be resolved.

Before Faroug had joined the Academy, two previous attempts to resolve the internal domain and AD issues had been attempted without success. It was at this point he felt rebuilding the systems from scratch might be the best approach. He needed a technically proficient partner to advise and therefore asked Highlander for their recommendations.

The solution

Highlander's first step was to properly diagnose the issues at play. More thorough analysis of the infrastructure revealed a system riddled with security flaws and disconnections. It would take considerable time to repair versus starting again with a new internal domain as Faroug had suspected. Highlander consequently prepared objective recommendations for the possible routes the Academy could take to make this happen.

Making such important changes to the internal domain naturally prompted questions surrounding the provision of email, one of the most important systems the school operates. Thanks to Microsoft Office 365 it is now commonplace for many organisations to run their Active Directory and email services entirely out of the cloud. However, the applications that need to connect with AD need to be ready to authenticate with a cloud service and many of those in use by the Academy, including SIMS and their Cashless payment system, were not capable. With this in mind, Highlander therefore proposed a hybrid solution. This would enable AD to be deployed locally but have all email services backed-off to the cloud.

"It struck the perfect balance, enabling us to retain a key system on-premise, which was good for the legacy apps we needed to maintain, while giving us all the benefits of moving our email into the cloud. It also meant we would retain control and could easily define all sorts of policies and then see them synced across all systems both on- and off-cloud," continues Faroug.

With a plan agreed, Highlander were charged with implementing all the changes and ensuring the domain migration successfully took place. This involved ensuring every one of their 800 laptops, PCs, workstations, and tablets could connect to the new domain and on-premise mailbox data was ingested into the Office 365 cloud.

Highlander

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Business results and benefits

Uncomplicated IT that just works

Most important of all, the domain migration has remedied all the complexities the Academy was previously experiencing. "All the worry we used to face when things stopped working has gone because everything now works beautifully. We can control most of the important services ourselves and make administration changes that take effect instantly and do what we intend. That was not the case before. It now means that students and staff enjoy systems that work whenever they need them," comments Faroug.

Achieving best value

Moving to the hybrid model, the school has been able to realise all sorts of savings. "While I don't know the precise savings we've made, they're significant. Managing our Exchange server on-premise, we naturally had to have suitable security protecting the system. This alone cost us £5000 a year in licensing. Moving email to the cloud means that's an instant saving. We're also running less servers, which means less power and less cooling – once we had three air con units, now we only have one. It all contributes to welcomed savings," enthuses Faroug. Using Office 365, the school enjoys attractive commercials and has a predictable monthly cost for running its email environment.

Greater reliability

"Before the domain migration, every 2-3 months we would experience email downtime. This would have a particular impact on the staff. Since moving to Office 365 we've had zero downtime for email. The fact that all the systems work properly together and can be accessed as needed means learning isn't impacted like it was before. I love that we can update our on-premise servers without interruption as all the information is sitting in the cloud and not on our servers," says Faroug.

Better use of limited resources

With only limited on-site resources, the Academy IT team naturally want to spend time focused on activities that enhance the learning environment. Among the many valuable time-saving benefits enabled by the new setup is the backup of email, which is now done by Microsoft in the cloud as part of the service.

Highlander

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Specialist solutions

- **Infrastructure**
- Protection
- **Cloud**
- ERP
- **Workspace**
- **Services**

Opportunities for new functionality

Bulwell has been so pleased with the Office 365 service that they are now looking to take advantage of some of the other features available through the subscription. "We're excited to explore the other benefits available to us," declares Faroug. "I'm confident there are further savings for us to make by moving our file server data into the cloud using OneDrive."

Working with Highlander

> " *Although Highlander were new to me, I always felt in good hands. They always have time for you. They explain things very clearly and if you don't understand something they come back and explain it in a different way. They always put forward more than one option and present sensible prices. I don't question their costs and see their advice as the golden rule. In short, they have the best team I've ever worked with!"* Faroug concludes.

Highlander