

# Case Study

## Peak Forest Primary School

Fifty pupils at remote Peak Forest School in the heart of the Peak District are now able to explore the world from their classrooms thanks to a new broadband satellite connection and a CachePilot smart caching appliance from Equinet.

Head teacher David Gordon says the CachePilot has not only expanded the youngsters' horizons, it has also revolutionized the way in which his teachers can plan and deliver lessons.

Using their CachePilot, teachers can ensure media-rich information is displayed simultaneously and instantly on multiple classroom PCs and site updates can be scheduled to download at off-peak times, limiting the strain on the network.

As well as enabling a better learning experience, CachePilot offers the very highest network security for Peak Forest's staff and pupils alike, with world-class filtering and an accredited firewall.



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"We call it 'awe and wonder' or the 'gosh' factor", says David Gordon, head teacher at Peak Forest Primary School. "You can read about it in books, you can hear someone telling you about it, but there's no substitute for being able to see it for yourself."

Peak Forest Primary School has only two classes, 46 pupils and half a dozen members of staff, yet youngsters there are now able to broaden their horizons by accessing the very best educational material that the Internet has to offer, thanks to the installation of Equinet's CachePilot content delivery device.



At a time when the government is encouraging the take-up of online, curriculum-based packages from a whole variety of content providers, CachePilot is helping to ensure schools are able to download lessons instantly and simultaneously on multiple PCs.

For Peak Forest, CachePilot is providing network access, structure and security for teachers and pupils alike.

### Making the connection

Peak Forest's first experience with networking equipment left the school battle-scarred; a remote community in the heart of the rural Peak District, early attempts to get them networked using existing phone lines failed because the signal loss over the 12 miles of copper cable to the nearest exchange rendered the lines next to useless. The network was ripped out and the school spent the next 18 months unable to get even rudimentary Internet access.

Just recently, as part of a LEA-sponsored effort to improve networks for rural schools, a new broadband satellite connection was installed by Synetrix and a CachePilot appliance was supplied by Equinet channel partner Elonex.

"We needed something that could manage both sides of our network – admin and pupils," says David Gordon. "CachePilot is working wonderfully as a gateway device, a web filter and a security appliance, as well as enabling us to access and plan lessons using online learning packages, such as 'Schoolzone'."

The primary function of CachePilot is to handle the download, structured storage and local delivery of e-learning packages from a whole host of content providers. "Since it was installed, we have enjoyed the ability to download whole sites, pre-load them ready for lessons and then access them on all PCs in class, instantly and simultaneously," he adds. "We've set it up to mirror sites overnight so they are constantly updated. The performance is tremendous and the amount of information that can be stored is immense. We really haven't begun to explore its full potential."

### The Gosh Factor

According to David Gordon, access to the growing number of e-learning packages is not the only benefit. "For a small community like ours in a very rural area, the ability for us to connect around the world is marvellous," he says. "In the last few days we have concentrated on two sites: one is a web camera on a game reserve in South Africa, which has ten second updates and gives a very good impression of being 'live'; the other is a site called Earthwatch, which can show such things as the affect of earth's rotation on day and night.

"The pupils are really responding to this form of learning. On many occasions, they've gone back to these sites in their own time to do follow-up research. It's hard to explain how powerful this is."

As well as enabling such instant and structured access, CachePilot is offering Peak Forest School a high level of protection, including enhanced website filtering using URL databases from N2H2. The industry leader with more than 5 million URLs defined, N2H2 enables sites to be blocked individually or by category, such as 'porn', 'sports' or 'bomb-making'.

"I've had some experience with computers in the past," adds David Gordon, "but I've never come across the quality of screening within CachePilot. We've put it to the test and tried very hard to break through the filters but we have been unable to access anything unsuitable or unsavoury, which is obviously crucial in schools."

CachePilot, which sits at the boundary or 'gateway' to the network, also boasts a Checkmark-accredited firewall to ensure network protection, along with an extremely secure method of digitally signed automatic updating which prevents interception of the learning material by mischief-makers or hackers.

### E-Learning Revolution

New government initiatives are being launched to meet the increasing needs of schools to access media-rich, Internet-based learning materials whether or not they have broadband connection to the Internet. At the same time, content providers are moving towards online delivery of their packages rather than enduring the high cost of distributing multiple CDs. It is against this backdrop that CachePilot is being rolled out by individual schools, Local Education Authorities and Regional Grids for Learning.

Designed to meet precisely the needs of schools, as defined by the Department for Education & Skills and BECTA, CachePilot is an all-in-one smart content delivery solution for e-learning with a 120Gbyte hard drive which is robust enough to handle any e-learning package, no matter the size, content provider or available bandwidth. It can store, update and deliver both static and dynamic content locally, enabling simultaneous access by multiple PCs.

"E-learning packages put an enormous strain on data networks and it is vital that delivery methods keep pace," says Keith Baker, Equinet's Director, Special Projects. "Traditional caching solutions just aren't up to the job."

CachePilot uses a variety of clever techniques, such as central FTP distribution and automatic website mirroring, to ensure all steps are taken to avoid wasting valuable bandwidth, slowing down networks or compromising network security. It also boasts a structured data store for easy retrieval of information, the ability to pre-cache lessons in advance, comprehensive management statistics and logs, and web serving functionality. As in the case of Peak Forest, this clever device can also act as a secure router to the Internet.

[www.cachepilot.com](http://www.cachepilot.com)



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