

CACHEBOX solutions for schools



OVERVIEW

Internet access is critical to the success of schools and colleges today.

- Hard copy materials are being replaced by Educational content rich in images, graphics and video.
- Students of all ages must research material for themselves, developing the independent browsing and learning techniques they need in today's world.

Yet the available bandwidth never seems to be enough for long. Schools in all parts of the world are facing similar challenges:

- Schools in high bandwidth areas are grappling with the drive towards 1:1 pupil to computer ratios and students using their own devices on the school network.
- More remote schools, those using VSAT and those in developing countries are rolling out internet-enabled learning often with little and/or very costly bandwidth.

If your bandwidth is under pressure it can lead to problems:

- Video and educational websites face slow loading times leaving the teacher frustrated and students bored.
- Software updates can bring the network grinding to a halt.
- Teachers learn to avoid bandwidth intensive content, or resort to "teaching from the front of the class".

CACHEBOX is the solution: a dedicated web caching appliance designed to save your bandwidth and improve the speed with which your end-users can access web content. Network administrators can also monitor and control web traffic.

BENEFITS

Speed up Internet access

Because content is downloaded to your local network, teachers and students get much quicker access to it. You can even pre-load the appliance with content so that it's ready for teachers before the start of class.

Save bandwidth

For many schools, bandwidth is either too expensive and/or in short supply.

- For schools with narrow bandwidth in remote locations, a cache can make the internet usable in the classroom.
- Metropolitan areas from New York to Melbourne may have a lot more bandwidth, but this has simply allowed for more devices to be connected and for greater use of internet content. Caching allows these schools to fit many more devices on to their network and maintain good internet performance for users.

In simple cost savings alone, payback is rapid and return on investment is high.

Video when you need it

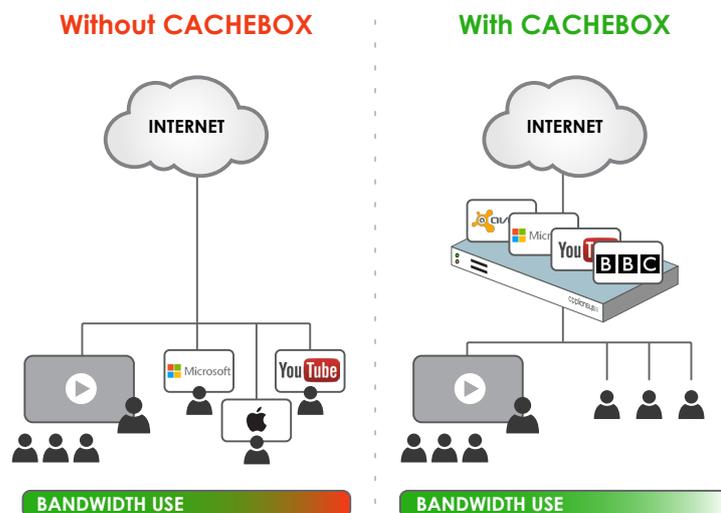
Video accounts for the majority of traffic in most schools, and with **CACHEBOX** it no longer takes forever to load.

Software updates without the pain

Windows or Apple updates can generate huge volumes of traffic on the network, making it painfully slow for users. **CACHEBOX** takes all that pressure off the Internet connection.

Protect students from harmful content

CACHEBOX works alongside third party content filters and lets you authenticate users against MS Active Directory, so you can enforce your student protection policies. You can keep a permanent record of internet requests, as well as tracking patterns and trends to aid in network planning.





Configuration wizards, graphical reporting and online help

*"We needed to bring content to the classroom faster so kids could do more in the classroom. **CACHEBOX** proved itself overnight. 32% average bandwidth savings across the day, with savings of up to 90% at busy spots during the day. I've noticed a big improvement in speed."*

**Jason Pelletier, Information Systems,
Greater Lowell Technical High School, Tyngsboro, MA**

One school or many, big or small, there's a CACHEBOX solution for you

From a New York City high school to a remote settlement in Greenland or an Indonesian island, from a single primary school to a national education authority: the **CACHEBOX** range offers options to cater for every need.

- **CACHEBOX** has different models to fit all school / bandwidth sizes.
- In multi-school networks, **CACHEBOX**es can be deployed as appropriate across individual schools and the network core. They can work together in sibling clusters in the core and in parent-child hierarchies across the network to maximise bandwidth saving and internet performance.
- The **CACHEBOXcmc** Central Management Console makes it easy to deploy and manage multiple **CACHEBOX**es across an education authority.

RANGE

| | Usage | Form Factor | Max Concurrent Users / Throughput (Mbps) |
|--------------------|--|-----------------------------------|---|
| CACHEBOX050 | Small school | Small Form Factor Desktop Unit | 100 - 150 users 40 Mbps |
| CACHEBOX110 | Small school | 19" 1U Rack-mountable | 100 - 150 users 40 Mbps |
| CACHEBOX130 | Small school | 19" 1U Rack-mountable | 150 - 200 users 60 Mbps |
| CACHEBOX210 | Medium school | 19" 1U Rack-mountable | ~1,000 users 100 Mbps |
| CACHEBOX230 | Large school | 19" 1U Rack-mountable | ~3,000 users 250+ Mbps |
| CACHEBOX310 | School district core High throughput | 19" 1U Rack-mountable | ~6,000 users 500+ Mbps |
| CACHEBOX420 | Large school district core High throughput | 19" 2U Rack-mountable | 10,000+ users 1+ Gbps |
| CACHEBOXcmc | Remote administration of up to 500 CACHEBOX es | 19" 1U Rack-mountable | Not Applicable |

FEATURES

Save bandwidth, save money

- Fully featured HTTP caching software
- Video caching (YouTube, Metacafe, Vimeo, Dailymotion, Veoh etc)
- Software update caching (MS Windows, Apple, Avast, Kaspersky etc)
- Reserve a portion of disk space for permanently storing specific objects
- Pre-fetching and mirroring of content

Easier to manage

- Intuitive, secure web admin interface
- Setup and caching assistants
- On-box graphical reporting / scheduled reporting to monitor caching and network performance
- Automated on-box/off-box backups
- Automated alerting
- Multilingual interface available in English, French and Spanish
- Operating system runs from read-only
- Industrial CompactFlash
- SNMP support
- Custom ACLs support

Safe client browsing

- User access logging
- MS Active Directory integration via NTLM and Kerberos authentication

Secure Management interface

- Secure HTTPS and SSH management interface
- RADIUS / LDAP authentication

Flexible deployment

- Supports multiple transparent and explicit deployment modes
- Optional Fail-to-Wire resiliency
- Clustering, load balancing and hierarchies
- WCCP Support (v.2, GRE and Layer 2)
- IP spoofing
- Firewall with NAT forwarding for networking flexibility

"We were getting bandwidth savings of between 47 to 68%. On a bad day we were seeing speed increases of 50%, all the way up to 150% on a good day."

**Gregory Moore, Technology Assistant,
Hope Public Schools, Hempstead County, AR**