



**The ICT Strategy for
Tendring District Council
2011 – 2016**

ICT Strategy 2011 – 2016

Authors:

Tom Canfield – IT Manager

Judy Barker - ICT Project Manager

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1. Foreword

Information and Communication technology is one of the key enablers for this Council to provide the facilities that are essential to successfully respond to the challenges facing us over the coming years.

It is critical that our investment in technology continues to be based upon sound business decisions that result in cost effective solutions being implemented to support our services.

Our customers continue to demand efficient and effective public services. However, their expectations in the way those services are delivered is changing and will continue to do so. Knowledge of our customer needs, knowing **who** they are and delivering **what** they want, **when** they want is key to our success. However, the current economic climate means there is an ever-increasing demand to continually create efficiencies in the way we work and to protect the future of our services. This means smarter working opportunities must be embraced by us all.

The previous ICT Strategy (2006-2011) focused on using IT to deliver better public services. This Strategy is about making the best use of the investments that have already been made and ensuring new investment creates further efficiencies and reduces costs.

Our Corporate Plan for 2010-2016 has a vision for Tendring to “be a vibrant, healthy and attractive place to live, work and visit” coupled with the “aim to deliver excellent sustainable services to everyone in the District”. It also undertakes to “make decisions which are sustainable and which reflect the diversity of our communities and the equality of individuals”.

Our ICT Strategy for 2011-2016 is designed to support these key objectives and therefore I am pleased to endorse this Strategy.

Councillor Lynda McWilliams

Portfolio Holder for Customer and Central Services

2. Executive Summary

The aim of this strategy is to ensure that we are ready and able to meet the demands arising from organisational change and reduced resources and to provide the necessary technology to deliver the IT services necessary to support the Council through a period of fundamental change. There must be clear business objectives, real savings and tangible efficiencies to justify future investment.

The development and implementation of the ICT Strategy needs to be an integral part of the overall planning process for the delivery of our services and must integrate with our other strategic plans. The strategy will require regular reviews and strong governance in order to ensure that the benefits are realised and that it continues to meet our developing business requirements.

However, ICT is 'part of the solution' rather than the solution itself. The relationship between people, ICT and other resources continues to be at the heart of efficiency and modernisation and we need to anticipate the growing expectations of our customers to ensure we deliver what they need, when they need it.

It is vitally important that we derive maximum benefit from our existing systems and technology whilst at the same time ensuring that future investment is focussed on projects that have the greatest potential for efficiencies and savings.

Efficient and effective use of technology has the proven capacity to deliver savings along with effective management and procurement of the corporate ICT resources. Our own experiences during the life of the previous strategy have demonstrated this to be case.

Examples, such as the implementation of new communications technology and software; shared working; joint procurement; review and renegotiation of contracts; and the greater use of electronic records have generated an accumulated 5 year saving in excess of £350,000 on the ICT budgets. This momentum must be maintained to address the challenges ahead.

We have reviewed the themes identified in the 2006-2011 strategy and these continue to be appropriate; however we have identified two additional themes for this next 5 year period. Therefore, our ICT Strategy for 2011-2016 contains ten key themes which will drive and support the delivery of ICT to meet the Council's business objectives. They are:

- Maintaining reliable services
- Taking our people with us
- Anytime, anywhere 24/7
- Collect information once and manage it effectively
- Integrate our systems
- Value for money and making the most of our resources

- Common Systems architecture
- Simplicity
- Reduce our carbon footprint (New)
- Smarter working (New)

More detail on these [key themes](#) can be found in Section 6 of the Strategy.

3. Context of the Strategy

In preparation for the development of this ICT Strategy, a comprehensive consultation exercise was undertaken by the ICT Client Team with each of the former services to identify their future business requirements.

In addition, further consultation has also been conducted with our colleagues within the Essex Online Partnership (EOLP) which includes all of the Essex local authorities. We have also met with Essex County Council to discuss their ICT Strategy so that we have a good understanding of their future objectives and how they intend to achieve them.

A programme of research has been completed to establish the current legislative requirements, market trends and technical and strategic publications from a wide range of central government, trade and professional sources. This has included a thorough review of the central Government ICT Strategy, and the key strategic publications produced by the Society of IT Managers (SOCITM).

The main objectives of this Strategy are to :-

- Develop our capacity in order to deliver change;
- Identify where we are now, where we need to be and develop a strategy to get us there,
- Acquire and develop the skills needed to be successful;
- Identify appropriate solutions by making better use of what we've got or by investing in new technology where required;
- Become smarter, adaptable and more efficient in our working;
- Manage the benefits and realise the savings.

This Strategy is designed to plot our ICT course to achieve successful delivery of tomorrow's modern public services.

4. Where We Are Now (2010)

The Council has made significant improvements to its ICT service during the strategy period 2006-2011.

The previous ICT Strategy was based largely on the E-Government agenda and included significant investment in infrastructure & systems funded in part by central government grant.

ICT SERVICE PROVISION

The management and control of the Council's Information and Communication Technology service is the responsibility of the Corporate ICT team. This team is led by the IT Manager.

The team is responsible for:

- **ICT Strategy**
- **Finance**
- **Project Management**
- **Data Protection**
- **IT Security,**
- **Development & Innovation**
- **Technical Procurement of systems and hardware**
- **IT contract procurement**
- **Corporate advice and guidance**
- **Management of GCSx secure email facility**
- **IT elearning & training**
- **Management of external service providers**

The Council outsourced its ICT operational services in 1993 and is currently operating in a five year extension to its third ICT service agreement terminating 31 March 2016. Our current ICT services partner is **Liberata**, and the partnership arrangements are working well for both parties. The contractual terms are flexible to allow for the service provision to be able to accommodate the changing business requirements of the Council.

The quality of the current service from Liberata has been consistent over the term of the contract. The Customer surveys that are conducted regularly indicate

a high level of user satisfaction and ongoing performance management also confirms that the level of service is meeting the required service delivery targets.

The flexible nature of the Liberata service will place the Council in an advantageous position to evaluate the evolving service delivery models and to migrate as and when commercial offerings are proven to deliver savings and efficiencies. The constituent parts of the Liberata contract are priced on an individual basis which gives the Council the flexibility to add or remove elements of the service during the term of the contract.

The council conducted a comprehensive Soft Market Test (SMT) exercise in 2010 to determine the cost effective nature of the existing Liberata Contract. This exercise included a Benchmark comparison and involved 5 other Essex authorities and also 6 national ICT service providers.

The conclusion of this SMT was that the Liberata contract represented good value for money and that the cost could not be reduced by submitting the contract to competition either as a sole or joint contract with our other outsourced Essex partner local authorities.

SERVICE PROJECTS

End to End Planning service

We have completed a project to make the Planning process available to our customers via the internet (Public Access). This enables our customers to submit planning applications and monitor their application process through to decision electronically. This project also encompassed the back-scanning of current applications and historical records. This online self-service channel meets our customers' expectation for a 24/7 service.

Land Charge Computerisation

The existing paper-based land charge records, detailing each and every property and parcel of land in our district, have now been scanned into an electronic format. This can now be accessed and searched electronically to improve the retrieval of information necessary when conducting land searches. The property element of each land parcel is also linked to our Land and Property Gazetteer (LPG) and Geographic Information System (GIS).

The final phase of this process consists of the rationalisation exercise to align the Ordnance Survey data with the actual property boundary. When complete, the vast quantity of paper records held by the Land Charge Service can be archived into low cost off-site storage facilities and ultimately destroyed. This will have the added benefit of eliminating the dependency on the single paper record and releasing valuable office space for a more cost effective purpose.

Geographical Information System (GIS)

We have implemented the ArcView GIS application to replace a number of disparate graphical information silos and to establish a single corporate information facility. This is now available as Local View on our intranet. This incorporates aerial photography, multiple-layered information, such as Street view (similar to the Google facility) and pin-points our listed buildings and tree preservation orders (TPOs) using Global Positioning System (GPS) technology.

Land and Property Gazetteer (LPG)

Tendring's Land and Property Gazetteer (LPG) has now been established, which provides the potential for local land and property-based information, currently held across 4 other key systems (Council Tax, Housing, Planning and Electoral Registration), to be matched and indexed consistently using a single unique property reference number (UPRN). This enables the information to be shared at both a local and national level. Contributions to the National Land and Property Gazetteer (NPLG) are now made electronically on a weekly basis.

Electronic Document Records Management (EDRM)

The Council has invested in the IDOX EDRM system which is in use within our Planning, Enforcement and Building Control service areas. EDRM facilitates the capture, indexing and online retrieval of information from a single source and

removes the barriers that otherwise exist when information is stored in a variety of different formats and locations.

Due to the success of this implementation, the benefits arising from the use of this facility have been promoted corporately, and many other services have expressed an interest in participating.

In addition, the Benefits and Revenues service has implemented the Northgate EDRM facility to meet the specific demands of their service. This Northgate facility eliminates the reliance on third-party back office integration processes and streamlines the operation of the service.

Integration of the Creditors and Debtors function

The deployment of the corporate financial system, Agresso, has been enhanced to include the Creditor and Debtor modules. This has enabled the Council to maximise the use of existing systems whilst minimising the need for inefficient integration between disparate applications or duplication of records.

Parking Services

To support the introduction of a decentralised parking service, we implemented the Chipside system as part of an Essex-wide initiative. This provides the facility for detailed parking restriction information to be preloaded onto hand-held portable devices used by the Civil Enforcement Officers (CEOs) to access this information and issue penalty charge notices (PCNs) for contraventions. This system automates the back-office process supporting this operation. In 2011 the responsibility for the on-street parking service was passed to the North Essex Parking Partnership. Tendring has retained the off-street service and the Chipside system continues to support this activity.

Leisure Management

The Council has successfully implemented a new management system, Gladstone, which has provided the means to improve the leisure membership arrangements; removed the reliance on paper-based manual processing and introduced a centralised database of 'One Card' leisure customers. This has enabled the consolidation of membership schemes and provides an online booking facility.

Environmental Health system migration

Environmental Services relied upon a number of stand-alone bespoke databases to support various elements of its operation. The requirements have been evaluated and, wherever possible, the functionality has been migrated to modules available from our existing corporate property system. This has simplified and improved the management of environmental health information.

Housing Services

The continuing programme of service improvements within this service includes the implementation of the following Northgate Housing Application modules:-

- Allocations
- Repairs
- Estates Management
- Tenant Online fault reporting (Interfinder)

These migrations maximise the benefits from investment in our housing system.

Licensing services

We have implemented the IDOX Uniform licensing system which is used to support the delivery of the licensing services within the district. This includes licensed premises, gaming, hackney carriages, private hire, etc. The system also provides online public access and remote access facilities for other organisations such as the Police.

Careline

This service recently relocated from premises in Station Road to a new contact centre facility that has been developed in a specifically refurbished Barnes House. This redevelopment included a complete refresh of the computer hardware and a fresh implementation of the latest version of the Careline software.

The Contact Centre and Telephony Service

The Benefits & Revenues Contact Centre & Voice over Internet Protocol (VOIP) telephone system has been substantially upgraded both in terms of the software application and the hardware used to host the service. This has greatly improved the performance of the system and the reliability of this customer facing service.

Intranet

We have redeveloped and re-launched the Council's Intranet which now provides a vast range of information and self-service transactions. All TDC staff and Members have access to this corporate facility, providing greater opportunities for data sharing and the internal publication and promotion of key information. The improved site has greatly assisted in reducing the maintenance overheads of duplicated data sources.

Internet Protocol Bank Automated Clearing System (IP BACS)

This upgrade replaced the manual BACS facility which was previously used mainly to pay our staff. Since this upgrade BACS is now used throughout the organisation and facilitates an improved service for incoming and outgoing payments using increased security and resilience and enabling us to benefit from much cheaper transaction costs.

Alternative Payment Channel

We have introduced an online payment channel via our website which provides our customers with choices when making payments. Our customers expect to be

able to communicate with us in this way, and this has stream-lined the process enabling faster and cheaper transactions.

Tendring District Council Website

Over the past 5 years we have seen many changes to the Council's website. Originally the site was an "information only" site and all publishing was managed by an external company.

The implementation of Microsoft Content Management Server has enabled us to produce and publish our own pages in a matter of minutes. We have also introduced e-forms, enabling the public to interact with the Council online whenever it suits them. Some efficiency gains have also been realised by connecting e-forms directly to back office systems.

The recent improvements included:-

- Online payments
- "MyTendring" – enter a postcode to see localised information such as your local councillors
- Access to planning and licensing records online, including the ability to see plans online and make comments where applicable
- Link to the Interactive Planning Advice tool to check whether planning permission is required
- Link to online Council Housing Repairs request tool
- Link to committee agenda, reports, minutes and decisions
- Business directory
- Parking maps
- Live weather feed
- What's on events calendar including online form for community groups to submit events
- Publishing of Council meeting audio recordings
- Link to interactive Local Plan

TECHNICAL INFRASTRUCTURE

In order to support the above programme of development and to ensure that our corporate technical infrastructure remains resilient and fit-for-purpose, our technical infrastructure is subjected to a continuous programme of review and, where appropriate, improvement. This includes hardware and software; our technical communications; disaster recovery; backup and restore facilities; and, our security processes and procedures.

The following section details the technical work that has been completed in this regard:-

Hardware Rolling Refresh Programme

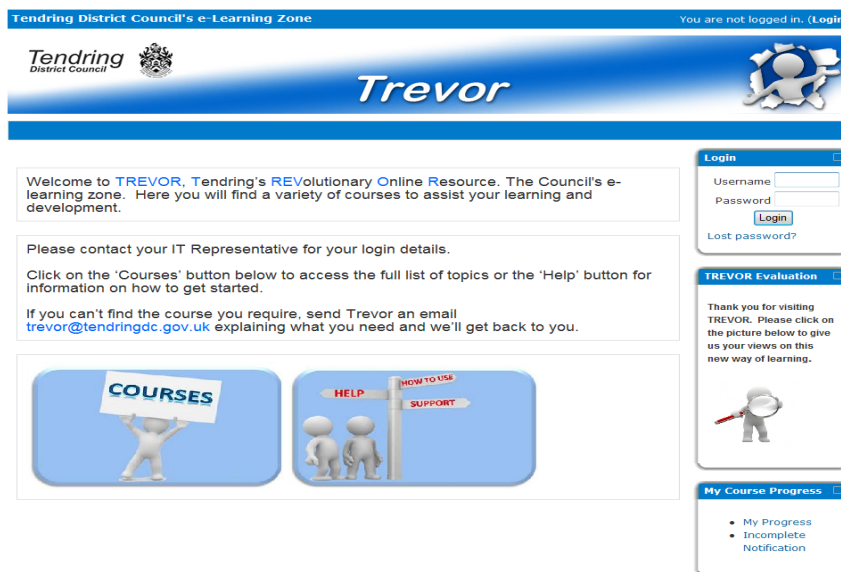
The Technical Rolling Refresh programme provides an annual review and refresh of Server and Desktop equipment to ensure that each installation continues to be fit for purpose and provides the tools necessary to meet the technological demands in terms of reliability, efficiency, capability and capacity.

Blackberry Enterprise Service

The implementation of a Council Blackberry Enterprise server has been completed this year to provide for the rapid distribution of electronic mail to our Officers and Cabinet Members who require access to email on the move.

Learningpool Online Training

We have taken advantage of an Essex-wide HR initiative to implement Learningpool, an e-learning facility available via the web, which facilitates the delivery of training material to our workforce in a cost effective way. Tendring's home site was developed with our partners in Liberata and subsequently launched in an innovative way. Our site has an identity – **TREVOR** – Tendring's **REVolutionary Online Resource**, and its success has been widely acknowledged within the e-learning arena. The choice of training material is continually being developed and is also used as an effective induction tool.



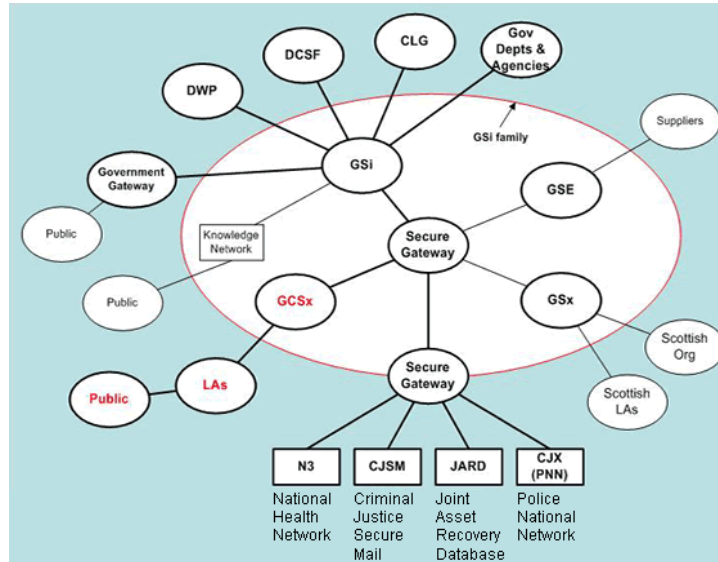
The screenshot shows the 'Trevor' e-learning zone interface. At the top, it says 'Tendring District Council's e-Learning Zone' and 'You are not logged in. (Login)'. The main header features the Tendring District Council logo and the name 'Trevor' in a stylized font. Below the header, there is a welcome message: 'Welcome to TREVOR, Tendring's REVolutionary Online Resource. The Council's e-learning zone. Here you will find a variety of courses to assist your learning and development.' There are also instructions to contact the IT Representative for login details and to click on 'Courses' or 'Help' buttons. A contact email 'trevor@tendringdc.gov.uk' is provided. On the right side, there are three panels: 'Login' with fields for Username and Password, a 'Login' button, and a 'Lost password?' link; 'TREVOR Evaluation' with a thank you message and a survey icon; and 'My Course Progress' with a list of items: 'My Progress', 'Incomplete', and 'Notification'. At the bottom, there are two icons: one for 'COURSES' showing a person holding a sign, and one for 'HELP' showing a person at a signpost with 'HOW TO USE' and 'SUPPORT' directions.

Government Connect Secure Extranet (GCSx)

The Council achieved accreditation in respect of the GCSx Code of Connection (CoCo) Version 3.2 and successfully implemented an aggregated link to the Government's secure extranet.

In order to satisfy the stringent requirements imposed by the Code of Connection, we addressed over 90 separate measures to improve security and staff awareness. We also implemented a number of new procedures to better manage such areas as Security Incident Reporting and approval for the installation of non-standard software requests.

The physical connection has been implemented as a joint project with the Essex On-Line Partnership to minimise the associated implementation and subsequent running costs. This link provides for secure access to the Department of Works and Pensions Customer Information System (CIS) for the TDC benefits staff and also a new secure method for sending sensitive or Protectively Marked material via email between central and local government and other public sector organisations within the Government Secure Intranet (GSI) family.



The Council was subsequently reassessed in April 2010 (version 3.2) and again in February 2011 (version 4.1) and on each occasion received accreditation to continue for a further 12 months. We are due to be reassessed against CoCo Version 4.1 again in February 2012 as part of this annual process.

The future of secure communications in the public sector, however, is known to lie with the establishment and proliferation of Public Service Networks (PSNs). The GCSx will, therefore, be further developed in partnership with the EOLP to be the successor secure Essex PSN facility. Consultation meetings to establish requirements are already underway in this regard.

Communication Improvements

In order to meet the expanding demands of our service units, we have increased the capacity of our communications network by the introduction of private fibre optic connections between our main sites, such as Clacton Town Hall, Pier Avenue – Benefits and Revenues, Clacton Leisure Centre, Northborne Depot and Weeley Crematorium. In addition, we have also improved the resilience of this critical element of the core infrastructure by triangulating the links to remove the dependency on a single link infrastructure.

We have also upgraded the Essexnet link to a 10mb fibre-optic connection which provides us with a higher capacity link to both the EOLP, GCSx, and in particular the DWP Customer Information System (CIS), which is used on a daily basis by benefits & revenues service. The use of this private network will increase over time, as public bodies migrate their services and communications from the public Internet onto this more secure facility.

Disaster Recovery (DR)

During 2009 we completed a detailed review and gap analysis of our disaster recovery arrangements and produced an options report for consideration. The Cabinet approved recommendations to enhance our third party Sungard service to maximise the number of disaster recovery servers provided under the terms of their Hot Start facility and in addition to establish a fibre data link between Clacton Leisure Centre and the Benefits & Revenues building to bypass the Town Hall for business continuity purposes. These actions were completed during 2009/2011.

5. Drivers for Change (2011 – 2016)

The primary function of ICT is to support and facilitate the Council in the delivery of its services to our customers. This section identifies the new challenges that the Council is facing over the next 5 year period and describes how technology can assist the Council to respond to these challenges.

The **Council's Corporate Plan** identifies our objectives for our organisation and values.

Our **Vision** is for Tendring to be a **vibrant, healthy and attractive place to live, work and visit.**

We expect the people working for the Council to be **innovative, flexible, professional and committed to delivering excellent public services.**

To make this happen, each and every officer must try their utmost to ensure we achieve the greatest value for money from everything we do and continue to look for ways of providing excellent services as efficiently as possible.

The Council is facing tough financial times, and in 5 years this Council will be very different to how it is today. We need to reduce our cost base whilst striving to maintain existing services and even providing new and improved services to our communities.

To achieve this, the organisation will have to become leaner and more efficient in the way it works and technology will play a key role in this transformation process.

We must squeeze the maximum business benefits from our existing systems, and use new technology to introduce innovative and smarter ways of working. This will help to reduce the overall cost base whilst still providing the high quality of service expected.

The Council is currently conducting a comprehensive reorganisation exercise that will incorporate Fundamental Service Reviews (FSRs) in each of the new departments.

Specialist representatives from the Corporate IT Team and Liberata will be included in these reviews to ensure that they take into consideration the results of the strategy consultations, and that every opportunity is recognised and taken to maximise the advantages of technology in assisting the council to establish more efficient and cost effective working practices whilst maintaining the integrity of the existing systems infrastructure.

The table below sets out the measures that we shall have to employ in order to meet the challenges that face us:

Initiative	Benefit
Partnership working	Shared opportunities and risks which generate efficiencies and make best use of resources.
Shared service delivery	Improvements in service delivery may be achieved by reducing costs, increasing resilience and reducing duplicated effort.
Smarter working	Embracing flexible working practices to produce efficiencies such as a reduction in office accommodation; hot desking; video conferencing, home working, best use of technology, etc.
Hold information electronically	<p>Enables the destruction of paper files & relegates other files to low cost off site storage, in turn releasing expensive office space generating revenue savings and potential for capital receipts.</p> <p>Enabling smart and flexible working as employees are no longer tied to the physical location of the paper records.</p> <p>Providing customer facing staff with easy access to relevant records to assist them in resolving customer enquiries; reducing time spent searching for and retrieving information and enabling more services to be made available via the web site</p>
Ensure the Website works right first time and every time	<p>Encourages online customer self service which will help to reduce the volume of data duplication.</p> <p>Allied to service based application integration this will also facilitate direct online enquiries and bookings by customers resulting in a reduction in transaction costs.</p>
Be much more effective in using resources	<p>Reduction in office space by means of Electronic Document Records Management (EDRM). Savings in office accommodation arising from the introduction of Smart and mobile working, home working and hot-desking. More energy efficient operations.</p> <p>Shared service provision / joint working arrangements.</p>
Realise the intended benefits	<p>Any programme of change must have clear objectives that identify savings and efficiencies.</p> <p>In some areas the achievement of the benefits may also depend on making radical, but calculated changes to</p>

working practices and organisational culture and the possible cessation of inefficient processes.

6. Our Corporate ICT Key Themes

Ten Corporate ICT key themes have emerged from the service consultation workshops. These themes demonstrate the common linkages across services and, from a corporate perspective, will inform the development of the overall programme.

The identified themes are as follows :-

Maintaining reliable services

Delivery of the Council's services is reliant on technology to meet the increasing requirements of our customers. It is essential that we maintain an efficient and resilient ICT service in order to provide the facilities our customers are demanding.

Taking our people with us

The full potential of our existing ICT investment can only be realised if people are properly trained in its effective use. Training continues to focus on maximising the efficient use of existing technology and ensuring our workforce has the necessary skills to make best use of the tools available to them. The introduction of new technology also needs to be managed in the same way.

In addition to training our workforce, this theme also encompasses our customers by ensuring that alternate service channels are well promoted to encourage the take-up of cheaper interaction methods.

Anytime, Anywhere – 24/7

Following trends within the private sector, our customers now expect to be able to interact with us outside of normal working hours.

This necessitates continued development of our web-based services and the promotion of new online services as they become available. There are also financial benefits that can be realised if we move our customers away from the more expensive interaction methods of face to face and telephone and encourage the take up of web-services as an alternative service channel.

Collect information once and manage it effectively

It is important that we strive to achieve this goal both for the sake of our customers, who find it frustrating to keep providing the same information, but also for the efficient management of our data resources. We need to continue to look for ways of capturing, managing and sharing information to ensure we achieve the most efficient use of our information.

Integrate our systems

We need to join up our services and systems so that information can be stored and retrieved from a single source or, if necessary, passed seamlessly from one system to another where the business case demonstrates efficiencies.

For example, integrating an e-form with a back-office system should be undertaken in the case of high volume transactions, where the costs of managing the 'lack of integration' outweigh the cost of integration.

Value for Money

The current economic climate means that it is more vital than ever to make the most of our resources. This includes :-

- Matching capacity against demand, e.g. server and Internet bandwidth.
- Look to focus investment in those areas where we can see the greatest potential for return.
- Exploit existing resources and licence agreements.
- Look to adapt our working practices to match off-the-shelf systems, rather than pay for the development and ongoing specialist support of costly bespoke applications.
- Invest in solutions which have the best whole-of-life cost of ownership.
- Continue with joint-purchasing arrangements with the Essex Online Partnership (EOLP).

Common Systems Architecture

The Council has procured the services of established and leading local authority suppliers for the supply, support and maintenance of our strategic applications. The benefits of this are:

- Reduced cost of procurement, deployment and ongoing support.
- Promotion of joined-up working between services.
- Fewer interfaces are generally required; often because the systems utilise the same common database(s).
- The cost of supplier management is reduced.
- The cost of training users is also reduced as the same look-and-feel and terminology tends to be used across all systems from a given supplier.

Simplicity

Complex and overly sophisticated systems nearly always lead to added cost, either through the additional implementation overheads, or through the ongoing management. By keeping things simple, costs are reduced and management becomes more effective. The Council will continue, wherever possible, to implement appropriate, readily available, tried and tested, supportable systems.

Reduce Our Carbon Footprint

ICT has a significant part to play in reducing our carbon footprint. Green IT is a key theme of the Government's ICT Strategy (Smarter, Cheaper, Greener). Appropriate measures will be investigated and implemented that help us to continue to reduce the environmental impact arising from the use of technology within the Council. Some of these measures will also have the added benefit of reducing costs – for example a reduction in power utilisation.

Smarter Working

Smarter Working is a theme that brings together a number of requirements and projects designed to make us more efficient. For example :-

- make better use of technology;
- question why we do things;
- changing the way we do things;
- share resources;
- up-skilling our workforce;
- Home / mobile working / Hot-desking.

Summary

The outcome of the detailed Service Unit consultation workshops has been analysed, realigned against the new departmental structure and then mapped against each of the key themes (see Appendix A so this document).

7. The Way Forward (2011 – 2016)

This strategy is being launched in a difficult period where financial resources are being reduced on an unprecedented scale. The Council will have to be imaginative and adaptable in their approach to find new ways of delivering quality services at an affordable cost. The organisation will need to become leaner, greener and more efficient.

Whatever service delivery methodology is adopted in the future strategic period, the council must retain control of its affairs in respect of the technology services. Whilst the provision of the services may be outsourced to 3rd party external specialists, the council must retain the capacity, expertise and resource to determine, control, procure and manage its activities in this vital area. This will ensure that we keep control of the finances and benefit from any saving. It will also enable the council to determine its own future in terms of the technology and how it is best used to optimise the benefits for this organisation and our citizens. This capacity is essential to ensure that that Council is not exploited by external organisations in the future development of technology services and retains control of its responsibilities.

The corporate IT team is there to provide a sound, resilient, cost effective ICT service to the Council and to deliver the technology required to support its business needs. This team must be maintained with sufficient expertise and financial resources to ensure that it has the capacity to exploit technology to best effect.

We will have to review our service delivery methodologies and, where appropriate, re-engineer our business processes, our technology infrastructure and our systems in order to achieve the savings that will be required to ensure the organisation continues to deliver the services essential to success.

Technology holds the key to a number of solutions that are widely recognised to be potential sources of savings and efficiencies.

A number of options, some of which are currently in their infancy, will be maturing during this strategic period. This strategy is designed to position the Council so that the organisation is in an optimum position to take advantage of the emerging technology and infrastructure where they are able to deliver the solution required.

Strategic Opportunities

This section describes the alternate service delivery models that have been identified where opportunities for efficiencies may exist once they are proven to deliver real benefit.

Cloud Computing

The concept of Cloud Computing is the provision of shared computing resources in the style of a utility service. Instead of an organisation owning and operating its own hardware, software and data centre populated with its own application servers, the organisation would use a shared service provided by a third party - effectively remote network computing on demand.

This utility-style service will be available in a variety of forms:

Software as a Service (SaaS) – provision of specific cloud applications.

Platform as a Service (PaaS) – provision of both hardware and software.

Infrastructure as a Service (IaaS) – provision of the hardware and storage.

The benefit of using such services is that it can be delivered on a “Pay per use” basis thus avoiding the cost of unused capacity. The service can be flexible in its scope and is designed to respond to the changing needs of the customer and as such should have the potential to deliver savings.

The Cloud service delivery model has several forms:

Public Cloud – remote services provided from 3rd party suppliers typically based at the vendors’ data centres and accessed via the Internet or private circuit.

A variation of the above is the **Private Cloud** which is based around the shared use of common resources provided by an organisation primarily for its own use. The latter brings the added benefit in respect of greater direct control of the organisations data.

The Central Government ICT Strategy also recognises the potential for Cloud Computing to deliver savings and has included the establishment of its own **Government Cloud** (G-Cloud). The strategy envisages the implementation of a rationalisation programme for data centres designed to deliver large cross government economies of scale and, allied to the development of the G-Cloud, will ultimately reduce the overall number of data centres and overall costs.

Whilst the Cloud service delivery concept is thought to be capable of bringing benefits to the public sector, it should be understood that it is still at an early stage of development. As with any complex pan-government initiative, G-Cloud is a huge undertaking not without inherent risks in terms of escalating costs and over running timeframes.

During the course of this strategic period, we can reasonably expect the marketplace to mature in respect of Cloud offerings. This will enable us to explore the options and establish viable business cases based upon known costs and actual savings. The migration to Cloud Computing will mean that before we replace redundant servers with new equipment to host our corporate applications we shall be able to consider the option to have the environment and service provided at a remote data centre by a third party vendor.

However, there are currently a number of areas of concern associated with this service delivery model:-

- cost of migration and subsequent dependency on the remote supplier(s);
- overall cost of “Pay per use” service;
- cost of provision of temporary or additional resources;
- control and security of the data and compliance with English and European Law, e.g. Data Protection Act.

In due course these concerns and questions will be addressed and resolved as examples of public sector adoption of Cloud Computing are implemented and experiences can be fully evaluated.

TDC is well placed to observe and evaluate these early migrations. We have a flexible contract with our current supplier Liberata that enables services to be added, withdrawn or relocated. We also have a secure and resilient service which will enable sufficient time to properly evaluate Cloud offerings to ensure that they will deliver the anticipated savings.

Over the next 5 years as the TDC hardware and systems approach their end of serviceable life, rather than just replace, we will take the opportunity to establish business cases and, where appropriate, test the market with pilot Cloud migrations so that we can firmly establish the benefits before making any commitment.

Shared Services

Shared Service provision has for some time been considered as a potential source of efficiencies. In ICT terms it can mean less duplication by the use of shared systems and infrastructure, better use of and access to technical expertise, shared backup and disaster recovery. A number of good examples exist, including Customer Relationship Management (CRM) systems, Recruitment Portals, and Aggregated network projects. Tendring has already benefited from shared working in partnership with their fellow Essex local authorities on the Aggregated Government Connect Secure eXtranet (GCSX) and the joint hardware procurement project in respect of Personal and Laptop Computers, and Servers. The Essex local authorities continue to investigate and identify other areas of service that could be a source of savings by means of a Shared Service approach.

The establishment of a collaborative working approach to service provision has the potential to achieve savings and efficiencies, however, it is important to properly evaluate the business benefits of individual options, whether it is remote hosting, cloud computing or outsourcing of part or whole services to an alternate service provider. We must make sure that the chosen option is the best one for Tendring and that it is capable of delivering sufficient savings to offset the cost of implementation and achieve permanent reductions in revenue costs.

In this regard, this strategy recognises the potential in this area and recommends that we must actively seek opportunities to share costs with partners by means of collaborative working initiatives both in procurement and service provision.

The ICT service must therefore be in a position to respond to any business requirement to take advantage of any shared services initiative.

The service is delivered by a highly skilled team which has a wide variety of technical competencies and supported by a resilient and reliable infrastructure. This includes a 100Mb Internet link and a 10 mb Essexnet link which enables interconnection between the other Essex online partners.

This is further supported by the flexible ICT and Related Services Agreement which enables the component service elements to be varied to meet the business demands.

This assures that this Council has the technical capability to participate in other opportunities that it may wish to pursue for all services to ensure that we benefit from economies of scale which may also include the Council delivering services for other organisations.

Open Source Software

Local Authorities, in common with most large commercial organisations, have traditionally implemented software from specialist application suppliers to provide their key corporate systems. In the case of Tendring these are Northgate Benefits, Revenues and Housing, Agresso Financial system and IDOXS Uniform for the Planning system.

These types of systems are developed to deliver the specific requirements of the local government services and are supported, maintained and upgraded to keep pace with legislative changes. These bespoke systems are typically only guaranteed and supported when run under specified operating systems and versions e.g. Microsoft Windows.

Open Source software is primarily a means of avoiding or reducing the licence and operating costs by providing operating systems and desktop systems, such as word processing and spreadsheets, along with the tools to develop your own bespoke applications. However, the disadvantages in the use of open source software include the hidden costs associated with the actual development of the systems, retaining the technical skills necessary to operate and maintain these alternate systems, and the ongoing compatibility issues with the rest of the world.

However, as this market matures, there may be opportunities that the Council wish to take advantage of and these will be explored and evaluated as they arise.

Technical Projects

In addition to the service workshops, a separate Technical Workshop was conducted by the ICT Client Team. This workshop identified the indicative programme of works for the next 5 years. This work will be critical to maintain the capacity to deliver our essential core infrastructure supporting the Council's services.

TDC Web Site

The redevelopment of the Council's Web site is of critical importance to the success of the Council's reorganisation and is considered to be a top priority project during 2011/12. This will be the mechanism by which the council will retain the ability to provide 24/7 services against the backdrop of reducing staffing levels throughout the organisation.

It is widely acknowledged that the overall cost of conducting transactions with customers is certainly cheaper by far if conducted as a self service function via the Council's Web site. The financial case is indisputable when one considers the cost of the three main access channels.

Face to Face	£7.40
Phone	£2.90
Web	£0.32

Source: SOCITM *Insight 2010*

Our customers are already getting used to doing business over the Web, with online banking, submitting their tax returns, booking their holidays and online shopping. We expect that there will be an increasing number of customers wanting to access our services via the web site. In order to take advantage of this migration and to encourage greater take up, we should commit to a continual process of development of the TDC Website. This will ensure that the site not

only meets the needs and expectations of our customers but is also capable of delivering the savings and efficiencies arising from a migration from high cost face to face interactions. A saving of approximately £7.08 per interaction based on the 2009 SOCITM figures shown in the above table.

As an organisation, we should recognise that Self Service is one of *the* most effective ways to achieve savings and improve customer satisfaction. We need to ensure that the online service offering is both appropriate and easy to use if we are to attract and retain web site customers. Dissatisfied customers will soon revert to the more expensive access channels if their experience is unsatisfactory and they have failed to complete their transaction or to find the information they required.

The Council has a lot to be proud of in terms of the services that are offered over the Web. However, we should not be complacent in this regard and should take every opportunity to review our business processes and achieve savings wherever possible.

As the software that was used to develop the current TDC Website, Microsoft Content Management Server, is now at the end of its lifespan, we need to migrate to a replacement application.

Therefore, the website is being subjected to a fundamental review to identify where best to invest in improvements. The Society of IT Managers (SOCITM) conduct an annual review of all local authority websites and publish their results in their annual Better Connected report.



Internet-based service delivery channels need to be embraced by all Council Departments and should be regarded as one of the most important service delivery channels, if not the *preferred* channel. A channel that, if properly exploited, will be a source of significant savings due to the lower transactional costs. The Council's website must ensure that it is focussed on the needs of our customers and be intuitive to use.

This can be achieved by:-

- promoting the need to use self service within our service departments;
- promoting the TDC website to our customers;
- analysing why our customers prefer to visit or call us and make those services available on the site for high volume transactions;
- redesigning the site around the needs and expectations of our customers;
- ensuring the website is an effective and direct channel to access self service facilities;
- integrating the processes with the Councils back office systems;
- ensuring any out of hours enquiries are directed towards the TDC website wherever possible;
- regularly surveying our customers to understand if their access was successful and fix any failing or complicated processes that may have been abandoned.

Electronic Document & Records Management (EDRM)

Access to electronic data rather than hardcopy paper records is a high priority project for this organisation. The use of a corporate EDRM system within the Council is considered to be an essential element of our future strategy. Without it many of the potential savings arising from flexible and mobile working and from moving to a near paper-less operating environment will be lost.

The Council has made some progress in this regard. The Benefits and Revenues Service is already making use of electronic data by means of the Northgate integrated document imaging module and the Planning Service has successfully implemented the IDOX EDRM system as part of its project to make the planning process available online.

The benefits arising from EDRM include:

- customer facing staff have easy and direct access to the information they need to deliver a complete service;
- holding information electronically means that paper originals can be either archived in low cost off-site facilities or where appropriate destroyed, reducing the need for high cost filing space in our offices;
- significant areas of office space can then be freed up.

The IDOX EDRM is the electronic document management system that integrates with the Uniform modules and is a purpose built land and property based application designed to fulfil the needs of a number of core service areas, such as Planning, Environmental Health, Licensing & Land Charges. This system is already serving the needs of these various services.

This application has already proven itself in terms of savings and efficiencies within the Planning Service. To ensure that we achieve maximum benefit from our investment in this system the use of IDOX EDRM now needs to be rolled out to other areas within the Council. A number of service areas have already been identified that would clearly benefit from the further deployment of this module. As this system is already in place within Planning the cost of the roll out will be minimised and the subsequent ROI will be achieved in a shorter timeframe.

The Council already has the experience of implementing this system within the Planning Service, and this experience is now being shared with other Departments, such as the environmental services with the Public Experience Department. The consultation exercise identified similar needs within other service areas and these will now be addressed.

Server Virtualisation

Virtualisation is tried and tested technology already in use in many organisations in both the private and public sectors. This technology allows for a number of physical servers to be combined and consolidated into a virtual environment; for example, 10 physical servers and associated workloads running on a single unit.

The advantages of this range from the environmental and financial benefits associated with reduction in power consumption to the improved resilience in terms of disaster recovery (DR) and faster recovery to improve business continuity.



The Council has already made progress in respect of the establishment of a virtualised environment. As part of the Barnes House renovation to accommodate the Careline call centre, a server room was created at this location which provides a secure environment, remote from the Town Hall, which is ideally suited to locate a critical part of our corporate disaster recovery facilities.

The overall objective is to replicate the critical infrastructure servers at Barnes House within a virtual environment. In practical terms this means consolidating approximately 20 physical servers down to 2 units. This provides us with a mirror image of critical systems which vastly improves our ability to recover from any disaster event. It also releases capacity within the Sungard mobile DR facility that will be used to expand the number of customer facing service applications that can be accommodated which will further improve our recovery capabilities.

The virtual server environment will expand to accommodate as many physical servers as is practical, with the ultimate goal of eliminating our need for the mobile DR facility altogether and becoming more efficient in our ability to restore ICT services within an improved timeframe. This contributes towards the improvement of the Council's overall business continuity position.

Thin Client Computing

Thin Client computing (Virtual Desktop) is a means to provide hosting and processing of applications and data on a network server rather than a desktop computer. The advantages of this service delivery approach are that it:

- removes the need to provide high-powered PCs to every desktop;
- ensures all data is stored and backed up on the secure network;
- extends the life of the desktop equipment;
- reduces hardware replacement costs by as much as 30%; and
- minimises the support and maintenance tasks to improve efficiency and resilience.

Early trials have already taken place and the results indicate that a migration to this technology would be beneficial in some areas of the Council's operations. In practical terms it would mean that a reduction in the requirement to replace and upgrade the Council's Personal Computers. In this scenario the processing takes place on the central server thus reducing the requirement on the capability of the desktop PC. This means lower specification PC's or thin client units can be used.

This technology will be rolled out during this new strategy period.

Public Service Network (PSN)

The Public Service Network will be the single national telecommunications infrastructure for the whole of the public sector and will also replace the current GCSx government private network. It will open up new opportunities for secure and efficient information sharing and will provide the means of access to the Government Cloud (G-Cloud).

By the end of 2012, all of the Government Secure Intranet (GSi) "family" (including GSi, GCSx, GSE, etc) and managed telephony system customers will have to migrate to PSN.

It is therefore critical that the Council establishes a project to implement a PSN connection within this strategy.

The current GCSx was implemented as a joint project with our local government partners within the Essex On-Line Partnership (EOLP), and we will continue to work with the partnership and utilise the aggregated link to provide a cost effective migration. Collaboration on the PSN will ensure that the cost will be shared and kept to a minimum and exploratory meetings have already begun with the EOLP.

Home Working and Mobile Working

There is a growing feeling that “work” should no longer be considered as somewhere we go to, but rather something that we do.

It is generally recognised that not all job roles are suitable for home working. However, organisations are increasingly taking the view that a large number of roles do not have to be performed within the traditional office and can often be delivered by more flexible arrangements that include working from home or providing officers with mobile computing facilities to enable them to work in the field. This Council does not currently have a home working policy, however there is evidence to indicate that savings and efficiencies could be achieved in this regard should a suitable policy be established and adopted.

This ICT Strategy includes measures to ensure that we have the necessary technology and security arrangements in place to accommodate more flexible styles of working as the demands present themselves. This will also enable the Council to benefit from the efficiencies that may be gained. Some progress has already been made in respect of Unified Communications, which facilitates the auto-routing of calls from TDC office phone numbers to home telephones. Remote working facilities with dual factor authentication have already been established to provide secure remote access to our network.

During this strategic period plans to rationalise and reduce office accommodation, accompanied by the necessary provision of hot-desk facilities and audio and video conferencing, will most certainly be considered as a means to deliver savings. This project must also include the need to provide Unified Communications to facilitate the seamless transfer of the office telephony to the individuals’ home or mobile phone.



Security

The security of our systems and information is paramount in ensuring that we are delivering our services in a safe and effective way without compromising the confidence of our customers and security of our data and systems.

Our customers quite rightly have high expectations of our ability to protect their personal and often sensitive information.

The global threats arising from cyber crime, which include unauthorised access, data loss, virus attacks and Malware, are becoming greater and more

commonplace. In order to protect the Council, it is essential that we continue to invest in and implement a comprehensive range of essential tools necessary to mitigate these risks wherever possible.

ICT Security encompasses a range of measures which include the following:-

- laptop Encryption
- USB Media encryption and device lockdown
- Desktop standardisation
- Effective backup and restore capabilities
- Effective Disaster Recovery procedures
- Password complexity standards for network access
- Web and Email filtering
- Anti-Virus
- Dual factor authentication
- Improved process management
- Protective Monitoring
- Intrusion detection
- User education and risk awareness
- ICT Health Check and Vulnerability Scanning
- Ongoing review of security policies
- Effective security event reporting and response procedures

This strategy is committed to continuing to review and enhance these protective measures to maintain and improve the integrity of our services.

Greener Service Delivery Model

There are national and local targets in place to reduce the organisations carbon footprint. These targets are currently being addressed in a number of ways at Tendring including the Switch-it-Off campaign, light sensors in corridors etc.

There are a variety of additional measures that are currently being explored by IT to generate additional savings in this area and some significant progress has already been made in this regard.

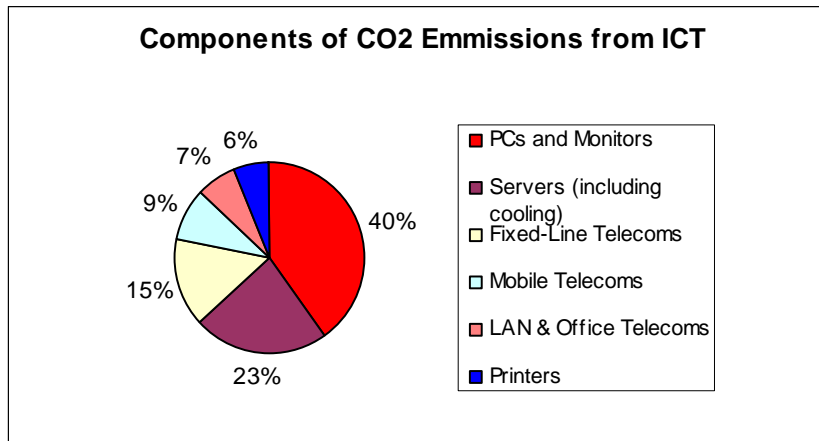
Measures include:-

- making adjustments to the computer suite environment
- turning off computer monitors and printers
- reducing the number of servers
- light sensors in the computer suite
- rationalisation of printer usage, including duplex & draft print options
- powering off PCs without compromising overnight updates & processing

- voice and video conferencing
- improve hardware disposal processes.
- environmentally sensitive procurement – e.g. low power units, reusable packaging.

These measures will:

- reduce energy consumption
- reduce the environmental impact of the service
- extend the life expectancy of the ICT equipment therefore reducing the requirement to upgrade, replace and dispose of equipment
- promote a positive public image
- produce financial savings for the Council.



As can be seen from the chart above, the largest percentage of CO₂ emissions from ICT are deemed to come from PCs, Monitors and Servers. The virtualisation and thin client initiatives will directly address these areas.

Computer Hardware

In order to ensure that the Council continues to benefit from the economic advantages associated with collective procurement, Tendring is working with the EOLP to achieve good quality and value for money procurement in respect of its computer hardware; namely its servers, desktops, laptops and printers.

This is achieved by a collective tender process which has resulted in permanent, cashable savings to the capital hardware rolling replacement budget.

Each year the lower-quartile stock of desktop equipment is reviewed and replaced. The withdrawn equipment is disposed of by Liberata under the terms of the ICT Services Agreement and in accordance with the Waste Electrical and Electronic Equipment (WEEE) legislation. The operation of this annual refresh programme allows for the provision of modern desktop equipment that is fit for purpose and is compatible with the corporate applications at a planned lower annual cost level.

The use of 'Thin Client' technology for Virtual Desktops, as described above, will also enable us to extend the life of the desktop PCs which will generate additional savings in the rolling replacement programme.

Desktop Printers

As part of the strategy consultation process, our departments have been asked to consider ways in which changes in working practices can reduce our printing requirement and generate efficiencies.

Consideration is also being given to reducing the number of local printers; concentrating instead on the use of Multi-Functional Printer/Scanner/Copier Devices (MFDs), located at convenient points, which would be capable of handling high-volume print at a lower cost. Each department has been asked to reduce the number of desktop printers wherever possible. In addition, improved printing guidance will be issued to encourage duplex printing (double-sided) and using draft output options to reduce paper and cartridge consumption.

Desktop printers are purchased with a standard one-year warranty. Beyond the warranty period a printer is disposed of once it is no longer economical to repair. This approach is more cost-effective than operating expensive maintenance agreements.

Computer Software

The Council has adopted Microsoft Windows as the preferred operating system and Microsoft Office as the standard desktop application tools. This standardisation is necessary to ensure supported integration with our corporate applications and to maintain continued compatibility with both our customers and other stakeholders.

In order to achieve this in the most cost effective way, the Council entered into a 3 year Microsoft Enterprise Agreement (2010/11 – 2012/13) via a national OGC (Office of Government Commerce) arrangement which provides us with the ability to install any supported software version and upgrade when required. This Agreement supports our operating systems, desktop operating systems and tools, Sharepoint web publishing tools, Exchange email and associated client access licences.

Typically, software suppliers such as Microsoft, will periodically, withdraw support for earlier software versions as their later releases become stable and in wider use. Tendring monitors this situation and migrates to newer releases when it is prudent to do so.

In line with this Strategy, a project to migrate to Windows 7 from Windows XP and Office 10 from Office 2003 will commence during 2011/2012.

Maintaining the Technical Infrastructure - Network & Communications

The core network and communications infrastructure is primarily based upon a number of strategic CISCO switches. These switches provide the highway to accommodate the data/voice flow throughout the organisation and beyond.

These components create the key infrastructure that connects the technology to form our core network.

The majority of the existing switch equipment was commissioned as part of the corporate VoIP (Voice over Internet Protocol) telephony project initiated in 2004/05. A corporate rolling improvement/replacement program is in operation to maintain a reliable and efficient network. This programme is essential to ensure that our network performance continues to cope with the ever increasing demands of our customers arising from the increased use of the internet and greater reliance on electronic media.

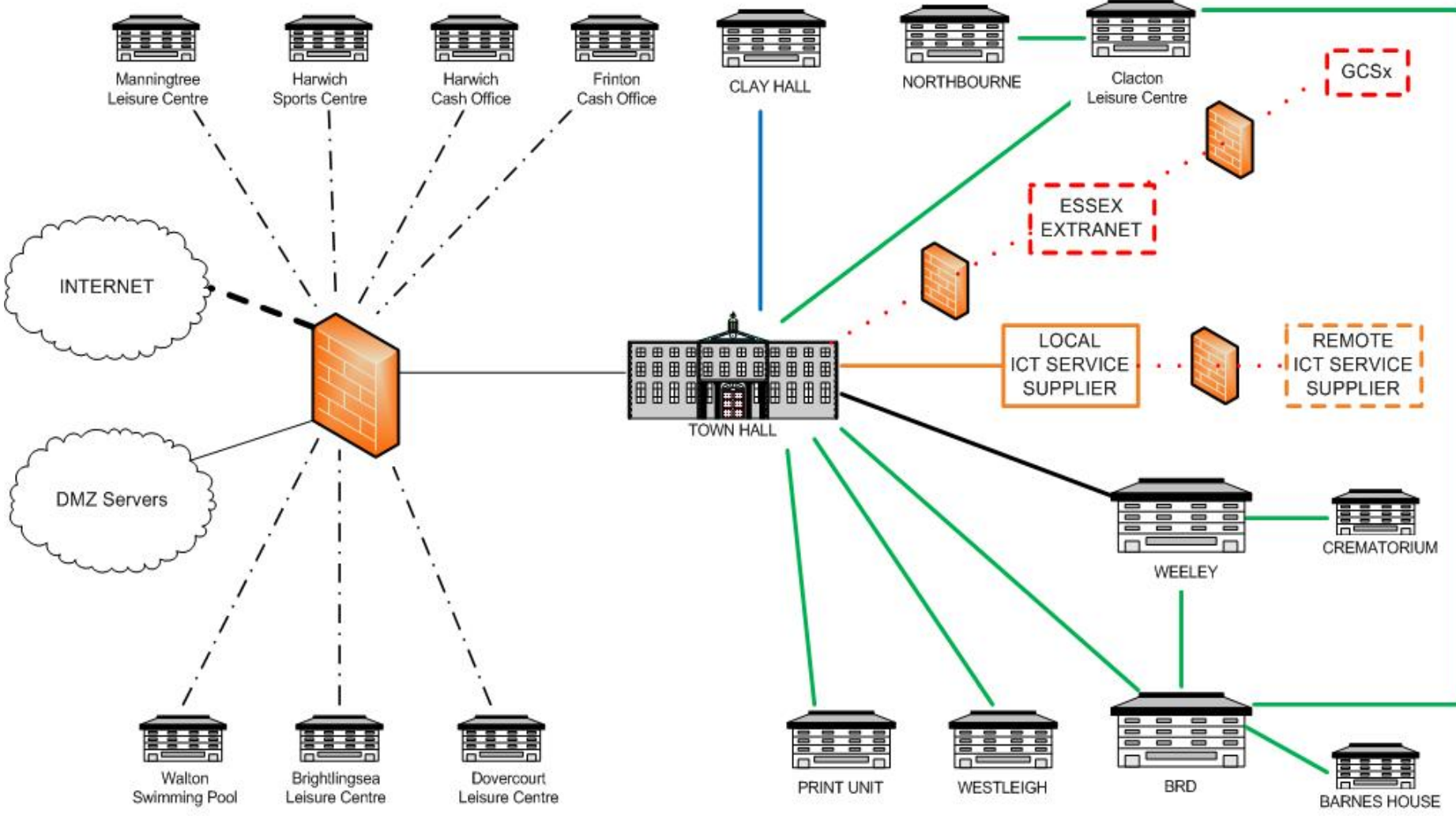
The Council's network is continually monitored and subjected to routine improvement. The speed and capacity of the switches determines the capacity and efficiency of the network which dictates the response time to the end user.

As part of our ongoing maintenance schedule, 17 of the switches originally deployed in 2004/05 have been identified as in need of replacement. This project will be phased over this strategic period as part of the capital programme.

Another essential networking enhancement is the need for an alternative internet link to be established which can be brought into use in the event of any failure affecting the main link to the Town Hall. This will also provide the means to access an emergency information website and facilitate home working in the event of a disaster situation.

A schematic of the Council's network is shown on the next page (as at December 2010).

TENDRING DISTRICT COUNCIL NETWORK DIAGRAM



Licensed Microwave backup



VPN CIRCUITS via Internet



Private fibre-optic



Radio link

Computer Suite

The main corporate computer room is located in the Town Hall and has been established to provide a secure and resilient central server facility to host the corporate technology services. It is equipped with intruder alarms, flood detection sensors and a gas based fire suppression defence system. It also has a primary and backup air conditioning unit and a double uninterruptible power supply (UPS) which is capable of powering the computer room for approximately four hours in the event of a power failure. This provides sufficient time to facilitate a controlled shutdown of our systems and servers with the added capability to connect an external generator to the existing switching circuit if appropriate.

The current electrical distribution unit serving the main computer room has been in service for over twenty years and spares are becoming difficult to obtain and it is nearing maximum utilisation. This unit is due for routine replacement to provide the necessary spare capacity to accommodate future needs. This task will also be undertaken as part of the routine maintenance work. These works will take place as a priority prior to December 2011.



Short Message Service (SMS Text Messaging)

SMS text messaging is another method of interaction between the Council and its customers. There is global and national growth in expectation that communications will be delivered using mobile telephony and hand-held devices. It is a further opportunity to engage with our customers via a low cost means of communication.

The Council's benefits and revenues service has made some initial progress using this facility to improve their appointment arrangements. Early indications are that, whilst the customers like the useful reminder service, there is often scepticism that the message has been sent by the Council due to the inability to 'brand' a number. There has been a suggestion that some type of 'sign-up' service may overcome this issue by customers stating that they wish to receive communications in this way.

There has also been some interest expressed by Resource Management, Customer Services and Life Opportunities. Should further roll out be initiated the benefit to the Council would be a reduction in the number of missed appointments and more efficient use of officer time.

8. Governance Arrangements

The efficient use of ICT is one of the most cost effective means that the Council can use to meet the challenges that face us. It is critical that the management of our systems and infrastructure and the investment in technology is based upon sound business decisions that result in cost effective solutions being implemented to support our services.

This will ensure that investment in technology continues to be timely and appropriate and is made in systems and solutions that:

- support the overall corporate objectives and deliver on corporate priorities,
- achieve value for money
- generate a return on investment
- maintain essential council services

The corporate IT management resource (now based in the Resource Management department) must retain the skills, capacity and expertise to provide the necessary challenge process, designed to question new proposals, identify savings and efficiencies and, more importantly, make sure that those savings are delivered by the deadline targets identified within the business case.

It has never been more important than now to cut out waste and capitalise on every opportunity to reduce costs whilst preserving efficiency.
