

Low-cost green computing for education.

New College Leicester combines green technology with educational benefits

Challenge

To invest in state-of-the-art classroom computing technology that delivers educational benefits in the most environmentally friendly and cost-effective way.

Solution

Replace New College Leicester's outdated PCs with NComputing's L-series virtual desktops.

Results

Substantial cost savings and a massive reduction in their carbon footprint; cooler, quieter, and less cluttered work environments.

Partner

kl ltd *KL Ltd, an NComputing reseller in Wiltshire, installed the NComputing solution at New College Leicester.*

"I want to invest in the most sustainable, environmentally-friendly and cost-effective technology possible," says Mark King, ICT manager at New College Leicester. After investigating a wide range of technologies and looking at solutions from all of the industry's market leaders, he chose the NComputing solution.



Students enjoy a quiet, cool computing environment with NComputing.

NComputing delivers

"When I first read about the NComputing technology, I was skeptical. But we decided to try it, and it does exactly what we need it to," said Mr. King. "This is fantastic."

The NComputing solution works because today's PCs are so powerful that the vast majority of applications only use a small fraction of the computer's capacity. NComputing's hardware and vSpace™ virtualisation software tap into this unused capacity so that it can be simultaneously shared by multiple users. Each pupil's monitor, keyboard, and mouse connect to the shared PC through a small and very durable NComputing access device. The access device itself has no CPU, memory, or moving parts – so it's rugged, reliable, and easy to deploy and maintain. By spreading out the cost of the shared computer, schools can provide many more stations for the same money.

“It’s saved us money. It’s saved us time. And it’s helped us a long way to meeting our green targets.”

MARK KING
ICT MANAGER
NEW COLLEGE LEICESTER

Go green; save money

Not only does NComputing deliver in terms of performance and usability, but the solution also draws only 3% of the electricity used by traditional PCs, dramatically reducing both the school’s carbon footprint and its energy bills. Over the previous five years, the cost of running 500 desktop computers at New College Leicester was approximately £70,000, and they emitted nearly 260 tonnes of carbon. Had the school been running the NComputing system over the same period, the cost would have only been £23,000, and carbon emissions would have been reduced by 66% to only 88.4 tonnes. Because the units are solid state with no moving parts, they produce virtually no heat, eliminating the need for additional air conditioning and further reducing both energy bills and carbon emissions.

According to Mr. Chirag Patel, the school’s Head of ICT & Business Studies, “The school will save £16,000 to £20,000 each year in energy costs alone, and the NComputing system will pay for itself in under a year.”

E-waste is also a concern. Most PCs are disposed of after three to five years, creating about 10 kg of e-waste per computer that ends up in landfill. However, NComputing access devices weigh just 150 grams and last around 10 years, so there’s less than 0.5% of the e-waste created over a 10-year period. Combined with the huge reduction in carbon emissions, NComputing is having an extremely positive impact on the environment.

A better teaching environment, too

The technology has been deployed in all of New College’s ICT classrooms. And with mid-range servers each supporting 90 virtual desktops, there’s plenty of additional server capacity for extra seats. There’s also plenty of network capacity: in comparison to other technologies, NComputing uses very little bandwidth and the pupils get a great desktop experience. The pupils and teachers also like the fact that the access devices are incredibly quiet, so pupils can concentrate on their work and teachers no longer have to raise their voices to be heard. And because the NComputing access devices are so small, they can be hidden under desks or mounted behind monitors, providing pupils with more space on their desks to work and deterring theft.

NComputing technology also improves teaching and learning. “The temperature in the classroom is considerably cooler and we seem to be able to access files at a much quicker rate,” says Mr. Patel. “I have far fewer pupils coming to me to say they’re having problems with getting onto the network.”

“If anyone was to ask my advice about where they should be investing their money with regards to replacing desktops or expanding their current desktop environment, I would strongly suggest that they look at NComputing,” encouraged Mr. King. “It’s saved us money. It’s saved us time. And it’s helped us a long way to meeting our green targets.”

