

EDUGATEBOX - Everything schools need to get online



GETTING ONLINE

Connected learning promises rapid results, lowers the high cost of traditional teaching methods, and delivers better learning outcomes* in today's classrooms.

But for education authorities looking to roll-out internet access, the challenge of delivering a truly capable network at each school is a lot to manage:

- Authorities must connect all schools quickly to avoid disadvantaging any one school
- Reasonably priced Wi-Fi access points only do part of the job and can leave students exposed to inappropriate content and their devices open to cyberattack
- Sophisticated networking kit is usually designed for more developed needs - over-specced, over-complicated and over-priced for developing schools
- There is no on-site technical support and bringing in engineers to deploy or support kit is simply not feasible.

Authorities want to give all their students the chance to leap a digital generation, however remote they are - and deploy cost-effective, secure classroom internet anywhere, even where bandwidth is a problem. These schools will need:

- **Routers & switches** to control network traffic
- **DNS and DHCP** to allow devices to connect to the network and internet
- **A content filter** to protect students and keep web content relevant to learning
- **A firewall** to protect their devices
- **Caching and traffic shaping** to optimise limited bandwidth capacity
- **Network monitoring** to identify and resolve issues and plan for future needs.

* World Development Report 2016: Digital Dividends. Washington, DC: World Bank, 2016. doi:10.1596/978-1-4648-0671-1

ALL-IN-ONE SOLUTION

With EDUGATEBOX, everything developing schools need to access online content is available in one easy-to-deploy appliance from a trusted education vendor.

EDUGATEBOX offers just the right balance of features and functionality for single classrooms or anything up to 150 student devices.

With just one multi-function appliance all the devices in a school can be connected, protected and optimised in one go. If connecting 50 devices or less, **EDUGATEBOX** even includes the Wi-Fi access point needed.

With a single device, there is less to learn and less to know - schools don't need to rely on experienced technicians to install or manage the appliance. Education authorities can specify pre-configuration so that when schools take delivery of **EDUGATEBOX**, they simply plug it in.

And because operation is 'clientless', no student or teaching device will ever require additional software to connect.

Protect students from harmful content

EDUGATEBOX works with third party category and content lists to instantly stop access to inappropriate content. Lists can be modified at school or authority level via simple user options.

Monitor and control your traffic

With the entire network managed in one place, schools won't need to access multiple appliances to monitor activity or make configuration changes.

Comprehensive reporting - per **EDUGATEBOX** or aggregated across a fleet - can give 'at-a-glance' overview or 'in-depth' network performance reports. And because all traffic passes through **EDUGATEBOX**, detailed data about exactly who has done what at any school is available.

Save bandwidth, save money

EDUGATEBOX removes 20-40% of general web traffic by saving a local copy of requested content in its cache from which it serves all further requests. For very large file downloads, such as software updates that can take over a small connection for an entire day, the saving is often over 90%.

As a result every school can spend less on bandwidth or avoid having to upgrade, leaving more funds to spend elsewhere.

Speed up classroom content

Content delivered from **EDUGATEBOX**'s cache store is sent to students from within the classroom or building - at 'lightning' network speed. Important content not in the cache can be prioritised with Traffic Shaping whilst filtering can block chosen domains at set times. Together, these functions enable e-learning even where bandwidth is severely limited.

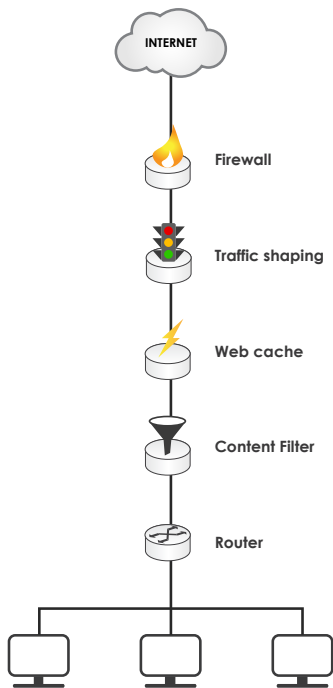
A solution that grows as schools grow

School network requirements are likely to grow fast and **EDUGATEBOX** has been designed to offer a suitable upgrade path. **EDUGATEBOX** comes in two models to fit traffic needs. With configuration stored on a USB drive, upgrading from small to large is a 10 minute task.

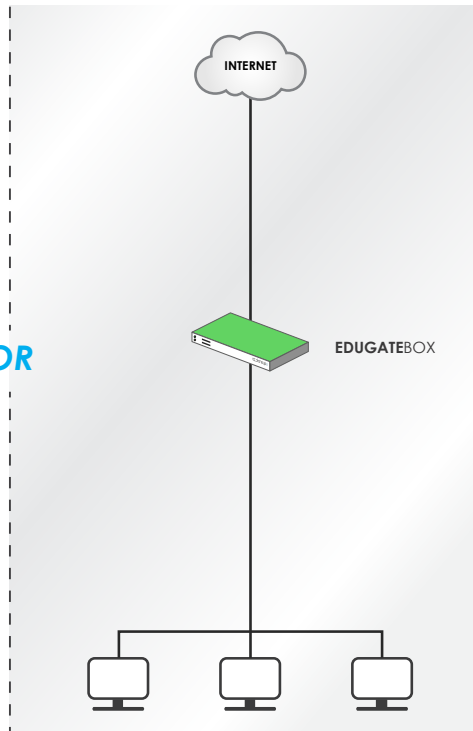
As schools' invest in more bandwidth, 'dedicated' appliances become more suitable. **EDUGATEBOX**'s modular design allows you to switch services on and off independently. Upgrade a single function with a new appliance and everything else continues to work.

Increased use of online content in class makes speed of access crucial. Easily enhance **EDUGATEBOX**'s cache with a feature-rich **CACHEBOX** for a greater speed boost and bandwidth saving.





OR



COMBINED SIMPLICITY

Providing internet access in the classroom doesn't have to be difficult.

EDUGATEBOX provides **all** the functions required and routes traffic through every service automatically, keeping things as simple as possible. The appliance ships with sensible default settings so that individual schools can simply plug it in to a power supply and an internet connection to get started.

Where bandwidth is severely limited, content can be directly loaded to **EDUGATEBOX** by USB. Bulk pre-loading of content during assembly can also provide instant readiness for student use.

With cloud management it is easy for administrators to bulk-configure multiple **EDUGATEBOXes** from a central location. Updates or configuration changes can be made just once and applied to all connected units.

RANGE

	Usage	Form Factor	Max Concurrent Devices / Throughput (Mbps)
EDUGATEBOX050	A school with a computer lab	Small Form Factor Desktop Unit	Up to 50 devices 25 Mbps
EDUGATEBOX100	A school with a lab and carts of portable devices	19" 1U Rack-mountable	50 - 150 Devices 50 Mbps
EDUGATEBOXCMC	A central IT team that manages EDUGATEBOXes at many school sites	19" 1U Rack-mountable	1,000 EDUGATEBOXes

ONE BOX, MANY BENEFITS

Designed to deliver a host of value-added benefits at a price that fits educational budgets, **EDUGATEBOX** is the cost-effective, all-in-one value solution for education authorities.

One appliance: All a school needs to get students safely online

One price: A budget-friendly solution with no ongoing feature license costs

One point of control: Manage everything remotely from one highly intuitive dashboard

One point of support: Just one friendly team to call, whatever the problem

One provider: One trusted vendor that you can rely on to keep schools up-to-date with changes in content delivery

FEATURES

Networking

- Wireless access point with Open / WPA / WPA2 encryption modes (model 100)
- Authentication-granting network access via captive portal
- Clientless - no need to ever configure tablets and PCs for access

DNS and DHCP

- Serve DHCP settings to connected network (default route, DNS, WPAD, IP, DNS, NTP)
- DNS caching service to reduce latency
- Full support for IPv6

Web caching

- Fully featured HTTP caching software
- Load priority content via USB - guarantee availability of material when the internet connection is unreliable
- Software update caching (MS Windows, Google, Apple, Avast, Kaspersky, etc)
- Off-peak pre-caching of content
- Static storage - keep any specific object protected from cache deletion
- Permanent video storage with customisable viewing channels

Content Filtering

- Category filtering (adult, social media, etc)
- Build and share domain white- and blacklists

Firewall

- DNS, DHCP and Terminal Service firewall to prevent unauthorised access

Traffic Monitoring & Reporting

- Monitor and log all traffic flowing through the network (source/destination IPs, Ports, Protocols, etc)
- Report on top users (by source/destination, by protocol, by port number)
- Set threshold rules for defined traffic metrics (e.g. bytes per object of interest: IP, subnet, port, etc.) and send an alert if breached

Easy to deploy, operate and manage

- Intuitive, secure web admin interface
- Setup and caching assistants
- On-box real-time / scheduled reporting to monitor network performance
- Automated on-box/off-box backups
- Automated alerting
- SNMP support