Annex A - Review of the CYC ITT Strategy 2002-2007

A five-year vision for the use of Technology in the City of York Council

1   Vision

The new IT strategy has four simple themes. They are the main drivers for further IT development.

1. **Provide a secure, resilient, high performance ICT Infrastructure**
   Increasing reliance upon IT systems to deliver all Council services means that these systems, and the infrastructure upon which they are located, need to be reliable secure and efficient.

   REVIEW

   Successfully completed majority of our objectives. Though this may not be a priority for future development activity (with the exception of EDMS) it is not an area where we can become complacent or de-invest, without putting us at serious risk of IT failure.

2. **Create the environment to deliver E-government**
   The Council has issued an Implementing Electronic Government Statement which sets out how it will meet the Government's ambitious targets for electronic service delivery. The IT strategy must prepare the ground for the implementation of e-government, creating a technical environment that supports all aspects of the modernising agenda by establishing common technical and information standards, reducing the number of systems in use, consolidating technologies and increasing security.

   REVIEW

   The tenor of our e-government objectives was clearly shaped by the lack of clarity arising from central government and our own involvement in the NYICTP. We were only able to articulate our aspirations regarding our preparatory activities, meeting standards rather than achieving service transformation, electronic service delivery or improving customer services. We have delivered an environment capable of achieving e-government and easy@york is pushing way beyond this into service transformation. Meanwhile the government agenda has moved from e-government

to t-government. easy@york delivers this new agenda but CYC need to carefully consider the implications of this new agenda in establishing its future IT strategy.

3. **Use technology to improve business efficiency**

A growing culture of performance management means that innovative uses of technology will be needed to drive forward performance improvement. CYC should be sophisticated and innovative in its use of technology and information, to inform the management of performance and improve performance by implementing efficient business processes and supporting the delivery of other corporate objectives.

REVIEW

The efficiency agenda has really developed since this strategy was written. Many of our legacy systems are designed (and used) to capture data rather than drive processes and services, and our businesses are therefore not generally using technology to initiate improvements in service delivery.

4. **Establish effective links with Partners**

In order to ensure that maximum benefit and synergy is derived form all It investment in the region, CYC should ensure that it's IT strategy is sympathetic to the strategies of partner organisations in the city. CYC should seek to develop common strategic themes across the Local Strategic Partnership and the North Yorkshire Sub-region.

REVIEW

Due to the collapse of the NYICTP and the subsequent need to focus our attention internally on achieving our own electronic service delivery, we have not engaged sufficiently with partners to develop joint strategies or access channels. The Government agenda is now pushing towards shared service delivery and we need to consider whether as part of our competition strategy we have serious ambitions in this area.

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Provision of a Secure, Resilient, High Performance ICT Infrastructure

2   Management Strategy

To develop the ICT capacity within the organisation to make best use of investment in ICT, to improve service planning and service delivery and respond to organisational change initiatives. To establish a clear communication framework between Central IT providers and the client

Directorates, both at a strategic and operational level. To deliver an It service that is responsive and customer focussed.

Issues

ICT expertise across CYC is in short supply. Directorate IT contacts can become overloaded and IT knowledge is rarely brought to the management table at the appropriate time to inform decision-making. Two-way communication between IT and Directorates can be improved so that there is a common understanding of business and technical drivers for change. Across the organisation, at all levels, core IT understanding needs to be developed to make the most of the technology we have already deployed and to make links across the organisation in the deployment of new technologies. Directorates need to be actively involved in agreeing standards and timescales.

Service Level Agreements between Directorates and Central ITT service are in existence but these have not been created from an analysis of the user requirements and a calculation of the costs of delivering that level of service. The levels of service that are promised in the SLA's cannot be guaranteed with existing infrastructure. Either further investment needs to be made to provide spare capacity and redundant equipment or service standards cannot be guaranteed. Service requirements are not the same across the whole authority. Some services are more critical than others but the Service Levels are universal. Negotiation of priority service levels for key business units or services would protect key services but would impact upon the residual service levels.

REVIEW

Communications between central IT and Directorates are greatly improved. IT staff are appropriately trained and there are few absolute single points of failure so support is much more robust. Levels of IT skill within the workforce are significantly greater. However IT is still not used Staff are now much more consistently. Improvements still remain to be made in making IT a central plank of decision-making, understanding both the potential of IT and the implications of change upon IT

Objectives

- Ensure that the Service Level Agreement between the IT service and Directorates is both achievable and affordable. - ACHIEVED

- Ensure that priority services are identified and appropriate and affordable Service levels are put in place. - ACHIEVED

- Ensure that Directorate Managers have adequate IT knowledge and understanding to make informed decisions about the development and use of technology in their department – PARTIALLY ACHIEVED

- Ensure that ITT services are delivered in a manner which is responsive to changing customer requirements and business priorities. PARTIALLY ACHIEVED

- Ensure that staff have the necessary skills to use the systems and technologies to do their job. – ACHIEVED

- Ensure that the relevant support skills are in place either from a third party supplier, Central IT or Directorate staff to support the systems deployed in each directorate. ACHIEVED

- Ensure continuity of support from key IT staff by maintaining the competitive remuneration reward and development package within the IT department that was set up following the review of the ITT Department. ACHIEVED

- Communications Framework –a framework for communication between Directorates and IT should be developed. This will be supplemented by improved information flows when there are problems affecting multiple users. This framework will be augmented by negotiated Service Level Agreements to clearly identify what is supported, what the support standards are and to establish a clear and fair mechanism for charging for services. ACHIEVED

- Establish a Corporate IT strategy Group with representatives from all Directorates at AD level to review the implementation of the IT strategy and to incorporate the impact of business or technical developments and keep the strategy up to date. ACHIEVED

- Establish a Corporate operational IT Group to oversee cross cutting operational support issues. ACHIEVED

- Strengthen the Client function of the Directorates, in specifying and reviewing their requirements and the service they receive. PARTIALLY ACHIEVED

- Performance Management – Users have a right to information on the performance of the network and the systems that run on it. Central IT will provide up to date, customer focussed performance management information to Directorate IT representatives. ACHIEVED

- Complaints procedure – Where Directorates are unhappy with the support service they are receiving or wish to challenge decisions taken by Central ITT in enforcing the IT governance role, then a formal complaints procedure should be in place. ACHIEVED

3   IT Governance

To ensure that the technical infrastructure performs to its optimum capacity it is necessary t o apply controls and governance measures to ensure that users behave in a manner that is supportive to the effective running of the enterprise network. To ensure that the roles and responsibilities of users, directorates, central and directorate IT staff are all clearly understood and that decisions that affect the enterprise network are taken in an informed and consultative fashion

Issues

The CYC IT enterprise network (all the component elements of technology and systems that constitute the CYC IT infrastructure) has evolved over time rather than being planned. The majority of this infrastructure was installed at LGR in 1996. Since then it has undergone significant growth, both in the number of users, systems and sites. This growth has been organic and unplanned and consequently difficult to prepare for in advance. There are no formal mechanisms for assessing capacity on a per site or per system basis and for feeding this information into centrally controlled plans

In the past, users have defined their needs i.e. how many printers are needed, with little technical advice from IT. Through changing work practices such as the exponential growth in the use of e-mail, other unplanned and unmanaged factors come into play which have a broader impact upon network traffic and design. These things have an impact upon the whole enterprise network. The Enterprise network needs to be healthy to perform well and to ensure that it is healthy, it needs to be well managed. To enable this, all the people who have an impact upon the health status of the enterprise network need to understand and take ownership of the extent of their impact and agree changes to their working practices that will help deliver optimum performance. In certain circumstances, specific user requirements may need to take second place to the integrity and security of the network as a whole.

The decision making processes will be set out in The Handbook for Computer Users which will clearly define the roles and responsibilities of the IT Service, Directorates and individual users.

REVIEW

Governance is much tighter than it was but there is still room for improvement by reducing printer numbers (as part of move to Hungate) and in controlling directorate spend on IT so that system requirements are properly evaluated before purchase. This is embedded in the new constitution but still requires monitoring. Directorates are still unable to predict future business needs and user numbers and keep track of staff leaving the organisation. These are all issues that will affect the Admin Accom programme and need to be addressed as an organisational planning/workforce management issue.

Objectives

- Procurement – All procurement of ITT hardware, software or associated solutions should be channelled though Central IT so that corporate standards are complied with, volume discounts can be achieved and potential duplications can be identified and addressed. If duplication or unnecessary purchases are identified these will be raised with the Directorate representative. PARTIALLY ACHIEVED

- User responsibilities – The Handbook for Computer Users will be updated, setting out the expectations of any user of IT within CYC. This will address house keeping and good practice issues as well as the user's responsibility for network security (securing passwords etc). It will also set out the legal framework with which an IT user must comply. Where appropriate it will refer to a broader policy, such as the Electronic Communications Policy and the Data Protection Policy. Logging on to the network will be deemed to be an acceptance of these terms and conditions. ACHIEVED

- Directorate Responsibilities – The Handbook for Computer Users will identify the responsibilities of each Directorate for managing the user base and to control use of corporate applications. For instance Directorates have a responsibility to maintain an up to date list of computer users and notify IT when users leave the authority. Their records and data will be deleted within 1 month of their departure. PARTIALLY ACHIEVED

- Technical Standards – Central IT will be responsible for defining corporate technical standards that must be applied to the procurement or development of a new system or technology. Directorates must not do anything which would contradict these technical standards. ACHIEVED with minor exceptions

- Asset Management – It is essential that CYC knows what IT assets it has and where they are located in order to ensure that they are being used effectively. Central IT

maintain an IT Asset Register and Directorates and users should assist with keeping this up to date. Any equipment moves should be notified to Central IT so that Inventory records can be updated. If an asset is being under utilised then it should be re-assigned to make the most of that asset. If for instance a powerful PC is being used to provide only basic desktop facilities, it will be more productive and cost effective to allocate this device to and area or a role where its superior processing power is needed. ACHIEVED

- Licensing – CYC has a duty to ensure that all software in use is legally licensed. Though this is easier in a Server based Computing environment than it is on the standard desktop where it can be difficult to control the use of unauthorised software, Directorates still need to be vigilant to ensure that users are not running illegal or unlicensed software and that licenses are kept up to date for any software that is purchased directly by the Directorate. Central IT will manage the licensing of the desktop and major systems and identify the need to purchase new licences for additional users. The cost of these licenses should, like the cost of new hardware be included in the costs for establishing a new post. ACHIEVED

- New Users – Directorates will forecast their user population to enable capacity planning to take place. An increase in the number of users in each directorate will be accompanied by an increase in the recharge to that Directorate. In order to control growth, a business case should be made to justify the clear business need for this increase. Significant increases in IT users may need to be agreed and funded by the IT Development Plan. Directorates need to plan their usage of IT in advance rather than respond to changing requirements as they happen. NOT ACHIEVED

- Printing – CYC has a very high ratio of printers to users compared to other similarly sized organisations. This is not cost effective as more printers give rise to higher support costs, and create an upward budget pressure when these printers fail and need repair or replacement (there is a tendency to require a replace rather than redirect printing). CYC's sustainability policy encourages users to reduce the amount of unnecessary printing undertaken but the preponderance of printers can work counter to this aspiration. Over time, CYC should replace smaller printers with fewer, shared, higher volume networked printers. CYC should also reduce (by networking or decommissioning) the number of smaller printers that are attached directly to a PC as they cannot be remotely supported and create a significant pressure on the server farm. PARTLY ACHIEVED

- Applications – CYC already use more than 70 different applications. Some of these are little used, unnecessary or duplicate the functionality of other applications used elsewhere in the Council. The number of applications in use needs to be reduced to simplify the technical environment and improve the performance of the Citrix server farm. Fewer applications will free up capacity on the server farm, reduce the risk of applications clashing and reduce the time to test a new application. The need for a new application must be agreed with IT and be fully tested in the Citrix environment by IT and by directorate users before it is loaded in the live environment. If a prospective new application will not work in Citrix, it will not be purchased. PARTIALLY ACHIEVED

4   Desktop and Application Software and Hardware

To consolidate the hardware and software used by CYC to make best use of existing and future investment, provide resilient services, reduce the level of technical support, reduce costs and enable flexible access to data held on all systems.

Issues

Major Systems - CYC has traditionally operated an Open Platform Strategy for application development. This has meant that systems were procured irrespective of the platform on which they were based, leading to an infrastructure with a complex mix of operating systems, databases and hardware platforms, all running on different versions and generations of the software. This in turn results in support problems as technical staff are unrealistically expected to have in depth knowledge of a multitude of systems. It also restricts the development of corporate reporting tools to improve performance management information and prevents the implementation of shared hardware platforms and Storage Area Networks that offer increased resilience, cost effectiveness and space savings. As the amount of hardware equipment in use within CYC increases and is centralised, space in the Central Operations room is at a premium. Further large-scale growth is not sustainable in the future within the existing building.

Desktop – Over time an equally complex mix of hardware and software had been implemented on the desktop PC. Different hardware, operating systems and versions of office software all caused sever technical support problems and stopped users from sharing and interchanging files. The software platform has now been consolidated by the implementation of a common desktop and Office platform.

REVIEW

The consolidation of our hardware and software platforms has been largely achieved, though some aspects are incremental and the principles of consolidation need to be maintained. We now have fewer variants of major system software and hardware and this helps to ensure that systems can be adequately supported and has created savings in Disaster Recovery costs which were escalating beyond budget. The Mainframe has been successfully decommissioned which created significant cost savings. The deployment of Citrix has been a significant factor in controlling and rationalising the desktop. The implementation of a Storage Area Network has been a qualified success which has brought some cost savings but has proved to have limited expandability and is now reaching the end of its life and required a replacement. A bid is going forward to the 2007/8 IT Development Plan.

Objectives

- Reduce the number of Major Application operating systems and databases. This will be undertaken incrementally with all new or replacement applications running on Windows 2000 or Sun Solaris, with either Oracle, Microsoft SQL or IIS database engines. Software versions should be kept up to date wherever possible. If this is not possible due to the development timetables of third party suppliers, all efforts should be made to reduce the number of versions in use at any one time. ACHIEVED

- Where it is technically desirable and feasible, centrally locate Application and File and Print servers to provide high speed connections between the applications, the data and the Citrix server farm to deliver optimum response times ACHIEVED

- Where it is technically desirable and feasible, reduce the number of application servers in use, to simplify back up processes, increase resilience and reduce maintenance costs, by consolidating multiple applications onto larger, single servers, which have managed, multiple processors. This will ensure that hardware component failures do not necessarily stop the application from working. ACHIEVED

- Implement Storage Area networking for application servers. This will increase resilience by providing multiple processors to share the work between, simplify back-up procedures, provide mirrored file storage so that files are stored in dual locations to reduce the risk of corruption. File space can also be increased at low cost and with low impact. This will facilitate 24x7 service delivery by removing the need to take systems off line whilst they are backed up. ACHIEVED

- Wherever possible ensure that Server hardware is manufactured by either Sun or Compaq to reduce the cost of hardware support, ensure the interchangeability of hardware and maximise the use of staff skills. ACHIEVED

- Consolidate the versions of Microsoft Office used in the authority. Adopt Microsoft Office 2000 as the corporate standard. ACHIEVED

- Incremental upgrades to desktop operating systems and software versions should be avoided and only when a clearly identified business case has been made should any upgrades take place. In this instance, the full impact of upgrading across the board should be taken into account. This will prevent the same proliferation of software from taking place in the future ACHIEVED

- For non-Citrix PC's, Type B PC's or laptops the future installations of the operating system will be Windows 2000 ACHIEVED

- Where appropriate, PC's which fail will be replaced with Thin Client Devices which are cheaper, have fewer moving parts and so less likelihood of hardware failure and use less electricity. CYC should reduce the number of floppy drives and CD drives wherever possible as this increases the replacement cost. Users should still be given shared access to these devices. ACHIEVED

- Migrate all applications off the Mainframe, which is no longer a cost effective and flexible way of delivering applications. ACHIEVED

5   Server Based Computing Environment (Citrix)

- To capitalise upon the investment already made in Server Based Computing technologies (Citrix) to deliver the desktop and applications in a secure and sustainable fashion. This has already achieved many of the early objectives in that it has: -

  o Standardised the services delivered to the desktop, independent of the hardware in use on the desktop

  o Made the desktop infrastructure operating system independent

  o Provided remote user management and support

  o Reduced the need to invest in desktop hardware

  o Ensured that applications can be deployed quickly and efficiently

Issues

CYC are now reliant upon the Citrix server farm environment to deliver the vast majority of its IT services. Any failure of the server farm has substantial impact upon users and hence the resilience and security of this environment is paramount. Additional users, printers and applications have stretched the existing capacity and performance of the server farm. The server farm is capable of expansion and needs to be enlarged if more users are created or users make more intensive use of existing PC's. Much greater degrees of control and governance need to be applied. The capacity of the server farm needs to be managed to deliver optimum performance.

REVIEW

The deployment of Citrix has been a major success in achieving a cost effective supportable environment and has saved us millions of pounds by avoiding the cost of

- Forced hardware replacement to upgrade the specification of PC's and

- Continual operating system and Office product upgrades to enable back office systems to work

- Major system deployments and day-to-day support undertaken centrally with no need to visit the site has enabled us to cap the cost of support even though the number of PC's and systems continue to increase.

The Citrix environment has been upgraded to improve its resilience and performance, expand its capacity and to offer additional functionality such as faster printing and remote connections for home working. The levels of service availability are best of breed at 100% for 2006/7 against a target of 98%.

Printing remains an area where further rationalisation is still needed. It has proved difficult to reduce the number of printers, partly because the office space does not lend itself to this kind of change. It may be easier to complete this rationalisation as part of the Admin Accom moves.

Objectives

- Enable effective management of the hardware and software being deployed ACHIEVED

- Proactively manage the capacity of the Citrix Server Farm ACHIEVED

- Increase the scale of the Citrix server farm as required, to cope with any increase in the numbers of users and applications, ACHIEVED

- Closely control the number of printers being deployed via the server farm, reducing the number of non-networked printers in use. PARTLYACHIEVED

- Establish stringent test procedures for new applications that also establish a clear business case for implementing the application in this manner. ACHIEVED

- Implement a stringent change control regime to ensure that the impact of any amendments to the configuration of the server farm can be assessed and, if necessary, the farm can be rolled back to its most recent stable environment. ACHIEVED

- Continually monitor the performance and the loading of the server farm to assess the suitability of the design of the farm in a changing environment. ACHIEVED

- Upgrade the Server based computing environment to Windows 2000, running Metaframe XP to provide additional server farm resilience, capacity and functionality. ACHIEVED

- Install separate print servers, running on Windows 2000 to enable faster printing across the network. ACHIEVED

- Install Citrix Nfuse to facilitate web-based remote access to applications for staff, thus enabling home and flexible working regimes. ACHIEVED

6   Corporate systems

To ensure that core technologies (such as Document Management) are implemented widely and use compatible technologies across all CYC Directorates. Wherever possible to ensure that CYC make the most of previous investment by deploying existing technologies and systems to address business needs in other areas.

Issues

Business areas such as Planning have their own niche market leaders. Companies concentrate on specific markets and develop highly specialised products to satisfy a particular business requirement. These companies use generic technologies such as workflow or Document Image Processing, to enhance their particular business system. If these systems are purchased this can lead to CYC deploying a variety of similar generic systems which potentially use incompatible technologies. Images captured in one DIP system might not be readable in another companies DIP system. This can then create limitations upon CYC's potential to re-engineer its business processes and it creates a greater support requirement.

Document Management Systems have been in use in CYC since 1998. There is still potential to extend the use of such technologies into new areas, particularly into Social Services where there is a statutory requirement for all Social Care records to be held electronically.

REVIEW

We have established a more corporate approach to some organisation wide systems such as Performance Management but further improvement could be made to encouraging the deployment and consistency of usage to these systems. Progress in encouraging the consolidation and expansion of Electronic Document Management Systems (EDMS) has been slow. Effectively we have succeeded in preventing the development of service specific solutions but without offering a corporate alternative. Though this may have prevented wasted spend it has not progressed the business need and must be a priority area for future strategy, particularly as the move to a new Town Hall can only be undertaken if we reduce the amount of paper records we store. In the meantime EDMS solutions have evolved to incorporated workflow solutions which will drive business processes and will form a part of any future efficiency programme.

Objectives

- Review generic technologies and devise a preferred product or standard, ensuring compliance with e-gif standards where relevant. PARTLY ACHIEVED

- As procurement decisions are taken, assess the possibilities of using the same technology for a similar purpose elsewhere PARTLY ACHIEVED

- Share new ideas, technologies and uses between directorates and departments to identify the potential for further deployment. NOT ACHIEVED

- Extend the use of Document Management Systems to all areas where paper records will prevent effective electronic service delivery. This will also make compliance with Data Protection Subject Access Requests much easier. NOT ACHIEVED

7   The Voice and Data Network

To develop a secure and resilient, high-speed network infrastructure that will support increased usage, enable the convergence of voice and data traffic on the same network and conform to e-gif standards for data and voice communications.

To provide access to network resources for staff working from home with sustainable and affordable support provision.

Issues

CYC has a very large and distributed network with over 140 sites attached to the Wide Area Network (WAN). The majority of the network infrastructure was installed in 1996 at LGR (on a tight budget) and has subsequently been added to and upgraded when new sites have been added or equipment has failed. It is a "flat" network, where all the devices are attached to the network with the same priority. Like an open ward in a hospital if one patient contracts a disease or has a restless night then everyone in the ward could be infected or disturbed. The CYC network is not a sophisticated segmented network where the impact of network disruption or failure is limited to a small sub-section of the network. The core Local Area Network is connected via an FDDI ring, a high-speed (100mbs) fibre ring, linking the main central sites. The routers, switches and hubs which move all the network traffic around will definitely require replacement over the next three years. It is already difficult to find spares for some of the switches and the majority of the equipment is made by a manufacturer who has withdrawn from the enterprise network market. It is therefore necessary to start planning for the overhaul of this equipment.

Problems have started to arise with the speed of network traffic leading to impaired performance of some systems in the server based computing environment. Though this environment has reduced the amount of data that passes across the network, the need for data to be transmitted at speed has increased and the limited capacity of some network devices is a contributing factor to recent problems.

The Network Operating System in use is Novell 3.2, an old version of an operating system that is losing ground in the network market. There are over 30 file and print servers, which prevents users from sharing data across these servers and from sharing licences across the network. Some servers have spare licences and some do not have enough to support the users trying to gain access. Due to the way that Novell licences are sold these servers cannot be upgraded any further to support more users.

As we move towards electronic access to services the security of the network becomes paramount. We must provide a secure mechanism to deliver electronic transactional access to data held on our corporate systems.

REVIEW

We have achieved and all our objectives in this are and now have a robust high speed network which carries both voice and data. This has been done at minimal cost through an outsourcing deal that has brought in over £1m of capital investment and is now yielding savings on network line rental costs. Future strategy needs to concentrate on

- Re-provision of the network in the new Town Hall

- Consideration of the future use of wireless connectivity

- Making the most of our new Voice network.

Objectives

- Improve the speed and resilience of the network by introducing switched, IP based, layer 3, Cisco networking hardware at the centre of the network, cascading lower specification routers, switches and hubs to the periphery of the network. This will enable remote management of network devices, reduce unnecessary network traffic and improve network security. ACHIEVED

- Purchase network communications equipment which will carry both voice and data traffic at the same time. This will eventually enable both voice and data traffic to share the same network connections, thus reducing costs by removing duplicated line rental. Ensure where possible that any new networking equipment operates using non-proprietary standards. ACHIEVED

- Upgrade the central Local Area Network to run at 1gigabit per second whilst maintaining the redundancy currently afforded by the FDDI ring. This will provide increased (x10) bandwidth and hence improved performance. Prepare for the introduction of video based technologies which may form part of an e-government solution ACHIEVED

- Put in place joint externalised support arrangements for the voice and data network to ensure the highest possible maintenance and support standards within existing budgets. ACHIEVED

- Migrate from Netware 3.12 to Windows 2000 for File Services, whilst rationalising the file structures to remove unwanted data, enable users to share appropriate data and provide the correct level of access security for sensitive or vulnerable data. This will capitalise upon the Licences purchased as part of the Citrix project and will enable a single network authentication, making it simpler to change passwords and thus improving security. ACHIEVED

- Consolidate the number of file and print servers and implement a Storage Area Network (SAN) for File services. This will create fault tolerant, high integrity file storage with increased resilience by providing multiple processors to share the work between, provide shared file storage for all users across the network irrespective of their physical location, simplify and centralise back-up procedures and mirror file storage on multiple disks to reduce the risk of corruption. File space can also be increased at low cost and with low impact. This will also facilitate 24x7 service delivery by removing the need to take systems off line whilst they are backed up. Network Licenses are centralised and can be allocated where needed, thus solving existing license allocation problems. ACHIEVED

- In advance of the implementation of the Access to Services BV pilot, ensure secure web access to identified corporate applications by using the already established web server front end, located securely behind a firewall. This is called a Demilitarised Zone (DMZ) because it creates a barrier between corporate data and the public, which stops unauthorised access to systems. This will enable CYC to generate some quick wins by delivering some services on-line. Pilot areas for this delivery are the Libraries catalogue (already in place), the Museums collection and the Planning system. ACHIEVED

8   Information Security

To ensure that all information held by CYC is secure from inappropriate disclosure, malicious attack or accidental loss.

Issues

The Audit Commission are encouraging Local Authorities to comply with the British Standard for Information Security, BS7799/ISO17799, to ensure that the information that they hold is safe. The issue of Information Security within CYC has been addresses at some levels and it is improving. However, we are some way from complying with this standard which has rigorous requirements for control both from Central ITT and in Directorates, including process documentation, testing of recovery plans and formal establishment of audit trails. Compliance with this standard is a precursor to joining up information with other agencies. It is likely that Health will insist upon BS7799 compliance before they agree to share data with local authorities, in order to quality check the security of our network.

The increasing reliance upon IT systems for the delivery of council services presents a significant risk to the business if there is a major disruption to the ITT service. This could be localised, i.e. the failure of a particular system or a segment of the network, or it could be an endemic failure affecting all systems and all locations i.e. the failure of the main computing facility. These potential disruptions could have varying degrees of severity, some may be remedied within hours, others, for instance the destruction of the main computing facility, might take months to completely remedy, during which time IT services would be severely limited to certain buildings and reduced numbers of users.

 In an ideal world all single point of failure components would be replicated, a replicate version of all computing facilities would exist on a mirrored, separate site. This is extremely expensive. Disaster recovery policies can be taken out which when invoked will reinstate existing facilities either offsite or onsite. These policies are themselves expensive. CYC has a Disaster Recovery Policy for the replacement of hardware for the most critical of systems and the policy itself would take some time to invoke.

All data held on centrally located systems is currently backed up by Central IT. There are other locally hosted data sources that are not centrally backed up. Some of these are regularly backed up but others are not and have at times been accidentally deleted. Some of these local back ups are not stored in secure off site locations. This needs proceduralisation and documentation to make backup processes both mandatory and accountable.

REVIEW

We now operate in a much more secure environment with better backups and change controls and improved central business continuity plans (BCP) and disaster recovery (DR) arrangements, however DR and BCP are patchy within directorates so the capability for the organisation to respond to an emergency would be determined more by the capability of the service to mobilise itself rather than the availability of IT systems. This is being addressed through the corporate BCP group. The expected drive for formal certification for data security has not materialised as central government have found it difficult to implement themselves. Partnership working does involve the need for clear information protocols and though we have these in some areas there is no framework for their development and no control regime to look at data accuracy etc. This may be an issue for CPS though how important is still being determined.

Objectives

- Work towards achievement of the Information Security standard BS7799/ ISO17799 implementation. PARTLY ACHIEVED

- Update the Information Security Policy and publish this widely to all computer users, with the introduction of an audit and inspection regime to ensure compliance ACHIEVED

- Implement an improved corporate Back up regime, which covers all electronic data held by CYC - All essential data will be backed up on a regular basis. Backup copies will be held offsite in a secure fireproof area. Sequences of backup (daily, weekly, monthly) should be kept for critical data. Where data is stored on central servers, this backup will be undertaken by Central ITT. Where data is held locally (on PC's and laptops or on local application servers) this shall be the responsibility of the Directorate. When implemented, The Storage Area network will enable on-line backups. The frequency of these back up's will be defined in the Information Security Policy. ACHIEVED

- Change Control – Change control procedures will be improved by the introduction of a more stringent change control regime which will be implemented for all major systems. This will restrict the ability to make changes to systems to authorised system administrators. Where possible all changes should be proceduralised to avoid human error. All changes should be documented and clear roll back paths identified before changes are made. ACHIEVED

- Disaster Recovery - Review the arrangements for Disaster recovery to ensure that in the event of a major disruption to the ITT service the Council can still deliver critical services and has operational plans to restore the delivery of all services. Directorates should prepare business continuity plans. These plans should provide non-IT means of delivering core business functions in the short, medium and long term. They should indicate who is responsible for invoking them and should document all procedures

wherever possible. In conjunction with Directorates Central IT should revise disaster recovery plans for each major system and site which would indicate the likely time required to re-establish IT services in the event of a range of disasters. The Disaster Recovery Policy should be reviewed at regular intervals and tested to ensure that it can be invoked when needed. PARTLY ACHIEVED

- Ensure that IT provision is made available to deliver the requirements of the Emergency Plan. ACHIEVED

- Public Access - Establish the capacity for secure financial and personal transactions on the CYC web site by implementing secure socket layer technologies and e-gif standards, ensuring that all data transfers are encrypted. Direct access to CYC systems should not be allowed, all interactive web transactions should be mediated through a secure web browser in a demilitarised zone (DMZ) ACHIEVED

- Network Access – On no account should the general public be allowed access to computing facilities on the main CYC network. If public computing facilities are being delivered (i.e. in Libraries) they should be hosted on a Virtual Private Network to ensure that the network cannot be hacked. The network will be protected by a Firewall, which will prevent hacking, and virus infection. This should be audited at regular intervals to ensure that it cannot be penetrated. No other external ingress point to the network should be created without ensuring that it is secure. ACHIEVED

- Data Protection – CYC must ensure that it is legally registered under the Data Protection Act 1998 and that it abides by the implications of this act as set out in its Data Protection Policy. This refers to data held on all IT systems, including e-mail, and to paper documentation. ACHIEVED

- Human Rights Act – Under article 8 of the Act everyone has the right to respect for their private and family life. The Council must have regard to this principle in its use and disclosure of data.' ACHIEVED

- Regulatory and Investigatory Powers Act - The interception of communications and the acquisition of communications data as part of an investigation may be subject to the special statutory procedures laid down in the Regulation of Investigatory Powers Act 2000 and associated regulations. Advice on the operation of the Act is available from Legal Services ACHIEVED

Delivering E-Government

9   Information Management

To manage the information held by CYC to plan services according to needs and user requirement, to deliver joined up services from multiple access points by life events. To enable information held by CYC to be shared with relevant partners to improve the quality of the services that it delivers

Issues

The Council has over 400 individual systems and databases that deliver a large range of different services. These systems contain core information relating to people and properties, much of which is duplicated across these systems. This information is a core resource for the Council, which it is currently unable to control. We do not know what information we hold and we cannot link information from one source to another because: -

- There are no corporate person or property identifiers that enable us to equate a record in one system to the same record in another system. This means that we cannot link up different pieces of data to inform business planning or deliver services to customers in an integrated manner.
- Field formats differ from system to system so that data cannot be easily transported from one system to another
- Different name and address conventions are used in each system so it becomes difficult to identify if Mr R Jones is the same as Bob Jones or Robert Jones especially when there may be similar discrepancies in the way in which addresses are captured.

The Government has introduced a number of initiatives to drive forwards its modernising agenda. It has: -
- Created a common address standard that will ensure that address data is transferable between systems and organisations. This is BS7666 and it is a simple, flexible, consistent and nationally accepted method of referencing land and property, in order to facilitate the identification retrieval and integration of land and property related data.
- Created a National Land and Property Gazetteer (NLPG), a national record of all addresses. All Local Authorities are expected to be the custodians of a Local Land and Property Gazetteer (LLPG), which feeds information into the NLPG.
- Legislated for the creation of a Rolling Electoral Register with a link to the Local Authority Secure Electoral Register (LASER). This will be a hub, which takes Electoral Registration data from each authority and combines this into a national register. It will utilise BS7666 compliant data and must link to the LLPG. The IDeA have started to develop a standard for person data (BS8766) which will eventually become a national data standard with which all our person based data must comply.
- Started development of an XML data schema that will ensure data interoperability. XML is a data format that contains both the data and a description of the data. This enables information to be transferred between systems that use different technologies. It can then be interpreted and presented in different formats. The same piece of data can be imported into a major system, presented on the web or sent to a mobile phone without requiring numerous different data downloads in different formats. The XML schemas will agree the way in which data is described so that for instance planning data outputted in XML will be described using the same field names.
- Launched a National Land Information Service (NLIS) that aims to provide a single point of access for all land searches. To achieve this Council must connect its Land Charge system to a national hub that will undertake the land search across all agencies and make an electronic payment back to the authority. The data must eventually link to the to the LLPG The existing Land charges system currently performs file transfers to submit information to the NLIS but is not capable of automated search facilities. It is not currently linked to an LLPG
- Established a partnership project between the Department of Transport, Local Government and the Regions, English Partnerships, Improvement and Development Agency (representing the interests of local government) and Ordnance Survey, to

develop a National Land Use Database (NLUD) that will establish a complete, consistent and detailed geographical record of land use in England.

REVIEW
Our strategy in this area reveals the nature of the e-government agenda in 2002, which was based more on establishing standards than achieving any business benefit. The agenda subsequently changed to move towards the establishment of Identity cards but this has yet to be concluded one way or the other. Some of the standards came to fruition and are applied and some have yet to be confirmed. Generally we are compliant and are reviewing the ongoing progress of people record standards.

Objectives

An Information Management Strategy was one of the outputs of the Access to Services. To support this strategy CYC needs to

- Create a data map, identifying what data is held where, in what formats and in support of what business processes. This data map should relate each system to the list of services outlined in BVPI 157. It will identify data duplication and enable us to develop plans to integrate small systems into larger systems. It will also inform the process analysis that will be undertaken as part of each service Best Value Review. This information could then be used to challenge the way in which each service or business process is undertaken. This will inform system replacement plans and enable use to measure our achievement of BVPI 157. NOT ACHIEVED

- Develop a Local Land and Property Gazetteer (LLPG). This Gazetteer will hold the correct address in the Government's recommended format (BS7666), it will hold a Unique Property Reference Number (UPRN) for each address and it will reference that address to all the key data sources within all of the Councils major systems. This will enable us to link 4, Acacia Avenue in Council Tax system with 4, Acacia Avenue in the planning or Electoral Registration system. Changes of address will be replicated throughout all linked databases. The Gazetteer will be able to feed a Customer Relationship Management System so that multiple customer enquiries can be dealt with in a call centre environment. The LLPG must feed into the NLPG by July 2002. ACHIEVED

- New systems must comply with BS7666 as the agreed standard for address data and geographical references for all property based records. PARTLY ACHIEVED

- Prepare the Land Charges system for integration into the NLIS hub by implementing the appropriate upgrades to the software, ensuring that data conforms to BS7666 and is linked to the LLPG. PARTLY ACHIEVED

- Prepare data on land Use in the specified NLUD format, developing the existing systems to capture the relevant data in the appropriate formats. PARTLY ACHIEVED

- Prepare the Electoral Registration system for connection to the Local Authorities Secure Electoral Register (LASER), ensuring that data conforms to BS7666 and is linked to the LLPG PARTLY ACHIEVED

- Keep a watching brief on the development of national standards for person data (the forthcoming BS8766), and the XML schemas. When these are defined they should be adopted as common data standards and formats and a similar exercise must be

undertaken to create unique person references in all CYC systems so that data relating to an individual can be cross referenced. PARTLY ACHIEVED

10 Electronic Government Interoperability Framework (E-GIF)

To ensure that all information can be shared between different systems and with partner organisations.

Issues

Data is currently held in many different formats, all prescribed by the application on which the data is held. This makes it technically very difficult to share data between systems and especially difficult to share information with other organisations who may use very different technologies.

The Government has established an interoperability framework (E-GIF) which will enable easier, more efficient exchanging and processing of data. It will also remove ambiguities and inconsistencies in the use of data. The framework prescribes how data should be stored and interchanged. Adherence to e-GIF standards is mandatory for public sector bodies.

Objectives

- To adopt the most recent e-Government Interoperability Framework (e-GIF3) for all new or replacement systems. At the highest level, complying with the e-GIF means:
  - Providing a browser interface for access
  - Using XML as the primary means for data integration and adopting agreed metadata schemas
  - Using Internet and World Wide Web standards. ACHIEVED

- As part of the Access to Services Pilot, ensure that legacy systems comply with the e-GIF standards. PARTLY ACHIEVED

- To migrate the network to run using Internet Protocols (IP). Ensure that all new hardware can run using IP. ACHIEVED

11 Systems Integration & Customer Relationship Management

To enable electronic service delivery from any access channel by providing access to information held in multiple systems from one web based point of entry. Improve service delivery by integrating the data held in legacy systems and presenting it via a web based front end. Enable the tracking of customer contacts to improve the delivery of services by using a Customer Relationship Management System.

Issues

CYC utilises a wide range of different application technologies which makes the task of integration more difficult. Any integration solution must be capable of spanning the full range of applications in use. It must also be able to be amended when applications are upgraded or replaced, without major expensive revisions to the interfaces that integrate into the application.

The Council currently has no way of measuring and analysing how customers make contact with the Council. Multiple reception points and Directorate based information systems prevent CYC from collating information on how many customers use which service, how often and when and what other services they require. Customer First Statistics show headline information about the number of visits made to reception points but this data is not sophisticated enough to help us understand how best to structure receptions and services to provide the best quality customer service, or to effectively plan services to address need

The Access to Services Pilot will identify potential Systems Integration and Customer Relationship Management solutions and it is not yet decided how these will be implemented. This Strategy should identify base technical considerations that should be used for evaluation purposes.

REVIEW

easy@york is delivering CRM and an integration platform and a data consolidation hub that will enable us to capture customer contacts, establish a unique dataset for people and property and connect this to records in selected back office systems. It will also establish the future capability for converging information between systems.

Objectives

- Identify appropriate Application Integration solutions that enable web-based access to existing Back Office applications. Solutions must enable multiple databases to be linked and updated from a single web entry point. These technologies will capitalise upon the server based computing infrastructure currently in place and should be capable of low cost amendment to cope with the introduction of replacement applications without major revisions to interfaces ACHIEVED

- Identify Customer Relationship Management Software that will track customer interactions with all departments of the Council, which in combination with data integration tools will enable CYC to deal with multiple requests for Council Services from one single customer contact. Improved management information about customer history and activity will also facilitate better service planning and improved management of performance. ACHIEVED

12 Geographical Information Systems (GIS)

To enable all property or land data held by the Council to be accessed using Geographical, spatial references, to combine different types of information from different sources to display correlation, trend and cause and effect relationships between data.

Issues

CYC has three different GIS products in use. Files created in one system are not easily interpreted by another system. Maps are held on discrete PC's and cannot be accessed by other users. Spatial data is held in multiple systems and the thematic layers created by mapping this data are also held on discreet servers and cannot be shared with other users

REVIEW

We developed a GIS strategy in 2003 but were unsuccessful in getting funding for the resources to implement this. As part of easy@york we have now developed a corporate GIS solution and have resources for 2 years to establish our corporate use of GIS and transfer specialist skills to existing staff. This will become a powerful business and planning tool and we need to ensure that the ongoing development is resourced and prioritised.

Objectives

- To establish a Corporate GIS system which complies with BS7766, where all map tiles are held on a central server and can be accessed by all users. ACHIEVED

- To hold all thematic information layers on the same server so that different data sources can be cross referred ACHIEVED

- To Provide browser access using Map Explorer 2 delivered under Citrix to enable all users to view spatial data ACHIEVED by different means

- To rationalise the GIS systems in use across the Council and standardise upon one GIS tool, in order to ensure that map based data can be read and interpreted across the Council PARTLY ACHIEVED

13 Telephony

To deliver a resilient cost effective telephony service for CYC staff. To prepare for e-government by facilitating the convergence of the voice and data networks so that customer contact can be handled as efficiently as possible.

Issues

The current voice network upon which the CYC telephony services are delivered is run on separate infrastructure and uses different technologies to the data network. This means that CYC have a duplicated infrastructure, one for voice and one for data which is not cost effective. It also means that it is not possible to integrate voice signals with data held in systems. Call Centres commonly use Computer Telephony Integration (CTI) to add value to customer contacts by identifying the customer from their telephone number or by offering some services via automated phone menuing systems.

The existing telephone switches were installed over 12 years ago and will need replacing in the future.

REVIEW

New Contact Centre telephony systems are being implemented as part of easy@york, running on our VOIP network that brings rich functionality for controlling customer contact over the phone. The use of speech recognition will free up the majority of the Switchboard resource to deal with customer transactions by automating call transfers. It will also offer out of hours directory services for all staff.

Objectives

- Consolidate the data and voice network to achieve economies ACHIEVED

- Where possible implement voice over IP data and voice sharing so that voice signals can be integrated into a call centre environment. ACHIEVED

- Replace old telephone switches when they can no longer deliver resilient, cost effective service or deliver the more advanced functionality required by e-government. ACHIEVED

14 Web Strategy

The CYC web site should be used as both a communication tool and a transactional delivery channel for CYC services, to use the web as a gateway for our customers and citizens. CYC should also use the Intranet as the source of useful, shared information for the whole of CYC.

Issues

The CYC Internet site has been in existence since 1997 and is designed primarily to deliver information. It is not set up to deliver secure financial and data transactions. This will be addressed as part of the Access to Services Pilot. Information on the Web is often out of date and unmanaged. The issues are covered in more depth in the Web Workplan.

The CYC Intranet has been in existence since 1997. It is not used frequently by the majority of CYC staff, except to access the telephone list. Directorates are responsible for keeping their information up to date and relevant but it is fair to say that the majority of the content on the Intranet is out of date.

REVIEW

As part of easy@york the new internet site will be controlled by a Content Management System (CMS), which will deliver better information which is kept up to date. It will also deliver secure transactional capabilities to the public. In future this system will replace the internal intranet but it is likely that this will be a big task to ensure that this is kept similarly updated.

Objectives

- Provide accurate information on council services to audiences 24 hours a day, seven days a week, delivered through a secure, well-maintained and consistent website ACHIEVED

- Deliver the government web requirements for City of York Council, by implementing national guidelines and the necessary structure and procedures to ensure the web is prepared for electronic transactions and the delivery of e-government requirements by 2005 ACHIEVED

- Achieve long-term sustainability of the web, through continual development, by identifying and developing skills and resources across the council, increasing ownership of content and integrating the web as part of every council activity. Develop the Intranet publishing mechanisms and structures to make content easier to publish and find. ACHIEVED

- Ensure consistency and co-ordination of the web across the council through corporate standards, guidelines and procedures, applying to both the Internet and intranet, ensuring the sites meets national accessibility guidelines. PARTLY ACHIEVED

- Implement Secure Socket Layer technologies on the CYC Internet server to enable secure transactions, ensuring compliance with e-gif standards ACHIEVED

- Deliver secure pilot on-line services via the web by using transactional web servers located in a De-militarised Zone (DMZ) to communicate with corporate applications on the CYC network. ACHIEVED

- Implement Apache Web Server as the standard Web Server operating system for external web delivery where security requirements are paramount. Implement Microsoft Internet Information Services where security is less critical and functionality requirements can be better serviced. ACHIEVED through different means

- Ensure that the Internet Server is protected from hacking or Virus infection by appropriate firewall technologies ACHIEVED

- Ensure that the Internet Server is situated with sufficient bandwidth connectivity to the CYC network and to the Internet, to enable it to perform an increased, transactional function. ACHIEVED

- Identify key representatives in each Directorate who are responsible for maintaining and overseeing Directorate information and implementing the information policy on the Intranet and the Internet. ACHIEVED

- In the long term, explore the use of a Content Management System to facilitate the delivery of content directly to the web. ACHIEVED

15 E-learning

To develop the ICT skills of the citizens of York, to enable them to take advantage of the digital revolution and to contribute to the Council's lifelong learning objectives. Skilled employees will feed the burgeoning Bio science and digital industries which York is endeavouring to develop and promote. The existence of a technically literate workforce is key to attracting inward investment in this sector.

To increase uptake of broadband connectivity in the York area to attract further infrastructure investment by Telco's and make available affordable broadband to SME's and private homes which will in turn have an impact on the attractiveness of York as a venue for hi-tech companies.

Issues

York is currently relatively well provided with broadband connectivity with many of the large Telco's having a substantial presence in the area. It is therefore well placed to capitalise upon this infrastructure and to encourage take up and hence further investment. The City also hosts a number of technology based learning initiatives which have attracted substantial external investment. ICT is seen as a key mechanism to improve educational standards in all topic areas and the existence of high tech industries in and around York means that there is potential to improve the economic prosperity of the City both by encouraging inward investment and by creating employment opportunities for local people. Much of this is predicated upon having a trained and capable workforce with the right skills to capitalise upon these opportunities.

The potential of ICT to increase community participation and lifelong learning forms one of the tenets of the Governments approach to social inclusion.

REVIEW

We made some early progress in this area but our focus switched to electronic service delivery once the easy@york programme was established. The provision of broadband connections to schools and libraries was achieved ahead of timetable and has since been upgraded. This has been delivered via a successful centralised managed service.

Objectives

- Promote and develop the ICT learning in the community as a means of improving technical ICT skills and as a method of delivering other learning opportunities PARTLY ACHIEVED

- Increase the number of public access PC's and kiosks, ensuring that they are located in a wide range of venues that offer equality of access to the entire community ACHIEVED

- Work with other partners to encourage inward investment in IT infrastructure across the City and across the region PARTLY ACHIEVED

- Implement broadband connections for all schools and libraries in the City ACHIEVED

16 E-Procurement

To use web technologies to reduce the transaction cost of procurement, to increase the efficiency of procurement activities and to gain value for money from all purchasing activity.

Issues

Electronic procurement has two major aspects to it, using the web for electronic tendering and end-to end electronic processing of all aspects of the procurement chain, from requisition to payment. The former requires suppliers to have access to the internet whilst the latter requires suppliers to have on-line product catalogues, electronic ordering, supply and payment facilities, as well as requiring full integration of these systems into the Council's Financial Management System. This is not likely to be achievable for some time, until both suppliers and the Council have updated their own financial systems.

CYC are involved in a Pathfinder project with Leeds City Council to establish electronic tendering processes.

REVIEW

Progress in this area has been slow for a number of reasons – it has not been the focus of our e-government activity, the pathfinder project that we were linked to has undergone a change of supplier thus slowing down roll out and e-procurement strategy has quite rightly been subsumed into the broader procurement strategy which is being developed. The implementation of the FMS replacement is key to delivering many aspects of e-procurement and we are in the process of implementing the Contract Management Solution developed by the pathfinder.

Objectives

- Work with Leeds CC to develop the first steps towards electronic tendering NOT ACHIEVED

- Upgrade the Financial Management System to be capable of accepting end-to end electronic requisitions, invoices and payments, using data transfer standards set out in the e-GIF. NOT ACHIEVED

17 E-Democracy

To contribute data to the Local Authorities Secure Electoral Register (as outlined in section 11). To use new technologies to enhance citizens' opportunities to participate in the democratic process and enable the Council to seek the views, knowledge and experiences of the Citizens of York.

To give citizens the opportunity to vote by electronic means in elections and other ballots under statutory control.

Issues

The Electoral Commission, the DTLR, and the Improvement and Development Agency are undertaking the LASER project which will link all electoral registers across the country to form a single, consolidated, nationally linked but locally managed register in electronic format. LASER aims to provide electoral registers that are joined up, maintained and managed locally, and can then be accessible on a national level to authorised users. Any profit made from the sale of the register will be passed back to local authorities as recognition of the effort involved in collecting the information.

The Electoral Commission and the DTLR have agreed innovative voting pilots in the May 2002 local elections. The results of these pilots will possibly lead to changes in electoral law and the implementation of electronic voting.

Public participation using new technologies will provide citizens with enhanced opportunities to participate in the democratic process between elections. This includes participation in policy definition, local decision making, scrutiny processes and, finally, citizen-to-citizen interaction. This policy track also covers related activities that take place between elections, such as electronic registration and electronic postal vote application, and post-election activities such as counting votes.

REVIEW

Central Government have made little progress on this issue so we remain compliant and await further developments. IT is likely that this issue is dependent upon the approach taken to ID cards. We have achieved more than predicted in the area of e-consultation where we are launching on line consultation as part of easy@york.

Objectives

- Develop the Electoral Registration System to conform to the technical and data standards of LASER and to connect the system to the Electoral Register Hub. NO PROGRESS FROM CENTRAL GOVERNMENT

- To await further Government decisions regarding electronic voting NO PROGRESS FROM CENTRAL GOVERNMENT

- To encourage the use of e-mail and the internet for on-line consultation OVER ACHIEVED

Use technology to improve business efficiency

18 Directorate Strategies

Develop Directorate IT strategies that use the Corporate IT strategy as the starting point and working within this framework, directly address the specific business requirements of the Directorate.

Issues

Some Directorates already have IT strategies but these will need to be updated and reworked to integrate with the corporate IT strategy and to address the e-government agenda. Other Directorates have no IT strategy or plans in place.

REVIEW

Not all Directorates have written an IT Strategy and since then most Directorates have been reorganised. These strategies do broadly take into account the corporate strategy but there is an inconsistent reflection of Directorate priorities and Service plans and there is little input from these strategies into the development of the future corporate strategy. This needs to be prioritised to ensure that we capitalise upon existing IT investment, identify the opportunities for service improvement, transformation and efficiency offered by technology.

Objectives

- To devise an IT Strategy and development plan for each Directorate that complies with the overall IT strategy, identifying the IT aspects of the business requirements of the Directorate. PARTLY ACHIEVED

- To ensure that appropriate links are made between Directorate Strategies to ensure opportunities for cross-departmental working are identified. PARTLY ACHIEVED

19 Performance Management

To use technology to provide accurate timely and appropriate performance management information which will inform management decisions and lead to improved service delivery.

Issues

A large volume of management information is currently collected to inform performance management. The quality of this information is not consistent across all service areas. Information is sometimes manually collated.

REVIEW

Performance management has improved within the authority and more of this is now done from IT systems using standard set of tools and a centralised system. There is however some way to go before this is slick and automated. There is still a surprising amount of data collated from paper systems and in some areas significant time is spent on collating and cross checking performance data from multiple sources. Skills in this area have improved but only in pockets. The corporate Performance Management System now provides one centralised repository for this data but this has been developed in different ways in different departments and is primarily a performance reporting tool which is not used to manage performance on a daily/weekly basis.

Objectives

- Use technology in the first instance to help identify appropriate performance measures PARTLY ACHIEVED

- Develop a corporate reporting tool that can be used to query information sources across all systems PARTLY ACHIEVED.

- Develop staff skills in querying data sources. PARTLY ACHIEVED

- Develop a corporate Performance Management System that will record all Performance Indicators and give trend data. ACHIEVED

- Strive to automate the collation of performance management information NOT ACHIEVED

20 Training Strategy

To increase the level of IT skills within the CYC workforce all users will be given the appropriate level of IT training to do their job within 3 years. Directorates will develop IT skills as part of the core competencies for all staff as part of their Personal Development Plan. Raise the level of IT skills within the City, thus attracting employers to the city and contributing to the economic prosperity of the area.

Issues

In the review of ITT, benchmarking revealed that the IT user skills at CYC are low. The subsequent restructure of the Department removed the small direct training function, as it was unable to address the size of the training demand. In its place the ITT department will provide resources for undertaking training needs assessment and the delivery of supported ECDL training

REVIEW

There has been a significant improvement in the general level of IT skills within the workforce as they have become accustomed to the Citrix environment and wide spread take up of the

ECDL has been key to this. This has resulted in a significant reduction in calls the helpdesk caused by user error. However as staff turnover continues then ongoing training needs to be maintained at least at the level it is now at. Gaps do exist particularly for new users and it may be useful to consider the development of an IT induction training plan.

Objectives

Increase skill base of users

- Adopt the European Computer Driving Licence (ECDL) as a standard accreditation for all computer users. This standard covers the fundamentals of computer use and eventually leads to formal accreditation. Training will wherever possible be delivered online with introductory workshops and training support delivered by the ITT Department. Accreditation will raise the general level of IT competence within the authority, thus leading to a reduction in the number of support calls to the Helpdesk. ACHIEVED

- Other specific or specialist training needs will be identified by Directorates with the assistance of their Senior Development Consultant, and externally sourced. ACHIEVED

- IT Training needs should be reflected in Directorate Training plans PARTLY ACHIEVED

Technical training and accreditation for IT staff

- CYC undertake to provide each technical staff member with at least 5 days training per year to ensure that CYC have a broad based understanding of the major technologies in use or prospectively in use within the Council. This will build resilience for support services and will encourage staff retention. PARTLY ACHIEVED

21 Systems Replacement Schedule

To provide an overview of the development and replacement cycles of major systems, in order to plan investment and maximise business improvement opportunities.

Issues

Conventionally it takes about 18 months to two years to replace a major IT System. There are often external, unavoidable drivers for replacement (changes in legislation, removal of support and licensing arrangements). In order to manage the risks posed by changing from one system to another it is essential to schedule major system replacements to ensure that we have adequate time and resources to undertake the task. It is also key to ensure that system replacements are undertaken with a view to the potential links with other systems so that we can make the most of any consolidation opportunities and avoid duplicating costly integration and interface development.

REVIEW

We have developed a longer-term view of when systems need to be replaced but this is not fully reflected in our investment plans and only covers major systems.

Objectives

- Develop a five-year schedule for the proposed replacement of major systems, taking into account information regarding known or prospective legislative timetables, software support timeframes, hardware life expectancy and the need to consolidate systems to deliver Access to Services PARTLY ACHIEVED

22 Flexible Working

To Support the objectives of the Asset Management Best Value Review by reducing the Admin Accommodation property portfolio by making best use of its Admin buildings.

To facilitate improved service efficiency by utilising portable computing devices to access networked data to provide business critical information to staff in the field.

Issues

CYC have over 140 networked administrative buildings. Many of these are in Central York and are expensive to maintain. The Asset Management BV review recommends that the property portfolio be rationalised. IT services will therefore need to be delivered more flexibly, to users who may be peripatetic or working from home.

The core functions performed by some staff require that they are not office based. To perform effectively they still need secure access to information and resources on the CYC Network. The technologies that deliver roaming access to major systems and their data have developed rapidly in the last two years. These devices offer the potential of improving the service delivered by staff operating away from the Council's main offices. Staff will be able to deliver information to customers, perform customer transactions in the field and input data into corporate applications whilst undertaking visits or inspections. There are a wide a variety of technologies offering this functionality and it is important that CYC use devices that are robust and secure, mutually compatible, integrate with the network and systems and can be supported.

Staff working from home can be very productive. The flexibility offered by these kinds of arrangements may lead to more flexible working hours, which in turn require extended hours for support functions to cover.

CYC already have a Remote Access Server, which will accept 60 concurrent dial-in connections and authenticates users to allow them onto the network. This is relatively cost effective for users dialling in locally but less so for people out of the area. There is the potential to use Citrix connections to make the link even more secure, give full network access, as if the user were actually plugged directly into the core network. These remote connections must be of sufficient speed and must be supportable on-line.

REVIEW

Through the successful deployment of Citrix we have enabled remote connections for home workers that are high performance, low cost and easy to support. Coupled with the ability that Citrix gives us to hot desk this will be essential to the success of the Admin Accom Project. Mobile access to systems has been established using wireless connections and handheld devices to calendar and e-mail applications. This now needs to be exploited to give access to other back office systems to enable staff to work in the field.

Objectives

- Enable CYC employees to have flexible, remotely supported access to the CYC Network from a variety of CYC buildings, ACHIEVED

- Provide dial in or wireless access to the network from a variety of devices ACHIEVED

- Provide high-speed, remotely supported access to users working from home. ACHIEVED

- Undertake a pilot of portable devices and determine a corporate standard. ACHIEVED

- Identify business areas where use of portable devices will improve service delivery and implement appropriate solutions. PARTLY ACHIEVED

- Explore the provision of Internet connections to the network for users connecting from longer distances. Explore the use of Virtual Private Network (VPN) technologies in combination with Citrix Nfuse to deliver secure, cost effective, high-speed connections. ACHIEVED

Establish effective links with Partners

23 York City ICT Strategy

To work with partners in the City, (York Strategic Partnership) to agree common themes and principles in our IT strategies which will maximise investment in local infrastructure and identify opportunities for sharing infrastructure or services.

Issues

The requirements of e-government to join up public services place a responsibility on CYC to deliver its services using a common portal, alongside local and national agencies operating in the City, from the Benefits Agency and the NHS to York College and York CVS. All of these agencies currently deliver stand-alone services using differing, possibly incompatible, technologies. Health, in particular, have rigorous standards for data sharing, which have prevented successful partnership activity in the past. It is essential to establish compatible standards and working practices that are necessary to support proposed closer working relationships.

REVIEW

Due to the collapse of the NYICTP and the subsequent need to focus our attention internally on achieving our own electronic service delivery, we have not engaged sufficiently with partners to develop joint strategies or access channels, with the exception of small-scale co-operation with the police on YPAL. It is likely that once we have gone live with easy@york we

will be able to explore potential opportunities further. Partnership working with health will become more urgent resulting from changes in the models of delivery for primary care and social care and multi agency working in Children's services. A more robust approach needs to be taken to defining strategies and plans in advance rather than being responsive to individual instances or initiatives.

Objectives

- Work with partners to develop a city IT strategy which will prepare for e-government and maximise the value of investment in IT infrastructure across the city. NOT ACHIEVED

- Establish a York City Wide Area Network which will provide shared broadband network facilities for public sector organisations in York NOT ACHIEVED

- Establish protocols and mechanisms for data sharing with key agencies PARTLY ACHIEVED

- Develop shared service access channels with partners in the City PARTLY ACHIEVED

24 North Yorkshire ICT Strategy

To work with other agencies in North Yorkshire to agree common themes and principles in our IT strategies, to work closely in partnership to deliver joint projects which will maximise investment in regional infrastructure and identify opportunities for sharing infrastructure or services.

Issues

The Yorkshire & Humberside region is huge and contains many different urban and rural areas. Regional agencies such as Yorkshire Forward and the Regional Assembly are developing sub regional strategies and plans and it is therefore important that CYC is active in creating effective partnerships with the other authorities in North Yorkshire.

A sub regional ICT partnership has already been established to procure the Access to Service pilot. This group worked together to submit joined up Implementing E-Government Statements and has subsequently applied for additional DTLR funding to support the ATS procurement initiative. The Sub regional partnership has been praised by the DTLR and is expected to become a Pathfinder for such joined up initiatives.

As an urban centre in a large rural sub-region, it is also important to acknowledge that the IT issues that face York are in some respects essentially different to those facing either a small District or the County. For instance, broadband Network Infrastructure is widely available in York where it is not in the rural areas of North Yorkshire. The solutions that we adopt will therefore be very different. However it is still important that we make the appropriate strategic links to ensure interconnectivity, and make the most of operational business benefits.

REVIEW

Having withdrawn from the NYICTP all attempt to deliver joined up solutions and strategies was abandoned. Work continues in the area of economic development. Input from City Strategy will be needed to shape our future aspirations in this area.

Objectives

- Work as part of the North Yorkshire ICT Partnership to deliver a joined up solution to e-government NOT ACHIEVED

- Develop a North Yorkshire IT strategy NOT ACHIEVED

- Approach regional funding agencies to support multi agency service delivery NOT ACHIEVED

- Work with the sub-regional authorities to encourage sub-regional economic development PARTLY ACHIEVED

25 The Yorkshire & Humberside Region

To work in partnership in the Yorkshire and Humberside region to join up services, build IT infrastructure and encourage IT based economic development

Issues

The Region is so large that it doesn't have a clear identity and can be dominated by the large metropolitan areas in West and South Yorkshire. Attempts are afoot to establish a Regional Portal. The barriers to joining up services are magnified across the whole region because of the variants in systems, technologies and investment cycles that are introduced

REVIEW

Much effort has been put into this area with no discernable results. Regional development opportunities so far have lacked any material benefit for CYC or have been so ambitious that they have failed to get going. The Government agenda is now pushing towards shared service delivery and we need to consider whether as part of our competition strategy we have serious ambitions in this area. The IT Strategy will then extrapolate some of the potential opportunities that might arise.

Objectives

- To co-operate with regional bodies to develop realistic regional initiatives to deliver e-government NOT ACHIEVED

Appendix 2

Glossary of Terms

De-Militarised Zone (DMZ) – War-like acronym used to describe the secure area on a network where web servers are placed so that external users can perform transactions which require access to the information held in back office systems, without allowing them to amend or delete any confidential data or system files**.**

Open Source/Open System/Open Platform – Terms used to refer to programmes where the user has the legal right and the technical tools to amend and add computer code in order to change what the application does. This is unlike Microsoft programmes where the source code is copywrited.

Storage Area Network (SAN) – Central storage of data files. All Word, Excel files etc are located on one large collection of Disks that are serviced by a number of processors that control access to the data on these disks. Enables any user to access data, irrespective of their physical location. Also ensures that data is mirrored (copied) onto other disks to ward against data corruptions.

Thin Client/Server Based Computing/Citrix - Terms used interchangeably to refer to the method of delivering applications from large centralised servers without using the processing power of the local PC.

Wide Area Network (WAN) - All sites that are connected together to form a network, irrespective of whether they are near each other or not. The CYC WAN includes the main central sites, all remote sites such as libraries and even Members houses that are temporarily connected.

Local Area Network (LAN) – All sites that are hard wired together in reasonably close proximity to each other. The Central CYC LAN covers St Leonard's, Museum St, De Gray House, Swinegate, the Guildhall, George Hudson St and North St

Virtual Local Area Network (VLAN) - Network technologies which split the network into segments to stop data from cascading across the entire network, thus limiting the amount of necessary traffic and increasing security.

Virtual Private Network (VPN) – Network technologies which enable data to travel across a public network like the internet, without being intercepted or hacked, as if it were travelling across a private network

Extensible Markup Language (XML) - XML is a data format that contains both the data and a description of the data. For instance, name and address data would also contain "metadata tags" which say, "This is the first name, this is the second name , this is the number of the house" etc. This enables information to be transferred between systems that use different technologies and different field names and field lengths. It can then be interpreted and presented in different formats. The same piece of data can be imported into a major system, presented on the web or sent to a mobile phone without requiring numerous different data downloads in different formats. The XML schemas will agree the way in which data is described so that for instance planning data outputted in XML will be described using the same field names.

Internet Protocol (IP) – the data transmission standard used by the internet which has now become a common base level standard for networked computing. This describes the way that data is cut up into packets and distributed.