

**Connecting the capital:  
information and communications technology in London**



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## foreword by Ken Livingstone, Mayor of London

The continued success of London as a world city depends on many things – not least the continued, and fast, development of our use of, and infrastructure for, information and communications technologies.

I am pleased, therefore, to publish this short statement which sets out a series of policies and actions needed to make sure that London maintains its position as one of the worlds leading centres of technology adoption and innovation.

As information and communications technologies (ICTs) have become ever more ubiquitous there is a need to set out clear priorities for action for London. ICTs are important for London's continuing business success and global competitiveness. But this economic imperative is balanced by the need to ensure our most excluded or deprived communities receive support and assistance so that the adoption of new technologies does not further worsen social divisions in our city.

This statement sets out some key areas for action by the Greater London Authority and its group of functional bodies. It emphasises the importance of collaborative working to improve our public services and the important role to be played by LondonConnects, our regional e-government partnership.

Technology now offers the chance to join-up the work of key agencies, for instance so that information about children at risk is available to the right professionals at the right time, whether they work for the NHS, a London borough or a voluntary agency; so that Londoners can do all their business with Government at one visit rather than being sent from office to office; so that we can all move through the city with ease and efficiency.

I look forward to continuing to work with all key partners, in industry, in the public sector, and in London's voluntary and community sector to achieve a London where all sectors can reap the benefits that technology has to offer.



**Ken Livingstone**  
Mayor of London



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## Introduction

This statement sets out the Mayor's view of the role and importance of information and communications technology (ICT) for London. It presents key elements of the Mayor's policies with respect to ICT; sets out an overarching vision for ICT in London; and describes key priorities for joint working across the capital.

Section two sets out the links between the Mayor's broad vision for London and information and communications technologies. Section three considers some of the technology context within which this statement is set. Sections four, five and six look in turn at ICT in business, in society and in the public sector. Actions are set out at the end of each section. Section Seven describes the role and function of LondonConnects, London's e-government agency, and finally section eight considers the development and provision of underlying communication infrastructure for London, without which none of the developments described in this statement would be possible.

## Section 2: The Mayor's Vision for London

The Mayor's vision is to develop London as an exemplary sustainable world city based on strong and diverse economic growth. This embraces a socially inclusive approach enabling all Londoners to share London's success, and a fundamental improvement in the way we manage our environment and make use of natural resources.

The Mayor's interest in information and communications technology is twofold:

- to see where and how new ICTs may represent opportunities or threats to the delivery of the Mayor's vision for London, and
- to identify what the Mayor and his agencies can do about any of these issues.

In his draft London Plan<sup>1</sup> the Mayor identifies six fundamental forces driving change in London - one of them is new technology and the new forms of economic activity, lifestyles and social organisation that it enables. The pace of change wrought by the adoption and development of ICTs shows no sign of slowing, despite dot.com boom and bust. The Mayor believes that the public, private and voluntary sectors in London need to continue to work together to understand the ongoing impact of new information and communications technologies on London and Londoners. The Mayor also believes that the Internet in particular has become a new kind of public space for human activity - especially important for debate, discussion and information sharing, as well as for business and commerce.

The Mayor has already set out specific policies on ICT in his draft London Plan, and his Culture, Economic Development, Transport and Environmental Strategies<sup>2</sup>. He has also published three annual Implementing Electronic Government Statements for the GLA and has supported LondonConnects<sup>3</sup> publication of a draft e-government strategy for London. This statement seeks to draw together those key policies already set, make links between them, and identify the Mayor's priorities for ICT in London. It considers the development and spread of physical communications infrastructure alongside questions about the new things that such infrastructure makes possible and the potential impacts of these changes on London and Londoners.

For communications, as with transport, the relationship between the conduits and the traffic that flows along them is complex and dynamic. Issues concerning the development of London's ICT infrastructure, and its importance to the economy, must be considered alongside the social benefits or disbenefits that technology brings. In this statement therefore the Mayor sets out his view of some of the issues relating to the provision of and access to infrastructure, particularly questions of equity and social exclusion; and of the public sector's use of new technology: to stimulate the market in various ways, to deliver service innovations or efficiencies, and to improve the quality of public services in London.

This is a high level statement. More detailed information and other relevant publications are available at <http://www.london.gov.uk/gla/publications/elondon.jsp> or at <http://www.london-connects.org.uk>

## Section 3: Context: the pace of technology change

Information and communications technologies are becoming ever more ubiquitous. At work, at home and on the move the capacity of individual devices continues to increase at astonishing speed. The electronic information and services offered to consumers, businesses and public agencies grow in parallel with the diffusion of more and more technology.

In 1965 Gordon Moore (one of the founders of Intel) observed that since the first transistor was produced their capacity had doubled every 18 months to two years. 'Moore's Law' has held good ever since. A silicon chip manufactured in 1971 might contain 2,000 or so transistors, a chip manufactured today can contain 42 million. Moore's law is predicted to survive for another ten years at least before physical limits begin to be reached - this could mean that in ten years time a mobile phone could contain twice as much processing power as five hundred of today's PCs. At the same time the costs of processing power continues to decline

dramatically. It has become a cliché, but it is none-the-less true that the multi-billion dollar Apollo space rockets computers had as much computing power as a mid range mobile phone available on the high street today.

Mobile phones have transformed in a few years from expensive clumsy devices solely for talking, to become text messaging, picture messaging, video conferencing devices through which we can buy ringtones and pay our congestion charges. These mobile devices are also increasingly becoming tools to access the Internet.

Television has gradually transformed over the last forty years from offering two black and white channels, to colour, to cable, satellite and digital TV, DVDs, myriad digital TV channels, and now gradual integration with the Internet. Broadband<sup>4</sup> connections will accelerate the convergence of the broadcasting, communications and media industries. This convergence represents a significant challenge to some economic sectors - for example sales of music CDs are dropping as more and more consumers simply download music from the Internet.

Fifty percent of Londoners are connected to the internet at home, as are all London schools and colleges and the majority of businesses. Over half a million London homes are already connected to broadband. The volume of information on the Internet is currently estimated to double every 18 months (now perhaps somewhere over 100,000 times as much information as held by the Library of Congress). 600 million people are now connected to the Internet worldwide. The global spread of communications technologies is enabling new forms of economic organisation, illustrated by increasing reports of the transfer of UK service sector jobs to the developing world or Eastern Europe, something that would be impossible without a common, globally linked high capacity communications infrastructure. The Internet itself, and particularly the software code that enables the world wide web, provides a unique open and common communications platform for the world.

The Oyster Card, a smart ticket for London's transport network, is already proving popular with Londoners - with potential to offer a range of benefits to Londoners over and above simply getting on and off the bus with less hassle.

Wireless computing (3G, WiFi, BlueTooth and many others<sup>5</sup>) is beginning to take off in business and the community. Lewisham Council have installed wireless Internet access for tenants on the Winslade Estate, enabling local people to get on-line, and to help residents get swifter access to more effective and targeted public services. It is now possible to route telephone calls directly over the Internet so in theory the residents of this estate may be able to have totally free calls in the future.

But, like many innovations, new technologies tend to be taken up first, or exclusively by richer, younger people. The spread of technologies therefore continuously puts pressure on efforts to achieve not only equality of opportunity, but social equity more generally.

The impacts of new technology on our individual lives – perhaps in terms of making working from home easier; or in terms of our home lives being invaded by work; in terms of being infinitely better connected, or socially more isolated; through to reducing the need to travel and resulting congestion (from homeworking or Internet shopping) to increasing the volume of travel (by making the commuters cars available for trips from home, or stimulating hundreds of deliveries to our homes from suppliers around the globe) – all these potential impacts are poorly understood and in their earliest stages.

In summary, the ability to move any sort of information or data (including music, and video as well as computer files and speech), in seconds between anyone who is connected, is generating social and economic changes perhaps as significant as those wrought by the advent of railways, or the motor car.

In the London Plan the Mayor identifies the provision of physical infrastructure for new communications technologies as a high priority for London. While not as important as primary utilities such as water, sewerage or power supplies, the Mayor encourages all those concerned with the built environment in London to see the provision of high quality communications infrastructure as akin to the provision of other fundamental infrastructure services.

As indicated in the draft London Plan, the impact of new technology on London's citizens, businesses and visitors is one of the key challenges that face London at the beginning of the 21st century.

In many ways, London leads, and is well placed to continue leading the adoption and development of information and communications technologies. This statement sets out where the Mayor considers there are issues that need to be addressed.

## Section 4: Enhancing London's competitiveness

The Mayor's draft economic development strategy recognises the importance of new technologies for London businesses. New technology can bring a wide range of benefits to businesses, such as efficiency savings or improved customer service. As indicated earlier it can enable entirely new business models and services. London continues to be ranked as the number one European business location in terms of telecommunications provision. The Mayor's policies are intended to help keep London ahead of its major competitors. Section eight below deals with the maintenance and development of London's communications infrastructure. This section looks at how ICT can be used to help London's business.

From a business point of view having great infrastructure does little unless it is used and exploited. Therefore, on behalf of the Mayor, the London Development Agency is leading a range of programmes to help businesses in London reap the

benefits of new information and communications technologies. Some key business sectors in London remain low adopters of new technology within their operations, and this may be a threat to their future competitiveness. London is not known widely as a centre of innovation in software and other technical developments, despite having a large and varied ICT sector and a range of world leading University technology research institutes. With the right infrastructure in place (see Section 8 below), and range of measures to foster and support innovation and technology transfer, London will be able to compete with Silicon Valley, Seattle or even Silicon Fen in Cambridge as a centre for the development and adoption of new technology.

The Mayor encourages other key organisations (including Business Link, the Learning and Skills Councils, UK On-line for Business, and LondonConnects) to work with the LDA to raise understanding of the specific business benefits of new technologies to all of London's business community, particularly those business sectors or neighbourhoods where take-up is known to be low - for example among some Black and Ethnic Minority led businesses.

London's Framework for Regional Employment and Skills Action (FRESA)<sup>6</sup> recognises the importance of ICT skills for London's businesses at a number of levels. There is an obvious need to recognise the provision of ICT skills training and awareness as a basic skills requirement in today's labour market. Above this there is a need to provide support for people who run small businesses, to enable them to understand what ICT can do for their business, and how to manage it. There is also a need in some sectors to help businesses pick up and capitalise on new ICT innovations that may represent a business opportunity.

For the purposes of technology adoption the Mayor believes that the business benefits that can be derived from new technology are equally useful to London's voluntary and community and public sectors and that business support programmes should specifically take into account the differing needs of all sectors. The Mayor believes that there is not a boundary between e-government activity and e-commerce or e-business activity. Businesses will be helped by easy electronic access to relevant public services. Public services will benefit from technology innovations developed in the private sector.

### **Actions**

- The LDA, through its flagship 'e-start for business' initiative will continue to stimulate demand for broadband, and support the adoption of e-commerce strategies by London's small and medium sized enterprises
- The LDA and partners will continue to develop ICT skills training in London, within the framework set out by the FRESA.
- The LDA will continue to support innovation and technology transfer between and from in London's hi-tech business sector, bringing together partners from Higher Education and business.

## Section 5: Social exclusion, equity and ICT

The Mayor has commissioned and published a series of research on the so-called 'digital divide'.<sup>7</sup> The broad conclusions of this work are:

- that being connected can (and is seen to) offer real benefits to socially excluded Londoners - benefits as direct as saving money by using email rather than making international calls, finding or accessing work or education; or the more intangible benefits of feeling more empowered or not left behind.
- that low income or otherwise socially excluded Londoners have lower levels of access to many new technologies, especially the Internet, and that income is the prime determinant of whether or not a household will be connected to the Internet from home
- that for wealthier households having home Internet access is now an unremarkable fact of life, as common as TV or telephone ownership - about ninety percent of married couple households with children with an income about £50,000 per annum have home Internet access, only 24 percent of married couple households with children with an income below £10,400 have home internet access
- socially excluded Internet users are often dependent on public provision of internet access, in UK On-line centres, in libraries, in community centres. This kind of provision should be seen as a general public good, much like the public library service.

The issue for London simply stated is that using the Internet can bring economic and social benefits and users tend to be from wealthier, more advantaged groups. Without action therefore ICTs are likely to further exacerbate the divisions in society.

The Mayor believes that the term 'digital divide' is not necessarily helpful in that it suggest a simple division between 'haves' and 'have-nots'. Rather the Mayor believes that organisations working in this field should always bear in mind the definitions of social exclusion that emphasise its multi-faceted nature.<sup>8</sup> The Mayor considers that 'digital exclusion' is an additional component of social exclusion and should not be viewed in isolation from more fundamental problems affecting individuals or neighbourhoods, such as low income, poor housing, discrimination or high crime. According to the London Household Survey, over forty percent of single parents were interested in being connected to the internet at home, but could not afford it. The data showed that what prevents single parents, ethnic minorities or disabled people getting on-line is poverty.

If in future the easiest and fastest way to access public services is via the Internet, then lack of access or ability to use the Internet will become increasingly exclusionary.

There are many examples in London of the Internet's use as a tool for community empowerment, often to bring together and support specific communities of

interest or campaign groups. The Mayor encourages funding agencies to support well thought out community development projects, where technology is used as a tool to help the project rather than for its own sake. For example, ICT may be particularly good at linking together geographically scattered groups with common interests.<sup>9</sup>

As has already been noted, ICT can play an empowering role. The world wide web enables an individual to publish their views to the world alongside major corporations. Weblogs kept up to date by Iraqis living through the bombing of Baghdad gave people around the world access to a range of views unmediated by the mass media. Within hours of its release over one million people had accessed the Government's dossier on Iraq. This kind of access to and sharing of information is unprecedented. The Internet is thought to have played a significant role in mobilising support and finance for candidates in the democratic primaries in the US. In its relatively short life the Internet has come to play a vital role in fostering relatively free, open and autonomous information sharing. The Mayor will support efforts to maintain the Internet's intrinsic openness.

In London the Mayor has made a number of innovations in the use of technology to promote open access to democracy. Live sound and pictures of all sessions of Mayor's Question Time are available on the Internet. At the statutory People's Question Times the GLA has experimented with the use of text messaging for Londoners to lodge their questions. Mayoral consultation exercises have included carrying out quick surveys at on-street electronic information kiosks and Internet based opinion sampling (working with the electronic polling company You.Gov). At the same time the Mayor has made sure that these new methods of engaging with Londoners have not been adopted to the detriment of more traditional channels such as face to face public meetings. LondonConnects has won funding for a project called Practical e-democracy in London (PeDIL). The GLA is a partner to this project, which aims to develop a set of easy to use publicly available software tools to support democratic activity.

As in other areas of policy, new technology offers a range of possibilities for democratic practice, but it is only a tool. E-democracy must be underpinned by the same principles of honesty, openness, transparency, equity of access and respect that must lie at the heart of all democratic activity.

The Mayor will continue to encourage innovative use of technology to stimulate involvement in the democratic process and in local and city-wide decision making. He will also continue to improve the levels of openness and accessibility to decision making that the new technology makes possible.

As a further means of making the Internet more easily affordable, the Mayor believes that there is a strong case for businesses, Government and the community sector to consider using Open Source software, that is software where the underlying computer code is openly available, and can be used without necessarily needing to incur software purchase or license fees.

## Actions

- The Mayor will continue to monitor the spread and take-up of mass market information and communications technologies by Londoners and London businesses, and assess the relative impacts these technologies may be having on different groups.
- The Mayor will support further work to explore different ways to bring affordable access to high quality communications technology into London's poorest neighbourhoods.
- The Mayor will continue to emphasise that where electronic service delivery is judged relevant and appropriate, the highest accessibility standards are followed. The Mayor will encourage LondonConnects to spread best practice across London's public sector in terms of the adoption of technologies that can help to overcome physical impairments and can address language or literacy barriers (translation tools, text reading devices, video conferencing etc.)
- The Mayor will ensure that the GLA conducts Equality Impact Assessments of all major GLA led e-government projects, and will encourage partners working through LondonConnects, to do likewise, to ensure that any potential adverse impacts are identified and remedied as early as possible.<sup>10</sup>
- The Mayor will raise with national Government concerns about future funding for free public access to the Internet in London, in local libraries, schools or community centres, particularly the future of UK On-line centres, a public service innovation that has proved popular with citizens.
- The Mayor will ask LondonConnects to bring all relevant partners together, including government, industry and the community and voluntary sector, to agree an action plan to address the recommendations made in the Mayor's recently published study 'Connecting Communities, tackling exclusion?'
- The Mayor will ask LondonConnects to bring together good practice relating to the costs, benefits, and risks relating to the adoption of Open Source software by organisations and individuals in London.

## Section 6 Improving the quality of London's public services

London's population is more mobile than anywhere else in the UK: workers, school children, students and tourists all routinely cross administrative and geographic boundaries in their daily lives. The promise of e-government is that public services can be integrated across organisational and geographic boundaries so that service users get a consistently high quality service however, wherever and whenever they access it. If a South Londoner is on a bus in Holloway Road and wants to report an abandoned car from her mobile phone, she should not be required to know the difference between a Transport for London road and a borough road, nor know whether she is in Camden, Islington or Haringey. Services such as child protection, mental health or trading standards will only overcome some of their biggest challenges if they are able securely and safely to share case data and information between NHS, Police, local authority and other potential service providers. The recent Cabinet Office study of London recognises these problems. With or without further constitutional reform 'e-government' (or the use of new technology to improve and integrate public services) should help improve the day-to-day experience of Londoners.

The Mayor believes that the national e-government programme, while containing many valuable elements, continues to suffer from Whitehall departmentalism. In e-government, as in other areas, the Mayor agrees with the Government that giving local and regional government more freedom and flexibility to set and pursue their own priorities is more likely to deliver the overall objectives of the Government's UK On-line strategy. In many policy areas local and regional Government is well placed to join up the very large national topic-focussed programmes now being funded - in health<sup>11</sup>, criminal justice or education for example.

E-government is also often expected to deliver straightforward service efficiency gains or cost savings. In banking, an Internet transaction costs the bank a fraction of the amount of the same transaction carried out over the counter in a branch<sup>12</sup>. Industry has continually tempted public sector managers and leaders with the promise of massive efficiency savings. However, to date, there are not many examples within local and regional government where such savings have been demonstrated. There may be various reasons for this. One is that public services tend to be supply limited rather than demand driven. There is a finite amount of money for healthcare or for dealing with abandoned cars. Making the service more accessible to citizens can raise demand and expectations, but does not necessarily free up resources to deliver more of the service. Another reason that savings have yet to be seen may be that some technology innovations require significant economies of scale to be worthwhile, and an individual borough may not always be big enough to generate these. Within business and Government the current wisdom is that the greatest productivity gains, service improvements or efficiency savings come when ICTs are used to support the

transformation of a business process (as in the case of Internet banking). For the public sector the main barriers to such changes may well be cultural or institutional, not technological.

The Mayor supports the national push to e-government and agrees that the public sector should invest in technology. Sensible adoption of technology can deliver wholly new services (for example the congestion charge), or, sensitively deployed in the right circumstances, a radical change in the quality of public service outcomes. The Mayor has made sure that the e-government programmes of the GLA Group<sup>13</sup> are co-ordinated where appropriate.

But the Mayor also acknowledges that there is a range of issues relating to security, surveillance and safety and civil liberties raised by the growing use of new technology by the public sector. These include the need to protect children and vulnerable people from abuse or harm; and the need to ensure that the uses to which government puts the growing volumes of data at its disposal are balanced by strong policies and processes that protect peoples privacy and freedom.

### **Greater London Authority action on e-government**

A best value review of the GLA group's approach to e-government was completed last year. Key recommendations included:

- exploring opportunities for sharing skills and infrastructure across the GLA group
- exploring opportunities for London in the national Interactive Digital TV pilot projects
- developing best practice on remote/mobile or flexible working
- developing a common approach to the provision of on street public information kiosks
- full and coordinated participation and support for the work of LondonConnects

A GLA group e-government board has been established. It is chaired by the Mayor's e-envoy, includes representation of the Mayor's office and senior managers from the each of the bodies and the Chief Executive of LondonConnects, to ensure integration between the GLA's own e-government work and LondonConnects' wider partnership working.

The Mayor recently agreed and published the GLA's 2003 Implementing Electronic Government statement for submission to the Office of the Deputy Prime Minister. This contains more detail on GLA progress towards the national e-government targets and gives details of projects the GLA will lead.<sup>14</sup>

Working through LondonConnects the Mayor wishes to work with the boroughs and other London public bodies to develop two major projects:

### **A public services portal for London**

A recent international comparison of the official web sites of 84 of the world's largest cities ranked London 54th, below the average score for developing world

cities included in the survey. Seoul was number one, New York was fourth overall, Tokyo ninth, Paris 16th. London came just below Kuala Lumpur and Panama City and just ahead of Ljubljana and Riyadh. At the same time a Google search will bring back more pages referring to London (37.5 million) than for any other major world city. This position is a reflection of the complex, not so say confusing way in which public services are organised in London and the multiple organisations responsible for delivering different bits of them.

Through LondonConnects, and in partnership with the boroughs and other key agencies, the Mayor is supporting the development of a city-wide public services portal for London, bringing integrated web access to all public sector services in London from a single starting point. From the public's point of view this should start to overcome at least some of the issues about knowing where to go or who to ask about a specific public service. New technology is able to bring content together from multiple sources in a meaningful way, presenting it to the user in a coherent and consistent way. While the Mayor believes that resolving all the problems that confront London's public services may require further constitutional reform, the new technology can provide a way to overcome many of the problems from the citizen's point of view.

All other major world cities offer such a service. London cannot afford to miss out.

### **A capital Smartcard**

The Mayor also believes that London has a great opportunity to lead the world in the adoption of a 'Londoner's card' - a city smart card, controlled by individuals, that provides a range of services and benefits.

Transport for London's Oyster Card is already proving extremely popular with the travelling public, and the opportunity to offer appropriate non-transport services on a single card is compelling.

Pilots in schools in Newcastle have shown that issuing smartcards for payment of school meals considerably increases the numbers of children taking up free school meals; card based 'reward schemes' for teenagers in Southwark have improved school attendance and reduced anti-social behaviour; a London university has made very significant cash savings through the introduction of a single smart card to control access to university buildings and library books. Newham, in partnership with TFL has already issued 20,000 smart cards that combine Oyster travel ticketing with local library and leisure cards.

LondonConnects has started work on the detailed technical and legal arrangements that would be needed to underpin a London-wide scheme.

### **Action**

- The Mayor will continue to develop the GLA's own e-government programme, in line with the priorities set out in the GLA's 2003 Implementing Electronic Government statement

- The Mayor will continue to make the case to Government that where investment in e-government is being made, support and encouragement should continue to be given to partnership working at local, sub-regional and regional level,
- Working in partnership with the London boroughs and other key agencies the Mayor will continue to support LondonConnects' work developing a single London public services portal. The Mayor will examine LondonConnects' cost estimates over the next three months to consider how best to take the project forward.
- Working in partnership with the London boroughs and other key agencies the Mayor will continue to support LondonConnects' development of a pan-London multi-function smart card scheme and will ensure that Transport for London also continues to play its full part. There are significant costs attached to implementing a truly city-wide multi function smart card scheme. The Mayor will examine LondonConnects' cost estimates over the next three months to consider how best to take the project forward.

## Section 7: LondonConnects, London's e-government agency

In order to address the need for public services to be better co-ordinated and integrated and for services to be joined up across organisational boundaries, the Mayor, in partnership with the London boroughs working through the Association of London Government, has established LondonConnects. LondonConnects is London's regional e-government agency. It is charged with the task of supporting and encouraging the adoption of new technology throughout the public sector; with sharing experience and good practice in service innovations; and with delivering key inter-agency strategic projects, joining up and integrating public services to the benefit of Londoners, tourists or businesses.

LondonConnects was so named because the Mayor firmly believes that while the new technologies are powerful tools, real value, and real public service improvements will come through connecting the way services are delivered in a more coherent way, rather than simply throwing technology at the problems. A poor quality service is not improved when it has a web site giving more transparent access to a poor quality service. Electronic service development should always start with services and their users (for example housing benefits claimants, homeless people, victims of crime). The technology should be used where it can help, and not adopted for its own sake. The economies of scale that some technology innovations make possible, or require, support his view that some of the improvements to public services that London needs can only be delivered by agencies working across their organisational and geographic boundaries. LondonConnects can help deliver these projects.

The Mayor has recently endorsed LondonConnects 'blueprint' for e-partnership working in London. The blueprint describes the complexity of London's government arrangements, notes the uniqueness of London in terms of challenges to public services (as described above), stresses the need for organisations to work in partnership to deliver real public service improvements. It describes how, over the last two years, and with initial funding from Government, the GLA and the boroughs, LondonConnects has put in place a coherent structure to support the development of more integrated and joined up electronic public services right across the city. This is a structure through which local service improvements or innovations can be shared, and agreed city-wide protocols or projects can be rolled out to all. However, the 'blueprint' makes it clear that without significant ongoing support and core funding from all key public sector players, the expected service quality and efficiency improvements that integrated e-government can deliver will not be achieved.

- The Mayor will work with boroughs and other key agencies in London to secure the role of LondonConnects as London's regional e-government agency.
- The Mayor will seek to strengthen the role played by LondonConnects as the local and regional means of delivering joint e-government projects, and work with the boroughs and other public bodies to develop a robust funding framework for the continued work of LondonConnects
- The Mayor will ensure that there is a coherent and close working relationship between the new Regional Aggregation Body for broadband<sup>15</sup> (an organisation to be fundamentally concerned with basic infrastructure provision) and LondonConnects, whose role is to develop the systems and public sector services that will make use of such infrastructure. The Mayor hopes that together LondonConnects and the new Regional Aggregation Body will be able to deliver for the first time a common public services network for the capital city - a major step towards more joined up inter-agency working.

## Section 8: World-class infrastructure for a world-class city

London's telecommunications provision, particularly in the city centre, is second to none. Central London offers one of the most competitive markets in the world for high capacity connectivity with multiple suppliers competing for huge volumes of sophisticated communications traffic, much of it driven by London's exceptional concentration of international business and financial services.<sup>16</sup> The Mayor expects the market to continue to provide well for large businesses in central London and Docklands.

Compared to the rest of the UK, London also leads in terms of competition and availability of communications infrastructure and services for the residential and small business sectors. For example BT has enabled all its exchanges in London to offer ADSL<sup>17</sup> broadband and the two cable companies, NTL and Telewest, offer cable modem based broadband services across large parts of London. 3G (the next generation of mobile telephony) is already available in London, and WiFi hotspots (where a laptop can connect direct to the Internet without a physical cable) are spreading fast. However, many other cities, particularly in the Far East, already have residential services offering over 16 times the capacity of services available in London, and at similar prices.<sup>18</sup> There is a need to ensure that investment continues to be made to spread out access to core high capacity networks. This will usually mean bringing fibre based networks ever closer to business and residential premises, as fibre is the most future proof network technology around<sup>19</sup>.

The Mayor has already stated in the draft London Plan that all new buildings in London should be 'e-enabled'. The Mayor will work with the property, construction and telecommunications industries to develop standards and approaches for 'e-enablement' and to ensure that investment goes into maintaining and improving the level of service and competition available across the whole Greater London area. The Mayor believes that the development of the Thames Gateway in particular offers a great opportunity to build in state-of-the-art communications infrastructure for business, commercial and residential premises from the start. In other parts of London a mix of solutions will be needed to bring competitive broadband to everyone. A successful London 2012 Olympics bid would present a further opportunity to show how London can innovate in the application of a range of new technologies.

The DTI has recently announced that Regional Aggregation Bodies for public sector procurement of broadband are to be established by each Regional Development Agency. These new bodies are to coordinate public sector spending on broadband to deliver better value for money for the whole of the public sector and to use public investment to exert strategic influence over the development and provision of telecommunications infrastructure. Working through the LDA the

Mayor will support the establishment of the new Regional Aggregation Body for London. He will ask it to monitor for cases of market failure in particular parts of London where industry alone may be unwilling or unable to make the necessary up front investment in infrastructure.

The Mayor will encourage the LDA to explore the different business models that may be needed to bring the right infrastructure to various parts of London, and to examine the case for public sector investment to ensure that major developments are provided with core communications infrastructure from the start, rather than having it built in at a later stage.

The Mayor considers the provision of mobile or wireless communications infrastructure as a further key component of London's world city status and will watch the roll out and take up of the new wireless communications systems with interest.

### **Actions**

- The Mayor and the LDA will seek to gain and maintain detailed information on the state of London's telecommunications infrastructure especially in key development areas. The Mayor and the LDA will publish best practice, working in partnership with the telecommunications industry, for the developer and construction community.
- The Mayor and the LDA will explore the opportunities for enhanced broadband roll-out in the Thames Gateway, ensure that the planning system is used to support the Mayor's objectives for broadband (including the roll out of very high capacity fibre based networks), and work with industry to explore new business and technical solutions to bring increasing levels of connectivity to the whole city.
- The Mayor, where appropriate, will seek agreements with developers to ensure provision of the necessary communications infrastructure at the strategic level to London's sub-regions and neighbourhoods, and at the local level to individual developments and buildings, bearing in mind that it is the cost of bringing connectivity from telecommunications companies' core networks to a local area that has proved most difficult to bridge.
- The Mayor, in partnership with the LDA and LondonConnects will explore and publicise methods to support and accelerate broadband take-up in areas of social exclusion in London
- The Mayor will ensure that the work of the new public sector Regional Aggregation Body for broadband, is informed by his wider objectives for economic development, inclusion and public service improvement

## Selected bibliography - e-London, key publications

*E-London: An outline of London's opportunities and challenges*,  
Greater London Authority, 2001

*The draft London Plan*, Greater London Authority, 2002

*e-London and the London Plan*, Greater London Authority, 2002

*Broadband - connecting to London's future*, Greater London Authority, 2002

*The Mayor's draft Economic Development Strategy*, London Development Agency  
(London Assembly consultation version, 2003)

*The Digital Divide in a World City*, Greater London Authority, 2002

*Connecting Communities: tackling exclusion?*, Greater London Authority, 2003

*Londoners On-line*, Greater London Authority, 2003

*An e-government strategy for London*, LondonConnects and the  
Greater London Authority, 2001

*A blueprint for e-partnership working in London*, LondonConnects, 2003

*The GLA's Implementing Electronic Government statements*, 2001, 2002 and 2003

All these publications are available on-line at:

<http://www.london.gov.uk/gla/publications/elondon.jsp> and/or

<http://www.london.gov.uk/mayor/strategies/index.jsp> and/or

<http://www.londonconnects.org.uk/>and/or

<http://www.lda.gov.uk/>

## Footnotes

1. See section 5, Chapter One (page 31) and policies 3B7, 3B8, and 3B9, pp 166-8, in *The draft London Plan*, Greater London Authority, June 2002,.
2. For example, in London's municipal waste strategy the Mayor has policies to address the serious and growing problem of waste electronic goods, the current low level of recycling of electronic goods, and the toxic pollutants they add to landfill sites. See Policy 27 and Proposals 59 and 60 in *Rethinking Rubbish in London: The Mayor's Municipal Waste Management Strategy*, GLA, September 2003. All the Mayor's strategies are available at:  
<http://www.london.gov.uk/mayor/strategies/index.jsp>
3. LondonConnects is a partnership set up by the Mayor and the Association of London Government on behalf of the 33 London boroughs. It is London's e-government agency. For more information on LondonConnects role and work see section 7 of this statement and [www.londonconnects.org.uk](http://www.londonconnects.org.uk)
4. There is debate over a precise definition of broadband. At a minimum it is agreed that broadband communications are simply considerably faster than so called 'narrowband' represented by a modem dialing into the internet on an ordinary phone line - usually up to 56 kilobytes of information per second. Services currently sold as broadband in London generally offer communications speeds at least ten times faster than this. Many big companies will have connections to the Internet offering more than a hundred times the speed of a 56K modem. (see <http://www.broadband.gov.uk> for more information). Some commentators suggest that true broadband starts at about ten megabytes per second - speeds that permit very high quality full screen live video communications.
5. '3G' is short hand for so-called third generation mobile phones. A third generation phone can receive data fast enough to offer reasonable quality hand held video conferencing. WiFi is applied to the use of high frequency radio signals to transmit and receive data over distances of a few hundred feet. Laptop computers with a WiFi or Wireless LAN chip can connect to a corporate network or the Internet if they are within range of a base station. BlueTooth is a Chip technology enabling seamless voice and data connections between a wide range of devices through short-range digital two-way radio - less than 30 metres. It is an open specification for short-range communications of data and voice between both mobile and stationary devices. For instance, it specifies how mobile phones, WIDs, computers and PDAs interconnect with each other, with computers, and with office or home phones. TfL's Oyster Card uses wireless communications protocols to exchange information between the card and the ticker barrier.
6. *London's Framework for Regional Employment and Skills Action*, London Development Agency, 2002

- 7 See *Digital divide in a world city*, GLA 2002, Londoners On-line, GLA 2003, and *Connecting Communities: tackling exclusion?*, GLA 2003
- 8 Social exclusion has been variously defined. The Government's Social Exclusion Unit says: Social exclusion is a shorthand term for what can happen when people or areas suffer from a combination of linked problems such as unemployment, poor skills, low incomes, poor housing, high crime environments, bad health and family breakdown. <http://www.socialexclusionunit.gov.uk/>
- 9 See for example <http://www.blink.org.uk/> The Black Information Link web site bringing together information, news and views for the black community.
- 10 *Equality Impact Assessments: how to do them*, GLA, 2003
- 11 Government has announced £2.3 billion for NHS ICT over the next three years.
- 12 Studies suggest face to face banking transaction can cost about £5.00, an Internet transaction costs a bank 0.5p.
- 13 The GLA group comprises Transport for London, London Development Agency, Metropolitan Police Authority and London Fire and Emergency Planning Authority
- 14 The Greater London Authority Implementing Electronic Government statement 2003 is available at <http://www.london.gov.uk/gla/publications/elondon.jsp>
- 15 See section eight below for more information on the Regional Aggregation Body
- 16 *e-London and the London Plan*, Local Futures, GLA, 2002
- 17 ADSL stands for Asynchronous Digital Subscriber Lines. ADSL requires a special modem but then uses existing copper wires to provide ten to twenty time the communications capacity of a 56K modem and permits users to make voice calls at the same time as accessing the Internet.
- 18 See for example news of broadband services in Japan offering 8 or 12 megabytes per second or <http://news.bbc.co.uk/1/hi/technology/3278375.stm> or Utah's plans for a statewide data network, <http://www.nytimes.com/2003/11/17/technology/17utopia.htm>
- 19 Fibre optical communications: A technology that uses light as a digital information carrier. The transmission medium is made up of small strands of glass, each of which provides a path for light rays that carry the data signal. Fibre optic technology offers large bandwidth, very high security, and immunity to electrical interference. The glass-based transmission facilities also occupy far less space than other high-bandwidth media does, which is a major advantage in crowded underground ducts.

## Other formats and languages

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### Chinese

中文  
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### Hindi

यदि आप इस दस्तावेज़ की प्रति अपनी भाषा में चाहते हैं,  
तो कृपया निम्नलिखित नम्बर पर फोन करें अथवा विये  
गये पता पर सम्पर्क करें।

### Vietnamese

Tiếng Việt  
Nếu bạn muốn bản sao của tài liệu này bằng  
ngôn ngữ của bạn, hãy gọi điện theo số hoặc  
liên lạc với địa chỉ dưới đây.

### Bengali

আপনি যদি আপনার ভাষায় এই দলিলের প্রতিলিপি  
(কপি) চান, তা হলে নীচের ফোন নম্বরে  
বা ঠিকানায় অনুগ্রহ করে যোগাযোগ করুন।

### Greek

Αν θα θέλατε ένα αντίγραφο του  
παρόντος εγγράφου στη γλώσσα  
σας, παρακαλώ να τηλεφωνήσετε  
στον αριθμό ή να επικοινωνήσετε  
στην παρακάτω διεύθυνση.

### Urdu

اگر آپ اس دستاویز کی نقل اپنی زبان میں چاہتے  
ہیں، تو براہ کرم نیچے دیئے گئے نمبر پر فون کریں  
یا دیئے گئے پتے پر رابطہ قائم کریں۔

### Turkish

Bu broşürü Türkçe olarak edinmek  
için lütfen aşağıdaki numaraya  
telefon edin ya da adrese başvurun.

### Arabic

إذا أردت نسخة من هذه الوثيقة بلغتك، الرجاء  
الاتصال برقم الهاتف أو الكتابة الى العنوان  
أدناه:

### Punjabi

ਜੇ ਤੁਹਾਨੂੰ ਇਸ ਦਸਤਾਵੇਜ਼ ਦੀ ਕਾਪੀ ਤੁਹਾਡੀ ਆਪਣੀ ਭਾਸ਼ਾ  
ਵਿਚ ਚਾਹੀਦੀ ਹੈ, ਤਾਂ ਹੇਠ ਲਿਖੇ ਨੰਬਰ 'ਤੇ ਫੋਨ ਕਰੋ ਜਾਂ ਹੇਠ  
ਲਿਖੇ ਪਤੇ 'ਤੇ ਰਾਬਤਾ ਕਰੋ:

### Gujarati

જો તમને આ દસ્તાવેજની નકલ તમારી ભાષામાં  
જોઈતી હોય તો, કૃપા કરી આપેલ નંબર ઉપર  
ફોન કરો અથવા નીચેના સરનામે સંપર્ક સાધો.

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