

What is the Schools Broadband Service?

Your schools broadband service is made up of a number of elements that provide access to a range of resources:

- Broadband Connection
- Broadband Services
- Service & Support

Broadband Connection

The connection is made up of the line into the school and the equipment that plugs into your school network. Typically the Schools Broadband network is made up of SDSL connections. SDSL stands for Symmetric Digital Subscriber Line (DSL) service that provides equal bandwidth for both uploads and downloads.

At home your broadband connection is probably ADSL, the A stands for Asymmetric, downloads are quicker than uploads although it is fine for home use.

In SDSL the S stands for Symmetric, i.e. uploads run at the same speed as downloads and it is faster. This is important when sending emails with attachments as this will be much quicker than with ADSL.

The SDSL service will be scalable both now and in the future with the benefit that you can have a faster connection for your school if you require it (for a nominal charge that will be less than you could buy it anywhere else). It is sustainable cost wise and we believe it provides a superb platform for the future of Essex schools.

We also provide all the equipment you require such as the router. We will also configure this for you to use, and if it fails send out an engineer to fix it, or even replace it, at no additional cost.

Speed versus contention

The speed of the broadband connection is often referred to as bandwidth. This is the speed at which your service runs; this will vary depending on the size of the school. At home for example you might get up to 8Mb, the actual download speed you get is dependant on contention ratios. For home and business broadband, contention ratios are typically 50:1 and 25:1 respectively, where the number indicates the ratio of bandwidth being shared over the entire network. The higher the contention ratio the less likely it will be to actually get to the stated bandwidth as you share bandwidth with other sites.

The Essex schools broadband network is a dedicated network for Essex County Council and the contention ratio is a maximum of 4:1

Both the **Synchronous Connection** and **Low Contention** are especially important for applications like RM Integris G2, Live@EDU Email and a growing number of cloud based educational packages.

Broadband Services

The services are available to every school on the Schools Broadband network; they provide additional features and functions that are tailored for schools and education environments.

National Education Network (NEN)

Your connection will provide to your school a link back into the National Education Network (NEN) giving you access to a wide range of rich content and learning resources. This will become an important platform in the future. Connection to the NEN is not something you can buy off the shelf, only the LA can provide this.

Filtering

The service provides content filtering to block unwanted sites. The level of filtering can be adjusted to suit the level/age of each user, and is used in the e-safety of the pupils of Essex. New websites appear everyday, the filtering service automatically blocks sites that are inappropriate based on a number of categories.

Firewall

A “firewall” is provided to protect your sites from intrusions from the Internet, or indeed from other schools broadband users. In general the firewall works by excluding network traffic unless it has been explicitly permitted. The Schools broadband network has multiple firewalls that continue to provide the protection even if one should fail. The firewalls are monitored 24x7 for threats and intrusions to protect the schools broadband network.

Data Centre

The schools broadband network has a number of services provided from two high end data centres. These high security environments provide the location to host the core services for the Schools Broadband network. By combining these services in multiple locations the access to the services is maintained with little or no downtime to schools.

Video Conferencing

The schools broadband network offers the capability of high definition video conferencing via Codian Gatekeepers within the education data centres.

Further information can be obtained by email us on:

[schoolsbandmanager@essex.gov.uk](mailto:schoolsbroadbandmanager@essex.gov.uk)

Anti Virus Software

McAfee virus protection is included in the service. The software is available for download direct from McAfee for use within Schools. Contact the Schools Broadband Team for more information on how to obtain the software.

Symantec Anti Virus is also supplied for those primary schools using RM Community Connect systems on their network which are not compatible with McAfee.

Email

Microsoft's Live@EDU provides email services to schools. You can setup as many email accounts as required and each mailbox has 10GB of storage. SkyDrive allows you to store and share documents securely online as part of the functionality.

Student accounts can be configured so they may only send and receive emails from within the school domain or special additional trusted domains.

Additional controls are available to further filter and monitor the service such as Forefront Online for Exchange and 'Bad Word' filter lists.

Live@EDU is compatible with Windows and Apple Macs, various popular browsers and can be configured on most popular smart phones to receive email and calendar updates.

Online Backup Service

The Attix5 Online Backup Service allows you to backup data from your server(s) to a secure remote data centre. The backup data is also mirrored to our second data centre so the information is safe at all times. Primary schools should use the service on the admin server to back up their management and financial data. Secondary schools can backup data on up to three servers containing sensitive and business information.

Security

The Schools Broadband Service is secured in a number of areas, using firewalls to detect threats on the network, using antivirus to detect threats and malicious content on computers using the network. The Schools Broadband service is built as a "private network" dedicated for Essex County Council. To ensure the safety within the school environments, network engineers that attend schools are CRB checked.

DNS Management

The schools Broadband system provides a resilient professional dynamic name service (DNS) which is fully managed for the schools and holds the authoritative name service for the essex.sch.uk domains.

Schools can request changes to their specific domain name via the Siemens help desk.

Service & Support

Reliability

By providing a reliable network every school is able to trust the service to deliver their curriculum and admin IT needs. Since the network moved to the dual data centre design there has been 100% availability of the core and internet services for all schools in Essex, this is something that is extremely important when providing a broadband network.

Support targets

The Schools Broadband network is maintained and monitored so that it meets the targets for availability. The network is consistently performing beyond the targets set therefore providing a robust and stable service.

Support

The support included as part of the Schools Broadband ensures that all aspect of the network are monitored and maintained to meet the demands of a county wide schools network. Every network device is polled 24x7x365, this makes sure that potential faults are identified, often before they occur so engineers can remotely fix problems. Dedicated engineers are available to repair or replace broken hardware on the Schools Broadband network, and assist with troubleshooting faults within schools.

All first line calls are taken directly by Siemens. If you have a query or problem, please contact them in the first instance.

Contact Details

Siemens Helpdesk: 0800 028 3011 (01908 818805)

Schools Broadband: 01245 435293

Calls relating to Live@EDU Email should be directed to the Schools Broadband Team.

For additional questions or queries regarding licences, upgrades and support please call the Schools Broadband Team or email us at schoolsbroadbandmanager@essex.gov.uk