

London Borough of Barking & Dagenham

ICT Strategy 2012 – 2017



September 2012



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The council faces a number of significant challenges over the next five years as it seeks to protect frontline services at a time of significant cost savings and a growth in the population of our borough. This ICT Strategy sets out the ways that ICT will help in meeting those challenges.

It is important that the council's ICT service adapts to allow us to deliver our services with greater efficiency. We will embrace the opportunities presented by online service delivery

to allow our residents to carry out routine transactions at a time convenient to them freeing up our staff to focus on areas of greatest need.

As the way that our residents connect to the Internet changes with increasing use of mobile phones and tablet devices we will ensure that our online services adapt to meet our residents needs.

We will explore opportunities to work collaboratively with other councils and other public sector organisations to deliver ICT services in the most cost effective way possible. We will build on our successful collaboration with Thurrock and continue to explore opportunities to work with our neighbouring London boroughs

through the East London Solutions group and other pan-London initiatives.

This strategy sets out how the council will provide the underpinning systems that will allow us to deliver on our key theme of "building a better life for all" by raising household incomes, improving standards in schools and post 16 education and through housing and estate renewal. The delivery of these objectives is supported by having a well run organisation and it is in this area that the ICT Strategy is particularly important

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Portfolio holder for ICT
London Borough of Barking & Dagenham.

September 2012

The ICT Strategy 2012-17 defines how the Council's ICT systems and infrastructure will support the Council's ambition to "build a better life for all".

The ICT Strategy sets out a number of design principles and a technical architecture which will be used to prioritise projects as the strategy is implemented.

Issues

The key issue affecting the delivery of council services over the next five years is the impact of the **cost savings** required in the Council's budgets. The Council's ICT service must react to these pressures and support the cost savings that service areas need to make. At the same time the Council is facing a **growth in population** that will require all services to operate in a more efficient way.

The Council will need to make better use of the data that it holds about its residents and service users to ensure that managers are able to make **knowledge based decisions** about service delivery.

The policies, strategies and trends that have an impact on the Council's ICT Strategy are described in more detail in section 4.

Design principles

The following design principles are set out in the remaining sections of the ICT strategy:

- Implement channel shift to support service delivery that is "online by default"
- Ensure that appropriate access methods are in place for residents and service users who are digitally excluded
- Make effective use of the tools and systems that we already have in place and ensure that staff have appropriate skills

- Provide staff with appropriate tools to carry out their work
- Make use of shared services, shared platforms and cloud computing whenever possible. Use standard products and processes when implementing new systems

Solutions

The ICT Strategy makes a number of broad recommendations:

- Respond to residents demands to offer more services on the Council's website, make the site easier to use and support access by smartphone
- Exploit existing tools to analyse the data we hold to better understand our residents and service users and make our services more efficient
- Enhance the Council's systems that support the operation of the business to give staff the tools they need (for example the new Oracle implementation and SharePoint roll out)
- Introduce robust, yet more flexible security controls to support mobile working and allow staff to use their own equipment as appropriate
- Pilot new approaches to user devices and web based software (for example tablet computers and web based office productivity tools)
- Work with our partners in Elevate, East London Solutions, Thurrock and across the public sector to ensure our ICT systems are fit for purpose and make use of opportunities to reduce costs through cloud computing and shared systems

The ICT Strategy will be implemented through a set of projects, listed in the ICT Strategy Action Plan, which will be prioritised using the principles set out in the Strategy and the corporate risk management approach.

Medium Term Outcomes

The following table lists the medium term outcomes of the ICT Strategy that will be delivered by 2015/16 subject to agreement on funding and priority:

Area	Outcome
Online Services	<ul style="list-style-type: none"> We will have a single customer portal, accessible by smartphone, linked to our strategic line of business systems We will have automated customer service transactions including appointments and service requests We will be able to store key facts about a person or place that impact on service delivery in a way that can be shared across services
Business Intelligence	<ul style="list-style-type: none"> We will have a streamlined approach to linking child data – child index. This will include data from the NHS where appropriate We will have a streamlined approach to linking people and property data – customer index We will have strengthened the skills of our staff to make better use of analytic tools
Line of Business Systems	<ul style="list-style-type: none"> We will have an application roadmap that supports application de-commissioning and future investments in strategic systems We will be using standardised functions and will have reduced local customisations We will be sharing more applications across boroughs and with partners such as the NHS

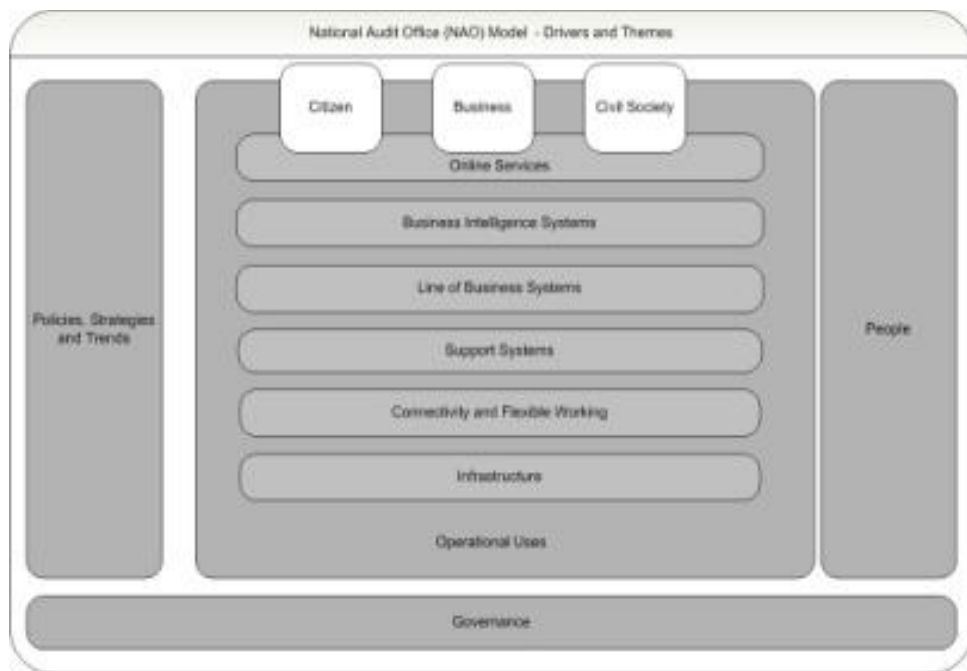
Support Systems	<ul style="list-style-type: none"> We will have a single enterprise planning system (Oracle R12) that will drive service planning by the business supported by Finance and HR We will have office software (i.e. spreadsheets, email and word processing) that maximises existing investment but provides value for money
Connectivity and Flexible Working	<ul style="list-style-type: none"> We will have a flexible, value for money approach to desktops and laptops, based on business need We will allow staff to bring their own ICT where appropriate, based on business need We will have systems that allow flexible working at home or in residents homes/businesses We will ensure appropriate security controls are in place to maintain secure connections with our partners (e.g. NHS & Police)
Infrastructure	<ul style="list-style-type: none"> We will share more infrastructure with other boroughs in the East London Solutions group and other appropriate partners We will reduce the total cost of ownership of the council's ICT infrastructure making use of cloud based technologies where appropriate We will continue to invest in our infrastructure to provide resilient and secure environments for our systems where required. We will also explore leasing / revenue models to meet this need
Governance	<ul style="list-style-type: none"> We will have clear information governance policies for sharing information within the council and with partners We will have detailed audit information about who has undertaken information security training

Approach

The development of the ICT Strategy used a range of approaches to gather information and identify those projects that will be needed to deliver a fit for purpose ICT infrastructure for the Council.

The central approach used was based on the model set out by the National Audit Office (1) in February 2011 which emphasises the responsibility of those making ICT investments to ensure best value, and that both business and ICT operating costs are driven down as a result.

The ICT Strategy set out in this document uses the drivers and themes identified in the NAO's model.

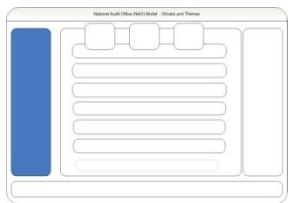


A wide ranging consultation process was undertaken within the Council by Elevate and the Council's client team. This included interviews with over 60 members of staff, Divisional Directors, Corporate Directors and partner organisations. The findings from the consultation led to the creation of a detailed Information and Workplace Strategy (2) on which the recommendations of this strategy are based.

The Information and Workplace Strategy identifies the common issues impacting on service delivery. Given the wide range of functions carried out by the Council it was not practical to attempt to interview every team. However, the extensive coverage that has been achieved has ensured that the common issues across the Council have been identified.

Council officers and Elevate worked to ensure that the strategy reflects current best practice in both the public and private sectors. This included reviewing published national government ICT strategies, local government ICT strategies and industry research.

The Council is committed to shared service models and the development of this strategy took into account plans for both the Elevate East London strategic partnership and the East London Solutions group. The Council is fully participating in a number of pan-London initiatives including London Connects, SOCITM London and the Information Security Group for London. Input from these groups helped inform the development of this strategy.



The development of the ICT Strategy has been driven by the Council's Statement of Priorities for 2012/13 (3). The statement sets out the aims of the Council including the overarching ambition to "build a better life for all".

The Statement of Priorities sets out three main aims:

- Raising household incomes
- Improving standards in schools and post-16 education
- Housing and estate renewal

These aims are underpinned by the theme of "a well-run organisation". Prioritisation of the projects proposed for delivery by the ICT Strategy is based on the Council's Statement of Priorities.

The impact of the comprehensive spending review and the necessary cost savings that the Council must achieve means that a primary focus of the strategy will be on supporting the **changes necessary to support the savings proposals**.

At a time of significant **population growth** in the borough (4) the Council's services are expected to come under significant pressure. Services must adapt to these growing pressures and will rely on effective ICT systems to meet the challenge.

The ICT Strategy will follow the principles of the Council's transformation roadmap as well as the government's ICT Strategy (5) and the principles set out in the review of central government

online services (6) to move towards a "**digital by default**" model of service delivery. This will:

- Improve access to council services
- Meet resident and service user expectations
- Lower costs of service delivery

Shared services form a key method of delivering ICT services to the Council. This approach is endorsed by both the ICT Strategy for local government published by SOCITM (7) and that of central government (5).

The Council has already started work on using shared service models through the creation of the **Elevate East London** joint venture with Agilisys and its on-going engagement with neighbouring authorities in the **East London Solutions** group. East London Solutions (ELS) are developing a "2020 vision" that will describe how ICT in the ELS boroughs can converge over the next ten years in order to **reduce total cost of ownership**.

The Council has already made the commitment to a new shared system for its Oracle Finance and Human Resources system. Barking & Dagenham is engaging with a number of other London boroughs as part of **Programme Athena** to jointly procure the latest version of the Oracle system. The Council is committed to using standardised Oracle functions as part of this programme.

Other key areas of work identified in the Council's Statement of Priorities (3) are providing innovative working methods to enable quicker and easier access to our services for customers and more

efficient ways of working for council staff. The Councils approach to modernising services, set out as the target operating model in the Customer Strategy (8) also identifies the importance of using the information that we hold more effectively to support **knowledge based decision making**. This is an area that the National Audit Office has identified as a common weakness across local government (1).

The Council holds significant amounts of data in its line of business systems and reporting tools. The ICT strategy will seek ways of ensuring that this **data is more effectively used and disseminated** to support service delivery. Part of this work will focus on providing staff with the necessary **skills**.

The government has set increasingly higher expectations on local government to publish information. The Code of Recommended Practice for Local Authorities on **Data Transparency** published by the Department of Communities and Local Government (9) sets out the types of data that the Council should be publishing. The Council's line of business systems and business intelligence systems need to reflect these demands.

Changes in technology trends are having an impact on the way in which the Council's ICT systems are delivered. The two key trends that are having the most significant impact are "cloud" computing and rising expectations of ICT.

Cloud computing

The concept of delivering business systems and back office applications using servers that are not based in the Council. This will normally depend on the use of applications that are delivered using a web browser rather than a program installed on the desktop.

Cloud computing promises a cost reduction as the Council is no

longer required to invest in servers held in a data centre on council premises. It should also result in a more flexible computing environment as it is simpler to deliver a browser to the user than installing a range of applications on desktop computers.

Rising expectations of ICT

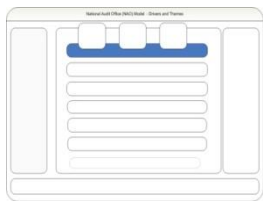
Staff increasing have access to more powerful and flexible ICT devices at home than those provided by the Council.

The rising expectations of employees – especially in the area of mobile devices – creates a challenge. A logical extension of this trend is that the Council should allow staff to use their personal equipment for business purposes if appropriate

This trend is known as "consumerisation" in the IT industry.

The development of **line of business systems** that make use of a standard web browser to deliver applications is a trend already evident in a number of the Council's existing systems. However the investment required by software vendors to implement this approach can be significant, so many of the Council's existing line of business systems will take time to adopt this approach. This trend has an impact on the most appropriate desktop equipment that the Council should be providing to staff.

The rising adoption of **smart phones and tablet devices** by staff has led to an increased expectation about the capability of ICT equipment and how often it is replaced. This is having an impact on expectations about the use of ICT when at work. In order to meet these expectations the Council will look at allowing staff to make use of their personal equipment for work purposes.



Online services describes the delivery of council services using the website and through handling some telephone calls to the Council using automated systems. The Council's plans for service delivery are set out in the Customer

Strategy (8).

Design Principles:

- Service delivery should become “online by default”
- Services should take account of digitally excluded residents
- There should be full integration between the website and the line of business systems
- There should be a single customer portal for online services
- Services that will deliver the greatest savings, or the greatest customer impact should be targeted for enhancement first

Medium Term Outcomes:

- We will have a single customer portal, accessible by smartphone, linked to our strategic line of business systems
- We will have automated customer service transactions including appointments and service requests
- We will be able to store key facts (including equalities data) about a person or place that impact on service delivery in a way that can be shared across services

The Council will work to ensure that new services are “**online by default**” and online transactional web pages are created to support those services. Customers increasingly expect to be able to interact

with the Council at times that are convenient to them. **Online service delivery** allows the Council to meet this expectation whilst providing opportunities to reduce cost.

The Council remains committed to ensuring that residents who do not have access to the internet, or who have disabilities that prevent them accessing online services are still able to access services through alternative methods.

Research from Ofcom shows that **smartphones** are increasingly being used to access the Internet and this is reflected in the data collected from the Council's own website (visits using mobile devices has grown from 3% in February 2011 to 15% in February 2012). The Council will ensure that residents and customers can use their **smartphone** to access information and services.

The Council has already started providing residents with the ability to do more online with the launch of the “**My Account**” area of the website in December 2011. The Council will further develop the “My Account” page to provide additional access to some of the following services:

- Housing
- Benefits
- Parking
- Leisure
- Adult Social Care

This will include enhancing the ways in which payments are made online.

Work will also be undertaken to automate and improve services delivered by the contact centre. In particular, calls that can be answered using automated systems will be routed to an Interactive Voice Response (**IVR**) system.

Enhancements to the online services will be delivered through a number of key projects listed in the following table:

Project	Driver	Sponsor	Schedule
My Account (005, 020, 021)	Online service delivery	Elevate	2012/13 - 2014/15
Web incident handling (004)	Environment incident reporting	Housing & Environment	2012/13
IVR (003)	Automated call handling in B&D Direct	Elevate	2012/13
Appointments booking system (018)	Service improvement by automating appointment bookings	Elevate	2012/13
Payment Services (019)	Online payments integration with My Account	Elevate	2013/14

Note: Project numbers relate to the project list in the ICT Strategy Action Plan.



Business Intelligence Systems provide managers with the information that they need in order to make knowledge based service delivery decisions.

Design Principles:

- Develop single views of customers/service users/children to support more effective service delivery
- Continue to maintain existing line of business systems and share data through an integration hub (see section 14 below)
- Make more effective use of existing business intelligence tools and platforms in the Council
- Make property and GIS data available to line of business systems through the integration hub
- Ensure any new remotely hosted line of business systems can make their data available to the integration hub

Medium Term Outcomes:

- We will have a single approach to linking child data – child index
- We will have a single approach to linking people and property data – customer index
- We will have strengthened the skills of our staff to make better use of analytic tools

In common with much of government (1) the Council does not make as much use of business intelligence systems compared to the private sector.

The Council uses a number of **business intelligence tools** to support its line of business systems. However the use of these tools is limited to tactical reporting against single systems. There has been no work undertaken to use these tools across multiple systems.

There are a number of existing systems available to enhance business intelligence within the Council, these include: SharePoint business intelligence; Crystal Reports; Business Objects and Oracle OBIEE.

There is recognition across departments that information about service users needs to be shared more effectively in order to ensure the best outcomes, efficient service delivery and effective monitoring of services including tracking of equalities data. All those services delivering targeted services to residents identified a requirement to build up a “**single view**” of their customers.

The **Public Sector Equality Duty** (10) sets out the Council’s obligations to collect and hold sufficient information in order to meet its obligations under the duty. The development of a **customer index** containing equalities data will allow the Council to meet this obligation.

The lack of a **single view of customers** introduces risks for vulnerable residents as a service area may not be aware of the needs of a resident and may not adjust their service as a result. In Children’s Services early intervention and preventative approaches to safeguarding would be significantly improved through better business intelligence about the children living in the borough.

There are significant issues with the management of spatial data. The Council maintains a detailed Geographical Information System (**GIS**) and is responsible for maintaining the local land and property gazetteer, yet there is inconsistent use of address data in the line of business systems.

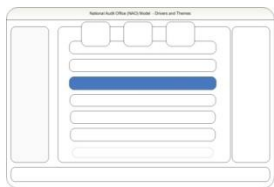
The ICT Strategy recommends that work is undertaken to build a number of central indexes to support the sharing of information between services. These indexes will facilitate the reuse of data about children, adults and property within the borough.

The development of central indexes of customer data will require a review of the Council's **privacy notices** to ensure that legal obligations are met and that there is a **clear public expectation** about how resident's data will be used.

The Council's business intelligence capabilities will be delivered through a number of key projects listed in the following table:

Project	Driver	Sponsor	Schedule
Child index (024)	Enhanced visibility of children in the borough	Children's	2013/14
Customer, index (026)	Enhanced visibility of adults in the borough	Adults	2015/16
Assimilate partner data into indexes (027)	Better partnership working and enhanced service planning	Adults	2015/16

Note: Project numbers relate to the project list in the ICT Strategy Action Plan.



The Council uses a number of line of business systems to support service delivery. These systems are described in detail in the Information and Workplace Strategy (2).

Design Principles:

- Systems should be “fit for purpose”, not necessarily “best of breed”
- Services should have access to the systems that they need to deliver efficient services
- New line of business systems should make use of browser based clients wherever possible
- Opportunities for shared service models of system hosting should always be considered
- Remotely hosted line of business systems must make data available to the Council’s business intelligence systems and support data sharing requirements
- Existing systems with overlapping functionality should be consolidated

Medium Term Outcomes:

- We will have an application roadmap that supports application de-commissioning and future investments in strategic systems
- We will be using standardised functions and will have reduced local customisations
- We will be sharing more applications across boroughs

The line of business systems support a wide range of diverse services many of which have complex and statutory requirements.

At a time of reductions in funding and increasing population pressures (4) services areas will rely on line of business systems to support efficient service delivery.

In some areas (for example Social Care) the line of business systems are felt to be adequate and are meeting the requirements of the service well. In other areas (for example Housing) the line of business systems are comprehensive but require work to ensure that they are operating effectively. In some areas (for example targeted Children’s Services) there are no line of business systems in place and case work is undertaken using manual systems.

The Information and Workplace Strategy also identifies areas (for example Environmental services) where there is significant functional overlap between line of business systems. These systems are candidates for **consolidation**, resulting in a cost savings and simplified data management.

Some of the Council’s line of business systems rely on full client installations (which need to be installed locally on PCs), some make use of the Council’s Citrix infrastructure and others are delivered using a web browser. Increasingly the Council is seeing services being “**cloud based**” (see section 4 above).

During the period of this ICT Strategy it is expected that the trend of movement to **remotely hosted**, web browser based line of business systems will continue. The Council will adopt procurement policies to ensure that these systems provide appropriate data and management information to support the requirements for business intelligence systems.

The Council's line of business systems should ensure that sufficient **equalities data** is held in order to meet Public Sector Equalities Duty obligations.

As the Council **commission services** it may be that the line of business system will be owned by the service provider. There will continue to be a need to access data centrally to support the **business intelligence** needs of the Council and to ensure that data is appropriately shared with partners. The commissioning process will need to take this into account.

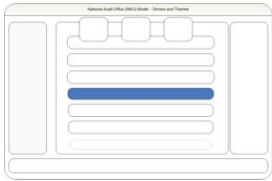
A significant opportunity will also exist for line of business systems to be delivered as shared services with neighbouring councils, especially where the same business system is in use.

Enhancements to the Council's line of business systems will be delivered through a number of key projects listed in the following table:

Project	Driver	Sponsor	Schedule
Housing Systems Review (032)	Review suitability of housing system	Housing & Environment	2012/13
Paperless parking (013)	Service improvements to support mobile working in parking service	Housing & Environment	2013/14
Child case work tools integrated to child index (025, 028, 029)	Improved case work tools, service efficiency and business intelligence	Children's	2013/14
Consolidate Environment Applications (030)	Cost savings	Housing & Environment	2013/14

Replace RESPOND (031)	Cost savings	Elevate	2015/16
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Note: Project numbers relate to the project list in the ICT Strategy Action Plan.



Support systems encompass those systems that are used across the Council to manage resources and provide staff with core tools such as Microsoft Office and the Oracle HR and finance system.

Design Principles:

- Systems should be “fit for purpose”, not necessarily “best of breed”
- Services should have access to the systems that they need to deliver efficient services
- New back office systems should make use of browser based clients wherever possible
- Opportunities for shared service models of system hosting should always be considered

Medium term objectives:

- We will have a single enterprise planning system (Oracle R12) that will drive service planning by the business supported by Finance and HR
- We will have office software (i.e. spreadsheets, email and word processing) that maximises existing investment but provides value for money

The Council has to upgrade its **Oracle HR and Finance** system. The upgrade will be carried out under the pan-London programme Athena. This new **Oracle HR and Finance** system will be a significant investment in a cloud based shared service. It will also

involve the use of standardised processes to ensure that the Council maximises the value of its investment.

The Council’s existing office software (currently Microsoft Office 2007) will continue to provide staff with the tools required for a number of years. However, consideration will need to be given to the future use of **cloud based systems** such as Microsoft Office 365 or Google Apps. Cloud based office systems provide opportunities to reduce the Council’s expenditure on Microsoft licensing.

The Council is implementing a new intranet using Microsoft SharePoint 2010. The new intranet will **provide records management tools** to assist teams in the structured management of their records and assist staff in finding the up to date information. The intranet will be based, as much as possible, on the use of standard functionality in order to minimise ongoing support costs.

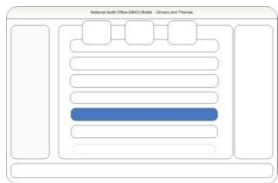
SharePoint will also replace the Council’s telephone directory, currently held in Oracle. Work will be carried out to automate the flow of staff information between the telephony system, Oracle and SharePoint to ensure accuracy.

Other support systems, such as document management systems will be investigated for options to consolidate and remove duplication between service areas.

Enhancements to the Council’s support systems will be delivered through a number of key projects listed in the following table:

Project	Driver	Sponsor	Schedule
SharePoint (008, 009)	Service efficiencies, standardisation of applications	Finance & Resources	2012/13
Oracle R12 (007)	Standardisation of applications, shared platform, cost savings	Finance & Resources	2013/14
Document Management Consolidation (033)	Cost savings through application consolidation	Adults	2013/14

Note: Project numbers relate to the project list in the ICT Strategy Action Plan.



The ability of staff to work where they need to; at the office; on the street; at residents' homes; or from their own homes is crucial to the ability of the Council to efficiently deliver services.

Our connection to partners' networks also supports better partnership working.

Design Principles:

- Systems and devices should be “fit for purpose”, not necessarily “best of breed”
- The Council will seek to implement more flexible security models using a managed risk approach and will support “bring your own” devices
- Services should have access to the devices that they need to deliver efficient services
- Support for home working will be enhanced

Medium Term Objectives:

- We will have a flexible, value for money approach to desktops and laptops, based on business need
- We will allow to bring their own ICT where appropriate, based on business need
- We will have systems that allow flexible working at home or in residents homes/businesses
- We will continue to comply with Government security standards where appropriate

With the Olympic Games in 2012 and continuing work to reduce the number of buildings maintained by the Council (11) the Council is committed to supporting **home working**. In the longer term, this may include provision of systems that will deliver voicemail messages to email; provide information about whether a user is available at their desk and support simple webcam video conferencing.

Significant issues have been identified with the Council's estate of **laptop computers**. These are perceived to be inadequate for the needs of frontline workers; they are heavy with a poor battery life limiting their usefulness. A technical review was conducted as part of the Information and Workplace Strategy that identified that only around 11% of the laptops meet current technical specifications and only 50% are being regularly used.

There will not be a centrally funded laptop replacement programme, but work will be undertaken to ensure that the range of laptops available to service areas more adequately meets their needs.

The Council will investigate the use of new forms of computer equipment, including tablet devices and specialised devices, to support staff when working away from the office.

Partnership working with other council's, the NHS, the emergency services and central government all remain core to effective service delivery. The Council will maintain its connections to partner networks through the **London PSN**.

The **rising expectations of ICT** will result in increasing requests from staff to make use of their own equipment (particularly smart phones and tablets) when at work. The Council will work to support these requests through the implementation a new ICT security model and investigation of suitable tools for applying security controls to staff owned equipment.

The support for staff using their own ICT equipment and the ability to allow staff to work more flexibly with mobile devices in general will depend on the provision of **wireless network access** in key areas of the main council buildings.

Enhancements to the Council’s systems to support connectivity and flexible working will be delivered through a number of key projects listed in the following table:

Project	Driver	Sponsor	Schedule
Flare SMS messaging (001)	Service efficiencies	Housing & Environment	2012/13
Waste in cab connectivity (002)	Service efficiencies	Housing & Environment	2012/13
Housing mobilisation (014, 015)	Service efficiencies	Housing & Environment	2012/13 – 2014/15
Highways and Grounds Maintenance mobilisation (012)	Service efficiencies	Housing & Environment	2012/13
Wireless LAN implementation (036)	Support for mobile working & “bring your own”	Elevate	2012/13
Network security redesign (035)	Support for mobile working & “bring your own”	Elevate	2012/13

Note: Project numbers relate to the project list in the ICT Strategy Action Plan.



The Council's core ICT infrastructure benefited from significant investment from the One B&D Programme. The network and data centre operate well and do not require significant short term investment. However there will be a need

to maintain investment in hardware replacement as warranties expire.

Design Principles:

- Systems and devices should be “fit for purpose”, not necessarily “best of breed”
- The Council will seek to implement more flexible security models using a managed risk approach and will support “bring your own” devices
- The Council will seek to reduce the total cost of ownership of the ICT infrastructure through the use of cloud computing and shared services wherever possible

Medium Term Objectives:

- We will share more infrastructure with other boroughs in the East London Solutions group
- We will reduce the total cost of ownership of the council's ICT infrastructure making use of cloud based technologies where appropriate
- We will continue to invest in our infrastructure to provide resilient and secure environments for our systems where required

In the past the Council has used capital investment to renew its network infrastructure and data centre. The last significant investment was in 2010. Further investments will be required during the period of this strategy. On a like-for-like basis the investment required is likely to be in excess of £3.6 million by 2017. The Council will work with Elevate to reduce this requirement through:

- the adoption of new technologies
- utilisation of cloud computing
- use of shared service models
- taking a risk managed approach to delaying the replacement of older hardware.

The Council's estate of desktop computers received investment under the One B&D programme and is currently operating well. However steps need to be taken to ensure that the desktop computers can be managed as efficiently as possible.

The security measures implemented on the Council's network will be reviewed. Many of these **security controls** were implemented in order to meet technical conditions required when the Council's network was connected to the central government extranet (GCSx). Whilst it is important to maintain the network's security and meet our obligations it is recognised that the “one size fits all” approach to ICT security has resulted in significant burdens for staff. The security model will be redesigned to relax security where it is appropriate to do so (particularly for staff who do not handle sensitive data).

The ending of Microsoft's support for Windows XP in April 2014 (12) will require consideration of how desktop computers are supported in

the future. This work needs to take into account the likely application delivery model (browser based versus client applications); the roadmap of the Council's line of business systems; staff working models; and estate of desktops and laptops in place over the next two years. The Council will investigate the best options for providing desktop systems which will include **Virtual Desktop** models as well as rolling out Windows 7.

A particular challenge for the Council is its use of **data storage**. The amount of electronic data is growing significantly and the Council will need to invest in more storage, or tools to manage this information, in order to continue to provide storage capacity. Between February and December 2011 the amount of data held in the Council's data centre grew by approximately 23%. Steps have already been taking to manage this data more effectively, however charging departments for data storage may need to be considered in order to more effectively manage this risk.

The Council is committed to reducing its carbon footprint through a Carbon Reduction Plan. Significant progress has been made through the implementation of server virtualisation technologies that have significantly reduced energy costs in the Council's data centre.

The Council will investigate the future of the **data centre** currently hosted in the Civic Centre. Options include:

- moving to shared data centres through the East London Solutions group
- using remotely hosted secure data centres
- continuing to invest in the existing data centre

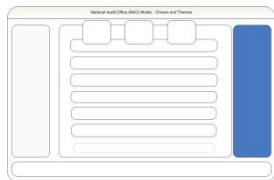
Disaster recovery capabilities are crucial to the operation of the Council, providing resiliency in the event of a major system failure.

The Council will review its existing disaster recovery contract and look to find lower cost options for providing this capability.

Enhancements to the Council's ICT infrastructure will be delivered through a number of key projects listed in the following table:

Project	Driver	Sponsor	Schedule
Hosted VDI pilot (041)	Reduced total cost of ownership	Elevate	2012/13
Implement VDI (043)	Reduced total cost of ownership	Elevate	2013/14
Service desk tools enhancements (045)	Reduced cost of support for desktops	Elevate	2013/14
Server and data centre refresh (046)	Maintaining resiliency and reliability of ICT infrastructure	Elevate	Ongoing

Note: Project numbers relate to the project list in the ICT Strategy Action Plan.



The Council's Statement of Priorities 2012-13 (3) reiterates that the Council will focus on ensuring that innovative ways of working will be implemented to enable more efficient ways of working for staff.

The ICT Strategy will address these requirements through providing staff with more effective systems to support both service delivery and support functions within the Council. In addition the People Strategy (13) highlights the use of technology to support improved **communication with staff** through the upgraded Intranet.

Projects to make better use of **technology to support field based staff** to work more efficiently have been identified, particularly in Housing & Environment.

The Modern Ways of Working programme developed an accommodation strategy (11) that set out a number of work styles and set the expectation that any member of staff would be able to log on to any desktop computer and access all the applications that the needed. The ICT Strategy will review this requirement as part of its work on ICT security models.

Further work will be undertaken to identify the different **work styles** of staff in the Council and the devices that would best support them.

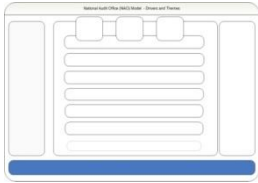
The implementation of new ICT systems will require training to be provided to staff. ICT projects will make a provision for training and

will make use of the Council's existing **online learning tool** as well as other training methods as appropriate.

Work will be undertaken to provide staff with the **analytic skills** necessary to make effective use of the Council's reporting and business intelligence tools. This will apply existing systems as well as new systems that are introduced.

In order to ensure access to work for staff with disability issues appropriate desktop technology will be sourced to address specific needs.

Elevate are responsible for delivery of the ICT service and are responsible for ensuring that the relevant skills are available to the Council when needed.



The delivery of the ICT Strategy will be overseen by a new **ICT Strategy Delivery Group**. This group will be chaired by the Council's ICT client team.

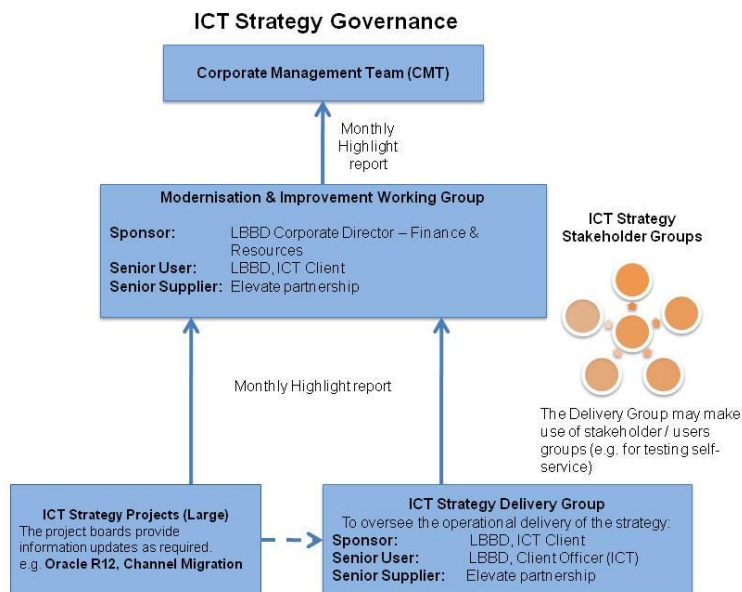
The ICT Strategy Delivery Group will report to the Modernisation and Improvement working group which is chaired by the corporate director of Finance & Resources. The group includes representation from all departments.

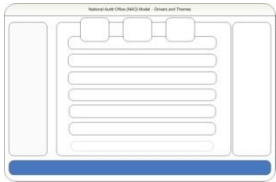
The Council's client team has established meetings with departmental representatives to review the projects that have been requested by service areas and to review progress on existing projects. These meetings will continue and will provide departments with input into the future development of the ICT Strategy.

The ICT Strategy will be delivered through a set of projects. These projects will use standard PRINCE2 project management methodologies and will have project boards established with project sponsors appointed. Where a project has a clear link to service delivery the project sponsor will come from the relevant service area. Where a project relates to infrastructure investments that have an impact across the Council the ICT Strategy Delivery Group will act as the project board.

Projects will be prioritised based on the design principles set out in this strategy and on the risks associated with the individual projects.

The ICT Strategy itself will be reviewed on an annual basis and an update will be presented to the Modernisation and Improvement Working Group.





Information Governance forms a key driver for the ICT strategy. The Council has significant obligations to protect the personal information that it holds under the **Data Protection Act**.

These obligations are counter-balanced by the Freedom of Information act which requires the Council to make its non-personal information available to the public on request.

Information governance issues are addressed through an officer board chaired by the Council's ICT Client Officer. Six monthly reports on information governance issues are presented to the Council's Public Accounts and Audit Select Committee.

Protecting the information that the Council holds is a key requirement for the Council's ICT systems. The Information Commissioner in recent monetary penalty notices has made clear that the use of **encryption technologies** electronic tools are often the most appropriate method of taking sensitive information out of the Council's buildings (14).

The ICT Strategy will provide staff with appropriate tools for working with sensitive information. The Council, through its commitment to the **London PSN** network, is committed to ensuring that its ICT systems and infrastructure meet the Government's **Security Policy Framework** (15) as it applies to local government. This guidance sets out how organisations should judge the **Impact Level** of the data they hold and provides guidance on the appropriate security measures that should be taken for each level.

The advice contained in the Security Policy Framework constitutes best practice on securing the Council's infrastructure and systems and helps the Council to ensure that it meets its commitments under the Data Protection Act.

The London PSN network provides onward connections to the **NHS N3** network and the Government Connects Secure Extranet (**GCSx**) both of which are important tools for partnership working.

The Council collects significant amounts of personal data from service users and residents. The Information Governance Board will work with teams to ensure that the **privacy notices** provided when this information is collected are appropriate, especially in the light of the planned enhancements to the Council's business intelligence capabilities.

The Council generates significant amounts of information, much of which would be subject to release under the **Freedom of Information Act**. The ICT Strategy will provide teams with enhanced tools to ensure that the Council's information is more effectively managed.

Over the past year the number of **Freedom of Information requests** has been significantly increasing, with a 50% increase expected in 2011/12 (16) to an estimated total of over 1200 requests. The development of the Council's SharePoint intranet will provide teams with the tools required to manage this increasing demand for Freedom of Information requests.

The Council’s enterprise architecture sets out how the line of business systems, support systems and online services should be connected together (2).

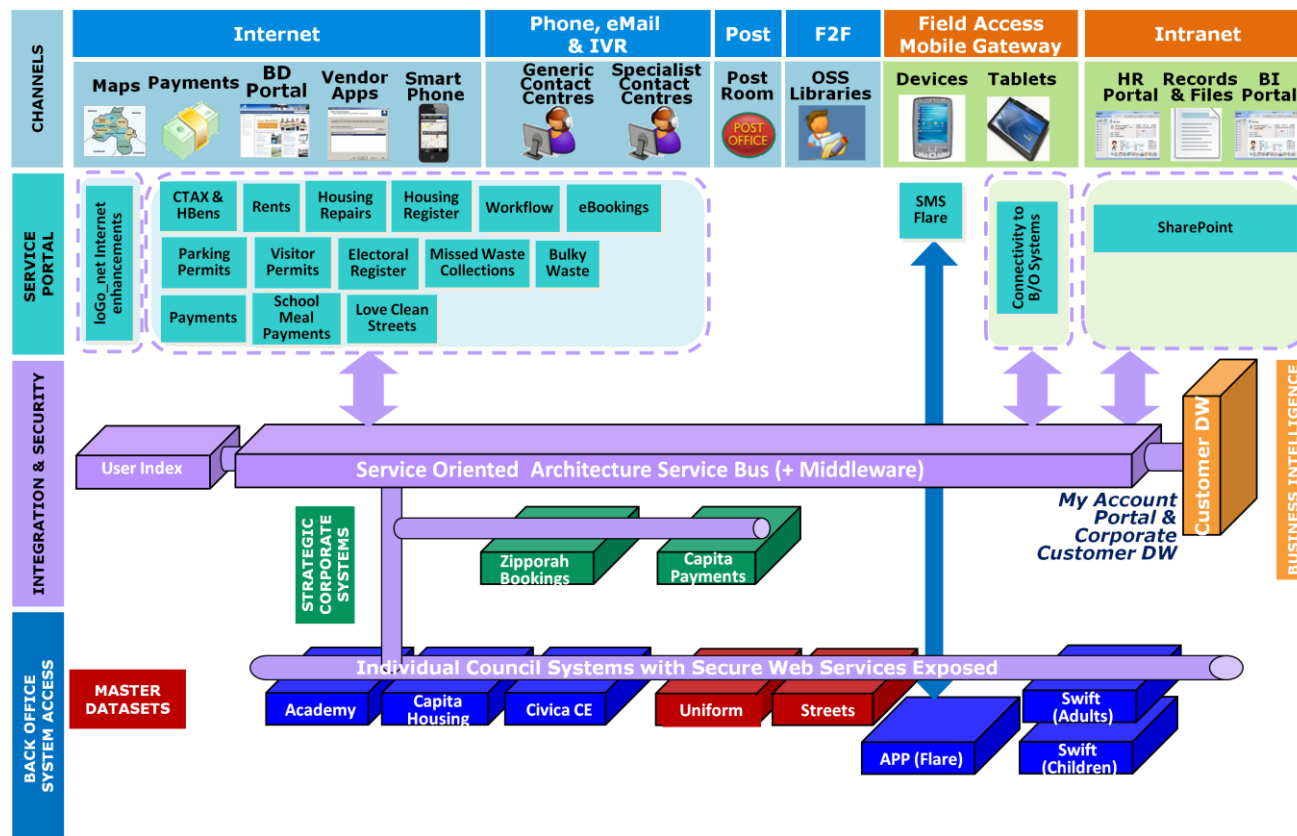
A key aim of the architecture is to ensure that it is simple to connect together the different systems that hold information about residents, service users and children in the borough.

The enterprise architecture describes how systems will be connected together using an “integration hub”, this removes the need for multiple integrations to be built between all the different systems. A single integration can be built between the line of business system and the integration hub.

The Council already uses Microsoft Biztalk as a hub as part of the data integration for the CRM system. Expanding the use of this system will be the first step towards building the “integration hub”.

The use of an integration hub also ensures that systems can operate (and can be changed) independently of each other.

As further online services are developed they will make use of the integration hub to access the information that they need in the line of business systems.



The enterprise architecture provides the underpinning technology that can be used to implement enhancements to the Council’s business intelligence systems.

The architecture will be used to ensure that future projects are compatible with the Council’s information management plans and will provide a roadmap for future developments.

ICT Services are delivered through the Council's joint venture company, Elevate East London.



The Elevate joint venture was established in 2010 in partnership with Agilisys. All ICT services including supplier management and project management are procured through Elevate. The joint venture is committed to achieving significant cost savings year on year until 2017.

The Elevate ICT service provides ongoing operation support of the Council's infrastructure, desktops and line of business systems. Provision is also made for some small scale project work under the contract. These projects are carried out using "pre-bought days", which recognise that the old ICT service carried out some project work for departments at no additional cost.

The Council's ICT strategy will be implemented by Elevate following the project commissioning process described in section 17 below.

The Council is committed to the success of the Elevate joint venture and will work with Elevate to explore opportunities to expand Elevate's ICT service through:

- developing shared service offerings to other authorities
- offering additional services to other public sector organisations including Barking & Dagenham's schools
- offering services to the private sector

The ICT strategy will come to an end in 2017 at the same time as the existing Elevate contract. The development of a new ICT strategy covering the period beyond 2017 will take place alongside the Council's strategic decisions about the future of the joint venture.

The Council's ICT client team will carry out further work to ensure that departments are fully aware of the services delivered by Elevate, the contractual arrangement and the recharging policies relating to the ICT service.

East London Solutions (ELS) works to “deliver and commission shared and collaborative services and products to facilitate improvement, efficiency and innovation”. The ELS group consists of six London Boroughs; Barking & Dagenham, Havering; Newham; Redbridge; Tower Hamlets; and Waltham Forest.



The ELS ICT programme has recently started work on developing a 5 to 10 year ICT strategy. This strategy will set out how the six boroughs can work together to ensure that their ICT systems become more closely aligned over the next ten years. This will ensure that opportunities for shared working are maximised in order to achieve greater efficiencies and ensure that all the boroughs can benefit from shared service opportunities.

The ELS ten year ICT strategy, known as the “ELS 2020 Vision” has been divided into five themes:

- **Access and devices** – what computing devices will be used by staff in the ELS boroughs?

- **Applications** – what opportunities exist for developing shared service models for delivering effective line of business systems to the ELS boroughs?
- **Cloud and network** – what cloud based services are in use in the ELS boroughs and what is the impact on the Councils’ infrastructure of a move to cloud services?
- **Data centre** – what will be the best way of meeting the needs for a data centre capability for the ELS boroughs in the future and how can that capability be consolidated?
- **People and procurement** – what ICT skills will be needed in the ELS boroughs over the next 5 to 10 years and how can common approaches to ICT procurement be developed?

The London Borough of Barking & Dagenham is committed (17) to the East London Solutions ICT programme and will take responsibility for developing the “Access and devices” theme of the ELS ten year ICT strategy during 2012/13.

When adopted the ELS ten year ICT strategy will inform the implementation of the Council’s ICT strategy. It will also help to define the next ICT strategy in 2017.

Communicating and sharing best practice with our neighbouring councils is also a key part of the ELS model. Barking & Dagenham ICT client team will continue to work with ELS to identify opportunities for shared working and efficiencies that will benefit Barking & Dagenham.

Changes to the Council's ICT systems will be delivered through a series of projects. These will be managed and approved through a defined process that has been agreed between the Council and Elevate.

The approval and management process depends on the project type.

Strategic Projects are those that are normally larger scale, that will deliver significant changes to the Council's ICT systems and which will implement the ICT Strategy. Strategic projects are normally funded through the Council's ICT infrastructure capital fund, the "invest to save" funding or directly by departments.

Strategic projects will only commence after a detailed business case has been completed and signed off by the Modernisation and Improvement working group. The business case will include a consideration of the risks associated with the project and the service risks that the project seeks to address. These projects will normally have a formal project board established to provide governance.

Small Projects are those that do not have a strategic impact and that mainly relate to changes to existing systems. These projects will normally be funded through pre-bought days or departmental funds.

There will be ongoing dialogue and meetings between the Council's client team, departmental managers and Elevate to allocate and review priority in order to meet changing needs and to ensure that the smaller projects are on track.

The Information and Workplace strategy (2) identified a number of key strategy projects need to be implemented in order to delivery this ICT Strategy. These projects have been further defined and prioritised through consultation with the Council's departments.

An ICT strategy action plan has been developed that lists the strategic projects that have been identified. This action plan will be subject to frequent review and re-prioritisation throughout the lifetime of the ICT strategy. Prioritisation will be carried out in consultation with departments and will use the principles set out in the ICT strategy.

Strategic Projects	Small Projects
Major changes to council's ICT systems	Minor changes to existing infrastructure and line of business systems
Separate project board established	Project reporting to business sponsor and oversight by ICT client team
Project signoff by Modernisation and Improvement Working Group.	Project signoff by delegated authority of business user

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