

LONDON Grid for Learning

LGfL 2.0 - A New Era Begins

Announcing the new London Grid for Learning



What are schools saying about LGfL?

In terms of staff professional development, the services provided by LGfL are exceptional. Their curriculum consultants tailor a bespoke programme of support to suit the needs of individual teachers, allowing confidence and expertise to grow throughout the school. The impact LGfL can have on school improvement and pupils' learning is impressive.

Headteacher, Cheam Park Farm Junior School

What LGfL has given in providing the network and these wonderful resources has led to improvements that have changed many childrens' lives.

Headteacher, Ofsted 'Outstanding' School

I hadn't anticipated the impact the MLE would have on almost everything; it drives school improvement; it has surprised me that it has had such an impact.

Headteacher, Gonville Primary

LGfL is a fantastic example of what pan-London working should be like. Procurement on this scale really does give value for money for schools.

Headteacher, St Mary's CE High School

Not only does LGfL provide solutions to problems but they also inspire ideas. The new Webfronter Universal tutorial is a great example of this and the instructions are great too.

Perry Kimble, Towers Junior School

We wouldn't be where we are without LGfL and the MLE. It does for us a brilliant job - it's enabled us to personalise learning in a way we couldn't before. The children and staff are totally enthused with it.

Headteacher, Croydon School of the Year



Introduction

While it is always a priority for school leaders and governors to secure for their school best quality and best value services, the current season of changes and pressures, makes it even more important that purchasing decisions are fully informed. This booklet explains the programme of developments the London Grid for Learning has undertaken to ensure the best choice of services and best value for London schools in a time of austerity.

Changes Ahead

By 2006 every London maintained school was connected to the London Grid for Learning. Buying high speed secure, broadband and other related services for 2500 schools has saved hundreds of millions of pounds. Coordination on this scale was made possible by the strategic use of Harnessing Technology Grant (HTG).

The end of HTG means a new approach is needed to secure best value and the best services and resources for London schools. Technology and the telecommunications market place have both seen significant developments in recent years and this presents a new opportunity to take LGfL services for schools to a new level.

A new technology partnership

In autumn 2010, working on behalf of schools, LGfL challenged the telecommunications industry to put forward proposals and prices to replace the existing regional network, originally procured in 2001. An EU compliant competitive process led to the selection of **Virgin Media Business** as the new LGfL Infrastructure Partner. The Virgin Media bid offered significant technical and performance benefits as well as a substantial improvement in value for money.

Virgin Media joins **Atomwide**, **Fronter** and **Synetrix** as key supplier partners to the LGfL Community.

Work began immediately on the detailed design and implementation of a new regional network. Schools will begin to be transitioned to the new service starting from Easter 2011 and the existing LGfL core network and contract with Synetrix will run until its expiry in June 2012.

There are numerous important technical and service improvements which distinguish the new LGfL 2.0 service from the current provision and details of these are included in Table 3 under 'For the technically minded'.

A service tailored to the needs of schools

LGfL is not only about technology, which is merely a means, not an end in itself. This is a 'Grid for Learning' and the education broadband service it brings is far more than just 'raw' Internet. The Internet is simultaneously wonderful and dangerous for children, and safeguarding is a key priority in the design of all LGfL services.

LGfL is an Education Charitable Trust owned by schools through their local authorities and it exists to serve schools and to promote education. For these reasons LGfL broadband and the other services it brings are designed specifically to meet the needs and challenges of schools. Keeping children safe online, enhancing learning and attainment, supporting school leadership and promoting the effective use of new technologies are the priorities which inform LGfL's decision making.

What's included?

By combining in the strategic use of HTG, London local authorities and schools have been able, through LGfL, to develop a unique array of services and resources for connected schools. Starting with Internet filtering, important key services have been selected which make LGfL ideal for schools. To be included in the core provision a service or learning resource has to satisfy three criteria:

1. Is this something schools need?
2. Is there a compelling business case to procure the resource London-wide i.e. is the economy of scale so great that overall, schools will definitely benefit from savings?
3. Is it affordable?

Experience demonstrates that regional bargaining power can reduce costs by as much as 95%.

Table 2 shows the LGfL 2.0 main services and a few of the learning resources included in the new annual charges which take effect from April 2011.

A new charging model

To obtain the best possible broadband rates for schools in the future, and in the absence of capital grant to pay for setup costs, bidders for LGfL 2.0 were asked to absorb all capital costs into annual charges. Schools' need for broadband is here to stay and so to keep charges to a minimum, bidders were required to quote on the basis of a five year deal, allowing setup costs to be spread.

To make services affordable and sustainable for schools, a new charging model has been developed in consultation with representative school leaders which takes account of:

- The end of the HTG pump-priming funding stream which was used in part until 2010 to reduce costs to schools, notably for included security services and resources.
- Future improved underlying broadband charges from Virgin Media
- A five year commitment to the new service, starting in 2011-12
- No setup costs
- Maintaining the current core network until the last schools are transitioned by June 2012
- School size. Smaller schools have smaller budgets while schools with many pupils place a larger load on system resources and derive greater overall benefit.

LGfL has no shareholders and no requirement to generate profits. The new charging model is designed to cover necessary costs and if a small surplus accrues this will be used to enhance the learning resources available to connected schools.

Table 1 shows the charges that will apply, starting in financial year 2011-12 to schools of different sizes, selecting different high levels of broadband speed.

Is this the best for my school?

LGfL cannot pretend to know the exact requirements or preferences of every school, but by involving practitioners to inform priorities, using enormous bargaining power and selecting carefully, the LGfL service is going to be extremely hard to beat. As a guide to schools, Table 2

includes for many of the service elements the typical costs a school would incur to provide that element individually. In most cases an un-contended broadband Internet connection suitable for school use alone would cost more than the LGfL charge for broadband, filtering and all the included services.

A programme for change

The transition to LGfL 2.0 will be a major programme but the disturbance to schools will be kept to a minimum. These are the main steps that schools will experience:

1. In the first two months of 2011, schools respond to the new LGfL 2.0 service offer by confirming online the agreement to continue with LGfL and agree to the new charges which are based on a five year term. LGfL will contact schools starting in January 2011.
2. LGfL will invoice schools applying the new charging model, starting in April 2011. Schools which have an existing annual invoice cycle that falls between September and March will be invoiced in September 2011. Normally the LGfL Trust receives its main income in April each year from LAs pooling grant and making annual contractual contributions for the regional core network, and hence early payment by schools will be an important contribution in enabling the Trust to deliver services in full and on time.
3. LGfL will manage the programme of transition from the existing Synetrix managed network to LGfL 2.0, provided by Virgin Media, and manage the process of paying costs to these and other suppliers.
4. Using the contacts provided at the signup stage in step 1, LGfL in liaison with suppliers, will contact schools to give warning of the planned timescale for the physical transition to LGfL 2.0. This will be undertaken with the minimum of disruption to the school or the broadband service. To ensure continuity of service there will always be an overlap when both the old and the new services are live, but schools will not incur an additional charge for this dual running period.
5. Schools will retain the same IP address range for its computers and internal reconfiguration of computers is not expected to be required.
6. After the school has been transitioned to LGfL 2.0 a representative of LGfL will offer to make a subsequent site visit to ensure the school is fully aware of all the services which are included and how to access and manage them.

Safety and Safeguarding

Keeping children and young people safe when working online is a top priority for all concerned. The World Wide Web can be celebrated as the largest accessible store of information anywhere, but its design as an open system makes it simultaneously wonderful and dangerous.

Within the current Ofsted framework, safeguarding is a limiting judgement and failure in this area is not an option for school leaders. The London Grid for Learning has an impressive track record of providing safely filtered Internet access for schools, and in supporting fully informed practice.

The LGfL education broadband service applies a level of filtering which balances access and security, in a way which is appropriate for schools. Individual schools can, if they wish, adapt and tailor the filtering policy for their own school's local needs. With LGfL 2.0, an upgraded service will be available at no additional cost, which allows different groups of pupils or staff to be served by different levels of filtering.

However sophisticated a filtering system may be, e-safety in schools must always be supported by clear policies and good practice. Comprehensive safety support and materials for schools are provided by LGfL through its e-safety portal at www.safety.lgfl.net

For the technically minded

The new LGfL regional network, and the connection into each site, will provide numerous technical and service enhancements and provide a service for schools which will be ready for the demands of the next ten years.

A list of the main enhancements is shown in Table 3.

Frequently Asked Questions

- **Who or what is LGfL?**

The London Grid for Learning Trust was created and incorporated in 2001 to enable the aggregated procurement of broadband and related services for all London schools. The Trust is a not-for-profit registered charity and all London Councils are members of the Trust on behalf of schools. Having charitable trust status brings advantages in reducing certain operating costs, and in subjecting the Trust to a higher level of scrutiny and public accountability than a commercial organisation.

The Trust is managed by a Chief Executive who is directly accountable to a Board of Trustees who are senior education representatives drawn from across the region.

- **What if some schools don't buy in?**

LGfL's exceptional value is achieved from having all schools in the region as participants. If schools make informed and considered decisions about the purchase of broadband and related services, it is hard to see how they would come to choose or find a suitable substitute. However if a significant number of schools were to move away from LGfL then this would reduce the amount of resource that could be directed to variable elements such as refreshing and extending the learning resources and digital collections which LGfL has consistently built up and continues to host for connected schools.

Obviously a school that moves away from LGfL, is also choosing to give up in entirety all the valuable resources and services which LGfL provides. The aggregated procurement of services and resources has proven to be a highly successful model but it is predicated on every school having an LGfL connection, as at present. With all schools remaining connected by LGfL, the value for all schools can only improve, as any surplus would be invested in resources for schools, or ultimately in lower charges.

- **Is LGfL financially secure?**

Yes. During the course of its first ten years, LGfL Trust has sought out ways of generating additional income to allow (a) the enhancement of services (b) the accumulation of an adequate financial reserve which would be required to support a period of transition when HTG comes to an end.

- **When will my school transfer to the new infrastructure?**

The intention is to transfer all schools in the period between April 2011 and June 2012. Once schools have signed up to the new service in the first months of 2011, LGfL will give an initial indication of which phase and month the transfer is scheduled to take place.

- **Why change?**

Briefly, better value, better technology, and better and more integrated management of network and managed services. The existing service, network and contract will, by the time it ends in June 2012, be up to 11 years old. Exposing the service to open competition has secured significantly lower broadband charges for each level of bandwidth as well as removing the annual core network managed service fee of £1.8m which LAs used to pay on behalf of schools, from grant.

- **My school is an Academy, can we use LGfL services and resources?**

Certainly, and many Academies already do use LGfL. Why should the pupils in your school be disadvantaged compared to those in a non-academy school along the road? The greater the number of schools served by LGfL the more widely, and thinly, fixed costs are spread, so it is in the interests of all schools to include Academies (and 'Free Schools') as part of the LGfL community of schools.

Academy groups may wish to create their own virtual private networks, or particular network configurations incorporating offsite data centres, or even including academies within the group outside of the London region. LGfL would be pleased to discuss and consider these requirements.

- **My school is an independent school - can we use LGfL services and resources?**

Once again that is a 'yes', for the same reasons as academies, however there will need to be some differential pricing for independent schools. For example, not all LGfL hosted content is currently licensed for use by independent schools. LGfL is however in negotiation with many of its content partners to agree favourable terms which would extend access to LGfL content to independent schools connected to LGfL.

- **How do I know this is best value?**

Anyone who is familiar with these technologies will assure you that the 'package' which LGfL provides to connected schools is extraordinary value. The service is much more expensive in relation to the cost of 'home broadband', because home broadband is a very different commodity. Partly because it is a contended service i.e. the 'up to xMbs' quoted in the advertising is shared by a large number of homes/premises, whereas for schools, with many connected computers, a dedicated service is required and this requires devoted infrastructure right the way back to the core data centres, and this is expensive.

Also the LGfL education broadband service provides a great deal more than 'raw', unfiltered Internet access, as indicated in Table 2.

- **Can I choose and pay for the bits I want and leave the rest?**

There are numerous additional optional services in the LGfL Services Guide which schools can choose to take up if they wish to. These are services which do not fully satisfy the three criteria described on page 4 under 'What's included'. Like the equipment in a gym, the carefully selected elements which are included in the core service are 'free to use', but non-use of some elements does not generate a discount.

For example, negotiating a London-wide schools' licence for anti-virus software secures a large discount; there is a critical mass and it is clearly defined. To negotiate a licence for most, but not all, is more complex and paradoxically, more costly. A partial regional licence for an

uncertain quantity of sites involves commercial risk, technical overheads and administrative overheads. Put simply, less would actually cost more.

- **Can a school avoid this change?**

No. In effect such a school would be saying “Our wish is to maintain the status quo, and we would have preferred that LGfL had not exposed the services to competition, transition and improvement.”

The current (2010/11) annual LGfL connection charge relates only to the connection cost, and is dependent upon the presence and operation of the core network, and the managed services and content hosting which are supplied over it, all of which are funded by LA pooled grant until 31st March 2011.

For such a school, when grant expires, the core charge and pooled grant equivalent would have to be recovered by being overlaid onto the existing broadband charge. As the number of schools committed to continuing use of the existing core diminished, the core charge per school would over time have to rise. This would quickly become prohibitive.

- **Why should we stay with LGfL?**

Because :

- you want to have the assurance that every possible effort is being made by your broadband provider to ensure that the children in your school are safe when going online
- you wish your school to continue to benefit from the savings and economies of scale and effort that come to you from being part of the LGfL community
- you wish to avoid the administrative burden of procuring and managing the necessary wide range of services to support your school’s use of new technologies, and benefit from the expertise which LGfL is able to draw upon as established and recognised specialists in this arena
- you want your school’s provision to be enhanced by an array of high quality online teaching and learning resources and digital collections
- you want pupils and their parents to benefit from LGfL resources at school, and even at home using their LGfL USO sign-on

- **Like Becta, is LGfL going soon?**

LGfL has never received direct government funding and has always relied on delivering services which the learning community has been willing to pay for. Although pump-priming grant used by LAs has ceased, the need for reliable and tailored education broadband and related services remains. While schools wish to benefit from these services, LGfL will be pleased to continue to serve them.

- **What happens next?**

LGfL will contact schools starting in January 2011 and the main steps that follow are set out on page 5. A recorded delivery letter addressed to the Headteacher will include a unique password code to provide authenticated access to the LGfL registration portal. Appointed ICT administrators registered as such on the LGfL USO database will be able to obtain the code for their school from the LGfL USO help desk (020 82 55 55 55, option 3).

Table 1 LGfL 2.0 Education Broadband inclusive of all core services and resources
Please see Table 2 for a list of the main services and resources included in the charges below

Indicative example total charge per annum - no set up charges - ex vat

These are **examples** for illustrative purposes. As explained on page 4, the exact charge for each school will be based on the bandwidth required and the number of pupils. For example the annual charge for a primary school with 362 pupils based on a 10Mbps connection will be £6,493 ex vat.

Schools will be able to consider bandwidth options and determine the exact charge using the LGfL2 customer portal (www.lgfl2.lgfl.net) which is accessed using a unique login code that will be provided to each school as described on page 8.

Pupils	Primary/Special			Secondary		
	100	300	500	600	1000	1400
10Mbps	£4,505	£6,023	£7,541	£9,161	£12,771	£16,382
20Mbps	£4,911	£6,429	£7,947	£9,567	£13,177	£16,788
10Mbps	£5,234	£6,752	£8,270	£9,890	£13,501	£17,111
20Mbps	£5,572	£7,090	£8,608	£10,229	£13,839	£17,449
30Mbps	£5,769	£7,287	£8,805	£10,426	£14,036	£17,646
40Mbps	£5,910	£7,428	£8,946	£10,566	£14,176	£17,787
50Mbps	£6,018	£7,536	£9,054	£10,675	£14,285	£17,895
60Mbps	£6,108	£7,626	£9,144	£10,764	£14,374	£17,985
70Mbps	£6,183	£7,701	£9,218	£10,839	£14,449	£18,059
80Mbps	£6,247	£7,765	£9,283	£10,904	£14,514	£18,124
90Mbps	£6,305	£7,823	£9,341	£10,961	£14,571	£18,182
100Mbps	£6,356	£7,874	£9,392	£11,012	£14,623	£18,233
100Mbps	£7,667	£9,185	£10,703	£12,323	£15,933	£19,544
200Mbps*	£9,181	£10,698	£12,216	£13,837	£17,447	£21,057
1000Mbps*	£17,684	£19,202	£20,720	£22,341	£25,951	£29,561

*within Virgin Media network area only

Can expand to 20Mbps without change of router device

Can expand to 100Mbps without change of router device

Can expand to 200Mbps without change of router device

Bandwidth upgrades within router range - £250 one-off fee

Table 2 What is included? – and what would a school typically pay **otherwise**?

Annual costs a primary school <u>may expect to incur</u> for these LGfL service elements if bought separately:	Annual costs a secondary school <u>may expect to incur</u> for LGfL these service elements if bought separately:	From April 2011 the roll out of the LGfL 2.0 education broadband service for schools will provide all of the following:
£10,000		10Mbps dedicated Internet connection
	£23,000	100Mbps dedicated Internet connection
£2,000	£4,000	Internet filtering – at wire speed, no need to cache
£2,000	£2,000	Plus user level filtering policies for staff, year groups etc
£2,600	£6,600	Email filtering – to keep out viruses, ‘spam’ and obscenities
£3,500	£6,800	Anti-virus protection for all your school’s computers
£1,000	£2,000	Anti-virus live updates – stay protected even from home
£2,000	£6,000	StaffMail - Microsoft Exchange email for all staff
		LondonMail - Outlook web access for all pupils
		SafeMail – limit inbound and outbound mail for pupils
		SkyDrive – 25Gb storage in the cloud for each pupil
		Word Excel PowerPoint OneNote – web apps for all pupils
£250	£500	Unified Sign On (USO) – one LGfL ‘key’ for each pupil and staff member
£250	£250	AutoUpdate of USO users from your school’s MIS
£50	£50	USO-FX Secure File Exchange – secure data transfer school>school>LA
£1,500	£3,500	Secure Remote Access – access school network resources from home
		Podcasting – audience is a great stimulus to learning
£1,200	£1,200	VideoCentral – this is ‘Your-Tube’ safe and secure for schools
		Video conferencing in HD – H323 fully supported
		Video conferencing with Movi – quick and easy
		OpenCheck – parents check by phone or web if school closed
		Procurement and supplier management handled by experts
		School closure - online curriculum
		Safeguarding advice and resource
		One help desk number 020 8255 5555
		A few examples of LGfL included content:
£1	£1	per track - AudioNetworks music database (30,000 tracks)
£10	£10	per minute of video - British Pathe – 20 th Century Film Archive
	£1,800	Guardian and Observer News Archive 1791-2000
£1,300		Busy Things – 100+ award winning activities for Early Years
		iboard – embeddable content for the whole primary curriculum
£225	£1,000	Us Online eSafety resources
£225	£1,000	J2E + J2Measure Online publishing (per annum per 1,000 pupils)

Table 3 For the technically minded

	Existing Network	LGfL 2.0
MPLS Layer 3 extends	To the network core	To the school, the network edge
Quality of Service (data traffic prioritisation)	Single layer QoS =+£200pa	Multi layer dynamic QoS included
PSN compliant network	Yes	Yes
Resilient Core Network	Dual 10Gbps core	Dual 40Gbps core
Core network	Partly renewed	New
Internet feeds	Dual 10Gbps (JANET)	2 x Dual 10Gbps (JANET + Virgin Media)
Core network contention	3.65 : 1	1 : 1
Core management	Proactive	Proactive
Edge (school connection) management	Reactive	Proactive
Performance reporting	No	Yes
Latency SLA	None	<12ms
Data Centres	2	2
Resilience/redundancy on data centre	Partial	Yes
Automatic capacity planning	No	Yes
Automatic availability planning	No	Yes
SLA timeline for services software upgrades	No	Yes
Enhanced SLA included	No	Yes
Internet filtering	One policy for whole school	Multiple group policies
Internet filtering	Via cache in proxies	Close to wire speed

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