

Brighton & Hove City Council

ICT Strategy 2008 – 2012

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Document Control

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1. Executive Summary

The Information & Communications Technology (ICT) service aims to maximise the potential of technology to deliver transformed and improved quality services for the citizens of Brighton & Hove. Key to supporting the council's vision of promoting and achieving "Value for Money and Customer Focus" is a modern ICT strategy that is closely aligned to corporate aims and priorities. This document presents the Council's ICT strategy for 2008 – 2012.

Local government services by their nature are widely different in character and extremely complex. They are reliant upon a range of different partners and relationships. The council's modernisation agenda relies heavily on ICT to ensure services are accountable and transparent, accessible and cost effective. Changes to the structure and approach of the ICT function within the Council in recent years have enabled ICT to meet the evolving demands of the organisation. However there exists a continuing need for investment in technology, skills and capacity in order that ICT may continue to deliver improvements for the Council and its customers.

The evolving reliance on systems and technology within Brighton & Hove City Council in recent years has led to increased demand for ICT staff to support around 400 services, systems and applications which in turn requires ICT staff to possess a wider portfolio of skills. Whilst the service has supported the needs of the Council throughout this period, it is recognised that a more corporate approach to technology and service delivery is necessary to enable the Council to deliver best value to its citizens.

ICT needs to make a step change by taking a central role within the organisation to ensure that all service areas of the council have the right level and quality of ICT support to enable them to deliver efficient, effective and accessible services by:

- Providing strategic input to facilitate improved knowledge management, decision support, training and development of citizen facing services.
- Incorporating planning for ICT, the procurement of new or updated systems and the support requirements of IT services within the corporate planning process.
- Adapting to the increasing requirement for on-demand and flexible services.

Some of the principles outlined in this further benefit analysis and planning. This strategy will be subject to review in March 2009 by the new Assistant Director ICT.

Key Messages in this document

- ICT is vital for delivering our corporate priorities
- ICT is mainly a business issue, not a technology issue
- Technology is changing quickly. New products and developments to existing services are appearing all the time, offering new ways of delivering services and reducing costs. It is important to make best use of these new products and services.
- Our use of ICT needs to be further modernised
- It will be important to ensure that in the information age, employees and the community have the skills and competencies to access new services, new employment opportunities and enable social inclusion within the community.

2. Vision and Mission statement

The vision for ICT is to achieve a more consistent and positive customer experience. Through the development of efficient, streamlined, integrated services supporting the council's priorities ICT will support the delivery of high quality and innovative business services. To do this effectively ICT aims to develop a strong culture that is clearly understood and supported by all staff in the organisation and is clearly focussed on supporting the many business functions of the council. ICT will support a customer centric approach that is led by business and service delivery requirements.

The key Building Blocks

To achieve our goal we must have effective ICT practices and procedures. These practices and procedures will also:

- Make sure we provide best value operational service which meets the needs of our business
- Make sure that our ICT investment priorities are in line with our business direction
- Help us make better and faster decisions relating to ICT
- Encourage people to use ICT in an efficient and acceptable way
- Increase the business value of ICT and reduce its running costs

Although the overall investment in ICT will increase in line with the overall growth, the unit costs will typically decrease and service levels will be maintained or improved. This means that we will continually be striving to achieve more for less.

The ICT service will focus on the following drivers

Strategic Priority	Objective	Outcome
Service Transformation	Transformational Change	Shift resources to provide better services for citizens and business and develop a local vision about what needs to be achieved. Using new business models, deliver services to more intelligent and challenging customers.
	Business Process Management (BPM)	Improve the management of all processes supporting a service transaction or event, which managers can change without necessarily involving ICT. Embrace BPM so that service departments champion and deliver change, supported by ICT. Use BPM prior to commissioning new services to ensure optimal value for money.
	Delivering Value for Money	Improve the effectiveness of information systems supporting policy and decision making. Maximise opportunities for information sharing and collaborative working to achieve reduced total cost of ownership.
Governance	Information Security	Provide secure and controlled access to the councils infrastructure, systems and electronic information
	Information Management	Develop an Information Management strategy by April 2009 that defines the behaviours and tools to exploit the organisations information resource
	Implementation Planning	Improve the formulation and control of plans to deliver the ICT business plan(s), including the workload of day-to-day ICT service delivery
	Business Continuity and Systems Availability	Maintain an operational infrastructure supporting critical systems in the event of an unplanned incident or service outage
Professional Practice	ICT Performance and Credibility	Develop performance management, focus on the customer, reduce costs and shift from technology to process, information and relationship management
	Develop new skills	Review skill sets and develop new competencies for ICT staff. In particular develop process and customer relationship expertise
	Contract and Supplier	Optimise ICT support contracts to meet the needs of the business and deliver value for money
	Shared services	Organising ICT functions with a optimal mix of suppliers
	Shared applications	Promote the implementation of enterprise wide solutions to support optimised business processes
Technology	Infrastructure	Deploy virtualisation technologies to minimise

	rationalisation	environmental impact of technology and maximise operational efficiencies
	Server-based computing	Use centralised computing models, so called thin client technology, to deliver applications and data to client machines and devices
	User devices	Develop new ways of managing a secure infrastructure that allows users to connect using a range of peripherals via the corporate network
	Mobile Working	Develop the ability to use technology without the need to be physically connected to the corporate network, or in remote or mobile (non-static) environments
	Enterprise Content Management	Manage and track documents and other media from creation to deletion. Allow content to be presented to multiple channels and used in business process workflow and collaboration

3. Corporate priorities

The relationship between ICT and the Council's priorities is outlined below.

Council Priority	How ICT can help
Protect the Environment While Growing the Economy	IT services affect the citizen experience both directly and indirectly. The management and use of technology to support environmentally responsible projects contributes to delivering safe, clean and thriving communities. New digital technologies will continue to attract new businesses and investment into the city whilst providing aggregated knowledge and information will support the city image.
Better Use of Public Money	Channelling services and improving the range of service options available to citizens supports the council's targets for delivering excellent public services. Technology can be used to link services, facilitate information sharing and present new opportunities for delivering council services to citizens. Technology will underpin the availability of services and reduce the impact of system failures.
Reduce Inequality by increasing opportunity	ICT helps to facilitate the presentation of consolidated information about council services to citizens across the city. Access to learning and development through schools, libraries, family learning and study support centres means information is more widely available citizens and supports growth in the city.
Fair enforcement of the Law	ICT will continue to provide maintenance and delivery of information systems which support the principles of the constitution. ICT will put in place a comprehensive security infrastructure to protect the integrity of digital information and minimise exposure to the risk of fraud and similar illegal activities.
Open and Effective City Leadership	ICT will support the delivery of services allowing citizens to engage with the council in the way they want to engage, when they want to engage. ICT will deploy a variety of technologies to enhance the support to the democratic process, affording customers of the Council increased opportunity for influencing decision making. On-line

	discussion space, audience voting equipment and web casting are all technologies which will be developed by ICT.
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4. Citizen Access

Technology will support the council's commitment to delivering excellent customer service. Through our 10 year Access Vision customers of the Council will have increased choice of whether to interact with us electronically, by telephone or face-to-face. Further investment in 2009/10 is required to develop the use of contact centre technologies (i.e through Customer Relationship Management systems (CRM)) to deliver effective service at first point of contact. Office based staff will have access to technology which provides them with the information resources required to deliver services. Investment in mobile technologies will ensure that staff in the field do not have to return to headquarters to receive instructions, access information or record service outcomes. Access to new and existing services will be delivered through the Councils web site, mobile technology infrastructure and other technologies (i.e virtualisation, unified communications, and collaboration).

Development of online payments facilities.

There is a requirement to receive electronic income into the organisation from citizens paying for council services i.e schools services, revenues and benefits services, regulatory and community care services. In the case of schools, for example, the use of online pre-payment of school dinners has been proven to streamline administration by reducing cash handling, improving take-up, reducing bullying and promoting healthy eating.

Reducing Avoidable Contact (NI14)

National Indicator 14 is the new performance indicator about reducing avoidable customer contact. It relates to the requirement in Transformational Government to minimise the proportion of customer contact that is of low or no value to the customer. The concept of avoidable contact is easy to understand and reducing it has clear and obvious benefits in terms of customer satisfaction and efficiency.

Self service transactions are a prime means of reducing customer contact for both information and service requests and the Web provides for a primary access point for such requests (i.e submission and follow up of planning applications, parking permit renewals). ICT will invest in new skills and infrastructure required to support self service strategies.

A number of opportunities exist to offer key services available online. Services including CYPT, online admissions, the licensing register, mapping services, building control, land charges and online assessments for adult social care users have already been identified as potential opportunities for further development.

The council will need to address the measurement of NI14 based on whether a contact made by a customer was avoidable. To gather data to determine the required result requires the collation of all contacts made by customers with the

council. Further investment in CRM and online services during 09/10 and beyond will support the council's ability to measure and reduce avoidable contact. Further development of the council's telephony systems will also be required to capture information supporting NI14.

Geo-Information Systems (GIS)

The delivery of a central repository of map data across the authority using GIS provides council staff dealing with customer enquiries the ability to use mapping technology to provide visual data to support a customer contact. A customer service officer will be able to click an electronic map to access additional relevant information and provide updates for other staff. The use of GIS for informed decision and policy making will result in improved front line services to our customers.

Supporting Equalities and Diversity

ICT plan to support the councils' equalities and diversity initiatives by utilising technology to measure and monitor how information is used across the authority to identify who we are delivering our services to and how effectively they are.

ICT aims to improve the accessibility of information, for example, through library kiosks for people who don't have access to a computer and by supporting our staff to do their jobs effectively through easily accessible information as well deploying assistive technologies where appropriate.

In addition, by increasing the availability of ICT and distance learning information and services will become more widely available to our customers, for example, using the Learning Platform with single sign on for pupils and parents to draw parents in through the activities of their children.

E-Learning

The procurement of a Brighton & Hove Learning Platform for learners, teachers, parents and carers across the city including learners not attending formal education meeting DCSF targets (outlined in the Government's "Harnessing Technology" Strategy) will be available to schools in 2008. This powerful tool combines digital content with instant feedback alongside communication and collaboration tools.

The vision is to embed the use and promotion of the Learning Platform within CYPT to support teaching and learning through strategic partnerships with the Education Advisory Service, Brighton and Hove Out of School Learning, South East Grid for Learning and others. Our aim is to use it as a key vehicle for communication with

stakeholders, bringing together a number of existing disparate communication channels and bringing new consistency and clarity to the learning experience.

The implementation will support the Value for Money agenda as it will obviate the need for separate school web sites and prevent the replication of content across schools, as well as allowing anytime collaboration and support between teaching professionals and other staff to support their CPD. In addition, further DCSF targets make provision for full two way integration with school management information systems by 2010 which will allow learning outcomes to be recorded automatically back to the Management Information System (MIS) and used as the basis for online reporting to parents alongside other contextual information. As a web-based learning environment that can be accessed from anywhere, we want to use its potential to the full and to develop its use over time to support inclusion, hard-to-reach learners and community engagement.

Computers for pupils

ICT are involved in a joint funded project with CYPT supporting access by learners in disadvantaged families with secondary age children via the 'Computers for Pupils' project. This initiative will place hardware with managed/filtered connectivity to the internet into family homes, with some training and support for parents and children via schools, to ensure they are not excluded or disadvantaged as online learning opportunities become the norm.

Shared access to ICT facilities

ICT will support community engagement initiatives through the delivery of accessible technologies to maximise opportunities for broadening and deepening citizens' lifelong learning and contact with the wider community through accessible technology (i.e via schools/hub sites, drop-in centres). Additionally ICT aims to provide a means of delivering electronic information and services to the citizens of Brighton and Hove and visitors at a time and place convenient to them. Mechanisms to support this requirement include access to information via libraries and kiosks distributed across the city and by providing access to online democratic processes.

Delivery of modernised business services

The emergence of Web 2.0 technologies provides ICT the opportunity to enhance creativity, information sharing and collaboration among users and citizens. The development and evolution of web-based communities and hosted services, such as social-networking sites, wikis and blogs will alter the way end-users use the internet.

This allows for the development of web services – simple, self contained applications processing simple requests through to complicated business processes.

ICT will champion and support the widespread use of web-based technologies to access information both for staff and citizens. Using the internet to support improved service delivery will add value to many business functions whilst making council services more widely available to the general population.

Microsoft Office Sharepoint Server (MOSS)

The corporate decision to use MOSS for the re-development of the council's intranet and web site will provide future opportunities for interactivity, re-use of information, knowledge sharing, mobile access and accessibility to services for those with disabilities. ICT will support the implementation of a Citizen Portal to provide access to internal applications and services including GIS maps and overlays, data archives and front line services.

Prioritising Investment in Housing IT Systems

Consideration is required for investment options for Housing information systems. ICT are expecting to support the development of existing elements of the housing system, as well as incorporating new systems as required by the housing service. Technology solutions providing for example, mobile technology to support property inspections and housing repairs, workflow technology to enable better management of business processes and the development of online services for repairs, faults and lettings will aide improved service delivery to tenants. A new Housing Management Repairs and Maintenance ICT Strategy is expected to be approved by 2009.

5. Transformation

Fundamental to the delivery of effective IT services providing value for money and enhanced business processes will be the need to invest corporately in joined-up systems and solutions. There is a corporate requirement to analyse business processes prior to commissioning an IT solution to maximise the potential for re-using/sharing existing systems and services where appropriate. Where this approach improves the outcomes ICT will support council staff and elected members by providing technical advice and information as appropriate.

Ordnance Survey MasterMap

The use of the Ordnance Survey mapping software within GIS provides the functionality required to perform spatial analysis of data fundamental to improving strategic evidence-based decision making and service delivery. The deployment of MasterMap via the corporate intranet in 2008/9 will increase the council's ability to analyse data which has a geographical reference and to deliver increased value for money across a wide number of business functions.

Support for improved business process and information flows.

The demands placed upon ICT by our customers and other stakeholders are changing and will continue to do so. In order to be effective ICT must align its organisation, service and support practices with the evolving vision, objectives and priorities of the Council. Technology alone will not deliver the transformation required; however, it does present the opportunity for radical redesign of the organisation, its services and processes to meet the needs of our customers.

There is considerable scope to broaden and further automate the two way transfer of data between schools and central CYPT systems/teams to improve data quality and ensure that data is not collected and distributed in a piecemeal fashion. Ultimately the aim would be to enable schools' data to be collected at least weekly – a business case to implement GroupCall Xporter alongside the existing AVCO system is the first step, and this supports Contact Point as well as the internal business processes.

Carefirst 6

In social care the provision of information to council officers is critical to the efficient delivery of care services and to the commissioning of future services. The implementation of Carefirst 6 in 2008 will allow manually produced reports to be migrated to automated and flexible reporting tools (i.e Actuate and Business Objects XI). Operational and senior managers will have access to real time performance information directly from their desktops whenever they require it. The information will be presented in accessible formats with drill down facilities to give real management oversight of case records, local and statutory performance. As a by-product of the automation of information production staff will have more time to develop in-house management reports to support local requirements rather than concentrating most of their efforts on statutory performance reporting.

Both ASC and CYPT social care are engaged in making fundamental changes to business processes which will transform the way services are delivered, give greater emphasis to choice and control and result in better outcomes for users of those services. In ASC the changes include the development of the Access point service, enablement services and streamlined assessment processes, including the new common assessment framework (CAF) and the Resource Allocation System (RAS) and in CYPT the adoption of the Integrated Children's System.

The vision for ICT in social care is that our electronic information systems should be a key enabling tool to support these new operational processes. Our electronic systems should capture, process and give access to information in a secure, timely and efficient manner that will support the Directorates to achieve their aims. The implementation of the web version of Carefirst, with its integrated assessment and reporting tools will enable us to meet these aspirations.

Electronic Document Records Management (EDRM)

The corporate EDRM solution now facilitates vital services within the organisation such as storage of crucial HR and finance documents and the planning application web service, which receives over 50,000 hits per month from members of the public on our website. The IDOX EDRM system now stores over 700,000 documents with further development work planned in 2008/9 to deliver efficient management of the Council's increasing volume of email, documentation, electronic forms and correspondence. EDRM facilitates automated and streamlined business processes and includes disaster recovery and records management for all Council files.

It is very likely that a national eCAF (electronic common assessment framework) solution will be made available to CYPT by central government in 2009. This will provide a standard common assessment tool as the gateway to CYPT services. It is not yet known what ICT support will be required, but it could include project and implementation management support, technical support and links to other CYPT systems such as Carefirst.

The authority has made an initial investment into Customer Relationship Management (CRM) software to help understand, as well as anticipate, the needs of current and future citizens. CRM supports changes in the way customers contact and interact with the authority by enabling the automation of business processes by sharing consolidated information with other information systems. ICT will continue to support the aggregation of customer services for a number of functions by continuing to develop the CRM system.

Rationalisation of systems and core infrastructure.

As technology evolves greater opportunities are made available for ICT to consolidate and rationalise its IT architecture. Through new technologies such as virtualisation, unified communications and data integration significant improvements to service delivery can be realised to maximum effect resulting in an agile, scalable, cost effective and environmentally acceptable infrastructure. By 2011 ICT aims to achieve a 60% reduction of physical servers through virtualisation and provide 30% of desktop services through server-based technology models.

A business case has been made for an implementation of additional Impulse modules (central pupil MIS) over three years, of which the first year funding has been 80% secured, which will consolidate data, information, decision making and resource allocation for pupil-based services and to facilitate early intervention with specific pupils and families where appropriate.

Integrated systems and data sharing

Key to the operational achievement of the aims set out above is the requirement to work in partnership with other agencies. ICT can support this by ensuring that information systems in social care provide a platform to share information between professionals and bring data together so that we can monitor the effectiveness of a more joined up approach. However, in both ASC and the CYPT integrated process and reporting models are still in the early stages of development and clearly these are a pre-requisite for joining together electronic systems. Nonetheless the implementation of the web version of Carefirst will position us to support business integration through linkages to external organisations as requirements become better defined over the next few years.

Government Connect Programme

On 1st Apr 2008 permanent secretaries of DWP, DCSF and others announced the decision to cease the provision of RESTRICTED data to local authorities and the receipt of 'sensitive personal data' through any means other than a government approved secure IT channel known as Government Connect. To avoid any impact to services, in particular housing and council tax benefit services ICT has submitted its application to join the Government Connect Secure Extranet (GCSx) which enables secure interactions between local authorities and central government departments and national bodies. Under the terms of the application ICT is required to implement and support improved working practices and measures to ensure the integrity and security of systems and information.

Contact Point is a national project which aims to facilitate better communication between professionals by the creation of a database of all the children in England with a small dataset for each child including address information, school and GP information and other professional involvement. The implementation of Contact Point within the CYPT is subject to delay due to the central project timescales slipping and the earliest implementation date is currently forecast to be April 2009. However, we do know that we will need to link information from the social care and education systems to Contact Point and to this end will be migrating the NLPG into Carefirst by the autumn of 2008.

Promote partnership working with supporting processes and governance.

In 2007-2008 CYPT adopted a governance framework to control and manage investment in information systems. This included setting up the Information Programme Board (IPB) to function as the commissioning body for any significant information system development. The IPB has functioned well as a gate-keeping body that prevents investment being made without a robust business case to support it. Going forwards CYPT needs to embed this framework and ensure that developments are managed within a programme management framework which will ensure VFM. In 2008 ASC intends to adopt similar governance arrangements to achieve the same aims.

The Joint Technology Deployment Framework aims to provide a structure for joint/partnership working which will facilitate the implementation of the most efficient and cost effective solution to joint IT issues across partner agencies. These issues may be in either CYPT or ASC. The framework will include a statement as to which technologies can be deployed and a series of process and procedure documents that will support staff who are engaged in joint IT projects.

Provide solutions to support a mobile and agile workforce

CYPT are in receipt of grant funding from the DCFS to pilot mobile and flexible working options within children's social care services. It is planned that a project will be initiated as a proof of concept, in summer 2008, initially with small numbers of staff involved. It is anticipated that ASC will initiate a parallel project in 2009. Findings from both pilots will inform the development of a corporate Flexible and Mobile Working programme from 2009.

6. Business Improvement

Modern ICT gives successful organisations an advantage by making them more effective, efficient and economical. The growing importance of ICT, and its strong link to transforming business, is reflected in a corresponding progression in technology.

The goal of the business is to achieve a more consistent and positive customer experience. This is brought about by consolidating and improving the customer facing elements of the Council (the Front Office) and consolidating the support and logistic elements (the Back Office). This frees up the specialist professional elements to enable a better and more productive use of their expertise.

To achieve this goal information and communication technologies are required to bring together the people, processes and technology required to deliver successful change and modernisation.

ICT also directly contributes to the success of organisational transformation through the specification and delivery of technology, project and programme management, and business change expertise.

IT Infrastructure Library (ITIL)

The Information Technology Infrastructure Library (ITIL) is a set of comprehensive documentation of best practice for IT Service Management. Effective IT service delivery and management demands repeatable and measurable processes. ITIL is a framework for IT process and service management and brings with it a consistent, integrated approach and vocabulary.

In 2009 ICT will existing service provision and initiate a programme of service improvement aligned to the ITIL framework with a target to achieve ISO-20000 accreditation, the standard for IT Service Management, by 2011.

Key components of ITIL are:

- | | |
|----------------------------|----------------------------|
| ⑥ change management | ⑥ capacity management |
| ⑥ configuration management | ⑥ service level management |
| ⑥ incident management | ⑥ continuity management |
| ⑥ problem management | ⑥ availability management |
| ⑥ service/help desk | ⑥ financial management |
| ⑥ release management | |

Governance and Compliance

Effective ICT governance is critical if the Council is to achieve its organisational objectives. IT governance is be about doing the right things for the right reasons, while compliance involves reporting functions that details what has actually taken place and any areas where established policies should be undertaken differently.

Effective governance will also:

- Ensure that all ICT investment priorities are aligned with the corporate/directorate priorities
- Helps the council make better and faster ICT related decisions
- Builds trust through transparency
- Synchronises ICT with business strategies
- Encourages desirable behaviours in the use of ICT across the organisation
- Increases the business value of ICT and lowers the total cost of ownership (TCO)

By 2010 ICT, in conjunction with Audit Services, will develop an IT governance framework comprising a set of principles, decision-making hierarchy and tailor-made suite of reporting and monitoring processes to ensure compliance. The framework will complement existing tools such as Internal/External audits and will cover information strategy, IT risk management, software applications, ICT architecture, ICT infrastructure/technology, ICT investment, project governance and information compliance and security. The framework will identify standards for accountability and decision making within each domain.

Programme, Project and Tactical Change Management

ICT has started the creation of programme and project management standards as a benchmark for best practice. By 2009 these standards will help ensure the implementation of disciplined and consistent programmes across the authority –

within time and budget with the business benefits from investments fully realised. Using the industry recognised PRINCE2 Project Management methodology projects will be led and delivered by trained project managers with expertise in integration, scope, time management, cost control, quality, resource management, communications, risk management and procurement.

Responsibility for the successful delivery of programmes and projects does not reside solely with the ICT programme/project manager. Service areas accountable for the service/business improvement should ensure they engage with ICT staff who can advise and support technical requirements.

ICT will invest in specialist business analysis skills to provide internal consultancy and a business interface for system and IT service improvements. Working closely with key stakeholders and nominated 'expert users' business analysts will examine existing processes to identify and explore opportunities for technology to improve the service being delivered to our customers.

Improved project filtering and business partnerships

To ensure ICT is fully supported in the delivery of IT-enabled business-change programmes ICT and the business must work together to bring realism to bear on an idea before it gains momentum. There is a requirement across the organisation to embrace the filtering, scoping and prioritisation of IT projects to reduce costs through the early termination of ill-conceived initiatives which fail to demonstrate an appropriate return on investment.

It is often difficult to filter and scope programmes because as a change idea develops the project begins to take on a life of its own. Whilst technology is invariably central to business-change initiatives, the ICT function is sometimes not involved in early discussions and its informed views are not heard. Even when ICT is involved, it is often seen as being too cautious and acting as a negative influence on progress.

Another difficulty experienced when filtering is that each idea is seen by the sponsoring business manager as being a top priority, and is presented as such to senior management. Financial and project approval then tends to be given to each case individually, rather than reviewing the overall portfolio of business requirements. This is frequently the case for corporate IT service solutions which often results in duplicated functionality being procured and deployed.

ICT aims to facilitate a non-bureaucratic, early scoping approach that results in a map of a proposed initiative involving ICT and business members and supported by ICT business/change analysts or technical account/project managers. The mapping process should show how the proposed initiative links to the councils strategy and

demonstrate which key performance indicators would be improved. It would also outline the IT and business changes required to secure the anticipated benefits.

By providing a clear visual representation of the proposed programme the approach acts as an effective communication platform for presentation to senior management and the wider organisation. A decision can then be made to decide whether the programme should be continued to the full business case stage saving significant resources for ideas unable to demonstrate a decent return on investment.

To support this process ICT is recommending the formation of an ICT Steering Group consisting of senior ICT managers and business stakeholders to be established by mid 2009. This group would provide a holistic view of business-change initiatives requiring supporting technologies and provide an appropriate level of filtering and prioritisation.

Application Integration

Applications integration and interoperability is increasingly important to deliver a “joined up” IT environment. Typically business processes do not rely on the services provided by one single application, thus organisations invest substantial resources in developing and maintaining integration mechanisms (i.e bespoke interfaces) between applications in order to meet corporate requirements.

Within the council there are increasing demands for application integration and data rationalisation to realise business process efficiencies. In line with the authority’s Microsoft based technology architecture ICT will investigate opportunities for application integration. Options such as Microsoft Biz Talk Server – a business process management server which uses adaptors to facilitate communications between different software systems and Service Orientated Architecture (SOA) which allows different applications to exchange data with one another will be considered to support the actions identified within Sir David Varneys 2006 Service Transformation report.

Information Management

Good information management will underpin the delivery of services which are effective and efficient, as well as making sure the Council operates within legislation relating to gathering, using and storing information.

During 2009/10 a separate Information Management Strategy will be commissioned to outline the organisations approach to:

- **Document Management** – the future management of paper files and the integration with electronic document management systems. This will

include the introduction of common classification for both paper and electronic documents

- **Records Management** – defining what documents constitute records and the availability of electronic records
- **Content Management** – the activities of filing and the publication of information to a range of different web-based locations, both internal and external.
- **Knowledge Management** – it is important to adopt a conscious and systematic approach to the capture of knowledge within departments. By focusing on people, processes and technology staff should be encouraged to make their knowledge explicit and to share their knowledge with others.
- **Data Management** – the council needs to make better use of the data it owns to deliver smarter public services whilst at the same time ensuring we maintain privacy.

This strategy will be presented to senior officers and members for adoption as the corporate information management strategy.

ICT services will work with Audit Services to set up a system for managing corporate information by 2010. Focusing first on improving the quality of our information, this work will also include providing technical and consultancy resources to support activities which will include the following:

- Carrying out a full check of our information to identify the extent and quality of it and then establish a way forward for storing it
- Analyse and define how long we need to store important information to make sure it is held efficiently
- Developing a system to classify information in a way which supports efficient management and access to information
- Developing policies for holding and destroying information in line with relevant legislation
- Making sure the council makes full use of existing technology to support these activities whilst carrying out a full review of how documents are managed.

Information Security management

Information Security becomes a much more complex area as the Council continues to its drive into the e-Government age. Considerable investment and effort is required to fully protect the information assets and the confidentiality of the citizen or client, while providing 24x7 access to services.

However, information security should not be seen as a technology issue within the authority, limited to securing data or protecting computers. IT system users should become responsible for decisions about which threats should be protected against and what trade-offs between security and flexibility are considered acceptable. Once these decisions have been made ICT security staff should be consulted to design and implement technical solutions covering the requirements identified. Decision making responsibility should sit with directorate management teams who can influence and evidence the effectiveness of information security management, and not be led by technical experts

ICT will increase the knowledge and skills required to provide safe, secure but scalable solutions which support growth as user demand for electronic information increases. ICT will also continue to support the expansion of services presented using a variety of media devices i.e Mobile, PDAs, remote kiosks.

During 2009/10 ICT will work towards achieving the international Information Management Security standard ISO 27001. To ensure that confidential information is properly secured and accessed only by staff authorised to do so by 2011 ICT will undertake:

- Regular testing of systems by independent experts to identify specific security risks
- Penetration testing of secured systems by external experts
- Facilitating access to data outside the office by providing remote secure channels rather than transferring data on to a mobile device (i.e data access centrally and not removed from core source) and phasing out the use of disks, USB's and media cards for storing local copies of data
- Encryption of removable media i.e PDAs, laptops
- Reviewing and updating policies to control access rights for all systems/data accessed remotely
- Adopting central government strategies for securing data transmission i.e Government Secure Intranet (GSI) and Government Connect schemes.

ICT Disaster Recovery Plan

The council must be able to respond and recover from a disruption to its ICT infrastructure and comply with the requirements of the Civil Contingencies Act 2004.

The ICT service has been providing elements of contingency planning during the development of the IT infrastructure and networks. These elements include dual site

automatic switch over for applications and data, common server storage facilities, redundancy in network capacity and out of hours support via technical teams. Some disaster planning and testing already takes place for a number of key systems and services.

Previous audit work on IT service management has identified the need to further develop ICT disaster recovery plans linking to the wider business continuity plans and the corporate risk register. ICT will put in place resources and expertise to deliver full recovery solutions for all key systems and services identified in the Business Continuity Plan (BCP) by 2009 and incorporate documented business continuity measures as part of the Project Management Framework for all new systems by 2010. By 2011 all key systems will be subject to annual testing of business continuity plans

In 2009 the deployment of enterprise management tools to monitor performance, deploy applications and proactively identify system faults will support the delivery of high availability services and provide for a pro-active approach to infrastructure management. End-to-end service monitoring will help identify weak infrastructure components and reduce the mean time to recovery for impacted services.

Further investment in core infrastructure projects, such as deployment of a new backup and recovery solution in 2009, will further enable ICT for minimise the adverse impact to citizen services in the event of a major incident.

Sourcing ICT Solutions

As the authority has become ever more reliant on technology for service delivery there has been an increasing requirement to ensure that all the various elements of the IT environment work together cohesively in a seamless manner. The council's increased use of sophisticated technology to realise greater automation resulting in reduced human intervention introduces greater complexity into the IT environment with a greater potential for impact when problems occur.

There is a need to minimise the variety of hardware and software purchased and used within the authority in order to contain the costs of support and maintenance and to ensure that economies of scale are realised. This becomes more important in relation to the implementation of the Office Accommodation Strategy as a consistent "look and feel" and confidence in a standardised desktop provision are key critical success factors for ICT delivery of "hot desking" and increased flexible working.

ICT will develop a service catalogue for delivery in 2009 which outlines the skills, services and technologies deployed across the authority which are supported by corporate ICT. This catalogue will provide business decision makers with information which can be used to assess the suitability of new or enhanced technology enabled business solutions.

IT Provisioning

New approaches to delivering computing resources via the Internet have the potential to offer innovative alternatives for the future delivery of IT services within the authority. The concept of 'Cloud Computing', although comparatively new, marks a step change in the approach to enterprise IT by introducing the concept of renting applications, development platforms, processing power, storage or any other web-enabled service as a scalable solution.

ICT will continue to monitor industry developments regarding the deployment and provisioning of new and efficient IT services in order to support informed decision making.

Technology Procurement

Mistakes made within any procurement activity such as a vague specification or weak contract can lead to long term financial loss and reputational damage. The level and likelihood of this risk to the organisation will often increase significantly during technology procurement. Getting the procurement of software and hardware right should remain a high priority for the council.

In partnership with Corporate Procurement ICT will introduce a standard technology terms and conditions of contract to support the business during the procurement of new systems. During 2009 a comprehensive business case template will be developed to compliment the governance framework to ensure products and solutions are properly evaluated and cost benefited to deliver maximum return on investment.

By 2010 a defined procurement process will enforce the requirement for robust terms and conditions to support the investment and protect the council's commercial position. Areas covered as part of this framework will include maintenance and support provisions, performance reviews, service level agreements with associated liquidated damages, Business Continuity, Information Security and Intellectual Property Rights infringement indemnities.

Sustainability

ICT will continue to actively contribute to the delivery of sustainable solutions in a number of ways. By investing in mobile "down the wire" working and the delivery of electronic services, activities and transactions become more environmentally efficient and consume fewer resources. ICT aims to influence a change in staff and citizen behaviour, for example, through the provision of home and flexible working and promotion of sustainable ICT procurement.

ICT systems will play a valuable role in reducing the councils' wider carbon footprint, for example by reducing the need for travel through videoconferencing, maximising the operational lifecycle of ICT purchases, optimising the number of PC's and Laptops and the wide scale deployment of active device power management solutions.

In addition ICT will continue its programme of investment in sustainable technologies including the deployment of Multi-function devices for green printing by reducing power consumption by 25% and paper utilisation by 35% by 2010 and the deployment of virtualisation technologies which aims to maximise capacity utilisation from 15% in some cases to 85%.

7.0 Technical strategy

A reliable and up to date technical infrastructure is fundamental to the total cost of ownership being controlled and for the Council to get best business value from ICT. To that end, the enterprise infrastructure will also be continually and incrementally upgraded in order to avoid a major upgrade programme. All development will be undertaken against corporate standards and governance which will control costs and enable capacity for the continued development of innovative service improvements i.e mobile working, automatic software updates, centralised support services etc. Choices on all these technologies will be based on best practice and established open standards to allow better interoperability.

The technical blueprint is available as a separate document that describes each technology element and its associated strategic direction. The table below outlines the fundamental streams which define the ICT technical strategy.

Strategic Focus	Business Impact
Converged Voice and Data Network	Development in data networking technology has only recently impacted the world of traditional voice technology. Converged voice and data networks (also known as VOIP, or Voice Over IP) have evolved over the last three to five years and work has started to deploy this technology across the Council. Support for legacy telephony solutions will cease over the next decade and therefore it remains a key priority for BHCC ICT to continue its migration to a fully converged voice and data network.
Wireless	Wireless communications are widely used by many users in both business and personal computing. The main benefit of wireless LANs (WLANS) is increased mobility, with many practical applications in workplaces where a wired network is either impractical or impossible such as temporary office locations or listed buildings. However the additional complexity for secure communications requires specialist skills.
Mobile Technology	The potential benefits of creating more flexible patterns of work whether

	<p>through the use of technology or otherwise are considerable. Mobile computing can generate significant efficiencies, help create a better working environment for staff, aid service delivery and improve customer service. The introduction of mobile computing for workers can:</p> <ul style="list-style-type: none"> • Signal the council's credentials as a modern organisation making use of technology to benefit its stakeholders • Add to a culture of improving effectiveness and efficiency • Improve the corporate image through effective communications inside and outside the organisation <p>To facilitate the development of mobile working within the authority a framework is being developed which sets out the criteria for mobile technology</p>
Thin Client and Browser Based Clients	Thin client computing can be simply described as running a system primarily from centrally located servers. In a Windows based environment, such as the Council's, a centrally located server runs the client side of the application, undertakes all the local processing and then sends just screen output to the end user device which is running a minimal or "thin" client. This technology facilitates availability of council systems to non-council premises via internet connections.
Standard Desktop Applications	All workstations are purchased through standard contracts and to a specified build. At the time of writing, the standard operating system is MS Windows XP Professional. There are currently no plans to deploy Windows Vista across the organisation.
Desktop configuration and Management	<p>BHCC's strategic move to a Microsoft environment provides additional facilities to 'lock down' the configuration of the desktop without compromising application functionality and a greater emphasis on the automation of routine desktop support functions such as operating systems and security patching.</p> <p>Market analysts such as Gartner have undertaken extensive research and concluded that the total cost of ownership is considerably reduced where desktop PCs are "locked down" with the applications kept to the minimum required to support the business.</p>
Security Architecture	The Security Architecture is designed to be flexible enough to enable the council to work closely with trusted partner organisations. Brighton & Hove will continue to develop its network in order to support the needs of the organisation and the access needs of customers whilst protecting the integrity and security of electronic data.
Maintaining a supported infrastructure	There remains an ongoing requirement to replace aging hardware. As equipment ages it becomes more difficult to find cover for parts and labour to support legacy infrastructure. The equipment becomes less reliable resulting in increased risk of unplanned outages affecting service provision and rising revenue costs to cover maintenance. To reduce the risk to council services ICT deliver a rolling replacement programme to maintain an effective and efficient infrastructure.
Virtualisation Technologies	As part of a consistent drive to reduce costs, support the carbon management programme and provide an ever more flexible and resilient architecture, Brighton & Hove will be adopting a strategy of virtualisation. Virtualisation offers the ability to pool hardware resources thereby maximising utilisation and efficiency.

	This architecture forms an integral part of the overall 'flexible' directive. The introduction of a range of virtualisation tools will enhance the ability for officers to work where they need to as the applications and data are all stored/hosted on central devices.
Assistive Technologies and support	ICT will continue to identify technical solutions which cater for the needs of disabled and people with varied cultural backgrounds.
Support for Microsoft Sharepoint	Microsoft (MS) Sharepoint is the central information sharing and collaboration platform for the MS Office System. Sharepoint can be developed to build information management and collaboration solutions including web-based document management, team collaboration, and information sharing capabilities.
Citizen authentication and identity management	<p>As the authority moves towards electronic service delivery there is a requirements to provide digitally based authentication mechanisms for citizens and non-council staff to have access to authorised council services and data.</p> <p>Citizen authentication solutions are fundamental to improving customer access and as such have been an ongoing concern for local government over recent years. Conceptually a citizen/staff member should only require to register with a single set of credentials to access multiple systems, however additional complexity is introduced where differing levels of access are required, for example – record details from the Library Management System and care package information from Social Care databases.</p>
Develop architecture to enhance resilience	As part of ICT's commitment to providing a continually improving service and, recognising the need to improve the resilience and the availability of information for business units ICT will introduce the concept of a 'distributed data centre'. That is, put in place the infrastructure to extend the resilience through the increased use of available council buildings.

8 Capacity and resources

Technology service providers acknowledge a considerable amount of resources are required just to maintain operational services. Many organisations set targets for reducing the percentage of operational resources in favour of resources focused on proactively improving business service provision. Within the council an estimated 95% of ICT resources are engaged on day-to-day maintenance activities significantly reducing the capacity of the division to develop new or enhanced business solutions. Through improved internal processes (such as ITIL) and deployment of technical support tools (such as Database monitoring tools) ICT aims to reduce the amount of resource dedicated to reactive support by 30% by 2011 thereby increasing the availability of resources to supporting business change.

ICT Staff skills

The importance of technology to a modern organisation is such that it demands an increased range of expertise and skills. The ability to use technology effectively both

as an ICT professional and applied to service provision remains important. However, the scope and complexity of council projects and on-going support for initiatives is such that ICT staff must increasingly acquire skills in:

- Project and Programme Management
- Resource Management
- Business Change
- Partnership Working
- Customer Service

ICT will continue to develop its staff through training, both formal and on the job. The Personal Development Plan process complements these activities in helping to build the skills of our staff and this will be reflected in the services' training and development framework.

The range of business systems supported by ICT often results in a dependency on the specialist skills of one or two individuals to provide on-going support and development. Commencing In 2009 ICT will investigate the use of knowledge sharing tools (such as Sharepoint) and job shadowing opportunities to mitigate the dependence on key individuals.

Business Skills and Capacity

To promote partnership working ICT intends to identify key business users or 'expert users' within directorates or departments who, with appropriate knowledge and training are able to represent the needs of their service and engage with ICT staff and processes through a formal framework. Working in collaboration with ICT business analysts, project managers and technical staff these users will help ICT improve its communication and relationships with the business.

Historically within the council ICT has largely been regarded as a traditional service provider supporting business aspirations in a largely uncoordinated and reactive capacity. In order to fully realise the potential of the ICT service it is crucial that the business and ICT work together as partners, identifying service solutions which match both the needs of the business and the ability of ICT to support.

Often business stakeholders lack the relevant skills and capacity to define detailed service requirements and either look for ICT engineers to analyse business processes and recommend a technical solution based on what they have learnt, or alternatively make their own arrangements – often failing to achieve the possible economies of scale

Strategic Partnerships

Options for delivering ICT services with a mixed economy of in-house and technology partner resources will continue to be explored where appropriate. There will be a shift from total provision by council staff to the formation of strategic partnerships with benefits including:

- Increased access to technical expertise
- Extended hours of support
- Reduced tendering effort
- Added value both in ICT service and social initiatives
- Financial savings
- Release of in-house staff for other duties

Future partnerships will be considered for areas of ICT services where the Council agrees that there is a business case which demonstrates that the private sector can deliver savings or other benefits over in-house provision. ICT will continue to encourage partnership working with other public sector bodies including the NHS and other authorities and share best practice and expertise where it is appropriate to do so.

9 Financial Planning

Many of the initiatives outlined in this strategy will be resourced from the ICT Strategy Fund, other grant funding options, reinvestment of efficiency savings and existing revenue budgets where appropriate.

Some programmes will inevitably require additional investment to achieve economies of scale and business value, particularly where the investment supports a corporate offering over specific business requirements. Funding options for significant organisation wide contracts/services, for example the renewal of the Microsoft Enterprise Agreement in 2011, increased internet bandwidth and the widescale encryption of personal data on mobile devices, will require further analysis to identify appropriate funding and charging models.

10 Conclusion

The role of ICT in today's local government is often interpreted in many different ways. It is seen to play a number of roles, from providing day to day routine IT services to being truly transformational. For example it:

- Offers technical support
- Plays an important role in developing future corporate strategies
- Provides more ways for customers to get access to our services

- Brings opportunities for our communities and local businesses to acquire new skills and widen access to information and advice
- Helps increase productivity and efficiency

The task of any modern ICT services capability is to make sure they influence and contribute in all these different ways and to make sure they are at the heard of today's modern local authority. This strategy sets out how that will be undertaken.

Appendix 1: ICT High Level Work Programme

Listed below are key projects identified for delivery by ICT resources. The ICT Business Plan identifies linkages to corporate priorities and indicative timescales for delivery.

Strategic Priority/Action	Outcomes	Target Date	Resources Required
Develop infrastructure and services required to meet business objectives	Maintain operational integrity of business services and systems replacing core infrastructure, network equipment and hardware as appropriate	Ongoing	Within budget and current staffing resource priorities. Potential requirement for invest to save bids which will be submitted as individual business cases demonstrate ROI and TCO.
Development of the Corporate Website	Allow members of the public to use and view council services online. This will include for example; the expansion of online payments, use of more electronic forms for applications and access to mapping functionality.	Dec 2010	Within budget and current staffing resource priorities plus engagement with specialist partner
Development of the Corporate Intranet	Continued migration to the MS Sharepoint environment. Use of Team sites, group sites and Wiki sites for individual teams and departments. Publication of the Forward Plan and all Business Plans.	Dec 2009	Within budget and current staffing resource priorities
Implementation of corporate Geographical Information System	Migration from Cadcorp to an ESRI environment. This will replace desktop functionality and allow all staff to access maps via a centralised Intranet solution. Expand the use of OS MasterMap to replace OS Landline maps throughout the Authority and rationalise all GIS solutions.	Ph1 Oct 2008 Jan 2010	Capital resource from ICT Capital programme
New HR/Payroll system			ICT Project Management and technical support resources
Further development of corporate Electronic Document Management Solution (EDRM)	Expansion throughout the Authority to bring savings and efficiencies to departments with heavy paper flow systems. This will allow wider access to information across the Council.	Ongoing	Additional specialist support skills dependant on requirements Expansion of supporting infrastructure funded from ICT Capital programme
Expansion of CRM solutions	Planned upgrade to new version. This will then be platform for expansion and enhancements to software which will		Revenue funding for specialist support resources

	have enterprise case management capabilities. Integration of GIS and mobile working projects			
Housing IS Systems	Awaiting outcome of forthcoming Housing Information Systems ICT Strategy			Within budget and current staffing resource priorities
Further development of Schools Information Systems	Includes school-specific special project input commissioned by CYPT, such as Portslade Community College			Within budget and current staffing resource priorities
Delivery of Carefirst 6	Upgrade provides the essential web platform for future developments of Social Care information integration. Mobile and Flexible working will be initiated in CYPT social work services and act as a proof of concept to support both the business case and the technologies to be used before further role out.	Rolling programme within ASC complete 2011		Within budget and current staffing resource priorities
Mobile and Flexible working within CYPT social work services.	Proof of concept to support both the business case and the technologies to be used before further role out.	Mar 09		DCSF funding and ICT Capital programme agreed
Microsoft Migration	Consolidation of file storage on single platform. Provides improved services to staff and efficiencies in support from ICT staff	Dec 08		08/09 ICT Capital programme
Replacement of EPS8 circuits	Improved communications and data links for remote offices through the replacement with Ethernet VPN services. Increased network bandwidth	Q1 2010		09/10 ICT Capital programme
San Storage Solution	The implementation of a Storage Area Network (SAN) for consolidated data storage provides for increased resilience and data management.	PH2 Jan 09		08/09 ICT Capital programme
Replacement Backup Solution	Replacement of aged infrastructure to enhance operational backup and recovery processes and support disaster recovery/contingency planning	PH1 Feb 09 Data archiving Jul 09		3 year Spend to save bid authorised Oct 08
Implementation of Microsoft Exchange	Replacement of corporate email solution and migration to consolidated Microsoft platform. Offers potential for increased use of collaboration technology and unified communications i.e instant messaging	Email migration complete Mar 09		Agreed 3 year capital programme
Further development of telephony solutions	Reconfiguration of call center and telephony service provision to provide service efficiencies and management information	PH1 Oct 08 Upgrade CM v 3-v 5 Jul 09 Voicemail consolidation Dec 09 incl UC functionality IP handset rollout with		09/10 & 10/11 ICT Capital programme

		WIFI functionality Aug 2010 30% by 2011		Potential requirement for invest to save bids which will be submitted as individual business cases demonstrate ROI and TCO. Within budget and current staffing resource priorities
Centralised operational support model	Deployment of Citrix solutions to facilitate remote and mobile working and development of centrally supported desktop environment			
Develop, implement and communicate clear governance framework	To ensure Best Value delivery against organisational objectives			
Re-develop ICT programme, project and change management to make them best in class	ICT Project Management section becoming a centre of excellence capable of delivering projects fit for purpose/user, on time, to budget	Sep 09		Transition resource required from existing staffing structures resulting in requirement for 2x Business Analyst/Proj Offr posts 10/11

