

**Report to: POLICY AND RESOURCES COMMITTEE - 13 NOVEMBER 2000**

**Report on: INFORMATION AND COMMUNICATIONS TECHNOLOGY STRATEGY**

**Report by: CHIEF EXECUTIVE**

**Report No: 710-2000**

## **1 PURPOSE OF REPORT**

To consider the implementation issues in the attached draft Information and Communications Technology Strategy.

## **2 RECOMMENDATIONS**

- 2.1 The committee agrees to adopt the Information and Communications Technology Strategy as outlined in Appendix 1.
- 2.2 Commence a project appraisal process (outlined in Appendix 2) that ensures all new bids for significant IT resources fit with the strategy.

## **3 FINANCIAL IMPLICATIONS**

An initial assessment of the financial implications of the attached strategy indicate that additional IT related costs of approximately £1M per annum would accrue. It is not clear, without more detailed appraisal, whether £1m investment would deliver £1m in value in either customer service or efficiency gains. The main causes of the additional cost are:

- 1 The cost of supporting higher demands on the Council's network for accessing the Internet 24 hours, 7 days per week reliably and securely.
  - 2 The replacement in year 2-3 of the Council's telephone system which is analogue rather than digital and therefore does not support some of the more advanced integration of voice and data referred to in the Strategy. It should be noted, however, that the Council's agreement with BT in relation to the featurnet system is scheduled for renewal in 2002.
- 3.2 Several of the projects in the strategy are in receipt of project grants from government such as the National Grid for Learning (£3M) and the New Opportunities Fund (£100,000), the Peoples' Network (£400,000). A further agreed bid of £500,000 has been made to the People's Network. These are supporting the developments in Schools, Neighbourhood Resource Centres (Learning Centres - Libraries). There is also a current application for £250,000 to the Modernising Government Fund to produce an online interactive booking and ticketing "Whats On" service for Dundee.
  - 3.3 In light of the national government agenda and the significant social and economic impact of the new Information and Communications Technologies

further opportunities for external project finance are likely to be made available to enable Councils to invest in this area. The adoption of the Strategy will ensure that the Council is prepared and quick to respond to these opportunities.

3.4 It is difficult to give a hard overall financial forecast for a 3 year ICT Strategy as the supply market and the technology are changing so rapidly. However, the growth in demand for networked services and the Internet will place increasing pressures on this area of expenditure. A key element therefore of the strategy will be a project appraisal process that ensures Best Value is achieved in projects and that achievable short-medium and long term efficiency savings are identified.

3.5 The recommendations are based on the assumption that the Council will not wish to commit upfront to additional expenditure for the Strategy. Many parts of the strategy can be developed within existing resources. Where new projects are required these will be considered within the budget for each year and only after they have been appraised. The appraisal will ensure that the projects can be funded without a net increase in the revenue budget. A draft set of papers for the project appraisal are attached as Appendix 2.

#### **4 LOCAL AGENDA 21 IMPLICATIONS**

The ICT Strategy will help deliver access to skills, knowledge and information needed to enable everyone to play a full part in society. It will also help sustainable development and reduce consumption of resources such as paper and travelling.

#### **5 EQUAL OPPORTUNITIES IMPLICATIONS**

A key driver of the strategy is to ensure that the communications revolution leads to social inclusion rather than excluding people who do not have access to information. The Council's equal opportunities values are also fully reflected in the design principles guiding development of the Council's web-site and public access information.

#### **6 BACKGROUND**

6.1 The Council's Plan 1999-2002 set a target of examining the potential of new Information Communication Technologies such as call centres and smart-cards (Dundee City Council's Plan 1999-2002 - page 10).

Impetus to examine this was driven by the following factors:

- E-government strategy launched by the Prime Minister and a Digital Scotland strategy from the Scottish Executive (May 2000)
- Evidence of the fast growth in internet access by the public (the most recent Council consumer survey shows almost a third of Dundee citizens already have access).

- Evidence of a public expectation for more convenient means of accessing information and services either by telephone or internet and 24 hours, seven days per week.
- Rapid developments in new communication devices such as e-mail, mobile phones, interactive digital TV, hand held miniature computers etc
- Evidence of organisations making considerable gains in customer service and efficiency through the new communications technology

6.2 An ICT Working Group was established that included senior officers from all Departments. It has met 6 times between March and September to produce the attached draft strategy. As part of the process a series of seminars were organised for Elected Members and Officers. A discussion document was circulated and written responses received from Department Management Teams. As a result the priority areas for exploring action were agreed as:

- The Internet
- The Intranet
- Customer Service Centre
- E-commerce
- ICT in Schools
- ICT in the Community

The resulting strategy is therefore based on considerable involvement across the Council. It aims to give a clear direction of where the City Council aims to be over the next three years in terms of Information and Communications Technology. It is clearly linked to the Council's Plan 1999-2002.

6.3 Early investigation highlighted that the Council already has a good track record of achievement but some weaknesses that need to be tackled. For example the existing Council Web-site has already won an award as has the Council's implementation of the National Grid for Learning. However, areas such as joining-up services through one stop shops and taking electronic payments (credit and debit cards) meant that experience of combining customer data into single points of access and e-commerce had to be addressed. The strategy seeks to develop the capability to use the new ICTs to join up services and information to give better and more convenient access to services, to provide the Council with a platform to benefit from e-commerce and to continue to be a leader in harnessing the new technology for social inclusion.

6.4 The emergence of the Internet as a popular communication channel will have a profound impact on the way the Council operates. An ICT strategy is therefore clearly the beginning of long term change and has therefore been written in a style that aims to clarify a longer term vision as well as more immediate practical objectives.

## **7 IMPLEMENTATION PLANNING**

7.1 Having developed a draft strategy it will be necessary to communicate the strategy to employees, the Council's external partners and the public.

Implementation will require a significant amount of IT staff and service management time and therefore it needs to be part of the overall set of priorities.

- 7.2 A more detailed implementation plan is required to monitor that all the objectives and tasks referred to are being carried out and co-ordinated. It is considered by the ICT Working Group that a project appraisal process is required to cope with the increase in demand for IT investments and ensure that only those projects that fit with the strategy receive any significant new investment in IT.
- 7.3 If the strategy is adopted by the Council it is intended that detailed reports on projects recommended for implementation will continue to be presented to committee on a case by case basis.

## **8 CONSULTATIONS**

All Directors and Elected Members have been consulted during the preparation of this report.

## **9 BACKGROUND**

- Dundee City Council Plan 1999-2002
- Information and Communications Technology Strategy - Discussion Paper (Corporate Planning April 2000)
- Digital Scotland Task Force Report - Scottish Executive, May 2000

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Alex Stephen  
Chief Executive

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Date

# INFORMATION & COMMUNICATIONS TECHNOLOGY STRATEGY

Draft to Policy & Resources Committee



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# **Information & Communications Technology Strategy**

## **Introduction**

This strategy sets out the City Council's approach to using Information and Communications Technology (ICT) to deliver customer focussed government. The rapid developments in ICT will lead to significant changes in society. This will affect the Council as an organisation in the way it runs services and communicates with citizens. The Council is also a key actor in leading and shaping the way the City responds to the information age. The strategy will set out a vision of how services will be provided by the Council and what short and medium term objectives (three years) will be pursued.

The main reasons behind the strategy are:

- The predicted growth of public access to the internet through cheaper access to computers and a range of new channels such as Interactive Digital TV.
- The affect of commercial sector use of ICT on public expectations of fast, convenient around the clock service.
- The enormous potential to integrate information and streamline processes to improve services and increase efficiency using web technology.
- The need to ensure that the benefits of the information age creates social inclusion rather than exclusion.
- Clear targets set by central government and the Scottish Executive to:
  - Joined public services focussed on the customer and not the bureaucracy
  - Provide access to services 24 hours 7 days per week where there is a demand for this
  - Create efficiency saving through eprocurement
  - Help put Scotland in a leading position in the world on ecommerce.

## **Vision of an Information age Dundee** **(6 – 8 year time frame)**

Dundee will be known as an advanced city at the forefront of digital technology. Its public services, business and education sectors will be leaders in electronic communication.

In 2006 95% of Dundee citizens will have electronic access primarily through Digital Interactive TV and the internet to the Dundee.Com portal. This will give 24hour seven days per week access to integrated, interactive services and information from the council, local education providers, arts and leisure providers and local businesses.

Public satisfaction with the ease of use, reliability, convenience and helpfulness of the Council's integrated interactive services will be 90% plus.

The whole community will be networked:

- Every school pupil will have their own internet learning account and email address at school and at home;
- Adults will get help with getting the maximum from the information age through their local learning centres;
- Local democracy and civic life will be enhanced with more dialogue, using the Internet, between citizen's, elected politicians, and public officials.
- Electronic mail and communication will replace the letter and be on a par with telephony.

When calling the Council the public will only have to remember a few numbers and will find that most of the time what they want can be approved and dealt with by the person who answers the call. Ultimately this will be about 80 % of transactions from the Council' viewpoint.

Behind the scenes the Council will have formed the appropriate partnerships between its departments, central government departments and other public service providers to align its processes with the needs of the customer making contact with the council. There will be no more shunting individuals around several agencies when the service forms part of an integrated whole for the individual.

The Council will manage all its suppliers through ecommerce type trading. This will reduce the costs of supplies and there will be no paper orders and invoices.

Council staff whose valuable work depends on being out and about will be able to use the network to work from anywhere and perhaps connect through neighbourhood resource centres to other Council facilities needed for their work.



This will cut out the need to frequently return to only one office location and also help the Council to reduce its office property costs.

The customer contact and ecommerce ICT systems will provide council staff with the majority of the performance monitoring and marketing information they need automatically. This will convert the time spent gathering and processing this information to time spent using the knowledge to improve the service and planning for the future.

The type of savings possible with ICT will enable more resources for frontline services and help keep the Council Tax within the stated aim of at or below inflation increases. This will mean more time for teaching, more time for providing caring services and maintaining the infrastructure.

By demonstrating leadership in ICT strategy the Council will ensure that the City is at the forefront of the Information Age and ecommerce and that the Information Age is about social inclusion.

## **Objectives for a 3 year timeframe**

### **The Portal, Web Site & Intranet**

1. Develop Dundee.Com as this City portal in partnership with public and private sector partners.
2. Put Dundee.Com onto interactive digital TV in Dundee.
3. Provide 24 hour & 7 days per week access to interactive information on Council and other public services through the dundee.gov.uk site.
4. Develop the Intranet to enhance the efficiency and effectiveness of all internal communication, support customer service staff and pilot transactions prior to going public on the web.

### **A Best Value Customer Focus**

5. Create a customer focussed council by joining up services and creating more efficient processes.
6. Establish a customer service centre approach both in the centre and for a few specialist services.
7. Ensure all new ICT developments are Best Value
8. Ensure all new ICT developments provide for effective public performance reporting and management information.
9. Move towards zero paper in the procurement process for all relatively small items using the Internet and Intranet.

### **Social Inclusion**

10. Provide every school pupil with their own Internet learning account and email.
11. Make access to electronic information available to everyone through local free to use terminals in Neighbourhood Resource Centres and other facilities throughout the City.
12. Provide training opportunities for people in the community to learn how to use and benefit from the information age.
13. Set up schemes to help the poorest in the community and who could benefit most from a social inclusion perspective get household access to Dundee.Com and the internet.

### **The Technology Infrastructure**

1. Develop the Council Customer Relationship Management and the Middleware necessary to support joined up efficient processes.
2. Develop a corporate system for taking electronic payment
3. Develop a corporate system for customer and property identification
4. Develop a corporate system for the authentication of individuals to enable online transactions to be completed securely.
5. Develop the network to support the increased growth in traffic to provide reliability.

## **Developing the capability**

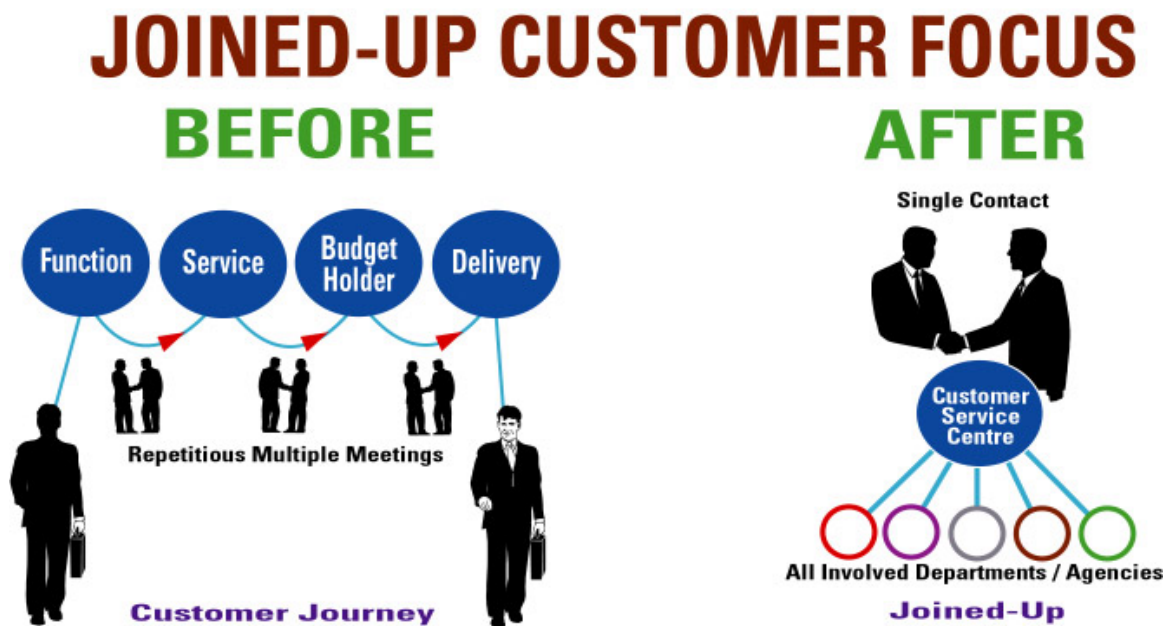
The ICT Strategy is a significant driver of change for the Council as an organisation. It requires new ways of thinking and doing. People's job roles and functions will change in ways that are not easy to predict exactly. To achieve change requires a number of activities to be planned over the next three years. Broadly speaking these will aim to:

- **Develop Awareness and Understanding**
  - Of ICT
    - Internet
    - Intranet
    - Customer relationship / service systems
    - Ecommerce systems
  - Of the benefits of integration of services
  - Of the ways in which processes can be improved
- **Develop Skills**
  - Managing ICT projects with speed but with care
  - Developing partnerships
  - Managing performance in the new environment
- **Developing policies**
  - Database interoperability protocols
  - Data protection issues
  - Best Value funding options for ICT projects
  - Levels of empowerment of staff
  - Audit control issues
- **Develop the infrastructure**
  - The portal
  - The network for homes, schools and neighbourhood resource centres
  - The customer service centre
  - The intranet
  - The service partnerships
  - The forums for collaboration

## Joined up services

The ICT strategy provides an opportunity to make significant improvements in the way services are delivered to the public. The main opportunity afforded by the advances in web technology is the ability to join up services. Both the web-site and the customer service centre concepts provide the opportunity to integrate information and reduce the number of steps a customer takes in their journey to complete their transaction with the Council and other public agencies such as central government and the NHS.

To achieve this the concept of the customer journey will be promoted. The figure below shows graphically the improvement to the customer following a customer journey process review. The frustration of having to deal with more than one or two points of contact and the time this takes will be saved as the figure below shows..



The Intranet also allows a number of efficiency improvements in internal procedures on the same basis as above.

To achieve these improvements three key steps will be taken.

1. All bids for council IT related projects will have to compete a Project Initiation Bid document and these will be assessed and only given final approval where the sponsoring department can show that the project will achieve a reduced number of steps in the customer journey.
2. Process Reviews of this type will become a new focus in selecting services to undergo a Best Value Review.

3. Training courses on analysing processes to achieve joined up services will be provided to review teams.

## **Dundee.Com – the Portal for Digital Dundee.**

The City Council owns Dundee.Com. It is envisioned that this will be the Portal for the City embracing everything that the City has to offer on the Web.

There are three main questions citizens may ask of a City Portal:

- What can I do? (the what's on with interactive booking, ticketing and information)
- What can I buy locally? (all local business and commerce) - interactive search for services
- What can I learn? (interactive search for courses run by Universities and Colleges, Schools, Community Learning)

The portal will also provide links to all the local institutions including the City Council as well as a local newsfeed.

1. To develop the Portal a Dundee Partnership forum will be pursued that will govern the site for the whole City.
2. A partner to provide the technology and infrastructure to support Dundee.Com will be sought.

### **What's On**

The 'What's On' (online booking and ticketing) is the Council's bid for Modernising Government Funding. This is the information that the Council's annual survey consistently states people want more of.

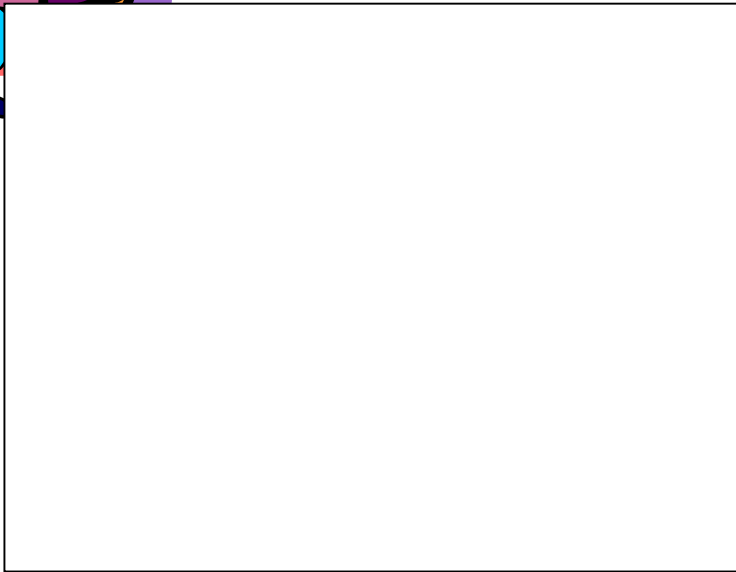
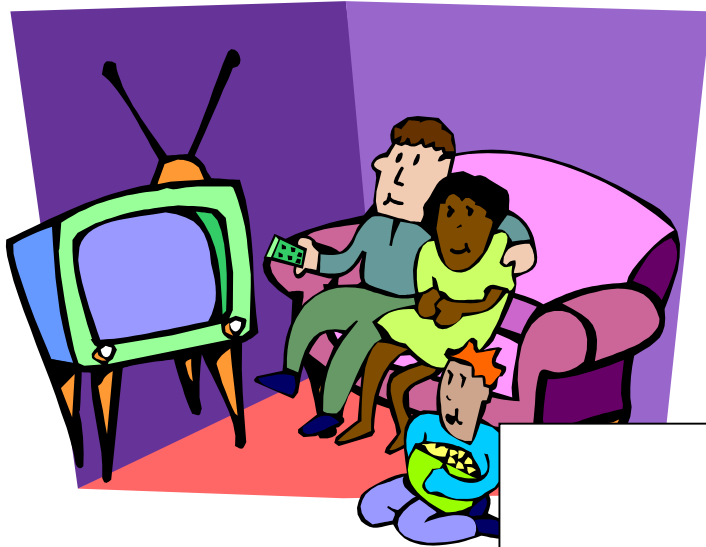
'What's On' will cover the broad remit of "what can I go out and do". It will cover both Arts and Leisure services and therefore promote culture, fitness and health.

To develop the full potential of the 'What's On' site on the portal a partnership with the local arts organisations and the Council's Arts and Heritage and Leisure and Parks Departments has been formed. The success of the "What's on" element of the portal will be judged beyond the obvious information and convenience benefits for users but on the ability to increase participation by communicating directly and electronically with target groups.

When the Portal is fully functioning, the next phase will be to put it on Interactive Digital TV. This will ensure wider access and help achieve the Social Inclusion benefits. This will form an integral part of the process of developing the Portal.

A steering group is already formed to prepare the business plan for the 'What's On' service. This group is working with the Scottish Executive under the

Modernising Government Initiative. The technology supplier for the development of this site will be the same as that for the Portal as it is an integral part of this. However a partnership of the Arts and Leisure industry in Dundee is being formed to govern the further development of the interactive 'What's On' service.



## **The Council Web Site – dundee.gov.uk**

The public will have access to the most up to date information on Council Services and be able to complete transactions with the council through the City Council's web site. This may be accessed either directly or through a link from the Dundee.Com portal.

The Council already has an award winning web site but recognises that it needs to constantly improve and invest in its development if it is to become a mainstream channel of communication with the public.

A web site steering group has been established and the site is undergoing a redesign to make it easier to use and navigate.

The priorities for the next year are:

- To enhance and develop the existing content.
- To create clear corporate design guidelines for all staff responsible for managing content
- Add transactional facilities e.g. online forms
- Create links around the customer focussed joined up services concept
- To promote the site and advise the public on how best to use it

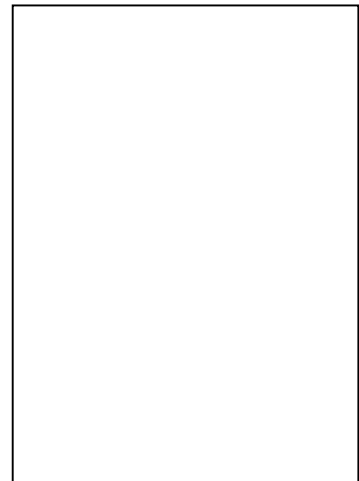
To achieve these objectives the web site steering group has brought together the Library & Information resources with the design services and IT divisions to work together as a centre of excellence on setting up the web site. The Community Information Team located in the central library will handle new information set up and linking new pages on the website. For significant developments such as transactions on the site where live links to databases are required a Project Initiation Document will require to be submitted so that the full IT implications can be assessed and piloted before public launch.

The steering group has established a network of Information Champions in Departments. Their initial task is to set up a structure within each department that will ensure web site information is up to date, routinely updated and effectively sited and linked within the existing website.

The website steering group will look at ways of integrating information around major life events. Below is a list of typical life events.

### **Life Event model of integrating information**

• Giving birth	• Changing job
• Starting school	• Becoming unemployed
• Leaving School	• Recovering from illness
• Buying a house	• Requiring full time care
• Getting Married	• Having a bereavement
• Moving House	• Retiring





Thereafter the development of the site will depend on project proposals that achieve joined up services for the public. By the end of the initial three year period when the full infrastructure and capability is in place the Council can begin to build the concept of customer accounts where the individual can have their own secure access to personal information and account details over the web site.

To achieve the development of the web site

1. A new easy to use design will be introduced by February as the Council Standard
2. All additional public pages will be put on through the Community Information Team to the requirements of the Corporate Standard.
3. Information Champions will submit an Action Plan to the Web Site Steering Group on updating and improving their department's information by December 2000.
4. A promotion and marketing campaign for both Dundee.Com and DundeeCity.gov.uk will be launched in 2001.
5. A facility for Information Champions and other nominees to update their own service pages directly will be introduced following the successful trial of updating Intranet pages directly.
6. Departments will audit all their public forms and decide a prioritised plan of making them interactive throughout 2001.
7. Reviews focussing on the Customer Journey with the aim of joining up services will establish more integrated information sites and forms that cut out the public requiring to complete several forms for the one process.
8. The web site Steering Group will prepare the integration of the web site with the corporate infrastructure outlined on page 20 to achieve the customer account concept.

## **Intranet for efficient and effective internal communications**

The development of the Intranet will aim to improve employee communications corporately plus within and between departments. The Intranet site can currently be used to search the complete telephone directory, Council minutes an IT help zone, a strategic information site prepared by the working Group of the same name and the first central service department site – Personnel & Management Services. The ability to give access to up to date information and documents without having to copy and distribute hundreds of copies will improve the accuracy and efficiency of communication.

The Intranet will also be used as a support tool for employees dealing with the public, especially through the Customer Service Centre Concept. It will ultimately be a gateway to the Customer Relationship Management information as well as the source of answers to frequently asked questions. It will also facilitate ecommerce by carrying the online internal transactions and audit control security.

The Intranet will also provide a gateway for employees to the Government Secure Intranet so that national public sector networks can supply information in a joined up way to support the Council in joining up services and public information.

The Intranet will develop with use and continuous improvement by departments. Software and templates will be distributed to Information Champions and nominated employees in departments to develop their own sites. Interactive databases and transactions will need to be proposed as projects through the Project Initiation Document route. The Intranet Steering Group will also propose corporate priorities for development. Departments can create their own sites and determine the access from within their department. Just like the public web site there will need to be a common language for designing and placing pages. Equally important is that there are several ways to find relevant information.

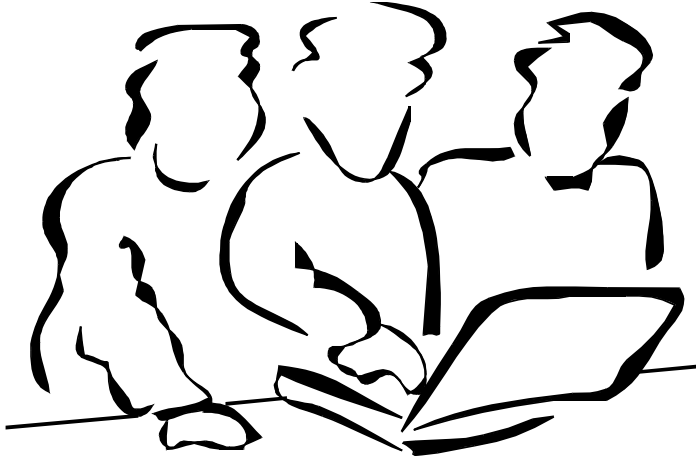
The success of the Intranet will depend on

- Access by all employees
- Ease of use
- Functionality
- Standards on information presentation and search
- The capability of the Council's network

To achieve the development of the Intranet the following actions will be taken:

1. Issue Software with templates and guidelines for Departments creating their own Intranet sites and corporate services over the Intranet.
2. Departments review how access to the Intranet can be achieved for all employees and where shared access terminals need to be provided on a cost-effective basis.
3. Intranet steering group considers and implements corporate ways of grouping policy documents and important management information.
4. Intranet Steering Group considers the need for and development of document control standards.

5. Significant developments on internal communications requiring transactions and programming should be submitted through the Project Initiation Document route.



## **Customer Service Centre**

To deliver the customer focused approach to joining up services Customer Service Centres will be created. There will both be a central one and a few for areas high complexity, sensitivity or volume. A customer Service Centre will specialise in handling calls and providing exceptional customer service.

The Council's consumer survey shows that nearly half the people contacting the council are looking for information only. An internal survey showed most calls received in departments are straightforward.

The Customer Service Centre Working Group has identified the following objectives for a customer service centre approach.

- To provide a vehicle for joining together services of customer to contact more than one department or A
- To reduce the published telephone numbers for the would need.
- To deal with 80% of calls at the first contact by the
- To provide a capability to take calls 24hours per da is a demand for this.
- To free time for experts and specialist staff from ha focus on the issues requiring their expertise the mo
- To be a centre of excellence on call handling custo new customer contact devices in addition to the tel incoming email etc).

To achieve these objectives the following actions will

1. A central customer service centre will be piloted bringing together the current switchboard and Helpline staff and identifying an initial joining of the call handling function for a few services.
2. Two service departments will identify a specialist area to trial the customer service centre approach.
3. The seven out of hours emergency numbers will be brought into one customer service centre approach.
4. A partnership with a supplier of both technology and management consultancy in delivering this approach will be sought.
5. These initial phases will be used to build up the infrastructure required to roll out the customer service centres operations further and provide the integration with the web and Intranet. This is the infrastructure detailed in pages 20-23.
6. The further developments in the Customer Service Centre will be identified by the reviews based on the Customer Journey Joined up services model and/or by the Project Initiation Document route.
7. A model for implementing the Customer Service Centre concept is being developed. This will cover

- Partnership between the departments
  - To achieve the commitment and collaboration with the Customer Service Centre
- Process review
  - To join up the services and information needs and identify the hand off points when a call must be passed to a specialist.
- People management in the customer service centre
  - To ensure: excellent customers care skills, the levels and cover required, skilled use of the information communications technology and employee satisfaction in the process.
- Promotion of the new service
  - To ensure the public is aware of and uses the new contact point
- Performance
  - To ensure that the relevant management information required is designed in at the outset.

## **Eprocurement**

Eprocurement is where an employee can order an item or service electronically over the intranet or internet from a Council supplier and the process of approval, ordering and billing and updating the accounts are all handled electronically.

The benefits of eprocurement are

- Less time spent processing paper orders and invoices including the cycle time where it awaits different people to handle the paper which will enable more productivity on services;
- Lower prices since supplier costs are reduced in handling paper orders and billing and it enables a easier way to manage discounts negotiated centrally with suppliers;
- More accurate specification through interactive catalogues and forms;
- Faster delivery of required goods that can save on the need for storage;
- Better management information as trends in spending and supplier performance can be automated in the process.

The potential savings are greatest in terms of high volume / low value items where the processing costs of the order are high relative to the purchase price. The biggest area of growth in eprocurement is through supplier partnerships rather than online open tendering although developments in this area will be kept under review or as a way of researching the market price in certain supplies.

The benefits above are also true for the Council in its dealing with customers. Which is why early action will be taken to put in the infrastructure necessary to receive electronic payment and put transaction capability into the public elements of this strategy, namely the web-site and the customer service centre.

Equally important is that internally the council eliminates the need for orders and invoices between departments using instead an Intranet version of eprocurement.

The Eprocurement working group has initiated a process to implement eprocurement in the Council by the following actions:

1. Lead on the installation of a corporate approach to taking electronic credit or debit card payment.
2. Identify pilots on eprocurement looking at options such as purchase cards for staff, electronic catalogues and without these for small purchases.
3. Recommend any changes required to financial regulations.
4. Propose methods of integration with financial management systems.
5. Evaluate the pilots to ultimately propose a procurement strategy for all categories of purchases taking account of both the benefits of eprocurement and Council policies on a commitment to Best Value, local companies and 'green purchasing'.

## Information and Communication Technologies in Schools

Education will be at the heart of building the Information age society. The world-wide web and the Council's intranet will provide a real boost in providing a supportive learning environment. It will provide teachers and pupils with access to a wider range of top quality material and the ability to learn in a more collaborative way with other schools and education institutions.

Of fundamental importance is that teachers and pupils have access to the network. Dundee City Council has already moved faster and further in implementing the National Grid for Learning than other local authorities. Over £4m has been invested in the infrastructure, supported from the National Grid for Learning funding, and almost 2,000 new computers installed in schools in the last two years alone. The current position is:

- **Primary Networks**
  - Every primary classroom already networked (1st in Scotland)
  - 1:14 ratio achieved {Scotland 1:24}
- **Secondary Networks**
  - Completed by end 12/00
  - 1:6 ratio achieved and 1:5 planned for 2002 {Scotland 1:8}
- **Dundee City Schools Network (DCSNet)**
  - Network connecting all City schools in place
  - Every pupil from primary six onwards will have their own email account and controlled Internet access account.

There will be a close ties with Education and the wider social inclusion objectives to ensure that no child suffers from not having household access to the network. This will be a priority for developing schemes to support access in the community (see next page).

The next stage of development of the Education ICT Strategy is

1. Training of teachers on how to provide content and integrate it with the learning process
2. Developing content for Dundee City Schools network and on the Councils Intranet, Web Site & Dundee.Com portal.
3. Ensuring the management capability and resources are in place to sustain the network
4. Planning for the longer-term vision of a one to one ratio of computers to pupils.



## **Information and Communications Technology in the community**

It is vital that the Information Age benefits everyone otherwise the economic gap between those who have access to information and those who don't will widen. There is great potential for the communications revolution to develop communities and active citizenship.

The City Council has already established a network of free public access to the internet terminals in 25 locations throughout the City. These are in every Neighbourhood Resource Centre and Library. The Council is fully engaged with a national programme to develop a **Community Grid for Learning** and a **Peoples Network**.

The Council's award winning web site has been supported directly by the Council's Community Information Team. A local organisation contact database and up to date events listing service is already an integral and popular part of the site. A network of PINPOINT terminals are also in place in Council facilities to provide quick access to Council Information through the network and provide a one stop shop to council leaflets, forms and other information.

To develop the network over the next three years the following actions will be taken.

1. Develop the city Network to provide the Community Grid for Lifelong Learning
2. Install and manage access to a further 100 computers as part of the Community Network
3. Train library staff to coach individuals and community groups in using the Internet.
4. Support Community Groups putting their web pages onto the community network
5. Develop schemes to provide for the long-term vision of ensuring everyone that needs and wants access in their home and perhaps can't afford it to have it.





## **The Technology Infrastructure**

To support the strategy will require a carefully integrated infrastructure. This will require the IT Division to produce in collaboration with Corporate Planning & Departments policy guidelines on the following:

- Standards for common customer id and property addressing
- Standards for document storage and retrieval for easy implementation on the Intranet
- Standards for a corporate system of authentication & verification of an individual
- Standards for security and data protection

### **Customer Relationship Management (CRM) & Middleware**

Both CRM & Middleware are essential components to achieve the objectives of joining up services, giving a customer account access to integrated information and integrating management information and reporting. They sit between the customer's point of contact and the core databases that are required for the administration of public services.

The Customer Relationship Management provides the front-end integration of identifying the customer, any verification of id required and then managing the access to information and tagging it as belonging to that customer. This allows any subsequent contact to bring up the contact history and makes the relevant data automatically available. This could be a record of phone calls, emails or personal visits plus the actual data held on the relevant systems for the service in question. It is important that the customer id and verification is a corporate approach so that any contact can be recorded. Customer Service Centre Staff will use this primarily in the first instance but as the system is proved direct secure access to customer account information can be delivered over the web site and Intranet using passwords or more sophisticated levels of identification if required.

It is through this software platform that more sophisticated integrated forms for joined up services can be supported. The CRM tells the Middleware what databases (which may be several) to update if information in a single field is changed. This for example could be one field notifying a change of address or financial circumstances and the Middleware automatically updates the numerous databases in departments that require that information.

The Middleware sorts out the different standards required for each database requiring integration. As database systems have been developed over the last twenty years or so for departmental specialists they have all used different computer languages or ways of addressing common elements of data. A simple example is one system requiring the word street and the other only allowing the shorter St. Middleware logs the requirement of each system and would take an entry on a form on the network and translate the data for retrieval and storage.

CRM & Middleware are essential corporate building blocks for achieving the longer-term vision.

To develop the CRM & Middleware the following actions are required.

1. Invite proposals from potential technology supplier partners to provide the CRM & Middleware technology and management consultancy required to put these corporate systems in place.
2. The early selection of the pilot services to be integrated on the Customer Service Centre and Intranet

### **The network requirements**

As the traffic on the Council's network expands as both the public and employees use it more as the mainstream way of delivering services so will the demand for it to be faster, more reliable and secure from attack or breakdown.

The IT Division will have to put in place resources to provide for the 24 hour 7 days per week access. Procedures for keeping priority systems online even when a server develops a fault will have to be put in place. Similarly the network must have the bandwidth and access to the most modern connections to the World Wide Web. This will require constant review and a clear investment strategy in line with the other key network providers in the City.

1. To achieve this the IT Division will review the capability of the council's network infrastructure on a regular basis against forecasts of future usage and the needs of the City's economy.

### **Security**

Security of the information on the system is paramount both to give public confidence on entering personal information in transactions on the web site but also to ensure data protection and audit requirements are met. This will be a key requirement in developing integrated services and the Customer Relationship Management software.

Services where private information is critical such as financial or personal data will require the highest levels of security to verifying that the correct member of the public is being given their own information and that appropriately qualified and authorised staff are accessing it. Internal security is a management issue but the need for verification of an individual will require a corporate approach unless the Council is to burden the public with a range of different passwords and security checks. One solution is a single Council verification procedure with levels of back up verification details (example password, plus PIN plus a very personal detail that another couldn't easily guess). Another solution is a Smart Card which could contain a security code and another piece of personal information not visible on the card or able to be copied such as a finger print.

People are becoming used to this type of security check as more and more use online or call centre-banking services. However, the increasing amount of them is becoming a problem.

The solution to this may be developed on a national basis as it has been in Scandinavian countries and therefore will be subject to regular review. At this stage the introduction of a Council Smart Card would need to be based on specific functions until a fuller range of interactive services are developed. It is considered that the transport services in the City are the best place to begin consideration of a smart card.

1. The IT Division to prepare a corporate system for security information.
2. The Planning & Transportation Department consider the application of smart card technology for Transport services on the basis that it would have the capacity to expand to cover a range of other public service applications in the city.

## **Links to National Developments**

Both Central Government and the Scottish Executive have published e-government strategies. These have set up a range of national funding opportunities that the Council has actively participated in and received national recognition for our success in delivering programmes. They are the;

- Modernising Government Fund
- National Grid for Learning
- Community Grid for Learning
- New Opportunities Fund
- The Peoples Network

The government has also set targets for providing all service electronically by 2005. This plan will achieve this target.

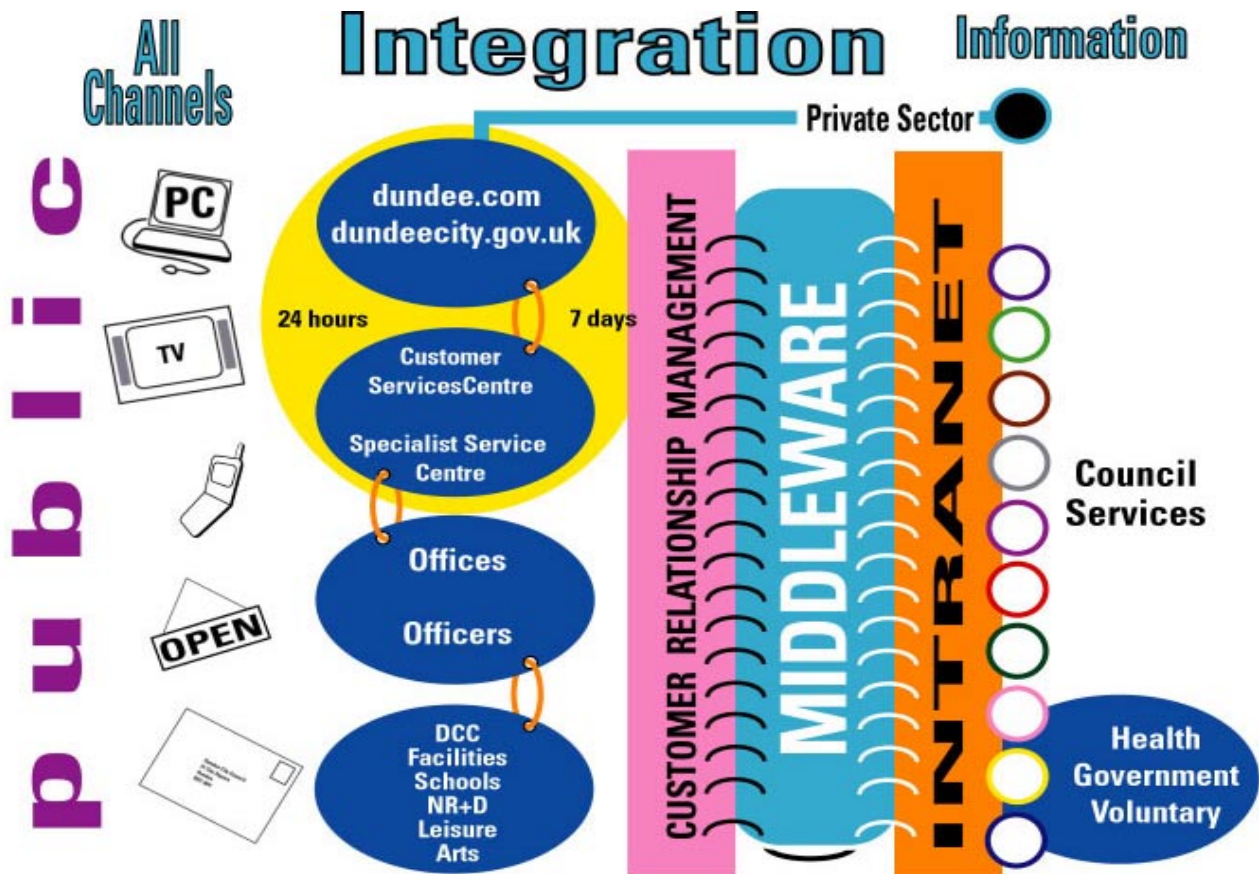
There are other national developments relating to a national land and property register linked to a Graphical Information System. This will require a unique method of recording each and every item of land and property in the country. Equally important is effective use of a geographical information system as a way of supporting staff identify property referred to by a customer in the same way as the Customer Relationship Management will pick up a customer identification. The GIS system will also help analyse trends on an area basis.

There are projects looking at electronic voting, video conferencing for the public between local and national agencies to avoid having to visit a range of different offices and a range of other similar initiatives as central government departments bring their interactive services online. Central government's main online service directed at providing electronic integrated services to the public will be operation mid 2001.

A key method of interacting with these national initiatives and integrating them into the council's own network will be through taking part in the Government Secure Intranet project. This will create a secure link between the Council's Intranet and Middleware to national databases held by government department's as well as allowing greater collaboration between local authorities throughout the Country.

1. The Planning & Transportation Department review the Council's Geographical Information System.
2. The IT Division liaise with the Government Secure Intranet project.

Figure 2 below shows the relationship between the public channels and the technology infrastructure to the council services.



## **Objectives linked to the Councils Plan 1999 - 2000**

The specific targets and plans will be in the final draft after consulting the working groups.

Objectives and targets here may be related to customer focus objectives and efficiency savings and use the following measures.

### **Good and Efficient Services that are Best Value**

<b>Internet</b>	<b>Definition</b>	<b>Current</b>	<b>Target</b>
Dundee.Com partnership in place	A partnership including the main public and private representative bodies in the City to govern the development of the portal and a partnership with a service supplier to provide the commercial development and technical support.	Early meeting taken place	December 2000
Average Number of visitors to Dundee.Com per day	This measures placement, awareness and access to the site.	2,000	10,000 by 2003
% of visitors to Dundee.Com who visit more than once	This measures repeat visits and is a good measure of people finding the site useful.		
% of visitors who visit more than one page.	This is a good measure of everyone who find the site and reads on therefor indicating that it was read for a purpose and / or attractive and user friendly.		
Ave Number of visitors to the dundeecity.gov.uk web site per day	Same as for Dundee.Com	5640	10,000 by 2003
% of visitors to the dundeecity.gov.uk web site who visit more than once.	Same as for Dundee.Com	16%	90% by 2003
% of visitors to the dundeecity.gov.uk web site who visit more than one page.	Same as for Dundee.Com	55%	95% by 2003
Number of interactive forms on the web site	Forms that allow online completion and submission. In the short term the number of such forms will indicate that managers are using the technology and thinking through the back office process to support this.	2	50 by 2003

<b>Performance Indicator</b>	<b>Definition</b>	<b>Current</b>	<b>Target</b>
Number of users of interactive forms	This will measure public submissions of interactive forms and improvement in this indicator will reflect ease of access, use and promotion of the interactive service by Council managers.		
Number financial transactions on the website	This will measure electronic payment made by the public to the Council and indicate that the Council has both the capability to do this and that it is being used and promoted.		
Number online booking and ticket transactions (Dundee.Com/whatson)	This will measure one of the first interactive services on Dundee.Com and measure where tickets or booking are made for leisure & arts venues online.	0	1,000 per month by end 2002
<b>Customer Service Centre</b>			
Customer service centre process in place for X percentage of services	This will measure the number of services currently listed in the a-z guide that can be dealt with using the customer service centre call handling capability versus the direct dial number for that service. It will indicate the rate of progress in joining up services through providing a fewer number of points of contact and where more transactions can be dealt with.	0	80% by end 2003
Number of calls handled by Customer Service Centres	Once the technology to support this service is in place the number of calls through this route will indicate the extent to which the change in the process has been promoted and used by the public.	0	60,000 per month by end 2003
% of Customer Service Centre calls where service given at first point of contact	This will measure the extent to which the front line staff are informed and empowered to give out information, forms, take electronic payment,		80% by end 2003

	make appointments, issue work orders etc without having to refer the caller to another department/ officer.		
<b>Performance Indicator</b>	<b>Definition</b>	<b>Current</b>	<b>Target</b>
<b>Ecommerce / eprocurement</b>			
Percentage of procurement by value purchased by ecommerce method.	Measure of the expenditure transacted with suppliers that is completed by electronic interaction saving paper order and invoice processing. The approval, audit and accounting functions will be handled by Intranet / extranet or world-wide web. The Digital Scotland target is 90% of all low value items by end 2001. Low value is defined as below the threshold that would require a report to committee under standing orders.		90% by end 2003
Number of invoices not processed by ecommerce.	Measures the trend in reducing the paper process to achieve an objective of zero use of paper in the transaction process. This also includes internal billing.	To be determined	
<b>Intranet</b>			
Number of employees with access to the intranet	This measures both direct access or shared access through the provision of common terminals to employees not normally having access to a PC at work..	2000	8000 by 2003
Number of pages by Department on the Intranet for both corporate and restricted access uses.	Straightforward pages count as a short-term measure of initial activity by departments in using the service.	To be determined	
Employee satisfaction with the Intranet information.	Relevant questions to be inserted into the next council wide employee survey 2001.		
<b>Teleworking/ Hotdesking</b>			
Number of employees involved in teleworking / hot-desking arrangements	Employees that have been provided with facilities for home or other remote access to the Council network to achieve both greater productivity and a		This is dependent on Departments

	reduction in office space requirements.		submitting this as a project.
<b>Performance Indicator</b>	<b>Definition</b>	<b>Current</b>	<b>Target</b>
<b>Overall Performance Management &amp; Planning Arrangements</b>			
Value of Services subject to Customer Journey process improvement reviews.	Budget value or nearest approximation by cost centre of services that have combined in a review of the customer journey.	0	60% by 2003 based on same principle as Best Value Reviews.
Value of IT projects approved following appraisal of Project Initiation Document.	The expenditure on the projects including IT Division resources allocated to the project and where a PID existed at the start. This can be compared with the total expenditure on ICT resources and indicate the extent to which the new strategy has replaced existing commitments.	0	80% by 2003
Targeted improvements in Customer & Employee Satisfaction scores.	Improving trends in critical result areas such as satisfaction with contacting the council by telephone, visit and now electronic mail/website plus the outcome of the contact. Employee satisfaction with information to do work and interdepartmental communication.	<u>Customer 2000</u> Telephone 79% Office 91% <u>Employee</u> Info for work 67%	<u>Customer 2003</u> Telephone 90% Office 95% Web 90% <u>Employee 2003</u> Info for work 90%
<b>Economic Growth and tackling population change</b>			
Dundee Partnership strategy in place for the integrated development of information, learning and communication technologies for the city of Dundee.	A city-wide strategy is required to ensure the whole Dundee economy benefits and achieves leadership in the new information economy.		Mar 2001
Levels of awareness	Survey evidence will be		

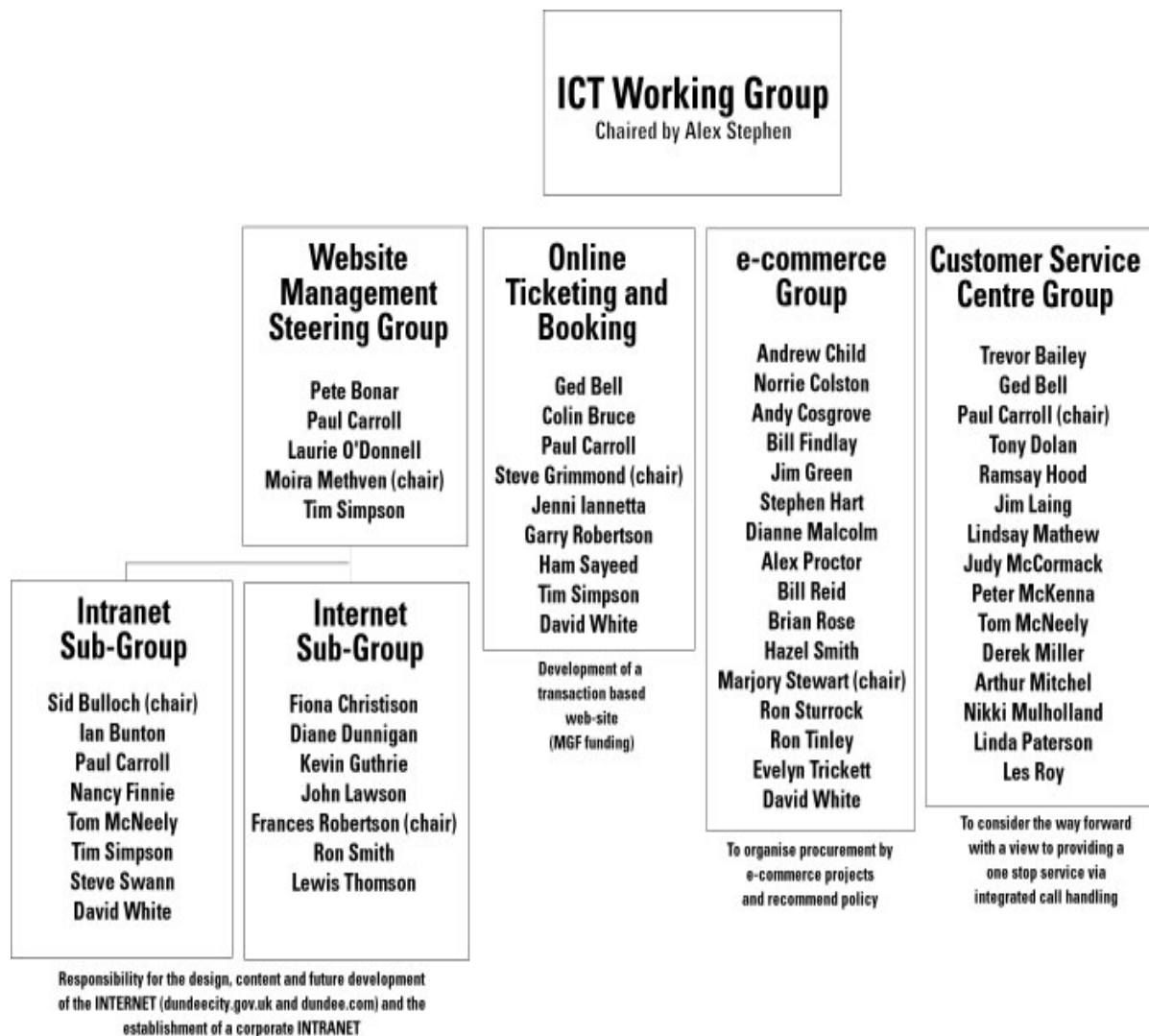


amongst the population and business	required to show that initial objective of awareness and understanding of the information age issues and support available. To provide a trend to measure the health of the City at large in terms of Internet activity.		
<b>Internet</b>	<b>Definition</b>	<b>Current</b>	<b>Target</b>
<b>Social Inclusion</b>			
Targets and methods to ensure everyone has household access to the network – eg issuing recycled PCs or providing free access at home in SIPS areas or tenants receiving service as part of tenancy.	Projects require to be established to finance schemes to ensure that households that want or need access to the internet for social inclusion reasons can get connected.		
National Grid for Learning Targets	Ratio of networked computers to pupils	Primary 1:14 Secondary 1:6	Primary 1:14 Secondary 1:5
Education Targets	Targets in relation to content of Internet and Intranet and training.		
Community Learning Targets	Targets in relation to network development, training and community group activity.		
<b>Active Citizenship</b>			
Public Performance reporting arrangements on the Internet	Evidence that corporate & Service performance indicators with current data and targets are available on the internet. Consultations about changes in policy and new are also relevant.	Council Plan and Indicators on Web Site, Plus corporate surveys.	All Service plans, Best Value Reviews and Performance Indicators on the Web Site. Mar 2001
Participation in local discussion and consultations.	An annual survey of participation in local online forums on topics of local interest and debate. Measures of feedback and participation in online surveys and consultations placed by the Council on the web site.	No discussion Forums	Pilot discussion forum Mid 2001.

## The Working Groups

These groups have contributed to this documents and will go on to deliver projects and a business plan for their remit to achieve the actions set out in this report..

There will also be a forum with the Dundee Partnership to develop a coherent strategy for the integrated development of information, communication and learning technologies for the City of Dundee.





**Information / Communications Technology Strategy  
Project Initiation Document DRAFT**

<b>1. Project Title:</b>	
<b>2. Department(s):</b>	
<b>3. Date:</b>	
<b>4. Author(s):</b>	

<b>5. Vision Statement:</b>	
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<b>6. Project Background:</b>	
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<b>7. Executive Sponsorship:</b>	
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<b>8. Business Case:</b>	
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**Information / Communications Technology Strategy  
Project Initiation Document DRAFT**

<b>9. Project Scope:</b>	
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<b>10. Identified Risks:</b>	
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<b>11. Project Constraints:</b>	
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<b>12. Additional Information:</b>	
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<b>Senior Management Use:</b>	
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<b>13. PID Status:</b>	<b>14. Status Date:</b>
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**Information / Communications Technology Strategy  
Project Initiation Document DRAFT**

<b>15.</b>	<b>16.</b>
<b>Approved:</b>	
<b>Rejected:</b>	
<b>Deferred Till:</b>	

<b>17. Approval Information:</b>		
<b>Name:</b>	<b>Designation:</b>	<b>Date:</b>
<b>Comments</b>		

**Information / Communications Technology Strategy  
Project Initiation Document – Evaluation Criteria DRAFT**

**Project Initiation Document - Bid Evaluation Criteria**

**Scoring criteria**

**5 = Project achieves this in a significant, explicit and measurable way**

**4 = Project will achieve this in an explicit and measurable way**

**3 = Project will achieve this to some extent**

**2 = Project may do this but it is not clear how**

**1 = This is not a feature of this project**

**0 = Project will have a negative impact on this**

**Customer Focus Criteria**

<b>Criteria</b>	<b>Comment</b>	<b>Score</b>
Number of target groups/people to benefit is clearly stated?		
<b>Benefits - Will the project?</b>		
Improve access to information and service?		
Reduce the number of steps the customer currently needs to take to achieve their objective?		
Usefully integrate current separate actions from the Customer's viewpoint?		
Save the customer money in using the service?		
Give the customer added value over current use of the service?		
Will it result in increased take-up of the service (state target increase where relevant)?		
<b><u>Total Customer Benefits</u></b>		

## Efficiency Focus Criteria

### Scoring criteria

**5 = Project achieves this in a significant, explicit and measurable way**

**4 = Project will achieve this in an explicit and measurable way**

**3 = Project will achieve this to some extent**

**2 = Project may do this but it is not clear how**

**1 = This is not a feature of this project**

**0 = Project will have a negative impact on this**

Criteria	Comment	Score
Can a key efficiency indicator be improved (please state which i.e. input/output ratio e.g. cost per unit)?		
Will the project remove a duplication of processing within the public sector?		
Are steps in the current process being removed/streamlined?		
Can tangible savings be identified?		
Can savings be realised in 1-3 years?		
<b>Total Efficiency benefits</b>		

### **Social Inclusion Focus**

Will the project promote social inclusion directly?		
Total Social Inclusion focus X 5	<b>Multiply by 5 to bring total into line with other issues.</b>	



**Information / Communications Technology Strategy  
Project Initiation Document – Evaluation Criteria DRAFT**

**Scoring criteria**

- 5 = Project achieves this in a significant, explicit and measurable way**
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- 3 = Project will achieve this to some extent**
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- 1 = This is not a feature of this project**
- 0 = Project will have a negative impact on this**

**Cost/Feasibility Focus**

<b>Criteria</b>	<b>Comment</b>	<b>Score</b>
Can a cost be estimated?		
Can a positive Net Present Value be calculated?		
<i>Will it be funded by:</i>		
Internal Funds?		
External Funding?		
Partnership Approach?		
Other Creative methods?		
Feasible to deliver project without net increase in revenue budget?		
Can it be delivered in 1-2 years?		
Evidence of high level executive support provided?		
Have the required skills to implement the project been identified?		
<b>Total Cost / Feasibility Assessment</b>		

**Information / Communications Technology Strategy  
Project Initiation Document – Evaluation Criteria DRAFT**

**ICT Strategy Focus**

**Scoring criteria**

- 5 = Project achieves this in a significant, explicit and measurable way**
- 4 = Project will achieve this in an explicit and measurable way**
- 3 = Project will achieve this to some extent**
- 2 = Project may do this but it is not clear how**
- 1 = This is not a feature of this project**
- 0 = Project will have a negative impact on this**

<b><u>Criteria</u></b>	<b><u>Comment</u></b>	<b><u>Score</u></b>
Will the project integrate data across Council services?		
Will the project provide a service over the Internet?		
Will the project enable front line customer service (centre) staff to deal with the customer's needs for this service at the first point of contact?		
Will this project remove paper from the transaction process?		
Will this project use the Intranet?		
Will this project enable staff to access resources from remote locations?		
Will the project allow future integration to customer or property address protocols?		
<b><u>Total ICT Strategy Benefits</u></b>		

Information / Communications Technology Strategy  
 Project Initiation Document – Evaluation Criteria DRAFT  
**Performance Management and Planning Focus**

**Scoring criteria**

5 = Project achieves this in a significant, explicit and measurable way

4 = Project will achieve this in an explicit and measurable way

3 = Project will achieve this to some extent

2 = Project may do this but it is not clear how

1 = This is not a feature of this project

0 = Project will have a negative impact on this

<b><u>Criteria</u></b>	<b>Comment</b>	<b>Score</b>
Will this project result in automating the display of key performance indicators in real time?		
Have the relevant service key performance indicators been designed into the specification of the project?		
Will the project provide automated management information (example for control or marketing purposes)?		
<b>Total Performance Management benefits</b>		

<b>Criteria Focus</b>	<b>Total Score minus Median for Focus</b>
Customer benefits	
Efficiency benefits	
Social Inclusion benefits	
Cost / Feasibility benefits	
ICT Strategy benefits	
Performance Management & Planning benefits	