

Low-cost green computing for education

Irish school gives full marks to eco-friendly innovation

Challenge

Bring classroom computing technology into the 21st century while meeting the school's Green School policy, with very little physical space and an even smaller budget.

Solution

Deploy NComputing X-series virtual desktop kits and energy-efficient PCs to create an eco-friendly computer lab on a small budget.

Impact

Increased independence in student computer use. Teachers have also introduced junior classes to the computers and software to help them develop their IT skills at an early age.

Partner

ShareMyPC, an NComputing reseller in Ireland, carried out the installation at Fermoy National School.

Fermoy National School, set in the beautiful Irish countryside, is an ideal place for any child to embark on their education. The school recently adopted a Green School policy and wanted to demonstrate to the children and the local community that addressing environmental issues are part of everyday decisions. When the school planned to upgrade their computer infrastructure, it was a perfect opportunity to integrate 21st-century technology with eco-friendly resources.



The school created an environmentally friendly computer lab with NComputing.

Traditional computers get failing marks

“We are a small, close-knit school with limited resources, aiming to provide our pupils with an education that would rival most city schools. Working with a limited budget and physical space in the school, you have to be innovative in your approach,” stated the headteacher of Fermoy School. “We are too small to have a dedicated IT co-ordinator to look after a range of equipment and supporting software, so we needed a solution that was easy to install, use and maintain, and would fit within our budget.”

The principal looked into the cost of purchasing PCs or laptops, but the complexity, electricity use, and costs failed to meet their requirements. The school needed a better solution. NComputing reseller ShareMyPC suggested installing a single low-energy PC connected to NComputing X-series access devices to create a 7-user computer lab.

“The NComputing solution met all our requirements—it came well within our budget and it also helps us deliver on our new Green School policy,” added the headteacher of Fermoy School.

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HEADTEACHER
FERMOYLE NATIONAL SCHOOL

“Our company is green in its ethos, and most people think that they need to pay a premium for this, but when we introduced the NComputing solution to the school, they couldn’t believe how affordable it was,” explained Patrick Rooney of ShareMyPC.

Here’s the science lesson

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 this unused capacity so that it can be simultaneously shared by multiple pupils. 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 up to five times the number of stations for the same money.

Eco-friendly and inexpensive

A standard PC draws approximately 110 watts, whereas NComputing access devices draw just 1 watt. “We tested the power usage with 7 users. With 6 NComputing access devices, the PC, and 7 monitors, the average load per workstation was just 27 watts. The combination of the green PC and the access devices together with low-energy monitors have resulted in very low energy consumption,” stated the headteacher. Not only is this good for the environment, but it is also good for the school’s bank balance too—reducing their electricity bills.

In the longer term, most PCs are disposed of after three to five years, and when that PC is discarded, about 10 kg of e-waste ends up in a landfill. NComputing access devices weigh just 150 grams and lasts around 10 years, so there’s much less waste that finds its way to a landfill site.



The future looks bright

Fermoyle School’s headteacher went on to say, “Environmental benefits aside, this system is for the benefit of the children and their education. Since we introduced NComputing, the children have become more independent about their computer use, as they are free to use them as necessary—especially during class break times. We have also been able to introduce junior classes to computers to help them develop their IT skills. Now the children are able to play and learn through the software or via the Internet at their own pace. We are so pleased with the NComputing solution that we are now looking into additional workstations in the classrooms.”

“I think NComputing is brilliant. They are of great help to us. You can play games like Braintastic or Maths Invaders, and write essays and poems,” commented one of the children.