ApplianSys help E2BN deliver fast, secure web access to local authorities and schools

Challenge
Hindered by an inflexible solution and an uncooperative service provider, E2BN decided to find a more effective way to deliver managed web content to schools.

Solution
ApplianSys **CACHE**BOX**300** Series was selected for Local Authority level because of its outstanding performance, with the deployment of high-specification hardware alongside the record-breaking DataReactor cache engine.

ApplianSys **CACHE**BOX**200** and **CACHE**BOX**050** have been tightly integrated into the E2BN*Protex* service at the local level and provide emergency Block/Unblock functionality.

Key Benefits
Immediate savings - drastically lower cost than competing solutions

Enhanced security - filtering adheres to region wide policies

Greater control – special emergency block/unblock feature blocks pages instantly locally and within 30 minutes across the region

Flexibility – ability to create regional filtering profiles as well as local level profiles

Reliability and simplicity – thanks to easy-to-use dedicated server appliances

Trusted content provider
Between 2000 and 2001, 10 regional consortia were set up under the National Grid for Learning (NGfL) initiative. Their common aim is to realise the promise of broadband technology in education, connecting all learning communities across England. The Regional Broadband Consortia (RBCs) are responsible for rolling out broadband to all schools in their regions by 2006. The East of England Broadband Network (E2BN) is the Regional Broadband Consortium (RBC) for the East of England. By aggregating regional demand, the consortiums are designed to give local authorities greater buying power when purchasing services from broadband suppliers.

In addition to providing cost effective internet access, E2BN also manages the delivery of filtered content to schools across the region. With an ever increasing risk of breaches of the filtering regime by both students and external content providers, E2BN takes its role of providing 'secure' access very seriously.

One size doesn't fit all
E2BN had already been providing a filtered access service for a number of years. However, the limitations of their existing solution were beginning to cause real problems for their customers, as Chris Kastel, E2BNs CEO explained:

"Filtering in the previous system was based on blocking the URL of a site, lists of bad sites were kept on a central server and these would be updated periodically. There were a number of problems with this setup: blocked sites could 'move' to a different URL and bypass the filter and there was no flexibility to make local changes to the filtering policies, not every school or library needed the same level of filtering."

The most damaging problem however was the perceived network outages. Because of the filtering in place, the time it took for content to go through the approval process led many users to complain of failure of the network. This was beginning to have a detrimental effect on the organisations reputation. Furthermore the existing service providers' attitude to the situation was putting a serious strain on the relationship.

"Originally, 90% of the perceived outages were because of the time it took to go through the filters, but it took almost a year to get the old provider to acknowledge there even 'was' a problem. As far as our customers were concerned, we were the ones providing the poor service", recalled Kastel."

A pilot for change
To pre-empt any further deterioration in the service, E2BN initiated an 18 month pilot project on 'content delivery management' for the region. It became clear through the pilot that the desire to be able to tailor the filtering system at a school level was high on the agenda for many of the regions schools. Additionally, with the rapid increase in rich media such as graphics, audio and video on the web, it became evident that the ability to cache content as well as filter it would help improve the 'perception' of improved performance of the broadband connection. In the light of internal reviews and the lessons learnt in the original pilot, E2BN decided to investigate the best way to provide a regional service for caching and filtering.

"We started looking at corporate filtering solutions that we felt could do the job, but for a region our size we were being quoted 'corporate' prices, we just didn't have huge amounts of money to spend on the solution," said Kastel.

Having decided upon a solution based on open source software, E2BN began looking for a partner who would work with them to refine and implement the new project, called E2BN*Protex*. After evaluating competitors' products they chose ApplianSys for their **CACHE**BOX web caching appliance and their extensive experience with open source solutions.

"Originally, 90% of the perceived outages were because of the time it took to go through the filters, but it took almost a year to get the old provider to acknowledge there even 'was' a problem. As far as our customers were concerned, we were the ones providing the poor service."

"When you consider the quotes we were getting for providing filtering and caching I would say we've easily saved over a million pounds for going down this route with ApplianSys."

Web cache and filtering
The E2BN*Protex* project required a scalable, hierarchical web acceleration solution that integrated tightly with the open source filtering core. ApplianSys looked at the work E2BN had already started on filtering and set about embedding it into their **CACHE**BOX.

"ApplianSys didn't come in wanting to re-invent the wheel just for the sake of it; they accepted our findings and looked for ways to refine it. After our experiences with the previous solution provider it was refreshing to work with a company who were open, honest and willing to consult with us at the outset," recalls Kastel.

ApplianSys installed **CACHE**BOX300 at the Local Authority and RBC level. Powered by industry leading DataReactor software for web caching and acceleration, it is perfectly suited to handle the demanding job of high volume filtering and caching for multiple dependent sites.

At school and library level, local caching and filtering is done by **CACHE**BOX050 which has a custom-built, integrated web-interface for content filtering management. Additionally a special emergency block/unblock feature has been implemented which not only blocks pages instantly at a local level but also sends the URL to E2BN for automatic propagation to all the other systems across the region in under 30 minutes**.** The URL is assessed and either added to the banned lists or unblocked regionally. Regardless of the outcome remains blocked locally.

As security is paramount school systems are only able to connect with the Local Authority system; it does not allow the Local Authority level cache/filtering system to be bypassed and attempts to connect to an unauthorised cache/proxy result in no internet connection at all.

"The ApplianSys solution has given us flexibility and control over our own filtering. With it we can now set appropriate levels of filtering depending on who the end users will be, rather than the all or nothing approach we had previously."

"Since rolling it out, we have had no negative feedback from the teachers at all, no complaints about the speed or filtering. The only ones complaining are the students because the solution won't allow access to unauthorised sites anymore."

"When you consider the quotes we were getting for providing filtering and caching I would say we've easily saved over a million pounds for going down this route with ApplianSys," said Kastel.

Flexibility and support
The solution from ApplianSys now provides E2BN with the flexibility they needed to meet the changing demands of their customers with the scope to expand and create new service offerings over time. With **CACHE**BOX they have a powerful solution in a simple secure package that is easy to maintain at every level.

Whilst E2BNs customers have renewed confidence in their service, Chris Kastel has even more confidence in ApplianSys:

"When you're responsible for delivering a service to your customers you've got to have a partner who'll work with you and do that bit extra. ApplianSys are very flexible, and are prepared to go the extra mile to help us. I know that if I have a problem, I can get on the phone for a chat, and that ApplianSys will work with me to find a solution quickly," concluded Kastel.

appliansys

ApplianSys Limited.
University of Warwick Science Park,
Business Innovation Centre,
Harry Weston Road,
Binley Business Park,
Coventry, CV3 2TX,
United Kingdom.

Tel: +44 (0)247 643 0090
Fax: +44 (0)870 762 7063

World Wide Web: http://www.appliansys.com
Sales Support: +44 (0)845 450 5152 or
Email: sales@appliansys.com

P/N: CCS06-CACHE-03