



ICT Transformational Government Strategy

Cross Cutting Strategy Document

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1 Executive Summary

This document sets out our Information, Communications and Technology (ICT) Strategy for the next five years.

The key improvements and changes this strategy will deliver are:

- Completion of the change in the role of IT from a supplier of technology to a pro-active delivery vehicle for business change, increasing efficiency and service improvement
- A workforce empowered to meet the challenges of the future by training, technology and the ability to build working patterns around the demands of their role, not the constraints of an office
- A modern, streamlined working environment, with clerical effort minimised and data captured once only, at source and held securely electronically
- Excellent Council services underpinned by an efficient, resilient, reliable and customer focussed applications and information architecture designed to deliver constantly improving services at progressively lower cost

The current migration to an outsourced service for all ICT facilities and services is a key change for the Council. This Strategy defines the direction that the Council will be pursuing for ICT, enabled by the services provided by the newly selected I.T. partner.

2 Context

2.1 Purpose and Scope

The purpose of this Information, Communications and Technology (ICT) strategy is:

- To set out the vision for the use of ICT to deliver improved services and obtain value for money over the next 5 years
- To set out the Council's aims for maintaining and developing ICT services and supporting technology and the measures to be taken to ensure that they will be achieved
- To outline our priorities for action over the next two years
- To describe the ICT framework including governance and arrangements for funding the ICT Programme
- To document the key elements which together underpin our technology strategy:
 - supporting business transformation
 - enabling access to services
 - working in partnership
 - developing a learning culture
 - enhancing the technical architecture

These five elements are described in more detail in the section entitled "Delivering the IT Strategy".

The strategy covers all ICT goods and services across all Council services. The principles contained within it will be extended to our partners to ensure better co-ordination of ICT improvements.

This strategy consists of three levels of documentation.

Level one	This document which contains the high-level overarching strategy and vision for the Council.
Level two	The rolling two-year IT Work Programme which contains detailed plans of specific projects to be delivered in support of the Council's objectives and this ICT strategy (this is a separate document).
Level three	The Applications, Information and Technical Architecture provides details of the specific technologies, applications and standards underlying the strategy (this is set out at Appendix A to this Strategy).

All three levels of the strategy are interlinked and there is a constant flow of information between them as developments in any one level are fed into the other levels.

2.2 Links with other strategies and plans

This ICT Strategy is linked with and supports service priorities and other strategies and plans. These include:

- The Council's Corporate Plan
- The Property Strategy: ICT investment will be essential to provide modern buildings capable of supporting flexible and mobile staff
- The Customer Services Strategy: Technology is fundamental in transforming access to information and services to meet the needs of citizens and partners. Technology will be used

to automate processes, reduce duplication in collecting data, and assist in reducing paper storage by enabling electronic storage of records and documents

- The Medium Term Financial Strategy and Capital Plan: resources have been put aside to ensure that the Council's IT Work Programme, and the efficiency benefits that will flow from it, can be delivered.

By integrating the development of the Council's IT Work Programme in the Council's medium term financial planning process, we have ensured that resources are available to deliver ICT services in line with the corporate priorities.

Embedded within the corporate plan and its improvement plan is the recognition of the need to use technology to:

- maintain resilient and efficient existing ICT services
- develop, improve and modernise business systems and processes,
- transform access to information and services to suit the needs of citizens
- ensure that IT infrastructure is developed to support the Council's objectives and to be responsive to new opportunities
- meet national and local targets and priorities.

2.3 Achievements to date

Over the last few years the Council has consistently invested in the IT voice and data infrastructure and has also undertaken pioneering projects that have put us at the forefront in many areas:

- The implementation of a Customer Contact Centre, originally piloted within Housing Services, followed by Cleansing Services, and now rolling out to other service areas.
- The development of a corporate Intranet using Microsoft SharePoint to provide single source access to our internal business information and integration of this with our website.
- The first District planned "Geoplatform" to provide the geographic infrastructure to join up departmental back office systems, their related information channels and support the sharing of data between all levels of Local Government and our partners using open standards
- A server consolidation programme
- An improved mobile workforce capable of supporting their service delivery responsibilities from wherever it is necessary
- Adoption of Wireless networking
- The development of online forms for both Web and Intranet service delivery
- The procurement of online booking software for Web and Intranet service delivery
- The provision and availability of online payments (web, telephone and face to face) for Council services – see <http://www.charnwood.gov.uk/payabill.html>
- E-citizen – this allows the citizens the ability to check Council Tax and Business Rate account balances online

As a result we have a reputation for taking bold and innovative strategic decisions in respect of our ICT developments and making them work.

2.4 IT Framework

The objective of the IT framework is to ensure that strategic and operational decisions are made that support the overall aims of the Council.

This is done by:

- Providing clear governance through the relevant Project and Programme Boards to ensure the IT change delivers the expected Service benefits.
- Ensuring that a sustainable IT investment programme is developed and integrated with the Council's Medium Term Financial Plan and Capital Plan

- Formally approving all IT investment to ensure compliance with IT policies, codes of practice and the technical architecture.

Charnwood Borough Council delivers change using a tailored version of PRINCE 2 methodology for project management and the MSP methodology for programme management. IT investment is prioritised through the rigorous annual service planning process and clearly linked to other Council strategies such as the Customer Services Strategy, Property Strategy, and the Corporate Plan. As the demands on IT increase, the prioritisation of projects and initiatives will become increasingly important to allow for effective resource planning and usage.

All new IT developments have to demonstrate a business case justifying the investment required and allowing for the tracking of efficiency gains to incorporate into the annual efficiency returns. The business case is monitored and updated through the life of the project. All IT related projects provide regular reports to the IT Work Programme Board to allow progress of the overall Work Programme to be monitored.

The Programme Board will comprise the Lead Member for Change Management, the Head of ICS, the Director of Programmes and Resources, key users at Heads of Service or Director level and any key suppliers.

Each project will be managed by a Project Board chaired by a Project Executive, and a named Project Manager will report to the Project Board. The Project Executive will have overall responsibility for delivering both the implementation and the business benefits.

The IT Works Programme Board approval is required for all procurements of new IT systems and shared applications although any procurement will also be in line with the Council's Procurement rules. Where possible, use of existing systems will be maximised to offer the optimum return on investment already made.

2.5 Current position

The Council is consolidating its capacity for delivering corporate and service focussed IT services. The Council is currently negotiating a contract with a commercial partner for the operational delivery and support of IT.

Key objectives of the relationship with this partner, in support of delivery of this Strategy, are:

- To provide strategic support for continued development and delivery of the Council's objectives.
- Manage and deliver ICT projects in accordance with good practice project management methodology.
- Deliver a quality support service to service users.
- Application support on key systems and integration of and between front-end and back office systems.
- Provide a secure corporate I.T. environment and associated support services.
- Implement appropriate hardware and software in accordance with business needs.
- Delivery and maintenance of information management architecture to enhance customer access to transactional services.
- To support, develop, manage and deliver improvements on the Council's Intranet facility.
- Maintain and support the Council's email infrastructure
- To increase the usage within Services and maintenance of spatial information within GIS.
- To provide effective remote working support for the Council's workforce
- Provision and maintenance of an effective telephony system.
- To ensure user print jobs are managed, supported and successfully delivered.
- End user skills development, professionalism and the provision and facilitation of training.

These objectives are designed to support the Council's overall strategic requirements and ensure that service delivery through the use of technology is fit for purpose and able to develop to the changing needs of the business. This will cover the Council's current ICT 3rd party and underpinning contracts that will either novate

to, or be managed by the outsourcing partner. Day to day co-ordination and management of supplier relationships in regard to ICT services will continue, but will now be managed and maintained by our selected partner.

We aim to have an integrated, agile and flexible IT service that can respond to meet current and future needs of staff, partners and members of the public. The service is managed and delivered to standards that are regularly monitored and benchmarked against other Councils and external organisations.

Risk assessment and management is included in our project methodology. Further details on risk relating to ICT can be found within the Council's Strategic Risk Register and in the ICS Service Risk Register

3 Principles

By 2012, the Council expects implementation of its ICT strategy to enable:

- New service demands enabled by ICT
- Improved efficiency and continued service improvement including the automation of clerical processes
- Improved Customer Access with significant increase in customer self-service and resolution at first point of contact
- The sharing of services, information and data with partners and peers where this can deliver savings and efficiencies
- Flexible and mobile working solutions releasing office accommodation and enabling the delivery of services at the point of need
- Effective arrangements in place for electronic document and records management
- Trained and IT literate staff who can make effective use of the technology available to them to deliver improved services
- Secured value for money
- Improved security of electronic data

The strategy will be delivered by providing financial and other resources to implement the plans contained with the Council's IT Work Programme. This includes approved and resourced projects and supports the corporate priorities.

4 Delivering the IT Strategy

This section sets out the core strands of the Strategy. Based on the principles in the previous section, this section outlines how the Council will deliver technology change.

4.1 Business Transformation

At the heart of business transformation is the need to understand our customers in order to shape services and service delivery mechanisms around their needs and behaviours. We aim to be able to formally measure the routes through which specific groups of customers contact us, and the cost of servicing these interactions. We aim to participate in the ESD Toolkit project on customer profiling. This information will be used to drive decision making in the Council and will support further delivery of our Customer Services Strategy by providing robust evidence of customer patterns, allowing the Council to both streamline expensive processes and direct customers to cheaper access methods. Additionally the data provided by this project will help the Council to understand and improve the quality of life for hard to reach groups.

The key themes for the two year IT Programme will be: Information and Process Management, Mobile and Flexible working, Information Systems integration, Access Channel Improvement and supporting infrastructure investment.

- **Information and Process Management** - is at the heart of improving business processes by ensuring that the information staff need to carry out their work is available when and where they need it. An Information Project Team is to be established to oversee the development and enhancement of information management policies, standards and protocols. The Council is currently developing its approach for carrying out business process mapping and analysis. This will result in the Council implementing Business Process Remodelling using tools and techniques for analysing business processes. The approach will support teams across the Council in reviewing their processes and making them more efficient.
- **Mobile and flexible working** - Mobile, flexible and fully trained staff means that Council services can be delivered at the most appropriate place, whether this is on the street, in clients' homes, or from partners and public premises. Supporting this, the Council provides training, new processes and HR procedures to enable the most effective use of staff resources.
- **Information Systems Integration** - There are a number of departmental systems in use across the Council, but it is recognised that in order to make information and knowledge widely available these need to be brought into a corporate framework. The drive towards an increasingly paperless office, to mobile staff, and to more effective use of a reduced property portfolio will all be supported by such a methodology.
- **Access Channel Improvement** – The Council has a record of investment in customer access through our Contact Centre, Customers Service Centre, telephony improvement and web and self service facilities. There is a continued corporate drive to improve services to customers and in particular improve our performance in the resolution of enquiries at first point of contact (NI14). This is complimented by intranet Self Service Portals for staff and councillors, allowing a range of administrative functions to be carried out and information to be obtained online and automated. This is part of the continuing cultural change for all members of staff, and will encourage the development of a forward thinking and skilled workforce.
- **Infrastructure investment** - The Council consistently invested in its ICT infrastructure to enable service improvement and efficiencies, for instance through network and server enhancements, etc. It has made significant steps towards building a platform suited for sharing

ICT services to be supplied by the proposed commercial partner. Externally, the Council will continue to look for cost-effective solutions that can be delivered in conjunction with other partners and boroughs. IT will be used to support such sharing initiatives.

4.2 Access to Services

The Customer Services Strategy provides an overview of how we aim to improve how customers can access the services of the Council. E-services and IT are key enablers for the aims of that Strategy by facilitating improvement of the means by which people access our information and services.

The Council will continue to develop and offer a choice of access channels ranging from face-face contact to self-service via the web or telephone. We will aim to direct customers to the most appropriate access channel for their needs and circumstances, while minimising the costs of providing those services. Thus customers who feel at ease using the internet will be encouraged to self serve via the Council's website, leaving more costly and resource intensive channels of access available for those who need them most.

4.3 Contact Centre

We will further develop our Contact Centre to be the centralised facility for general telephone enquiries for all services (rather than the limited service range currently offered) and which will be accessed by a small number of well publicised contact numbers. A range of telephone technologies will be assessed to enhance routing and handling of calls at first point of contact. This will be supported by the continued deployment of the Lagan CRM system across services to enhance enquiry handling, performance improvement and personalisation of services to customers. We will continue the process of moving services into the Contact Centre, and integrate contacts made by email and via the website. CRM technologies will also be further deployed into the Customer Service Centre to support face to face enquiry resolution.

4.4 Web Services

Investment in the Council website will continue. A reconfiguration of the information structure of the website will be in place by August 2008 supporting improved content handling and search facilities. Information will be stored using national classifications of local government services. It is our intention to provide information about all Council services, and wherever possible allow customers to apply for those services online. We intend to develop the "My Charnwood" facilities to offer personalisation of on-line services, linked to the LAGAN CRM system and "self service" features. A large number of services are already available online, including payments, booking services, reporting problems, and "My Charnwood".

The website also offers access to property related information such as planning applications and geographical information about the Borough.

Web site development will be driven by a vision to empower our customers by providing fast efficient access to information, enabling and promoting active electronic participation and self-service. We plan to allow the integration of web and intranet to achieve a "publish once" approach to all public documents.

The Council's website is linked to the national government portal through the Local Directgov programme. Secure integration and exchange of information between partners in the provision of a common service (e.g. benefits claims) is to be achieved through the Government Connect programme.

4.5 Face to Face

Face to face access will be provided by the Customer Service Centre in Loughborough. During 2008 an assessment will be completed of the cost benefit of establishing a Customer Service Point(s) in the southern Charnwood. This is most likely to be delivered by a partner agency using web/telephone technologies to access Council information and services for clients who may find travel to Loughborough problematic.

4.6 Access Channels

All access channels will be supported by a fully integrated corporate CRM. This was first implemented in the Customer Contact Centre in 2007 and we will continue to deploy it in front-line and back offices. Phase 2 is due to be completed in late 2008. A single master record of a customer will be held and updated by services across the council to give a consistent and accurate record of that customer's dealing with the council. The CRM links the initial front-line information to back office specialists and will increasingly be directly integrated into back offices systems to support the effective delivery of services.

Access to online services and emergency telephone services will be available 24/7. The use of broadband and digital services will be promoted through marketing and publicity to improve take-up. Access for disabled people and excluded groups will be an integral approach.

All access channels will capture management information on take-up and customer satisfaction (using GovMetric). These will be benchmarked against national and local standards and we will aim to be in the top quartile for electronic access to services by 2010.

Access to services will be further developed with external partners to simplify access to both Council and external partner services. This will include sharing premises and access points with partners, routing telephone calls between organisations and linking our websites.

4.7 External Partnerships

The Council enjoys strong links with a number of external partners, primarily via Charnwood Together and Leicestershire Together (the Local Strategic Partnerships).

The development of protocols and mechanisms are enabling the seamless sharing of data across partners. Data sharing will continue to develop as the Partnerships strengthen.

There will be no unnecessary boundaries to our partnership working.

We will continue to look for opportunities to jointly commission and procure services and goods.

The Council will exploit these strong external partnerships to capitalise on the economies of scale and invest in technology to improve service delivery and access to Council and other public sector services.

The partnership with the proposed new commercial partner will be integral to the delivery of IT services. Third party specialist suppliers chosen through tender or other competition provide many of our key business applications e.g. Council Tax, Customer Relationship Management, Housing etc. This necessitates working in a three-way relationship with the proposed commercial partner and the third parties to ensure successful systems implementation and ongoing, sustainable support.

We also have significant contracts with suppliers of infrastructure and other services such as telephony, voice and data networks, and will continue to work with global and national companies to ensure we keep abreast of technology developments.

4.8 IT Learning Cultures

The Council is committed to ensuring that all staff and members, have the opportunity to develop core competencies in IT, and that where appropriate IT will be used to enhance the learning experience.

The Council's Training and Development policy recognises that IT skills are core competencies for many staff. All office-based staff are encouraged to participate in IT training appropriate to their role. Staff can choose to sit the European Computer Driving Licence, and self-learning is encouraged.

All newly elected members are provided with support to assist them in using technology and on-going support for IT is provided.

The Council is constantly developing as a learning organisation, part of which is enhanced by sharing of good practice and lessons learned. Post-implementation project reviews are routinely carried out after the completion of IT projects, and all end of project reports are filed in the project office.

4.9 IT Technical Architecture

The objective of the technical architecture will be:

- to deliver a reliable, secure infrastructure on which the rest of the Council, our Partners and Citizens can rely.
- to integrate and co-ordinate the council's infrastructure to promote working as one organisation.
- to ensure that the infrastructure will be able to support 24x7 and mobile working where required.
- to support the council's aims and objectives with the most appropriate and cost effective technical solutions.

The IT technical architecture will be flexible enough to cope with a dynamic IT environment. Research and development will ensure that the Council utilises and benefits from new technology both in terms of innovation and cost-effectiveness. Upgrades and updates will be introduced where necessary and when supported by robust business cases as part of our 2 year Work Programme.

The Infrastructure will be capable of supporting different modes of working for staff, including home-working, field-based working, or working flexibly from different buildings and locations. Much of this infrastructure is already present and proven, and includes the use of PDAs, tablets, laptops, virtual private networks and terminal services/applications accessed across the internet. The infrastructure will need to be expanded as more staff move away from traditional office based patterns of work, in line with the property strategy and efficiencies programmes.

The network infrastructure supports both local and wide area connections through the use of cost effective technologies. The technology is reviewed based on technological improvements which are then assessed based on need.

Many of the more local facilities such as the Lifeline, police station, Beehive car park and town hall are directly connected to the local area network and operate at speeds equivalent to being within the Southfields facility.

Other more remote locations such as the Museum, Cotton Way and Lingdale House are connected using broadband technologies either as a line rental or DSL internet service.

The works site at Limehurst Avenue has recently benefited from a multi-link broadband connection giving them an almost LAN speed and quality of service.

As the network evolves additional features for ensuring performance and resilience requirements are maintained and increased are being introduced. The continued migration from a legacy system to a modern and capable backbone provides Quality of Service (QoS) features to support the Council's growing usage of Voice over IP (VoIP) telephony and segregation of traffic using VLAN's provides reliable and speedy throughput of data.

Additional developments for Wireless LAN (WLAN) provides secure and reliable connectivity throughout the Council's Southfield's sites, giving user the ability to roam whilst remaining secure.

In the past the number of servers across the Council has grown steadily to accommodate service requirements. The focus has now changed and efforts are made to actually reduce the number of physical systems to meet a number of far reaching objectives from environmental to resilience.

Our continued developments in respect of Server Rationalisation ensures that less power for the equipment and supporting systems is used and that any single point of failure is removed.

Centralised resilient data storage is provided through Storage Area Network (SAN) technology, reducing the cost of disc space. Continued progress toward Hierarchical Storage Management will ensure that only relevant data remains on the high performance and more expensive devices, whilst migrating lesser used data to lower cost systems.

We intend to work towards compliance with ISO27001 to improve security across all aspects of the infrastructure. We will also comply with the Payment Card Industry Data Security Standards (PCIDSS), which requires a higher level of security around the processing of credit and debit card payments.

There has been a significant recent investment in Council business applications, with the CRM, and Housing management systems being replaced or upgraded in the past two years. The Council's aims are to use best of breed and readily available third party applications rather than develop its own applications. The use of externally hosted systems will be considered where these are compatible with corporate standards and policies.

The applications architecture will be developed as part of the technical architecture and implementation of the architecture will take up to 2012 as applications are migrated when they become due for upgrade or replacement.

All key applications and services have disaster recovery arrangements in place already. These will continue to be reviewed and enhanced to meet the requirements of business continuity plans.

Governance of the Technical Architecture rests with the Process Programme Board. This board will ensure the technical architecture is fully documented and aligned with the plans and strategies of the Council and its partners.

4.10 The Way Forward

The IT Work Programme, Application and Technical Architectures contain detailed plans to underpin the delivery of the IT strategy. These will be reviewed on an annual cycle to ensure that as the business develops and changes the IT strategy continues to be appropriate and supportive of the overall business outcomes.

Increasingly IT will move from being a reactive provider of technology to being a pro-active supporter of business change, with its strategic IT supplier. This will include:

- IT contributing to the Council's strategy and objectives
- IT collaborating with the rest of the Council to drive innovation
- Ensuring that benefits from IT implementations are captured and realised
- There is a mature IT Performance Management Framework
- IT Supplier Relationship Management provides additional value for the Council
- There is a clear and scaleable Project Management methodology in use
- IT is a core competency for all staff
- Service standards for management and support are monitored and achieved

Appendix A Application, Information and Technical Architecture

The following diagram shows the outline technical architecture that the Council seeks to secure under this Strategy.

A.1 Application Servers

Application servers are implemented within a Virtualised platform that provides a high level of resilience whilst making the best and most efficient usage of the available hardware and environmental services.

Storage Area Network

Provides a high availability storage solution that continues to grow as the Council continue to develop and enhance upon the server rationalisation program.

Data Processing

A pair of clustered Microsoft SQL 2000 servers currently provide the Council's Relational Database Management System requirements. The continued development of business software requires that the systems be upgraded in line with product specifications.

Email & Collaboration

The current Microsoft Exchange 2003 provides Email and collaboration services (calendar and contacts). Continued development of this may involve integration with telephony services and the introduction of enhanced features such as presence monitoring and on screen notifications (screen popping) to integrate with CRM to enhance the customer access experience.

Front line Service Applications

Information is one of our critical assets and it is at the heart of our ICT service. The role of the frontline service applications is to facilitate the collection, validation, processing, storage and analysis of information in electronic form, and to make it accessible to all those with a need, or a right to see it.

All currently used application software will be evaluated against these standards. Where it does not comply, it will be a candidate for replacement (or upgrading to a compliant version).

Software will not be procured if it requires bespoke development in order for it to be usable. The only exception to this is when such development is formally incorporated into subsequent versions of the standard product (as used by other customers).

We will buy families of related applications that share a common database in preference to selecting individual packages and seek to adopt applications that most enable the potential sharing of data and information with partners where appropriate.

All our applications software is procured through appropriate project management best practice and subject to the relevant in house, EU and legislative law and procedures.

Application systems have to conform to a set of standards. These cover the following main aspects:

- The Operating System fits within the Council's current licensing frameworks
- Ease of client deployment such as access via a web browser
- The underlying RDBMS (database) meets existing Council requirements to leverage on current investments
- Compliance with published T-Government standards

The requirements being:

- Microsoft Windows Server Compatible (preferences for 2000 and 2003, 2008)
- Microsoft Windows Desktop Operating Systems (such as Windows 2000, Windows XP and Windows Vista)
- Web enabled and usable with any major browser including Mozilla and Internet Explorer.
- Utilises a commonly used, industry standard, SQL and ODBC compliant relational database management system. Our preference is to use Microsoft SQL Server, but an alternative will be considered if there is a convincing business case
- e-GIF compliant
- BS7666 compliant where applicable. This relates to property data standards. (See <http://www.cadcorp.com/> or <http://www.nlpg.org.uk/>)
- BS8766 compliant where applicable. This relates to person data standards.
- GIS compatible/enabled. Cadcorp is our existing and preferred standard <http://info/C1/GIS/default.aspx>
- User interface which is well designed and easy to use
- Easy to support. A system administrator should be able to perform all the normal day to day functions required to support the system (add and remove users, manage security, produce reports, etc.) without any formal programming knowledge
- Fully functional and capable of providing a complete solution to the user requirements. Where changes are necessary, it has to be possible and practical to change the user processes to fit the system and still provide the service required.
- Have fully integrated functions. Data should only need to be input once and is then shared; updates are only applied once; information is available immediately it has been input
- Be capable of integrating with our corporate document image processing system where appropriate.
- Have a simple and effective report writing function that can be used by staff that are I.T. literate but may not have formal programming experience. If the report writer is not an integral part of the application our preference is for it to be compatible with current solutions such as SQL Reporting Services and where possible replace our existing reliance on Business Objects Crystal Reports and to have a comprehensive universe available
- Have a clear upgrade path and policy for future releases, including on-going compliance with emerging and changing standards and best practice criteria
- Be scalable to allow for expansion in the number of users and transactions, especially in relation to web usage where growth is likely to be exponential
- Secure. Systems administration, control and security functions must be separate from other functions and not accessible to the ordinary users. There must not be any way of bypassing the security features
- Proven working package. The proposed version of the package must be fully developed and tested and implemented in other UK District Councils or similar organisations or be part of a National Project recognised by the DCLG.
- Established and proven interfaces with other major application software packages
- Caters for the Euro as well as Sterling (not as an alternative) for any financial components
- Supplier able to provide all necessary user training either directly or through a trusted and proven / recognised third party
- Include comprehensive on-line user help functions, telephone help desk support and Internet help facilities such as FAQ's, bulletin board, issues exchange forum. Printed reference manuals are optional
- Standards for Technical Infrastructure
- An established user group with regular contact meetings which promote user networking and provides an effective interface to the suppliers development plans
- Supplier able to provide full implementation support. This includes defined processes and utilities required to migrate existing data
- Supported by a competent well run organisation with whom we can form a long term partnership for mutual benefit

- To support an “open” information systems approach towards the exchange, integration, data management, issues pertaining to storage, retrieval, querying, indexing and data manipulation

Appendix B Corporate Facilities

B.1 Email, Calendar, and Standard Office Tools

Microsoft Office 2003 is used to provide Microsoft Office SharePoint Server (both to be upgraded to the latest release – 2007) users with full functionality and maintain consistency of support. This comprises:

- Outlook for email and collaboration
- Word for word processing
- Excel for spreadsheets
- Access for simple databases
- PowerPoint for simple graphics and presentations.
- SharePoint for Intranet

McAfee Anti-Virus is used on all client and server hardware to ensure robust protection of our systems and services.

The adopted standard electronic means for delivery of information and recording decisions is by use of digital signatures provided by a reputable and identifiable authority such as Verisign, or CBC's own Certificate Authority to provide signature services.

B.2 Customer Relationship Management (CRM)

LAGAN CRM has been implemented as the corporate solution for more effective management of customer interaction across the Council and across access channels.

Phase 1 implementation was completed in late 2007 and covered services principally delivered through the Customer Contact Centre.

Phase 2, which is due to be completed in late 2008, will see CRM being integrated into a number of other service areas.

The deployment will support the Council's commitment to increase the resolution of contacts at first point of contact, understand and be more responsive to customers and their individual needs, provide the focus to achieving a "single customer view", promote integration of responses across service areas and access channels, improving performance, customer satisfaction and efficiency and promote smarter use of data and information to improve services.

B.3 Intranet

The Microsoft Office SharePoint Server product was introduced in July 2004. Phase 1 of the pilot was completed in May 2005 and Phases 2 and 3 were delivered successfully by April 2006.

The Intranet is now fully functional. The Charnwood Scorecard project "Intranet Development" (Phase 4) for 2006/7 was completed and the current focus is to progress the system by bringing it up to the latest release. There are additional features and enhancements in the newer version that make it a very attractive project to undertake.

Our desire is that the Intranet will become an enterprise knowledge management solution across personal, team, and Council-wide services.

B.4 Website (www.charnwood.gov.uk)

The website is coordinated by the Directorate of Partnerships and Customer Services, however, most of the content will be supplied and applied by authorised officers in individual service areas.

Based on Open-Source software the site is hosted on a remote server running Linux that is owned and managed by local company Cuttlefish (<http://www.cuttlefish.com/>). This remotely hosted solution relies heavily on an internally hosted server that delivers “live” content from back office servers.

A combination of the website, the intranet and CRM will form our “Knowledge Base” for internal and external users. Where information is available through both sources it will not be duplicated but seamlessly linked to.

B.5 Web access

As at September 2007 there are 675 members of staff who are authorised to access the World Wide Web from their PCs. Access is provided through a pair of resilient Unified Threat Management devices that control access and filter content to protect the Council’s I.T. assets.

B.6 Open Source

The Leicester-Shire e-Government Group (LeGG) of which we are active members, has developed an open source (vendor independent) system for the provision of transactional services and the development of citizen-centric services at the first point of contact – see www.leicestershirecommunity.com. The Council’s website has also been based on the open source “CommunityPortals” solution – see www.charnwood.gov.uk

The provision of open-source products is also partly driven by Local T-gov National Projects (<http://www.localgov.org.uk/default09fe.html?slD=1093959843576>) that are all open source tools. Planning related and Environmental Health web front-end national products/tools have now been adopted (See www.parsol.gov.uk for further information).

Related to the above, Independent information and advice for UK councils on open source software is available from a web portal launched by the Open Source Academy (OSA – www.opensourceacademy.gov.uk).

Key issues for sustainability and future utilisation of open source systems include the protection of our investment in learning for the existing systems we have deployed, resource development of expertise and on-going support and security of open systems.

There is still a lack of commitment or incentive (i.e. current licensing arrangements) by system suppliers to provide effective Local Government applications in Open Source. At present there is very little local government application systems market other than those we have utilised to date and developed in partnership and it would seem that the most appropriate and likely future adoption of further Open Source solutions may well be opportunities in further partnership work

Open source Desktop systems such as Openoffice (www.Openoffice.org/) are moving closer every day to being a viable and realistic alternative to commercial products like Microsoft Office. Whilst we have instances where trials of this are taking place it is outside of the scope of this document to offer pro’s and con’s for these alternatives, but it is fair to expect that the Council continue to investigate Open Source solutions where a credible alternative exists.

B.7 Geographic Information Systems (GIS)

Our corporate GIS (<http://gissrvr2/charnwood/>) is based on the Cadcorp SIS product and is implemented throughout the whole authority at three levels dependant on the type of usage required i.e. 20 full licences (development), 100 embedded licences in back office systems (data owners/creators) and via internet explorer to the Intranet (information only for all staff). All existing datasets have been captured spatially, but new development work continues in the areas of:

- Integration with more back office systems
- Roll out of the Land and Property Gazetteer to more back office systems
- GIS on the Internet

The latest version of our corporate GIS Strategy can be found at:-
<http://info/Info%20and%20Comms/Document%20Library/Strategies%20and%20Policies/GIS%20Strategy%20Aug%202006.doc>

B.8 Voice/Telephony

ICS are responsible for providing technical support and advice for the telephone systems. These are based on an Avaya telephony system at Southfields that caters for both digital VoIP and analogue technology. IP technology is extensively used within the Corporate Contact Centre and growing in many areas of the Council. Many new features have been introduced and are being developed:

- Resilience through redundancy and distributed hardware - the system is split into two locations, half in the existing phone room and half in the ICS Building. Any failure will trigger the failed units capacity be taken on by the other.
- Introduces the capability of VoIP handsets making hot desking possible
- Improved call logging and reporting through CMS for Contact Centre resource management
- Integration with desktop applications such as CRM

B.9 Technology for Mobile working

Technology for Mobile Working is defined as the provision of ICT computer hardware and software solutions to people who need to work and carry out their duties in more than one location.

Through 2007/8 the ICT Service continued to deliver Technology for Mobile Working and has provided a more reliable and accepted solution to get people working whilst on the move including:

- PocketPC Based PDA/Smartphones
- Tablet PC's in Planning & Building Control
- Laptops for all Members

B.10 User training

I.T. Training, while no longer delivered "In-house", remains a high priority for us. ICS will continue to help identify end-user learning requirements through Service Desk management and by working closely with Human Resources. ICS is able to assist with investigation/recommendations for suitable I.T. training providers, as well as receiving valued evaluations from training.

E-Learning methods are made available for certain key software functions as part of our Performance Through People Strategy and new tools are already available on the Intranet for e-learning <http://elearning> in most of the Microsoft Suite of used programs in a live environment.

Appendix C Technical Infrastructure

C.1 Desktop Hardware and Software

The configuration of the devices used by all officers and members of the Council is based on a “fit for purpose” methodology. The procurement of the devices is based on a best of breed and cost assessment. This ensures that the officers and members have equipment that is capable of making full use of all the current Council systems that they are required to use during the execution of their duties.

Typically as a minimum the desktop configuration made available to all officers and Members will be the following:

- A Desktop PC with a minimum processor speed of 2.8Ghz and 1GB (1024MB) of memory, running Windows XP, Office 2003 Professional and McAfee Antivirus software with a 3 year maintenance agreement
- All PCs are supplied to the prevailing industry standard configuration and will include the deployment of energy efficient LCD/TFT flat screen of at least 17” diagonal screen size.
- Printers form part of the corporately selected contract supplied and maintained by Danwood and are typically HP laser printers and multi-function devices (printer, scanner, copier and fax).
- Remote management and support of PC’s forms part of the global I.T. support capability and will allow an end-user to be supported from any location.

Best practice shows that it is more efficient to replace PC’s as they reach 3 years of age and/or fall outside of their serviceable lifespan. However, if the equipment should still be deemed “fit for purpose” then it may remain in service until such time it expires or is no longer “fit for purpose”

Adopted remote and mobile working methodologies include the secure connectivity over an SSL VPN device and thin client through Citrix & terminal services. This enables remote users full access to Council systems in a secure and easy to use manner, even whilst on the move.

C.2 Mobile Hardware and Software

Where it is appropriate, officers and Members may be issued with laptop PCs of a similar specification to the desktop PCs. As a rule these will be instead of a desktop PC rather than in addition.

A number of officers and Members have been issued with Personal Digital Assistants (PDAs) for general personal productivity tools such as email, calendar, and contacts that are synchronised with the central Exchange system.

C.3 Server Hardware and Software

Our standard for new servers is as follows:

- Supplied by Dell or Sun Microsystems (dependant upon requirement and capabilities)
- Windows Server Operating System
- Rack-mounted

Server retirement is again based upon “fit for purpose” but also must consider serviceability and business risks. Typically this dictates that servers lifespan is 5 years and the appropriate maintenance contract for this period is included in the initial procurement.

The servers are all currently located in the ICS computer room of the Contact Centre building on the Southfields campus. Whilst servers are not be replaced as a matter of course they are integrated into our adopted server rationalisation program using VMWARE, wherever this proves practical and feasible. This

means less physical hardware, lower power usage, less hardware support and more efficient use of the infrastructure.

C.4 Network Hardware and Software

The objective of the network is to provide a fast, reliable and resilient link between the client equipment and the server infrastructure. . Currently the network infrastructure comprises the following elements:

- Within our buildings there is a Local Area Network (LAN) using cabling to each desk (UTP Category 5e), and links between floors and buildings connected by switches from Extreme Networks.
- Between buildings and lengths beyond the Category 5e specification there are fast links comprising of fibre optic cabling within Council owned ducting. These run between the Southfields campus, Victoria Street, Town Hall and Southfields Annexe.
- The Limehurst Avenue depot has is connected using a Council owned line running at 40MB.

Management of the network (including monitoring its utilisation and reliability) is provided by ICS with underpinning support and maintenance contracts in place from external suppliers.

The current project for replacing the legacy network continues to replace the once flat and relatively unmanaged system with a faster, more reliable and resilient system buy replacing much of the core switches and border systems.

C.5 Voice Hardware, Software and Services

VoIP is primarily available throughout the Corporate Contact Centre (CCC) but is also spread throughout the Council in Southfields, Town Hall and Cotton Way. This continues to grow in usage as the business identifies requirements.

The technology provided by the Avaya Switchboard allows for seamless mobile telephony integration through the main switchboard giving us both cost and efficiency savings throughout the organisation.

T-Mobile provide an Inter Extension Connection system that allow mobile telephones to use internal switchboard numbers in exactly the same was as you would from a regular handset. This allows a more integrated approach to keeping in touch with home workers and vice versa.

Landlines

All landlines whether remote sites or within our offices should be procured through ICS including any in relation to CCTV.

ICS are responsible for the payment of all landline invoices.

The Council's BT landlines are currently billed quarterly through a single invoice known as BT OneBill. By using BT Billing Analyst software there is now the opportunity to analyse a range of reports to provide usage information from which informed decisions can be made.

Mobile Telephony

All mobile telephones are procured via a contract with T-Mobile as from September 2007 and through ICS.

ICS are responsible for the payment of all telephone invoices.

Personal calls can be highlighted and sub totalled on the monthly bills by adding a * after the number dialled although this does not work for SMS.

All staff are responsible for paying their personal call usage and are issued with monthly statements in order that they can adequately identify and pay for personal usage.

Our current standard mobiles are from the Nokia range.

Other mobile telephony options are constantly being investigated with a view to piloting and introduction where necessary to assist mobile working arrangements. In particular VoIP for home workers and transparent call forwarding.

C.6 Disaster Recovery

We must be able to recover from disasters within an acceptable timescale and as such ICS are responsible for developing, maintaining and reviewing a Disaster Recovery policy that plans for the eventuality where there are significant loss of ICT systems and infrastructure.

The ICT Resilience Strategy is designed to help mitigate the risks involved on the dependency of ICT thus assisting in this objective. This strategy is reviewed annually. The strategy is wide ranging and covers routine backup of business data and network and hardware resilience. So not only do we ensure data is recoverable but also strategic hardware systems have redundant backup features and networks have alternate routing to cater for loss of connection in key segments.

Disaster Recovery is part of Business Continuity and is in our Strategic Risk Register. The development of a Business Continuity Plan is in keeping with the Corporate Plan. The main objective is to produce a robust, resilient and flexible plan for the continuation and/or restoration of Council services and ICS are represented on that project team

C.7 Procurement

ICS is responsible for the procurement of all ICT hardware and software in accordance with our Financial Regulations.

Appendix D Information Systems Infrastructure

D.1 Databases and Back Office Systems

The ideal is for all systems to run off a common database, but this is impractical because no supplier provides all of the required applications. In real terms it is ever more important to manage our information assets in a way that avoids duplication and to seek to provide a single point of data access at the front end of our service delivery processes.

An Information Management Strategy has been produced outlining our policy in respect of information sharing between and across our computer systems. The strategy will seek to ensure as much commonality as practically possible between the data held in our numerous computer systems

In pursuit of closer integration and re-use of common core data, certain reference databases are developed or enhanced. Our two main information asset stores are our Customer Relationship Management (CRM) product that is procured for the purpose of person information and our Land and Property Gazetteer (LPG) for the purpose of property information. These databases will conform to established and emerging government standards.

D.2 Electronic Document Management (EDM)

An EDM system is currently implemented in both our Revenues and Benefits and Planning services. This includes Document Image Processing (DIP) and the ability to pass documents between officers for processing (“workflow”).

EDM is essential to support electronic service delivery and we will investigate the expansion of Document Management into further service areas as required in support of our Charnwood Scorecard projects.

EDM also forms part of the Council’s Financial Systems as Agresso stores electronic document images of supplier invoices. Although this is not related to that used above.

D.3 Customer Relationship Management and Knowledge Base

In order to support Customer contact effectively through whichever medium it is supplied (telephone, face-to-face, over the web, letters) it is vital that we can keep track of all our contacts with customers.

It is desirable that any enhanced CRM system that is introduced provides for a knowledge database capable of holding all customer contact records and history across all services as it is rolled out. This will provide a more complete set of information that can be used to better assess and deal with a customers needs.

D.4 Middleware and Integration

Microsoft’s BizTalk (www.microsoft.com/biztalk) and Visual Studio.Net framework (www.microsoft.com/net) are the chosen middleware and integration solution, which are based on open, industry standard Extensible Mark-up Language (XML) interfaces using technology that is flexible, modern and relatively cheap to implement.

Middleware is a communication layer that allows applications to interact, share and exchange information between different systems, similar to a ‘black-box’ that passes information between front-end systems such as CRM or the Web to back office systems such as Planning, Benefits, Environment Health, etc.

The middleware/integration is primarily used to support the CRM development, the Web and the Intranet development projects.

Key benefits to be obtained from the introduction of BizTalk and .Net include:

- Improved quality of Council services achieved by integrating existing disparate systems.
- Providing a consistent message to customers and system users
- Within the CRM providing a single up-to-date view of customer information (by bringing together back office information)
- Improved partnership working by enabling different service providers to share information
- Removal of data duplication and an improvement in data standards, retention and usage
- Generation of efficiencies – as listed above.

The conception of an enterprise integration/middleware environment also raises a number of issues which the Council needs to be aware of, these include:

- Legacy issues – data is still held in silos
- Cultural issues– resistance to change
- Technical issues– incompatible proprietary systems and dependency on third party suppliers
- Ownership issues– who is responsible for the data/information?
- Data issues - poor quality of existing data.

The definition of the Information systems and middleware architecture are covered in the Information Management Strategy.

D.5 Service Delivery Channels to the public

The Council provides a number of channels for electronic access to services. All of these will be supported by the same Knowledge Base and associated systems. The channels are as follows:

- Assisted service - One –stop-shops where members of the public can visit in person.
- Telephony service Via the Contact Centre based in Southfields. SMS text messaging has been proposed as a method of contacting the Council for a variety of customer services.
- Self-service PC access to the website. Interactive Digital TV access to a version of the website will be considered when the technology has matured. The Council provides these channels, and will continually enhance them over time in conjunction with support from the outsourced I.T. Service. We will continue to seek opportunities to adopt joint service delivery with appropriate partners should a clear business case for doing so be identified.
- Service Delivery Channels to Officers and Members Our Knowledge Base and other systems will be available to all officers (whether front-office, back-office or in the field) and Members as appropriate to their roles through Microsoft Office SharePoint Server and the further development of the Intranet.
- Records Management Any solution for Records Management is regularly provided for through the provision of an ICT system of some description but records management itself is not an ICT issue. A records management policy or strategy deals with all aspects of a Council's kept records whether they are stored electronically or manually, from what they are to how long they should, and need to be kept for. All Council's are expected by the DCLG to adopt a records management policy that satisfies ISO 15489 for electronic records.