New College Worcester
Empowering young people with visual impairments

An extraordinary residential school, New College Worcester improves the lives of children who are blind or have severe visual impairments. It appointed Cutter Group to upgrade its aging IT infrastructure and give it the reliable IT foundation it needs to empower students to lead independent, self-confident and fulfilled lives.

Challenges Faced

New College Worcester had the latest, specialist technology available to students and teachers to use, including electronic Braille devices, magnification software and speech recognition solutions. However, behind the scenes in its IT department, its servers were over five years old and out of warranty. Data storage capacity was diminishing, back-up systems were aging, and there was no clear disaster recovery strategy. To make matters worse, the school no longer had an in-house IT manager to maintain this pivotal IT infrastructure.

These issues meant that there was a small but growing and unacceptable risk of IT failure. "Everything was working, but we were nervous," explains Jonathan Fogg, a computer science teacher and the Strategic IT Lead at New College Worcester. "If our core IT infrastructure had gone down, it would have had a serious impact on teaching and learning, as well as the general running of the school."

Cutter made all the difference by:

✓ Designing, implementing and testing new virtualised server infrastructure

✓ Increasing data storage and setting up robust disaster recovery systems

✓ Supporting the in-house IT technician and answering questions

✓ Providing peace of mind with 24/7 remote systems monitoring

Services Provided

Cutter designed, implemented and tested a new server infrastructure, capable of meeting the school's needs for many years. It used Microsoft Hyper-V for Windows Server to create multiple virtualised servers and helped the school migrate its existing Windows desktop operating system images to the new platform.

Recognising the critical importance of 24/7 availability for the school, Cutter also deployed a dedicated disaster recovery host server, coupled with a back-up and replication solution to ensure quick restoration of services in the case of a major outage. Cutter included an uninterruptible power supply in the design to protect against power outages.

According to Fogg, it was a "seamless process"; in which one consultant from Cutter came to the school to physically install the equipment and the remainder of the set-up was undertaken remotely. "The implementation was carried out during school holidays as a precaution, but there was no loss of service for students or staff during the migration to the new infrastructure," he reports.

"Cutter's technical understanding, knowledge and experience is excellent," Fogg adds. "The school's IT technician has been really impressed, not only with the technical ability of the Cutter consultants, but also with their friendliness and willingness to answer his questions."

Cutter now provides ongoing support for issues that cannot be resolved in-house, along with remote 24/7 monitoring of the new infrastructure. When an air conditioning unit failed and started pumping out hot air, Cutter detected the rise in temperature on the servers, alerted the school to the potential fire risk and shut down the servers remotely to prevent them from overheating. As Fogg says, "The implications could have been really serious, if Cutter had not seen the problem and reacted promptly."

Results Achieved

Cutter has delivered the powerful and reliable back office systems that New College Worcester needs to enable it to continue to make cutting edge technology available to children with severe visual impairments. The virtualised infrastructure delivers dependable high availability not just during school hours, but during evenings and weekends too when it is used to support extracurricular activities that enrich students' lives.

The new IT infrastructure also improves the storage and back-up of vitally important business and student data. The school can, for example, safeguard critical information on students' allergies, medical conditions and guardianship. In the event of an unavoidable outage, the school now has the ability to quickly recover servers and data onto dedicated hardware and resume services swiftly.

With unconstrained data storage, teachers can make more extensive use of video and audio resources to help students develop key life skills. Students can access a larger number of subject specific articles and teaching resources, saved centrally, and read them using their electronic Braille devices.

Significantly, the project has enabled the school to reduce its annual IT operating costs and free up budget for other student services. For example, Cutter has replaced four aging physical servers with three state-of-the art servers, which are less expensive to power and cool. In addition, the school does not need to replace its previous IT manager, as it is confident in the level and speed of support provided by Cutter.

The quality and diligence of Cutter's support is very reassuring for New College Worcester. The incident with the air conditioning unit demonstrated to Fogg just how important it is to have experts on hand, just in case. As he says, "The technology and build are sound, but it's good to have support in place for the unexpected."