

Nineveh

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Winchester City Council

ICT Strategy

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Management Summary

This strategy is designed to provide Winchester City Council with ICT policy and investment guidance in line with the Council's business objectives. In particular it provides a framework for the Council's response to the "modernising agenda". The application of ICT is planned so that it can make services more efficient and improve access for citizens.

The need to respond to the E-government targets, including the target to provide an electronic option for all appropriate service transactions by 2008, is a major driver for the strategy. Interactive internet facilities are identified as the primary means of achieving these targets and the Council is recommended to concentrate on the development of a web based service delivery system. Paragraph 65 of the report recommends a set of e-government targets for adoption by the Council and Appendix 4 provides a proposed action plan which demonstrates the main steps necessary to achieve these and the other recommendations contained within the report.

This is a radical strategy derived from the Council's radical aspirations for modernising service provision. Implementation presents a considerable challenge to the Council. Success can only be achieved if there is consistent commitment from both elected members and senior officers. Moreover, joined up service provision requires a strong corporate focus to the provision of supporting information infrastructure and facilities for communicating with the citizen.

An e-government investment fund provision of £300,000 in the first year of the programme is recommended, with the expectation that similar levels of investment will be required in years two to five.

In line with the latest government/LGA guidance Nineveh has recommended that the overall direction of this programme, perhaps combined with other modernisation initiatives such as Best Value, be vested with a director at Corporate Management Team level. The director will need to be supported by a full time e-government project manager.

The strategy recognises that there could be some citizens who are disadvantaged by their inability to access the new internet based services. The recommended solution is for the Council to seek "hosting" arrangements whereby locally based organisations in various parts of the district will provide secure locations for Council provided internet-access terminals and help citizens with their use. Examples of possible hosts include libraries, parish councils, rural post offices or other local businesses and community associations.

The second main plank of the ICT strategy is the development of a co-ordinated approach to spatially related information, built around the adoption of a corporate Geographic Information System and Land and Property Gazetteer. These recommendations are carried over into this strategy from our review of Geographic and Addressing Systems completed last year. In addition we are recommending standardising on the CAPS Solutions packaged applications for all property based systems.

Other back-office system development should be linked to the findings of Best Value reviews, a major part of which should be the consideration of ICT opportunities. The strategy identifies specifically a need for a review of systems within the Housing service.

Introduction

1. This report has been prepared by Nineveh Consulting who act as the Information and Communication Technology (ICT) strategic advisors to Winchester City Council. The authors of the report are Tim Dawes and Brian Westcott. Both these consultants have considerable experience of ICT strategy work within local government. Tim Dawes is currently acting as the Information Age Programme Manager for the Society of Information Technology Managers (SOCITM). Brian Westcott edits IT Trends, the annual review of ICT in local government.
2. The purpose of this document is to provide a route map for Winchester City Council as it faces the challenge of moving its services and relationships with members, external partners and, most importantly, its citizens, forward into the Information Age. The world is changing fast under the twin pressures of developing technology and rising service expectations. The Council needs to be able to understand this movement and develop a plan for changing itself in a way that responds to democratically determined local priorities and makes best use of the scarce resources available.
3. Appendix 1 details the ICT strategy objectives derived from a facilitated workshop held with elected members and senior officers from the Council in September 1999. In all around 50 people attended and participants were formed into four break-out groups each of which took one of the Winchester corporate policy objectives (drawn from Winchester into the New Millennium). Each group reported to a final plenary session of the workshop where the objectives were discussed further.
4. An E-Government Attitude and Awareness survey was conducted with senior officers in November 1999. The results of this survey are given in Appendix 2.
5. Detailed analysis work with officers of the Council was conducted in January 2000. Senior managers from the various services operated by the Council were interviewed to determine their business requirements. Facilitated workshops were held to assist with the development of the strategy. One workshop explored how ICT could assist in the process of Best Value Review and another looked at the issues relating to introducing interactive web based services. We worked closely with the Client Services team from the Council during this period. The assistance of the IT Client Officer, who co-ordinated the preparation of the current applications database (see Appendix 3) was particularly valuable.
6. ICT strategies should not be technology driven. They should be related closely to the policy objectives of the organisation. For this reason we began the process of forming this strategy by developing with elected members an understanding of what ICT strategy objectives were needed to serve the Council's overall policy objectives. It is important to understand the information needs of the Council, together with systems already in place to support these needs. The Information Systems Strategy section includes an analysis of this area with appropriate recommendations for development. At the same time new technology developments and the opportunities they present cannot be ignored

and we have sought to examine these and factor suggestions for adoption into the strategy where appropriate.

7. The strategy should, once it has been agreed, form part of the overall policy framework of the Council. This means that, where appropriate, its provisions are mandatory on service departments. Any requests for exceptions should be examined and agreed by the Council's Corporate Management Team, who will refer decisions with significant policy implications to the appropriate service committee.
8. The world of ICT changes very quickly. This report is intended as a working document and will require monitoring to see that its provisions are being effectively implemented and periodic review to ensure that they remain aligned to the Council's policy and business objectives. Monitoring arrangements are detailed in the Service Delivery section at the end of this report. An action plan (Appendix 4) has been provided to assist with the task of monitoring implementation progress. We recommend that the Corporate Management Team commission an annual review of the strategy itself. The scope of this review may vary from year to year and we would not expect a comprehensive review to be required during the first three years of its life.

Challenges of Modernisation and the Information Age

9. Modernisation is the main theme of much of the current government's policy. This is particularly strong in the public services where the Modernisation Agenda appears to call for a sea change in attitude and performance. The White Paper "Modernising Government" set out this agenda in March 1999 and for English local government the relationship to these initiatives is further defined in the Concordat agreed between the DETR and the LGA in September 1999.
10. Much of the Modernising Government White paper is concerned with the application of a particular management approach to the public services. Service models from the commercial world are taken mainly from the retail and personal financial services sectors. Key components of this approach include:
 - Continuous improvement based on setting performance targets and formal reviews of service delivery methods.
 - Re-orientation of public service organisations to make them customer facing.
 - The introduction of formal quality systems.
11. Within local government the DETR has developed the Best Value framework, which (unlike the general modernisation agenda) has a statutory basis, to deal with the first of these components and, to a lesser extent, the second one also. Best Value preceded Modernising Government and tends to be more conservative in its aims. In particular, the modernising agenda sees joined up government as a major implementation requirement of the second component. This leads to a strong emphasis on cross-cutting service reorganisation and generic customer fronting initiatives. Best Value however relies strongly on a more traditional approach of measurement of performance indicators, most of which are specifically linked to departmental services.
12. Underlying Modernisation, in particular, is the importance of using new technology to leverage change in the public sector. This objective links to the main stream of political thinking in Europe dating back to the Bangemann report of 1994. The basic premise is that production and services associated with the Information Age are fast becoming the main drivers in the world economy and that Europe is lagging behind other advanced economies, particularly the US. Bangemann argues that the public sector has a key role to play in building infrastructure and understanding which will underpin the Information Age economy, or the "Knowledge Based Economy" as the prime minister prefers to call it. It is important to understand that the emphasis on IT driven e-government is not just this year's fashionable buzz-word. The previous government also adopted the general principles of Bangemann (Government Direct etc.). The strategy, which is seen as of great importance to the long term health of the European economies, is likely to continue to permeate any government's approach to the public sector, including local government, for many years to come. This can be seen from the very demanding e-government targets stretching over an extended period. Any public sector organisation which fails to

recognise the importance of e-government at an early stage and plan effectively for implementation may find itself in very severe difficulties in a few years time.

13. District councils like Winchester are unlikely to have sufficient financial resources to fund a “great leap forward” into the information age. It follows the adoption of e-government must be carefully planned and implemented over a long period. The revenue cost implications of e-government systems mean that some at least will become replacements for existing services, not simply additional facilities. Initially at least, new systems that provide direct service to customers will be supplementary to the traditional service methods – although they may provide new levels of service (e.g. 24 hour access, customer configuration etc.) However, those systems servicing the interaction between the Council and other organisations (i.e. suppliers, the County Council, government bodies, local press etc.) should be regarded as replacements for the current paper based systems. This approach has been proved in the private sector. For example, when IBM re-styled its business processes during 1998/9 they insisted that all their suppliers and retailers must trade with them electronically. They have no paper based alternatives. Some of the leading e-government local authorities (Knowsley, Newham, Lewisham etc.) have, up to now, been able to add on e-government facilities, kiosks and community web sites etc., to their existing methods of service delivery. They have been able to do this because their very special local conditions have enabled them to fund these investments from external grant aid, additional to their SSA. In the long-term this approach cannot be sustainable financially. Other pioneers, for example Bristol, Brent and East Riding of Yorkshire, have found that projects like interactive web sites and call centres can only be sustained if the organisation is reconfigured to accommodate the new methods of dealing with the public.
14. It follows that it is important for Winchester’s elected members and senior officers to understand the main technologies available for e-government and so be empowered to make informed decisions as to their potential for application in the Council. As part of this assignment we conducted a survey of e-government attitude and awareness amongst senior officers (Appendix 2). The results showed that the average level of awareness was reasonably high, but not as high as elsewhere (i.e. it was below the level we found at Braintree District Council using the same survey during the same period of time). A straw poll of Councillors attending the ICT strategy workshop showed that only a minority, albeit a substantial one, thought that elected members needed more e-government awareness training.
15. In Appendix 5 we review some of the main technologies currently being discussed as enablers for e-government. This appendix forms a general reference section, but some may find it useful to read it through at this point because it also contains discussions on the applicability of these technologies to the Council.
16. In February 2000 the government published further details of its intentions for the development of Information Age Government in a consultative paper entitled “e-citizen, e-business, e-government - A strategic framework for public service in the Information Age”. This document confirms that the “E-Government targets” are intended to apply across all sections of government with the Department of Environment, Transport and the Regions and the Local Government Association providing guidance on how these should be implemented by individual local authorities.

Information Systems Strategy

Information Systems Framework

17. The Council has a wide range of different computer applications. With a few minor exceptions, these are all bought in as standard packages. A full list together with our review of the potential for various aspects of their corporate integration potential is given in Appendix 3.

18. We have developed a system for describing the structure of a set of information systems. This system classifies individual information systems in two ways, by scope and function. There are three main scope classifications applicable to district councils, these are:

- Community Information about the community maintained or used by the Council.
- Operational Services Information whose main purpose is to support operations providing direct services to the public.
- Internal Management Information primarily concerned with the internal management of the organisation.

19. The other classification we use divides applications into either “generic” or “specific type, thus:

- Generic a system used by many different services often requiring corporate support and usually set as corporate standard. E.g. word processing software.
- Specific a system used to store information or process it for a specific purpose. E.g. Benefits.

20. These classifications help to us to understand the role and position of individual systems within the corporate information systems framework.

21. The analysis of the Winchester City Council information systems framework highlights some important points, including:

- Community governance information systems are relatively underdeveloped.
- The property based systems are somewhat fragmented. CAPS is used for Planning and Building Control applications, MKA for Environmental Health, an in-house written system for Estates, TERMS for electoral registration and a largely manual system for Land Charges. This disparate

systems approach makes sharing of information very difficult and is a major constraint to the development of more corporate approach required for joined up service delivery.

- There are few if any information systems in place specifically for the use of elected members. In particular we noted the absence of formal committee information and minutes retrieval systems.
- There are no formal computer systems in place to assist with corporate management planning or performance plan maintenance and monitoring.

22. The columns to the right of the table in Appendix 3 give our analysis of the potential of these systems for improving access to services and integrating applications together to form a corporate whole. This analysis refers to the type of information held within these systems and not the functionality of the computer packages currently employed to manage the information. The following information can be obtained from this analysis:

- CA column Call Agent (CA) is the term usually given to a Call Centre or Contact Centre operator. This column gives a rough indication of which systems a generic call agent would need access to, and what degree of access might be appropriate.
- Partner column Indicates systems containing information which might be shared with external partners as joined up government and extended partnership working develops.
- GIS column Gives an assessment of the potential integration benefits (primarily the benefits of sharing a single copy of the information with two or more services). An essential rating here indicates compelling efficiency benefits for including this application within a Geographical Information System.
- NLPG column Shows how the information from the system is related to the National Land and Property Gazetteer project.
- Web column Indicates the potential for integration with a web based customer front end.

Joining Up Information

23. A major problem with public services is perceived to be the lack of integration between organisations and even between different parts of the same organisation. As a result

citizens and service users are passed from one organisation or department to another and have to supply the same information again and again.

24. This is frustrating for the citizen and inefficient for service providers, hence the emphasis in the Government's modernisation agenda on "joined up services". An excerpt from a recent select committee report illustrates the point:

"The effective delivery of Housing Benefits currently depends on the exchange of over 20 million pieces of paper between local authorities and the Benefits Agency. This is incredible in this computer age. While we recognise the complexity of the Department's computer systems, we view with despair their view of the state of their own systems and that close integration with those of local authorities is a distant prospect. This makes it even more important that other solutions to help the electronic exchange of data are successful".

from Select Committee on Public Accounts, 1998

25. ICT is seen to be the key to achieving greater integration although technology alone will not solve the problems - there are usually organisational barriers to be overcome as well. In an ideal world a citizen, who moves to Winchester, should be asked for basic details of name, address, etc. once only in order to gain access to all council services. Even better, he/she should then have access to other public services as well. This requires a greater corporate approach to working within the council and for the development of closer working, and information sharing, with other public services such as health, county council, etc.
26. We recommend that the IS strategy should cover:
- Establishment of standards relating to people, property and other information used by two or more departments.
 - Systems integration allowing the transfer of information (within the limits set by the Data Protection Act) between applications and provision of facilities enabling officers/Members to access to multiple systems as appropriate.
 - Establishment of the infrastructure to enable two-way sharing of information between WCC and other organisations.
27. Relevant standards especially include those relating to property and other locations. The British Standard BS7666 defines how address information should be held within computer systems. Adherence to this standard makes it much easier for information from disparate computer systems, internal or external to the Council, to be matched effectively. In this way information about individual locations can be exchanged and summarised. Further information on BS7666 and the reasons for its adoption are given in our report on Geographical Information and Addressing Systems - A Strategic Review, completed in 1999.

28. Relevant technologies (discussed elsewhere in this document) are smart cards, providing citizens with access to multiple services, call centres and web site, providing information relating to a wide range of services.

The NLPG and GIS

29. Geographical Information Systems (GIS) and a corporate approach to addressing standards are important enablers for joining up information within the Council. GIS is an essential tool for enabling spatially related information from other sources (e.g. Hampshire County Council, central government statistics, utilities etc.) to be “joined up” to create a more comprehensive picture of the district for community governance and strategic community planning purposes.
30. Building on the practical experience of maintaining a gazetteer gained from the National Land Information System piloted at Bristol City Council, the Improvement and Development Agency (IDeA) has sponsored the National Land and Property Gazetteer (NLPG). Property Intelligence, a commercial company specialising in address matching and geocoding are developing the NLPG for the IDeA. The NLPG project is rapidly gaining momentum within local government. District councils are beginning to see the maintenance of this kind of gazetteer as being not only important for internal efficiency (by reducing data duplication) but also a key community governance responsibility. The quality of a district’s NLPG information will contribute to how others view the district as a community.
31. These issues were dealt with in more depth in the report arising from the strategic review of the Council’s GIS and addressing system needs conducted by Nineveh in 1999.

Property Based Systems

32. By Property Based Systems (PBS) we mean all those involved with Planning and Building Control functions, Electoral Registration, Land Charges, the premises and domestic residence related elements of Environmental Health and Council owned estates. Although Revenues (Council Tax and NNDR) and Housing also have substantial property elements, we don’t include them within this definition. This is because each of these is closely integrated with other key attributes (especially accounts, and tenants) that are as least as important to their function as the location. Furthermore these activities have substantially integrated connections within their service areas that make them most commonly, and probably most effectively, addressed as primarily service-integrated applications.
33. The key application package in this area is the CAPS Solutions package from ESRI. This company, primarily a major GIS supplier, acquired the CAPS operation last year from another supplier (Norsk Data). CAPS modules have been running the Planning Application systems for several years and have recently been implemented for Building Control. The CAPS system looks somewhat old fashioned, although it does now have a Windows front end. The basic IT infrastructure that supports CAPS is very sound, based as it is on an Oracle database. Oracle is the leading database product. Moreover, the

acquisition by ESRI means that the GIS functionality is likely to improve and, critically for this Council, there is a very significant new Internet based version of the product in the early phase of development. We expect this product, which is yet to be formally announced, to become generally available as a mature product towards the end of 2001.

34. Like any package solution CAPS has its strengths and weaknesses. CAPS's market position, with 42% of Development Control package solution users (Source: SOCITM Local Authority Application Software survey 1999), is very strong. Nearest rivals are MKa (19%) and Plantech (11%). This factor combined with the support of a major software company like ESRI and its sound technical foundation means that CAPS is head and shoulders above other potential property based system providers when considered as a long term strategic partner. Our advice, therefore, is that the Council should move towards a general adoption of CAPS application solutions for property based systems. Initially this strategy suggests adopting CAPS package modules for computerisation of those systems that are currently still partly or completely manual. These will include Land Charges, which is closely related to planning, street naming and numbering and NLPG.
35. The City Secretary is already proceeding with the computerisation of the licensing applications using CAPS. There are some reservations about CAPS as the solution for Land Charges, based on the limited functionality of the presently offered solution and the fact that the company is stronger in Planning than in this particular area. These issues need to be examined and dealt with before a final decision is made to take on CAPS for land charges. The Improvement and Development Agency is currently negotiating with prospective commercial partners for the new National Land Information Systems (NLIS – see our 1999 review of Geographic and Addressing systems for more information). Integration with this new service will be an important requirement for the any computerised land charges system.
36. In time other property based systems that are currently served by other package solutions will come up for revision. These should be migrated to CAPS when this occurs. The applications concerned are: Register of Electors (currently QN Terms) and Environmental Health (currently MKa). We would also recommend, for internal efficiency purposes, migrating the current in-house Access database that supports estates records to CAPS. However, we see this as less important as it is essentially an internally focused system.
37. The rationalisation of these particular property based systems packages has a number of operational advantages. Support and maintenance will be easier and licence costs lower overall. However, these advantages by themselves would not outweigh the benefits of continuing to allowing different services to choose whatever package solution best meets their own service requirements. This “local autonomy” approach to information systems development has been characteristic of the Council's behaviour and in general has served it well. “Best of Breed” packages have been selected by most services. However, if the Council is to develop an IS infrastructure that supports a more joined up approach to the service interface between the Council and its citizens, it will be necessary to develop a more corporate purchasing strategy. In the medium to long term we see automated service interfaces, such as the interactive web based facilities recommended elsewhere in this report, having direct interfaces with back office information and

processing systems. In a relatively small organisation like Winchester City Council, this kind of development will depend upon some rationalisation of the information systems framework. CAPS, with its common property files and closely integrated NLPG, offers the prospect of delivering a common route for the enquiring citizen, or Council receptionist acting as their agent as well as the interested Council officer. There are other ways of answering the “tell me about this property” question, but they rely upon continual reconciliation of different sets of data and will never be as effective as a unified and self reconciling system. Moreover, we anticipate that in the future the task of integrating customer fronting and back office systems will become a major pre-occupation for service developers in the Council. Integrating with a single supplier’s property based system will be radically easier (and cheaper) than attempting this complex technical task with products from several different companies.

38. Integration with a Geographic Information System (GIS) is an important major issue for the property based systems. ESRI’s ArcView GIS is one of the options recommended for adoption as a corporate GIS solution in our report “Geographical Information and Addressing Systems -A Strategic Review”. We note that since the completion of this report the Council has made considerable progress with the Intranet publication of maps and GIS information using the AutoDesk GIS option. The Intranet GIS facilities are very impressive and represent one example of where the Council’s ICT application is in advance of general practice in local government.

Revenues and Benefits

39. The Council has recently invested in First Software’s Revenues and Benefits applications. First Software was independently reported in the SOCITM Local Government Applications Directory last year as being the leading package supplier for Council Tax (32%) and Benefits (32%). First and ICL shared the top position for NNDR package supply with 25% each. It is generally recognised that the company is maintaining and indeed increasing market share in all these areas.
40. Like CAPS the First suite of applications is based on the Oracle database platform. The company has a major development programme designed to make the packages “Internet Enabled”. Some components of this new product, called I-World, are already available and the full suite is expected to be ready by the end of this year (2000). The contract between the Council and First includes an option to take this new software. The company, like others in this market sector where there has been intense market pressure to release products ahead of the competition, has a record of some problems with early releases of its software. Because of this we recommend that the Council wait until the complete suite of programmes is fully mature and earlier adopters are completely satisfied before converting. We anticipate that this is unlikely to occur before the end of 2001 or even later. This may have implications for the positioning of this service, which is especially dependent upon its computer systems, within the Best Value review timetable.

Housing

41. The main application in use within the Housing Service is Orchard. Orchard has around 11% of the Housing Management package market place (Reference SOCITM 1999). This is a significant market share but less than the leading supplier, First Software with 23%. Orchard is based on the Progress database system and, although this has not presented any problems, we would not regard this as a leading strategic platform. Orchard has a good knowledge of Housing user requirements and its product set includes modules that cover most application areas (applications, homelessness, repairs etc.) Some of these we feel could be more fully implemented and perhaps more closely aligned to the needs of the direct line housing support staff. The service is currently moving towards providing housing management services on an area basis. Ideally, area housing officers should have direct access to up to date information on rent accounts, repairs, planned maintenance and general tenancy and property information both at the Colebrook Street Offices and in the field. Other processes, particularly for those dealing with applications and homelessness, may not need remote access of this kind.
42. At the moment the only sharing of information between the Orchard and Housing Benefits system is by batch transfer of summary rent and entitlement amounts. Yet dealing with enquiries from many present and potential tenants requires access to both systems. In some local authorities (e.g. Wolverhampton) this situation is tackled by locating the Benefits section within the Housing service. In an authority such as Winchester however, with a much higher proportion of private rented and owner occupier housing benefit claimants, such an approach would not make much sense. Transferring Rent Account responsibility to the Revenues section is an option and offers the possibility of greater integration between rents and benefits processing and enquiry management. The down side, however, is that integration between rents and other housing functions would be reduced. We recommend that these issues be considered as part of the Best Value review of the Housing Service. If rent accounting were to be transferred to Revenues, we suggest this would be assisted by the adoption of the Rent Accounts module at least from the First Housing software suite. Further general integration would be achievable if the rest of the First Software solution was adopted by the other Housing section users. First's I-world (see above) offers a relatively attractive platform from which to develop remote access for area housing officers and inspectors because of its secure transaction infrastructure (Oracle database) and use of internet communications protocols.
43. Serco, the privatised direct labour operation and present depot services contractor, has indicated that they would like to run an integrated housing repairs service directly. This would mean tenants would log problems direct to the contractor i.e. the organisation responsible for carrying them out. The company already provides similar services for the much smaller volume cleansing and pest control operations. This is clearly a matter to be included in the Best Value review of the Housing Service, although the letting of the new depot services contract ahead of this review will make any change of direction more difficult.
44. One option would be for the contractor to maintain property attribute and repairs history records on their own systems (with appropriate contractual conditions to maintain the Council's data governance objectives). This approach offers the most effective information structure for delivering comprehensive repairs and maintenance information to the tenants. However, it does mean that the information systems would be separated

along this traditional client/contractor line. Integration with other administrative processes, for example letting, would be reduced. The other approach is to integrate the contractor functions with the Council's own systems. This approach offers a more integrated service all round, but it does put the onus on the Council to invest in and deliver very effective and well supported systems. It is this second approach that has been specified in the revised depot services contract. Under the new contract the Council will provide the contractor with access to the relevant Orchard system facilities and require them to use this system to track work in progress so that the Housing department's repair clerks can report status to the tenants. This approach offers a good basis for the future development of on-line facilities enabling tenants to log and track repairs actions themselves. It is worth noting that an extensive consultation with tenants conducting during 1999 showed a high degree of satisfaction with the repair clerks' service.

45. The existing Orchard and Serco systems mix has worked reasonably well but there is some evidence that Orchard as implemented isn't providing ease of information access to those in the front line of service delivery. The Housing service hasn't been a leader in IT development in the past, compared to say Revenues where workflow and document management techniques have been introduced. However, an appreciation is now developing of the importance of integrating information systems with the service delivery as a whole. Now that the future of the service, as an integral part of the Council, has been clarified, it is time for a comprehensive review of its information system needs. The service is already under general review and its depot services contract is currently being re-let with the new contract commencing next year, when the Best Value review is also scheduled. The future information needs of this service and the development of an integrated plan for developing systems to support these should form a major component of the Best Value study and may result in a requirement for significant variations to the new depot services contract.

Leisure and Tourism

46. The Leisure service is composed of a number of different activities which, although related in service delivery terms, have largely separate Information Systems needs. Many of these services have very different customer and partner relationships to the rest of the Council. Tourism, for example, is very important but is primarily an indirect "economic advantage" service to most of the citizens of the district. Its partner focus is with local hoteliers etc. and its direct customers are scattered across the globe.
47. Tourism is currently implementing a new system developed by Hampshire County Council, "Tourist", for a partnership which includes Southampton and Eastleigh councils. The system includes a back office reservations module fully integrated with an internet front end. Users will be able to view tourist related information over the web and make hotel reservations on-line. We see this as a very good example of the way in which systems should develop, especially for largely self-contained services such as tourism.
48. It has been suggested that as kiosks are being provided for "Tourist" they could also be used as general access points to other Council services. Although this idea appears

attractive at first sight, there are some compelling reasons why this should not be done. These are:

- Kiosks are designed for immediate short duration usage. They must address the potential users from the first screen displayed and in particular be easy to navigate. Multiple usage would lead to compromise which would seriously undermine their effectiveness.
- Locations chosen must be those most suitable to the target audience. Tourist locations will be different from those most appropriate for the general citizenry.
- Different users would not mix well. A tourist might expect to wait in the queue whilst a fellow tourist enquired about hotel bed availability, but not to wait whilst people checked the progress of their planning application or entered an application for housing benefit.
- Because kiosk applications need to be simpler than standard interactive web ones, it would be necessary to set up and maintain a separate “kiosk” version for all the Council’s new interactive web facilities.

Best Value Support

49. There are no computerised information systems in place to support Best Value processes, although service planning information (word processor files) is held and distributed via email. The sheer number of services to be reviewed, performance plans to be produced, targets monitored etc. suggests a structured approach to handling this kind of information.
50. Much of the service monitoring information (Performance Indicators etc.) will be generated by computer systems or from reports produced by these. Examples include time to re-let empty properties, time taken to process Benefit application etc. With a more rounded approach to service performance measurement developing, we envisage a growth in demand for different ways of measuring service effectiveness. One very important dimension to service measurement is the response of customers. This can be measured in a number of ways, but the most common are questionnaire surveys and citizen panel reviews. Both these methods need information system support – surveying in particular. The information gathered needs to be stored so that comparisons can be drawn and performance trends measured over time. Careful thought should be given to the way in which this large volume of performance related information is to be managed. Too much data and not enough effective access to it can result in information overload.
51. A number of departments have used the PinPoint package which is suitable for general application and helps administrators and managers to design simple surveys and analyse the responses received. The Policy section of the Chief Executive’s department is using the Statistical Package for the Social Sciences (SPSS) system. SPSS is suitable for more

involved surveys and for processing other statistical data (e.g. census data) and provides a full set of statistical analysis features. These products are the brand leaders for their applications.

52. Consultation is one of the main pillars of Best Value and the Council has set itself the objective of consulting more with its citizens. The linked ICT objective is to use the new technology to sample opinions and potentially also to operate local referenda. This last objective needs to be carefully tested in practice to determine how issues such as social exclusion can be dealt with. Consideration might be given to using IT to enable fast and flexible sampling of panel responses to particular policy or service issues. In the limited sampling environment of a citizen's panel this might involve providing web access to those who don't have these facilities.

Community Information

53. The Council has traditionally not seen itself as a major source of information about its community and supporting IS systems are notably underdeveloped. We found that the Forward Planning service, the main service responsible for advising on these matters, was not resourced to undertake this role. Both external and internal enquiries on these matters are routinely referred on to Hampshire County Council.
54. Given that the Council has no direct involvement in economic development, it may be that this low-key and low-cost approach is the correct one. Certainly we would not recommend attempting to duplicate the very comprehensive community information service provided by the County. However, we note that community policy activity within the Council has increased in recent years. New responsibilities such as those derived from the Crime and Disorder Act and the National Land and Property Gazetteer mean that there is a growing need for a structured approach to information about the district served by the Council. We recommend that this area be kept under review.

Support for Elected Members

55. The Council has recently extended supported PC provision to all those elected members who require it. This level of service is now common amongst local authorities, 25% providing home PCs and email to most of their members (SOCITM IT Trends 1999). The support service, provided by Integris, appears to work reasonably well with ad hoc arrangements made for out of hours visits were necessary. In the longer term the Council may need to consider extending its telephone help desk service to cover elected members using facilities in the evenings. One approach might be to trial such a service with limited extra hours and monitor the response.
56. Intranet, email and generic office systems are the only services provided at present at the Council. SOCITM IT Trends 1999 reports that 20% of local authorities provide access to committee papers on-line and the absence of committee minutes and agendas system is a serious weakness in the ICT infrastructure. We recommend giving priority to the development of an effective system that makes Council minutes and agendas available

via the public Internet. A restricted access Intranet area, with carefully designed security, will be required for the “not for publication” reports.

57. Consideration will also need to be made to incorporating digitised drawings etc within this system. We recommend the use of Acrobat’s PDF standard for this material – primarily because publication in this form makes it readily available.
58. Other local authorities have provided controlled access for elected members to management information (e.g. performance and financial details) and service details (e.g. housing waiting lists). We recommend that consideration be given to producing an intranet version of the monthly financial report perhaps extended to include a range of appropriate performance information for each service.
59. Other facilities which could usefully be made available to elected members include access to Ordnance Survey maps of the district and, via a Geographic Information System, associated spatially related information. This might include community governance information drawn from sources such as the census and local plans together with information specific to properties such as registered electors and current council house tenants.

Sharing Information with Partners

60. Information is power and some people have always been reluctant to share. However, in the Information Age, the willingness to share your information with others is becoming a sign of strength and recognition that this new world is a large and complex network. Organisations refusing to share will be treated with suspicion, regarded as unsuitable as partners and find themselves left out of co-operative ventures and consultations.
61. There are many opportunities for mutually beneficial arrangements. One important example is exchanging Geographical Information System data with Hampshire County Council, government agencies and public utilities. At present exchanges of this nature are infrequent and ad hoc. The potential benefits can be appreciated by considering the example of the Southern Water Drainage Records. This detailed set of GIS information has been obtained from the utility company and published on the Intranet. It enables Engineers, Planners, Building Control officers, Estates and Housing department staff to see all the drainage plans for the district, identify manhole access and pick up related information.
62. We recommend that the Council should take the initiative on these matters and seek formal mutual exchange protocol agreements with all the major data holdings operating in the district.

New Directions

General Strategy

63. Winchester City Council has an enviable record for the quality and effectiveness of its services. However, services have developed separately over time and there is a lack of integration, information sharing and of a common approach to information structure. If the Council is to succeed in moving forward to Information Age government, with its emphasis on joined-up government and presenting a single point of access to the customer, it must take a much more corporate approach to the planning of ICT development. Within this report we make a large number of recommendations designed to assist with the implementation of a modernising programme and move forward the IT infrastructure and services needed to support this. On the future for the main directions of the Council strategy, however, we recommend the adoption of just two key ICT approaches. We believe that if the Council concentrates on these, it will make much better progress than if it tries to respond to every potential opportunity. The two key ICT approaches which we recommend are to:

- Develop a comprehensive set of interactive web facilities integrated, as appropriate, with existing back office systems.
- Create a unified approach to property based information built around an integrated set of applications, the development of a Land and Property Gazetteer and a corporate geographic information system.

64. The second point was dealt with in some detail in our review of GIS and Address Systems completed last year.

Electronic Service Delivery via the Internet

65. The advantages of interactive web facilities are discussed in Appendix 5. We see this approach as the key to enabling the Council to achieve its strategic objectives for improving communication and consultation with its citizens. Because of the importance of this part of the strategy development, and the need for the service to customer interface to be as “joined-up” as possible, we recommend that the Council appoint a full-time project manager to oversee the development of interactive web facilities across the Council (see also Resources for Change Management later in this report).

66. Not all local authorities have set targets for electronic government introduction. However, an increasing number are doing so and we expect that this approach will be continue to be encouraged by central government. The recently published Government IT Strategy (www.cabinet-office.gov.uk/champions/Strategy.htm) confirms the general applicability of this agenda across the public sector. There is even a suggestion that target dates will be brought forward – at least for some government departments. An annex to the Government IT Strategy defines the relationship to it of local government and will form part of the Central/Local Government Concordat.

67. Not all service transactions are suitable for electronic delivery, particularly those concerned with physical actions by the Council such as emptying dustbins or inspecting food premises. However, most enquiries and transactions involving the giving or receiving of information are suitable for interactive web delivery, the proposed main strategic e-option. In many cases interactive web delivery will be, at least initially, an additional option. In some areas though we recommend that the policy should be to replace existing contact systems with electronic services. Examples might include purchase ordering, transmitting information to and from other public service agencies and the issue of press releases. We recommend setting targets for the development and introduction of interactive web facilities as follows:

CITIZEN/COUNCIL TRANSACTIONS

- | | |
|--|-------------------------|
| - Pilot web facility launched | Oct 2001 |
| - All main services with at least one E-option | April 2002 |
| - 25% of transactions with E-option | April 2003 |
| - 50% of transactions with E-option | April 2005 |
| - 100% of transactions with E-option | April 2008 ¹ |

COUNCIL/SUPPLIER TRANSACTIONS

- | | |
|--|-------------------------|
| - 25% of transaction types conducted electronically | April 2000 |
| - 50% of transaction types conducted electronically | April 2002 |
| - 100% of transaction types conducted electronically | April 2003 ² |

OTHER TRANSACTIONS

- | | |
|---|-------------------------|
| - All press releases issued electronically | April 2001 ³ |
| - Job application E-option (all vacancies) | April 2002 |
| - Committee Minutes and reports available on-line | April 2001 |
| - Full Committee Agenda system available on-line | April 2003 ⁴ |
| - Planning Applications interrogation on-line | April 2003 ⁵ |
| - Museum Catalogue on-line | April 2002 |
| - Archaeology GIS on-line | April 2004 ⁶ |

Notes:

1. *Note we do not recommend offering statutory revenue or housing rent payment facilities via the web. These are regular payments which the customer is obliged to make and are much better suited to Direct Debit. However the facility to make payment by Direct Debit counts as an E-option, hence the 100% target. Other irregularly levied fees and charges which are not suitable for Direct Debit or SWIFT bank transfer will need to have e-payment methods established for them.*
2. *The Council may want to consider offering some e-readiness support to small local suppliers and voluntary organisations doing paid work on its behalf.*

3. *We envisage the development of a system by which press releases and similar PR material will be published on the web site and e-mail alerts sent to interested parties, including anyone registering an interest in a particular topic or geographical area.*
4. *We anticipate that, although those attending meetings will continue to receive paper copies as a matter of course, other councillors, officers and interested external bodies will receive e-mail (or postal) alerts to agendas as they are published on the web or, as appropriate, via the weekly bulletin. Local printing of these large documents can be cumbersome and inefficient. It follows that those reviewing agendas on-line and finding themselves especially interested in particular items should be able to request printed copies for postal delivery from the Council Offices. We suggest that a charge might be made for this secondary service, where appropriate.*
5. *We anticipate that this will be done via an interface from the Council's new web site to the CAPS planning application system and will rely largely on this company's (as yet undeveloped) software for effective delivery.*
6. *This target is dependent upon the availability of an effective GIS web publishing solution (the information is already available on the GIS but the GIS product concerned cannot provide web publishing at present) and upon resolution of issues relating to the Ordnance Survey copyright.*

68. Meeting these targets will require significant in-house and external implementation resources. Resource implications are discussed in Service Delivery section below.

Accessibility

69. The government's Social Exclusion Unit has identified the danger of those not connected to the internet becoming seriously socially and economically disadvantaged as Information Age services become more established. The threat of a developing "Information Underclass" is focusing government policy thinking and we believe that this will result in the development of many different initiatives to provide access for those who are not connected directly at home.
70. Our recommendation for using "hosting" arrangements (initially, we suggest, tested by using pilot studies) to provide free access to services in remote areas will allow the Council to participate in the response to this issue. For more detail on "hosting" see Appendix 5. The potential for attracting additional funding to support this programme is as yet undefined, but we believe it is likely to be fairly good. At the same time other government sponsored initiatives are likely to mean that opportunities for free and readily available access via libraries, schools, post offices etc. will become available to the citizens of Winchester.

71. The recently published consultative IT strategy for government includes a recommendation that internet services be designed to ensure they are accessible to those people who are visually impaired and also those whose first language is not English. The Royal National Institute for the Blind (RNIB) has published guidance on web site design and much of this has been incorporated in the government guidance of web site development published by the Cabinet Office in 1999. Although adherence to RNIB guidance involves some compromises that restrict design options, some local authorities, including Hampshire County Council, have demonstrated that following these guidelines is possible and does enable visually disabled people to access information via the internet. Providing for those from non-English speaking communities is a policy issue for the Council to consider. However, is unlikely to be so important in Winchester as in other districts with a greater degree of ethnic diversity.

Best Value

72. Under the legislation the Council is required to undertake fundamental performance reviews of all services over a five year period. It should consult on how to improve services, compare Winchester's performance with similar organisations and ensure that services are competitive. In particular, reviews should challenge why and how each service is provided.

73. In the Information Systems Strategy section above we have made a number of recommendations relating to the development of existing application software, recommendations which we would expect to be considered as part of the reviews of those services. More than this however, there are many potential ways in which ICT could be applied to achieve radical change in the ways in which services are delivered. Some examples are:

- **Document Image Processing (DIP)** - such systems enable paper-based documents, including those produced outside the Council, to be stored and processed electronically. Applications provide the potential benefits of ease of retrieval (e.g. in response to a client enquiry), integration of paper and electronic files and reduced cost of storage. The potential of DIP is greatest in paper intensive applications - for this reason its most frequent use in local government to date has been in the Revenues and Benefits functions.
- **Workflow techniques** - once paper documents have been converted into electronic forms, workflow software can be used to improve their processing. For example, documents can be automatically passed to the least busy of a number of operatives, or to the one with the most appropriate skills. It is particularly useful for routing documents between sections/departments, where inputs are required from a number of different people, (e.g. land searches).

74. Others which have already been discussed include:

- **Call centres** - for streamlining and improving telephone access to council services.

- **Internet** - providing new ways of providing information and transactional services to citizens and business (discussed above).
- **Smart cards** - applications include providing physical access to buildings, a means of identification or of paying for council services.
- **Video Conferencing** - for improved remote access to services.
- **Digital TV** - a likely replacement for the PC as a means of accessing web-based services.

75. This suggests a growing role for ICT in delivering many of the Council's services. It therefore follows that ICT will feature in the outcomes of many of the Best Value reviews and understanding of ICT will be essential to challenging the way services are provided. We strongly recommend that the Council establishes the arrangements to ensure that this happens including ensuring an appropriate ICT input to each review.

76. The ICT objectives seminar held in September last year identified a number of high cost/volume transaction services for priority consideration for further investment in Business Systems Re-engineering (BSR). These services are the most likely to get early benefit from the introduction of work-flow and paper-less office systems. Initial reviews should be co-ordinated with the Best Value process. Amongst other things we would expect Best Value reviews to identify the resources that are required to make these changes and the investment needed to implement the new ways of working. Options for securing and implementing these investments will include working in partnership with existing ICT solution suppliers (e.g. CAPS), specialist office system suppliers (e.g. Imasys, the document management systems supplier to the Revenues service) but should also consider the what is on offer from the growing business process outsourcing market.

77. We feel obliged to emphasise that projects of this nature, even those that do not involve outsourcing, will have significant impacts on current practises, staff responsibilities and structures. Typically, we would expect a BSR implementation to reduce the levels of management and supervision within a given department as work allocation and monitoring processes are automated. We would also expect administrative and professional job roles to alter considerably, with established boundaries of responsibilities between these functions being extensively redrawn. With much of this technology already in place within the Revenues and Benefits department, services identified as priority targeting for the next round of application are:

- Rent Accounting
- Planning Application Processing
- Land Charges

IT Infrastructure

Servers

78. The Council has handed control and ownership of its IT servers to its facilities management partner, the Integris division of Bull Information Systems. The contract with Integris is output performance based and it follows that the configuration of the IT server infrastructure should not be of direct concern to the Council. We note that since taking over this responsibility Integris have removed the ICL mainframe to a remote IT centre. This computer now supports only the ICL revenues and benefits applications which are in the process of replacement with the new First Software application running on a Unix platform owned by UCMS, the contractor responsible for operating this service. Integris have also undertaken the transfer of the remaining Novell file and print servers to NT. Once the ICL mainframe applications are shut down (early in 2001), the server configuration will be built around a mixture of Unix and NT servers, with the later providing all the generic file and print services and Unix being used for most of the larger application systems. This approach is in line with current best practice.

Network

79. Integris has responsibility for the maintenance of the data network and advising the Council on its capacity development. The network was substantially upgraded and improved in 1998, ahead of the outsourcing contract. Local cabling and switching facilities (i.e. within the main offices) is now adequate. However, there is concern that the radio links, which support most parts of the Wide Area Network within the city of Winchester, have insufficient capacity for projected growth. A review of the WAN network capacity and options for increasing it needs to be undertaken as soon as possible.
80. The main network is not segmented and operates through a single 100 megabyte (Mb) capacity switching unit. This means that there is a single point of failure for the entire network. However, network switches are completely solid state items with very high reliability. Consideration might be given to either segmenting the network or to providing a back up switch to improve resilience to failure, but we are not convinced the cost involved is justified by the relatively low risk. However, we do expect that, at some time over the next four years, the amount of traffic on the network will begin to produce bottlenecks with a single switch of this size. Integris should be asked to advise on the options for increasing the capacity, including segmentation and upgrading to a 1 Gigabyte switch. This latter option, which entails a relatively low cost (around £25k presently with prices likely to fall) would not necessarily involve upgrading server connections to the switch as there are several of these each operating at 100 Mb. We do not anticipate a need, in the short to medium term, to upgrade the network capacity delivered to the desktop (10 Mb).
81. The network architecture in use is essentially a conventional distributed one. Desktop PCs do most of the processing work and these are connected in cascade fashion via hubs to the central switch/Ethernet backbone. The main servers, connected directly to the switch by 100 Mb links, are mainly used as data repositories. Two of the three largest

applications systems (those supplied by CAPS and FIRST) are client-server in nature. This is a kind of computer system that puts even more processing requirement on the desktop PCs. This kind of architecture is known as Fat Client – i.e. a large and powerful PC is needed to meet the processing requirements. Although, confusingly, there is not necessarily a conflict between client-server application software and Thin Client network architecture (see below).

82. Many similar districts to Winchester (e.g. Test Valley, West Dorset and Wyre) have moved towards what is known as Thin Client architecture. In Thin Client configurations an NT server is used to run multiple windows activities, one or more for each client desktop PC it supports. Usually the server is dedicated to this task and others, running either NT or Unix, continue to act as data repositories. The desktop PCs act as not much more than display and entry devices and require much less powerful processors, less memory and disk capacity. In relatively standard working environments PCs can be dispensed with altogether and replaced with X terminals, at around half the purchase cost. The resulting saving may balance the investment cost in the Thin Client software and dedicated servers, but is more likely to merely offset it, at least in the first two or three years of operation. There are however real on-going savings in support costs. Currently any windows application software or client server based applications has to be loaded and maintained on every single PC on which it is to be used. In a Thin Client environment it is loaded once only, on the server in the computer room, and then becomes instantly accessible to all the connected users. Savings in PC and application support costs can be as high as 50%.
83. SOCITM IT Trends for 1999 reports that 17% of local authorities were using Thin Client. A further 15% were piloting and 49% were considering the technology. We believe that it is appropriate for Winchester to review the costs and benefits of going to Thin Client. This can only be achieved in partnership with Integris as some of the cost/savings factors would fall on themselves. We recommend that Integris be asked to report on this issue.

Desktop Computing and Office Software

84. The Council is currently operating a mixture of different Pentium based PCs. Configuration standards are generally very high, although they have been left to individual departments to decide and there are some variations. Future policy on the standards for the configuration of equipment will depend upon the results of the Thin Client study. We note that there has been a move recently by the Council to substitute lap top computers for the standard PC in the general office environment. Although, the cost of lap tops has declined in recent years the unit price remains significantly higher than ordinary PCs, the lap top premium for similarly configured systems is at least 50%. Careful consideration should be given to the acceptability of lap top computers as regularly used devices on the desktop in the light of guidance provided by the Health and Safety Executive. This suggests that staff lap top who are required to use their machines in the office ought to be provided with docking stations. This would add a further premium of up to 50% to the unit price.

85. The standard desktop PC operating system in use is Windows '95. We note that there has been some pressure from users to move to newer Microsoft software. Windows 2000 has only recently been released and we would not recommend converting to this operating system until the end of 2000 at the earliest. In any event it is essential to the effectiveness of the PC support service that all users have the same operating system version. We recommend migrating to the new version of the Microsoft office systems suite, Office 2000, at the same time as moving to Windows 2000. This will involve a large corporate project with significant cost implications. It follows that delaying it in order to get more value from previous investment in technology should be considered. Furthermore, Integris may well feel that such an upgrade will need to be co-ordinated with upgrades to other server based operating software, such as Exchange (the application controlling e-mail). An upgrade of this kind, involving changes to the look and feel of all the PCs in the authority would be much easier to implement in a Thin Client environment. For this reason we have positioned it in the action plan so that it occurs after conversion to Thin Client (assuming this is agreed).
86. In the longer term we expect that desktop computing will see users effectively operating network computers attached, seamlessly, to many different applications and information sources located both inside and outside the Council. Network computers are certainly "Thin Client" and their user interface is likely to be a browser rather than have the conventional Windows look and feel. The strategic recommendations made in this section are designed to help move the Council forward in this general direction so that it will keep in step with changes in technological approaches. We also believe that Microsoft may not continue to dominate the supply of software that runs computers in the future as it has over the last two decades. Other technology, for example the Linux operating system, may well prove more effective and radically less expensive. The Council will need to monitor these strategic developments very carefully. It should not move to new solutions too quickly, because of the risks associated with early adoption. However, we recommend that non-Microsoft options are reviewed each time a major new investment (e.g. moving to Windows 2000) has to be made. Where alternative solutions are seen to be running effectively elsewhere (e.g. at other district councils), their comparative costs should be evaluated.

Mobile Computing

87. The Council has experience of supporting both home workers and elected members dialling in from home. The technology and services necessary to support these activities already exists. However, systems designed to support the Council working in the field are underdeveloped. Car Park attendants are equipped with mobile data collection devices and many officers carry cellular telephones. In many areas (e.g. Housing, Benefits inspection and Highways Maintenance) there is a clear benefit for extending access to computer systems for officers visiting citizens in their homes or otherwise out working in the different parts of the district.
88. Mobile computing technology is developing very quickly. Application of this technology is made easier by the development of web interfaces for back office application systems (as we suggest will be implemented for First Software and CAPS over the next two years) and the development of new Wireless Application Protocol (WAP) enabled cellular telephones. The capacity of cellular phones to handle large

volumes of data is still an issue, but Global Packet Radio Service (GPRS) enabled devices and cellular networks that can transfer data at speeds of up to 100k bits per second are now becoming available. The combination of these technologies will make mobile computing affordable and practical – at least in those areas of the district which have reasonable cellular telephone coverage. The technology is still maturing at present and we recommend waiting until early 2001 before giving mobile applications serious consideration. By the 2002 we expect the market to have matured and there will be choice of offerings aimed at the local government sector, many of them linking to the leading application package suppliers.

Service Delivery

Components of Service Delivery

89. The IT service within the Council has a complex management and delivery structure. Its component parts are linked as follows:
90. Integris inherited an IT support section in some disarray as a result of staff retention difficulties (the reason for the outsourcing in the first place). Initially the company found it difficult to provide a service to the required standards and after the first year performance indicator scores were lower than before the transfer of responsibilities. However, since that time there has been a steady improvement and performance in most, if not all, of the IT support services has now reached the target level. We found that the relationship between Integris and the departmental staff they support to be generally satisfactory - most managers felt that the quality of service had improved and were confident that it would continue to do so.
91. The application support contract for the First Software Revenues and Benefits system was put out to tender jointly with Test Valley Council in 1999. It was let to UCMS.
92. The Integris contract is due for renewal in October 2003, although there is provision for up to two years extension. The UCMS contract is due to run for five years from the date that the service goes live (October 2000). The approach to re-letting the Integris contract needs to be decided in the summer of 2002. If the Integris contract is extended it would be possible to package this with the re-letting of the UCMS contract. The decision on whether or not to do this will be influenced by the experience of having two IT service delivery contractors.
93. The ability of Integris to help the Council to make best use of ICT to develop the effectiveness of its services was a factor in choosing the company. In practice Integris has not contributed significantly in this way. Its focus has been on operational effectiveness and we do not expect this to change. However, recent discussions with other divisions of Bull, initiated by the local Integris management, may prove more useful in this regard – see resources for change management below.
94. The contract to provide strategic ICT advice to the Council was let to Nineveh Consulting for two years from April 1999. The major deliverables so far from this contract have been the GIS and Addressing review and this document, although we have also provided ad hoc support to the IT Client service, most often on matters concerning the management of the Integris contract and Y2K.
95. The IT client function includes one full time IT Client Officer who reports to the Head of Client Services. The initial period of the Integris contract saw a number of difficulties as the responsibility boundaries of the contractor were clarified. This is probably only to be expected, and was indeed predicted when they secured the contract for a price substantially lower than that tendered by other bidders. This situation has meant that the IT Client Officer's responsibilities have proved challenging over the last eighteen months.

96. We support the general opinion of departmental managers that the IT client section and the IT Client Officer in particular have handled this difficult relationship with Integris very effectively. However, some people suggested that the section didn't have enough technical IT expertise to advise them effectively nor were they giving enough of a strategic lead on IT development within the Council. We feel these expectations of the group are unrealistic. The technical help and advice really ought to come from Integris (within the terms of the contract) and the strategic contribution from Nineveh with perhaps some help and assistance from Integris.
97. A second Client Officer within the client services group has, as a part of a much wider set of responsibilities, responsibility for the web site. He has been helped in this by the employment of some temporary web design assistance. This has resulted in an effective development of the Council's intranet and new pages for the internet public web site (www.winchester.gov.uk). The Council's Public Relations Officer acts as editor-in-chief for the public site, reviewing standards of presentation – particularly for new developments. Responsibility for information maintenance lies with individual departments. These send their copy to the Client Officer in word processor format. He then web publishes the information and adjusts links etc across the site. Integris' role is restricted to sending revised web pages to the external Internet Service Provider for inclusion on the public site. They have no ongoing role, other than the provision of the server, in the maintenance of the Intranet.

Resources for Change Management

98. Responding to electronic government and best value presents a major challenge for the council over the next few years. The Best Value process is demanding in itself and will require careful management. Some resource provision to address this has been made. However, if Best Value is to mean anything existing service delivery methods must be rigorously challenged and, consequentially, many will be refined or altered dramatically. Effective ICT and business analysis input is critical to the best value process and certainly to the implementation of the resulting service changes. In our view the current service arrangements, detailed above, are not adequate to meet this requirement.
99. Furthermore this strategy outlines substantial changes in service delivery systems in response to the joined-up government and electronic government objectives. These changes are ambitious and far reaching. Successful implementation will require:
- Continued positive support from the leading members and officers of the Council
 - Understanding of the reasons for change amongst departmental officers at all levels
 - Investment in the development of new interactive web services
 - A champion within the Council with the vision to explain and advocate the need for change and the determination to see the changes carried through.

100. The Council's proposed new democratic structure, based around a cabinet of leading members, will provide an effective vehicle for facilitating change. We also note that the Council now has a smaller Corporate Management Team (CMT) with a brief to monitor best value and organisational change issues. We recommend that both the Council Cabinet and the CMT consider their respective roles in relation to this matter and ensure that time is provided to review progress at regular intervals.
101. Officer resources within the Council are already severely stretched by the demands of letting the complex depot services contract (this is expected to be complete by the autumn of this year) and responding to the demands imposed by the introduction of Best Value. Implementing the e-government programme and the investment required will be major issues for the Council. As we have indicated earlier in this section, we do not believe that the contract with Integris, as currently configured, can provide the resources needed for implementation. However we do believe that this contract should be used as the main vehicle for reviewing and upgrading the supporting IT infrastructure (e.g. the network). There is some possibility that the government may provide additional resources to enable local authorities to implement the e-government targets. We are aware that the Local Government Association is lobbying hard for this within the context of the 2001/2002 spending review. However, our advice is that it is unlikely that such provision will be as part of the Revenue Sport Grant and is more likely to be materialise, if at all, as a further extension of the Invest to Save system.
102. Earlier in this document we recommended that the Council appoint a full time project manager to oversee this activity. We see this as a key post with the person responsible for managing the development activities necessary to achieve the e-targets. This a distinct role from the management of the on-going IT Service contracts. The person appointed will need to have strong skills in the following areas:
- Project Management
 - Management of partnership projects
 - Business Analysis Skills
 - E-government technology
103. We anticipate that this person will work closely with those charged with developing the new interactive web features (see below) and individual departments, helping them to redesign their back office systems to make best use of the new e-government systems.
104. The next version of the Central Local Government Concordat is likely to strongly advise all councils to appoint a main board director with responsibility for e-government. One option is to create a "Change Champion" post at Director level with responsibility for all aspects of the modernisation agenda – e.g. best value review, Information Age and Structural and Democratic renewal. Another option is to give this responsibility to an existing corporate Director and make the Project Manager and presumably other related change functions report within an existing portfolio. The first option has the advantage of making a major statement about commitment to service renewal and change. A dedicated director would be able to work closely with the Chief Executive and members and would be able to espouse cross cutting and new service delivery ideas free from the responsibility of particular services. On the other hand such a model, although

increasingly common in the private sector especially in companies that have recognised the need for radical change, remains exceptional in the more conservative world of local government. A third option is to give this responsibility, in whole or in part, to a partnership consultancy or even to a partner chosen to help deliver the new services.

105. There are a number of possible approaches to resourcing the implementation. As well as designing and building interactive web facilities and interfaces between these and back office application systems, implementation will require careful attention to staff and member training, the quality of content and design and effective marketing within the community. Many of these skills are highly specialised and it is unlikely that the Council could ever undertake all or even most of this activity using directly employed staff. However one approach would be for the project manager to work with a series of external agencies to develop and provide these services. One important potential partner in this context is Hampshire County Council. Initial discussions have indicated that HCC's IT Service division would be able to provide internet hosting facilities and, subject to their own resource capacity, some development facilities. They already run this service for Winchester Cathedral. This site looks and feels quite unconnected with HCC but is hosted on their Internet Server. The Cathedral site includes an e-commerce facility developed by HCC from standard components.
106. Winchester is developing something of a reputation as a centre for interactive public sector web development. The team responsible for the ground breaking NHS Direct online site is based in Winchester. We anticipate that the City may become an important local centre for web development activity and that local development and design resources will become easily available over the next two to three years.
107. However, this mix and match approach is not without its administrative difficulties and risk, especially the risk of costs spiralling out of control because of the inherent difficulties in managing multiple components. Another approach would be to choose a main e-government partner and work with this organisation to develop and deliver the service. This approach has the advantage of bringing in expertise at the outset. Projects involving commercial partners are more likely to attract Invest to Save funding, especially where other community partners are involved. There may also be opportunities for innovative funding solutions, for example pay by use and part funding from linked commercial activities using the same services.
108. The relatively small scale of the project suggests to us that attempts to let a partnership via conventional competitive tendering would be unlikely to elicit strong response from the market. It follows that, subject to proof of best value, we would recommend that the Council use its existing framework agreement with Bull Information Systems. Bull Systems Integration (as opposed to its Integris division) is already involved in a number of similar projects.

Investment Requirements

109. Headline ICT expenditure within the Council has fallen in recent years. This is partly because of the falling costs of technology and the running out of lease agreements, but also because of savings made from outsource contracts with Integris and UCMS.

Investment over this period has tended to be reactive rather than planned. A good deal has been achieved in the development of the infrastructure, particularly in areas of network and office systems. However, a major change programme, such as we have argued is needed in order to respond to the Modernising Agenda, requires a more structured approach to investment policy. This strategy will enable the Council to plan its investment in ICT in such a way as to ensure that technology is used to improve services for the people of Winchester.

110. It is not possible to give accurate cost estimates at this stage of the project. Exact estimates will need to be made on a project by project basis and will depend upon the options taken by the Council and, to some extent, the response of potential development partners. However, our outline estimate is that the overall investment requirement for developing a full set of internet based e-government facilities to meet the targets we recommend in this report will be in the order of £300,000 to £400,000 per annum for the next five years. This investment estimate is intended to cover the provision of platform technology and meet the costs of design and development. It does not include marketing and staff training, nor is it intended to provide for regular technology updates (e.g. network capacity upgrades, moving to Windows 2000 etc.). We recommend that the Council sets up a new corporate e-government investment provision, making available £300,000 in the initial year and reviewing the resource requirements annually as the project develops.

111. In addition we have identified in this report additional staffing requirements. We estimate the annual costs of a Project Manager at £52,000 (salary plus 30%). We envisage that the cost of a Director acting as Change Champion would not be exclusively allocated to the e-government project. Total costs of such a post are likely to around £84,000 (salary plus 40%).

Appendix 1 ICT Strategy Objectives

Corporate Objective

Linked ICT Strategy Objective

Be more open and democratic by:-

- Communicating well

Use ICT, in particular internet based services, to facilitate improved access to services, possibly in partnership with other organisations (HCC facilities and/or public access points sited in rural post offices). In the short to medium term concentrate on a Web Based IForms approach, but look towards Digital TV as potentially the main means of interactive electronic communication in the longer term.

Specify ICT data standards and applications that will facilitate a more “joined-up” response to citizens’ enquiries.

Investigate the potential of using Call Centre technology. This will need to be in co-operation with other public sector organisations (possibly another district) in order to share the infrastructure set up and running costs.

- Consulting more

Provide for interactive web based facilities that allow citizens to access relevant information (e.g. planning applications) and comment on them electronically.

Provide ICT facilities to allow local consultative referenda to be conducted electronically.

- Reviewing how decisions are made

Give members and, as appropriate, the public in general, access to decision related information (agendas, planning applications etc.) electronically.

Use appropriate “information structuring techniques” to avoid information overload, e.g. hypertext links to provide background information for those that want to explore in depth, targeted e-mail alerts, personally profiled web access portals, etc.

- Encouraging more to vote_

Use address matching and GIS to help identify non-registration.

Consider volunteering Winchester for appropriate E-voting pilots as they are offered by the Home Office.

Deliver services cost efficiently by:-

- Setting targets for improvement Ensure the Information System Framework includes all the service definition and performance information necessary to support Best Value and a Continuous Improvement approach.
- Reviewing services Include a review of the potential for using new IT approaches to drive service modernisation as a major component of the “challenge” element of all Best Value reviews. The new strategy should include details of the operation of this policy.
- Continuous improvement Ensure that the internal ICT infrastructure, including communication facilities with members, is sufficiently robust and effective.

Prioritise high cost/volume transaction services for Best Value review – this should include Rent Accounting, Planning Applications and Local Land Charges. Where appropriate follow these reviews with Business System Re-Engineering projects to redesign the operations to make them more suitable for workflow and paper-less transaction processing.

Set targets for the introduction of electronic ordering.

Set targets for replacing a percentage of current paper transactions (internal and external) with electronic transmissions in order to speed up turn round times generally.

Make best use of resources by :-

- Partnership with the community Work with partners (rural Post Offices?) providing them with ICT facilities for local electronic service/consultation access points.
- Partnership with other organisations Seek ways in which the development of web based information systems can be integrated with those of other public services organisations

and in particular with those developed by Hampshire County Council.

- Clear financial planning
Provide Performance Indicator information on the Web in summary form with appropriate “drill down” facilities.
- IIP
Provide a comprehensive personnel/training record system.

Provide a web based skills and professional development Route Map facility available to staff and members.

Continue to support home working with appropriate ICT provision where this is appropriate for the individual staff member and service concerned. Encourage the employment of disabled persons by offering home working alternatives with specially adapted ICT equipment where appropriate.

Raise Central Gov. Awareness by:-

- Developing regional agencies
Develop appropriate ICT infrastructures to enable WCC to participate in joined up initiatives in this area.
- Representing needs
Include community governance requirements within the Information Systems Framework.

Present a more forward looking and “regional centric” image of Winchester City via the web page. This suggests hiving off the tourist related web function from Winchester.gov (although links will be maintained).

Develop ICT tools and skills for presentation, e.g. GIS thematic mapping, graphic design and multimedia web publishing.

Appendix 2 - Senior Management E-Government Awareness and Attitude Survey

Proposition	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
Call Centres will be the major E-government “enabler” for Winchester CC		*	**	*****	
Video Conferencing is a solution looking for a problem, as far as Winchester CC are concerned	*	**	***	**	
I frequently use e-mail at work to communicate with organisations external to the Winchester CC	*****	***			
We need to re-organise our service delivery structure to make best use of the internet	**	***	*	*	*
The volume of customer E-mails will overtake letter post within the next three years	*	**	*	****	
We should be planning to do all our procurement electronically		*	****	***	
We don’t really need a Winchester CC web site	*			*	*****
I know what a smart card is and how it can be used in Winchester CC	*	***	*	***	
Our Council’s external image is damaged by not having an effective web site	**	***	*	**	
We need to develop a web site with interactive facilities	****	**	**		
Any web site developed should be undertaken in partnership with the voluntary sector			***	****	*
We should adopt the E-Government targets set out in the Modernising Government White Paper		**	*****	*	
We need a business driven ICT strategy rather than more techno-babble	***	****	*		
Internet communication systems should not be seen as replacements for traditional methods	**	***	***		
Call Centres are not practical for multi-functional organisations like Winchester CC		**	*****	*	
I am connected to the internet at home	***	**	*	**	
Any e-government projects must be undertaken jointly with the County Council		***	***	**	
I would like to see GIS move from the back office and into a direct customer facing role	****	*	***		
We should be providing web based access to Committee agenda and minutes	****	***	*		
Much of the current paper distribution to senior offices and members can be eliminated		****	*	***	
I need more e-government awareness training		*****	*	*	*

Proposition

Public access kiosks will be a major component of service delivery in the near future

I can think of three effective uses for a citizen smart card

I am aware of the e-government targets set out in the Modernising Government White Paper

We can't afford to invest in the e-government systems – there are more important things to do

I use the web as a major source of information in support of my work responsibilities

Winchester CC should aspire to be channel service provider for central government

The Global Positioning System is OK for cruise missiles but it is of no practical use to us

The Knowledge Based Economy is an issue for the private sector, not this Winchester CC

Winchester CC do not need to concern themselves with Digital TV

We need to sort out our internal IT systems before we start worry about web based services

Our citizens should be able to make payments to Winchester CC over the internet

The new IT facilities will enable Winchester CC to engage more fully with the whole community

Data standards are at least as important as technology

Elected members need more e-government awareness training

IT will revolutionise the way we work over the next three to five years

Any web site developed should be in partnership with the local business

The paperless office is a sales slogan and can never be a reality

I have a pretty good idea what introducing a Call Centre would mean for my authority

We should use video when talking to customers at local offices

The term Information Age is just hype, I don't believe the world is changing that way

Digital TV has the potential to revolutionise local democracy

Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
	**	*****		*
*	***	*	***	
*	*****	*		*
	*	***	*****	
*	*****		*	
	**	***	**	*
	**		*****	*
		*	*****	**
		***	*****	*
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*	*****	*		
*	*****	**		
	****	****		
	****	**	**	
*	****	**	*	
	*	*****	**	
*	*****	*		
	*****	*	**	
		**	*****	
	*	**	****	*
	*	*****	*	

Appendix 4 – Proposed Action Plan

Ideally this plan together with the Best Value programme and any service development plans should be integrated to form a comprehensive Modernisation Action Plan for the whole Council. The form and components of such an integrated plan will need to be determined by the Council's own service planning framework standards.

Year 1

Action	Start Year - Month	Target Finish Month	Officer Responsible	Para. Ref.
Create a Land and Property Gazetteer to NLPG standards	Begun	1.10.00	GPM	61
“Tourist” implementation	Begun	1.9.00	CLO	45-46
Appoint a CMT member responsible for the E-government programme – the Change Champion Director (CCD).	1-1	1-3	CEO	99
Summarise the ICT Strategy and hold meetings to explain its aims to WCC staff.	1-1	1-4	CCD	
Incorporate ICT strategy within the corporate policy framework.	1-1	1-2	CSO	7
Review the WAN and LAN network capacities and report on current and forward requirements	1-1	1-3	Integriss & ITCO	74&75
Establish a Corporate E-government Investment Fund	1-1	1-3	CFO	105
Appoint an E-Government Project Manager	1-1	1-4	CC	63&97
Negotiate a E-government Partnership agreement with Bull Information Systems	1-1	1-6	CC	103
Review Best Value process to ensure full ICT participation and factor in ICT resources.	1-3	1-5	CC	70
Produce a Project Initiation Document for E-Government (we expect this to involve refining this action plan)	1-4	1-5	EPM	66&98
Produce a feasibility report on moving to Thin Client architecture.	1-4	1-6	Integriss & ITCO	78
Design and implement intranet version of monthly financial and performance report.	1-5	1-7	EPM	56
Commence the computerisation of Land Charges	1-5	Year 2	CC/CS&S	34
Establish appropriate interfaces between the LPG and all address related systems within the Council.	1-5	Year 2	GPM	61
Integrate CAPS applications with GIS	1-5	Year2/3	GPM	37
Review Community Information resources	1-5	1-6	CC	52
Consider and agree “Modernisation” monitoring roles for CMT and Cabinet	1-5	1-7	CEO & CC	95
Develop Intranet security features for restricted access	1-5	1-9	EPM/EGP	54

Develop MS Office to Internet publishing solution with appropriate indexing and directory facilities	1-5	1-9	EPM/EGP	54
Develop first phase of a new democratic support system to include on-line minutes publication and content searching.	1-5	1-11	EPM/EGP	65
Develop new “press room” internet facility with registration & push facilities and switch all press releases to electronic transfer.	1-5	1-11	EPM/EGP	65
Open discussions with other service organisations within the district with a view to agreeing a mutual exchange protocol	1-5	Year 2	CC	60
Develop generic solution for capturing and web publishing non-text information.	1-6	1-10	EPM/EGP	55
Design and launch new Interactive Web Site (pilot)	1-6	1-11	EPM/EGP	65
Review the IS requirement for Service Monitoring and Best Value	1-8	1-9	CC	48
Migrate Estates systems to CAPS	1-8	1-10	CC/HoE	35
Review the existing ICT Support Service provisions.	1-8	1-10	CC	92
Consider using IT to enable citizen panel response sampling	1-10	1-11	CC/CSO	50
Migrate main office systems to Thin Client (if agreed)	1-10	2-4	ITCO	78
Commission annual review of the strategy.	1-11	2-1	CMT	8
Design and implement (initially as a pilot to go live by 1.4.2001) an on-line Job Application system.	1-11	1-12	EPM/EGP	65

CC	“Change Champion” – responsible director on CMT
CEO	Chief Executive Officer
CFO	Chief Finance Officer
CLO	Chief Leisure Officer
CMT	Corporate Management Team
CS&S	City Secretary and Solicitor
CSO	Corporate Services Officer (Policy)
EGP	E-Government Partner – Bull has been suggest for this role
EPM	E-Government Project Manager
GPM	GIS Project Manager
HoE	Head of Estate Services
ITCO	IT Client Officer

Years 2 to 3

	Action	Para. Ref.
Property Based Systems	Complete the computerisation of Land Charges (CAPS Solutions)	34
	Migrate Register of Electors to CAPS	35
	Migrate EH systems to CAPS	35
Revenues	Migrate to Internet version of First Software	39
Housing	Within the Housing BV review:	
	- Consider mobile computing for Housing Officers	40
	- Consider moving rent accounting to Finance	41
	- Consider repairs & maintenance logging/tracking and factor the result into the specification of the housing works contract	42
	- Comprehensive review of Housing's IS needs & Orchard	43
Member Support	Trial extended hours support for elected members	53
	Review Community Governance information for inclusion within the Intranet/internet	57
E-Targets	Design and implement new e-ordering system - 50% of transactions conducted electronically	1.4.02 65
	100% of transactions conducted electronically	1.4.03 65
	On-going Citizen Service developments - All services with at least one E-option	1.4.02 65
	25% of transactions with E-option	1.4.03 65
	On-going development of committees system - Committee reports available on-line	1.4.03 65
	Develop internet access to the museum catalogue by	1.4.02 65
	Develop interface with internet enabled CAPS systems to provide on-line planning applications interrogation by	1.4.03 65
	Review potential for local hosts for WCC citizen access points and identify, say, three for pilot implementation.	A5.17
Technology Infrastructure	Migrate to Windows 2000 and MS Office 2000 or other suitable desktop platform.	80&81
	Introduce mobile working for officers in the field – starting with the Housing service.	83
Best Value	Implement new BSR/ICT solutions for back office systems as determined by the Best Value review process.	71
Monitoring	Commission annual review of the strategy	8
Contracts	Review major service contracts and agree re-letting approach	87

	(summer of 2002)	
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Years 4 to 5

	Action	Para. Ref.
E-Targets	On-going Citizen Service developments - 50% of transactions with E-option	1.4.05 65
	Develop internet access to the archaeology GIS system by 1.4.04	65
	Extend number of local hosted access points (if appropriate)	A5.17
Technology Infrastructure	Extend use of mobile computing	83
Best Value	Implement new BSR/ICT solutions for back office systems as determined by the Best Value review process.	71
Contracts	Re-let major ICT service contracts	87
Monitoring	Commission annual reviews of the strategy	8

Appendix 5 Key E-government Technologies

Citizen Smart Cards

1. Smart cards are personal credit-card style plastic cards incorporating a rewrite-able digital memory store and often also a microprocessor. Although they offer more than the standard magnetic strip card, they will do what this does – i.e. offer a secure and machine readable means of identifying the holder and their pre-set privileges. Indeed if this is the only requirement then magnetic strip swipe cards, or even printed or bar coded laminated documents which can be machine read via a light pen, offer a more cost effective means of achieving the desired end.
2. Smart cards currently offer two critical advantages over other the forms of personal identifiers in common use:
 - A massive increase in the amount of data which can be stored on the card
 - The data can be altered by a suitably enabled terminal
3. These advantages mean that smart cards can be used to store information about a person's relevant details and privileges in many different situations. The same card, could, for example, hold details of rent account number, concessionary fair entitlement, Council Tax account number, parking season ticket and leisure centre membership and, providing a suitable reader exists, be used in all these situations. The government sees the potential for multi-function smart cards as an enabler for joining up services. Post Office Counters recently scrapped a major project to use magnetic strip card readers to check for benefits entitlement because, amongst other things, they realised that the personal card used would need to be a smart card to have the capacity to hold all the information needed. The ability to change the information on the smart card means they can be updated as the situation changes or to load credits and reduce these as they are used. Examples include the award winning Hertfordshire concessionary fares system, where contact-less cards are used to credit the bus company and debit the card as the person enters a bus. In Newcastle-upon-Tyne system pupils now use a smart card "purse" to pay for school meals. The system is reported as being very popular with parents and school caterers, but less so with local fast food shops and tobacconists.
4. A number of major smart card projects are currently in the formative stages in local government. Most that we know of are in unitary authorities where the number of different services supplied to a person from the same council makes the application more attractive. Interesting examples of these projects include Newcastle upon Tyne and, just down the A3, Southampton. The scale of the leisure and transportation focused Southampton project, which has a budget of around £3m, gives some idea of the significance of such an investment. To be at all useful, Smart Cards must provide access at many different locations. Investment in specialist readers and interfaces to existing computer applications can be very considerable.
5. Smart cards have been around for many years and have not as yet made a major impact within the commercial sector (except for the specialist use within cellular phones). There are currently at least four main competing formats for Smart Cards and, although some

standards are now emerging, full interoperability is some way away. In particular there is a major division between different methods of holding money values on smart cards (often called electronic purses) and also between conventional interfaces and contact-less cards. The latter kind often have imbedded chips that are not visible on the surface of the card which means that you may be carrying a smart card and not realise it.

6. Generally we recommend that district level authorities should be wary of over ambitious smart card projects. Issuing magnetic strip cards for particular areas is often a more practical alternative for the short to medium term. These involve only very minimal investment and can be readily linked into existing technology, including that used by the Post Office. Some districts with rural hinterlands (e.g. Test Valley) have deliberately invested in these systems for Council Tax and Rent Accounting payments in order to encourage use of rural post offices. On the other hand the council should remain open to participation in smart card projects initiated by others. Anyone, starting a smart card scheme (the County Council, central government or a private operator) will be very keen to add the Council to their portfolio of users in order to increase credibility and spread the cost.

Video Conferencing

7. Like smart cards, video conferencing (VC) is a relatively old technology. The term is generic and is often used to refer to any kind of interactive telecommunication where the participants can see each other. Although the best known case study in local government is the Lewisham Teletalk project, the technology has also been employed in rural areas. Highland Region pioneered the extensive use of VC in the early 1990s. Other examples include Western Isles (mainly education) and Cumbria. In East Riding of Yorkshire VC has been successfully deployed both in local offices and, experimentally, in video booths in public places. Here, as in Lewisham, the service is used to allow citizens to talk “face to face” with officers located at the council’s head quarters building. Advantages include the ability to show documents (many systems back this up by using associated scanners to send back and forth a more readable form of the documentation) and windowing of the video images with application data (e.g. a benefit claim entry form) on the same screen.
8. Experience has shown that, although many people clearly like using VC systems once they have mastered them, initial take up is slow. The basic technology (cameras etc.) is now inexpensive but, as the Lewisham pilot project demonstrated, support costs are high. Moreover, to work effectively VC requires high bandwidth communications. At least 128k of bandwidth, i.e. two standard ISDN (digital phone) lines, are needed per connection. This calls for either a dedicated communication network or a much higher specification for the basic network infrastructure to that currently employed. However, advances in compression technology are making VC more accessible.
9. Best targets for VC are those services where transactions with the citizen tend to be relatively infrequent and non-standard and, perhaps often involve specialist professional staff. Examples might include general planning enquiries, health issues, etc. Although Winchester has a recognised need to communicate more effectively with its citizens in areas outside the town of Winchester, it does not have any area offices. VC

service points might be sited in local shops and libraries (as in Cumbria) or provided via kiosks (as in Newham) but such approaches involve additional complications for investment and support. Because of this we do not recommend consideration of VC at this time.

Kiosks

10. The government has generally taken the view that Kiosks – i.e. self service information and service access points in public places – are only feasible if they are multi-functional. They have been promoted as ideal vehicles for public/private initiatives. This typically involves a private sector partner (usually a communications company like BT). This is partly because of the need to provide a dedicated communication line to each kiosk which, together with the cost of vandal-proofing and on-going field support, makes the unit cost relatively high (£10k per annum and upwards).
11. Some local authorities (e.g. Newham) have developed their own kiosk infrastructure, but these are usually funded wholly or largely by external grant aid.
12. Kiosks tend to work best where there is a need for access to relatively easily understood information out of normal service hours. Because of this the approach has found important niches in the tourism and transport information sectors. The Council is already working with Hampshire County Council and the English Tourist Board to provide kiosk type access to tourist information. Hampshire County Council has installed information kiosks at major public transport intersections, including Winchester station, as part of its integrated transport strategy. We strongly recommend against using these very specialist kiosks for the delivery of general Council services (see Leisure and Tourism within the Information Systems Strategy section of the main report for our reasons for this).
13. Our general conclusion, is that, other than the existing specialist projects, kiosks are unlikely to offer real added value to Winchester City Council in the short term.

Hosting

14. Hosting is really a community partnership approach rather than a technology, but we feel it may well be of interest to Winchester because of the nature of its geography and its developing links with the voluntary sector and parish councils. Hosting involves placing terminals (these days normally internet enabled standard PCs) in organisations with a local presence. The locally based organisation then acts as a service access agent for the Council. Normally the location is also supplied with an appropriate stock of leaflets and forms and sometimes a free direct telephone.
15. The best run schemes include the provision of central services which provide training and advice to local partners. West Sussex and Cumbria Councils both operate schemes using rural post offices or shops as partners, partly in an attempt to support the rural infrastructure. A large number of district councils have agreements with town councils and some have similar arrangements with local CAB offices. By far the most developed service is the Hantsnet system operated by Hampshire County Council. As well as

providing terminals in libraries etc. this system has a large number of hosted arrangements with other district councils (e.g. Gosport and Basingstoke) and, often the most used facilities, with voluntary organisations such as local councils for social service and Age Concern. Hantsnet hosts are badged as “Information Points”. With the County moving away from IBM proprietary systems towards internet standards, there is a potential to negotiate the use of some of these Information Points as Winchester access points.

16. Hosting solutions sit mid way between completely free and hands-on public access (e.g. a through the wall type kiosk in a shopping centre) and the fully staffed one stop shop. Unlike kiosks they do not require specially designed equipment. Moreover, they use the same design and software implementation as the general public internet service and so do not incur additional software and design maintenance costs. Public access is often assisted by the local partner, who may simply offer general advice on how to use the PC facilities or, as in the case with, say, a CAB or Age Concern shop, may undertake to conduct the enquiry on behalf of the citizen. Hantsnet has demonstrated that, properly organised, hosting arrangements can deliver large numbers of contact points and that these can be positioned to serve potentially IT excluded groups like the rural poor, elderly or infirm. There are Hantsnet points in a large number of old people’s residential homes, for example.
17. There are attractive possibilities for Winchester in a hosting approach which builds on its existing relationships with town and parish councils as well as the county council. However, it must be recognised that the costs of maintaining equipment in the field and providing host staff with back-up support will not be insignificant.

Call Centres

18. Call Centres have been much talked about in local government over the last year. This interest was supported by the government’s enthusiasm for this approach in the Modernisation white paper and the successful introduction of NHS Direct. The term “Call Centre” has a spectrum of meanings, but essentially it implies the introduction of a dedicated centre for receiving telephone service requests. Such a centre will be equipped, at the minimum, with an Automatic Call Distribution system to manage the distribution of a variable incidence of incoming calls. Additional technologies normally employed include systems for identifying callers and “middleware” – a special kind of software application which enables the organisation to design a new interface to several different back office application systems. A new term “Contact Centre” has recently been introduced to denote a Call Centre that handles e-mail and video messages as well as telephone calls.
19. Call Centres operate very differently to traditional local government offices. Procedures for dealing with callers must be highly systematised and operators act as client agents – taking on the responsibility for the enquirer’s problem and finding a resolution, or at least the next steps to one, within the organisation. This involves creating a customer serving “Front Office”, separate from the “Back Office” processing functions. Similar organisational divisions are often found to be necessary in the operation of generic one-stop shops. This explains why the leading exponents of Call Centres in local government

are often those who have developed from the one stop shop approach (e.g. East Riding of Yorkshire and Brent). Recently, some authorities, daunted by the managerial and technological challenges of establishing their own Call Centre, have sought an outsourcing partner to develop this service (e.g. Salford with Vertex).

20. Although many larger unitary authorities are currently planning or implementing call centres, the take up within the two tier sector has been much less enthusiastic. To our knowledge, only one district authority (Three Rivers) is currently committed to a generic call centre. This may be because to get the full benefits of the approach (i.e. out of hours and generally improved service access) a major organisational restructuring is necessary. A generic call centre is likely to require a minimum of 20 FTE staff, perhaps more realistically 30 to 40. However, many more authorities (districts and unitaries) are considering the option of employing call centre techniques in high volume enquiry situations, most commonly Revenues and Benefits. At least two (Wyre Forest and Malvern) are proposing to set up a joint call centre for this purpose.
21. Although there are more possibilities to a call centre than just the Council Tax, implementing one without including this service simply does not make sense. The very effective working relationship between Winchester and Test Valley in this area offers the best possibility for development. Further consideration should await the completion of the First Software implementation. It is worth noting that a number of other Hampshire districts (Gosport, New Forest, and Havant) also use this software

Digital TV

22. Digital will completely replace existing analogue TV systems (both terrestrial and satellite) over the next five to ten years. The technology will enable more services to be integrated with broadcast television. Using cable TV or an interconnected telephone service the technology will allow for the development of interactive functions. These can include the integration of standard internet services such as e-mail and World Wide Web. However, the biggest impact will be from new services specifically designed for the TV format. Shopping channels and “vote now” applications, activated by the viewer using a remote control device of the kind already in common use, will become common place for cable subscription viewers in one or two years time. A few local authorities (e.g. Knowsley and Rhondda Cynon Taff) are already developing pilot digital TV systems in partnership with their local cable companies. The possibilities for providing information, recording applications and even sampling local opinions are very exciting.
23. However, it is not yet clear how interactive digital TV, requiring as it does two way communications, will be implemented in the broadcast environment. For a district such as Winchester, with very little cable penetration, early adoption is not a viable option. This may be a blessing in disguise as, like any new format, interactive digital TV will take some years to mature.

Variable Forms over the Web

24. Most local authorities already have straightforward information based web sites, some of them very extensive. However, very few have yet developed sites integrated (directly or otherwise) with their main operational systems or which offer much by the way of interactive facilities. New local authority interactive web sites appear almost daily. Those we recommend, including several district councils, as good examples include:

City of Bristol – a very dynamic site that acts as true community “portal” for the city and includes many interactive features as well as “transitional” facilities such as forms that can be down loaded and printed. Currently in our view the best all round local authority web site in the country and comparable to the best in the private sector. <http://www.bristol-city.gov.uk/>

Cambridge City – Includes an e-commerce facility selling tickets to events at the council leisure venue. <http://www.cambridge.gov.uk/cornex/cornex.htm>

Uttersford BC – provides excellent interactive database of local services and traders. <http://www.uttlesford.gov.uk/saffire/>

Rushmoor – Rather difficult to navigate, but nevertheless provides on-line access to all minutes and reports. <http://www.rushmoor.gov.uk/rbc318x.htm>

Waverley – includes an interactive facility enquiry on refuse collection days. http://www.waverley.gov.uk/waste/house_refuse.htm

Wokingham – has many on-line registration and interactive features a including Council Tax and Benefits forms. <http://www.wokingham.gov.uk>

Harlow – A good example of a “joined up” information site with a crossing cutting focus on the family <http://www.harlow.gov.uk/thefamilyroom/index.htm>

Ryedale – A very simple enquiry form. <http://www.ryedale.gov.uk/enquiries/index.html>

25. A comprehensive survey of local authority web sites was conducted by SOCITM towards the end of 1998 and again during the period December 1999 to January 2000. SOCITM classifies local authority web sites into four groups, reflecting their stage of development. Promotional sites, are simple “here we are” references. Content sites go beyond this to provide a wide range of useful information concerning the Council and the community it serves. Content Plus sites contain additional features, perhaps including some interactive facilities and a range of frequently changing information. Transactional sites are those that are used to support interactive dialogue. The overall results were as follows:

	1998	1999/2000
• Promotional sites	62%	57%

• Content sites	30%	35%
• Content Plus sites	8%	8%
• Transactional sites	none	none

26. These findings show that the development of interactive web facilities within local government has some way to go. Although the SOCITM work has highlighted some incidences of district council sites with limited interactive facilities, these were not judged sufficiently wide ranging to be classified as “transactional”.

27. The Council’s site was classified as Promotional in the first survey, but following the re-launch has been re-surveyed recently and classified as Content. Other Hampshire Districts were classified as follows:

Basingstoke and Dean	Content
East Hampshire	Promotional
Eastleigh	Promotional
Fareham	Content Plus
Gosport	Promotional
Hampshire	Content Plus
Hart	Promotional
Havant	Promotional
New Forest	Promotional
Portsmouth	Content
Rushmoor	Content Plus
Southampton	Content Plus
Test Valley	Content

28. Much attention is now focusing on the development of variable forms features for the web. These facilities use programs down loaded to the browser which allows forms, e.g. applications or request for further information, to be completed on-line. The on-line form is variable, i.e. you are only asked questions which are relevant to the previous answers. Individual fields or combinations can also be validated in much the same way as in a data entry facility from a standard computer application. Unlike a paper-based form, an on-line system can be integrated with as much content related help and further information as is necessary. Where appropriate the system can provide provisional results, e.g. “You cannot be included on the electoral role because you have not reached the legal voting age. However, given you were born in 30.11.1982 you will be able to vote from

29. Properly designed, these new applications can radically improve both the ease of access for citizens and the quality of information presented to them. They may also serve to reduce the number of relatively trivial enquiries by providing acceptable provisional results immediately. The recently announced NHS Direct online service (www.nhsdirect.nhs.uk) will incorporate variable form approaches to allow patients to undertake their own simple medical diagnosis. We believe that these kinds of applications will have become the dominant force in automated public sector customer fronting services in five years time. They may well become more important than all the other enabling technologies taken together (including Call Centres) in the realisation of the e-government targets. For those organisations, like Winchester, who have reason not

to move to a generic call centre approach, at least in the short to medium term, this approach represents THE key component of an Information Age implementation strategy.

30. Variable forms over the internet are not a simple solution. As well as developing the ability to create and maintain these facilities, there are some very real implementation issues to be overcome. These include:

- How to interface the new “instant” systems with back office systems designed to run at very much slower cycle speeds.
- What to do about identification and authorisation. Digital signatures will become legally acceptable next year, but it is unlikely that most home PCs will have the facilities for recording them.
- How to adopt the “professional probity” local authority culture to enable on-line systems to provide the automated advice and decisions people will come to expect.

Appendix 5 Risk Assessment

1. Risk assessment and monitoring is an integral part of project management. The strategy itself needs to be kept under constant review to ensure that the policies and strategic approaches contained herein remain valid in the light of changing government policy and technology developments. At the same time we recommend that each new ICT development proposal be subjected to risk analysis as part of the project appraisal process.
2. Below we list the main risks components of the strategy itself. Most of these have been identified and discussed elsewhere within this document, but it is important to summarise the main risks so that the strategy as proposed can be judged accordingly.
3. There are, of course, other risks associated with alternative strategy approaches. In this context the most important of these is the risk of falling behind if nothing is done to address the agenda set out in the Modernising Government white paper. The medium to long business impact of this risk would be severe. In the developing framework of inspection and comparative assessment of performance the Council would be exposed to visible failure and, in the extreme, the potential for external intervention in service management and loss of responsibilities. The probability of this happening rises over time, but will be high (for failure to meet expected targets) if action was to be unduly delayed. To a very considerable extent the seriousness of this “falling behind” risk is dependent not so much upon the development of government policy but on the service access aspirations of the citizens. To determine the risk of the Council’s services falling behind citizens’ requirement it is necessary to project these forward from the current situation to the likely one in three, five or more years time. All the evidence points to a huge increase in the demand for on-line twenty-four hour service access within these time frames.

Risk Area	Business Impact	Probability
Paradigm shift in infrastructure technology (i.e. away from Microsoft or, say, Ethernet based networking).	Medium. Reduction in life of investment benefits and so either an increase in investment costs or slowing of development.	Medium. The strategy addresses this risk by requiring the Council to examine alternatives to Microsoft as and when new infrastructure investments come up. The “outcome” nature of IT services contracts has already help to reduce exposure to this risk.

Risk Area	Business Impact	Probability
Failure of one or more of major application systems providers (First, CAPS etc.) to deliver.	Low to Medium. Very inconvenient for the effective service(s) but the diverse market place to local government provides options in event of a supplier failure.	Low to Medium. The strategy has set out to reduce this risk from what might otherwise be a Medium to High level by recommending migration to leading player suppliers with solid underlying technology and credible business plans.
Change of government strategy towards Information Age government targets etc.	Medium to High. Depending upon the nature of the change might leave the Council seriously out of step and would certainly require a strategic re-think.	Very Low. Although the detailed strategy and buzzwords will obviously change, the underlying policy direction has very strong roots independent of party politics (see paragraph 12 of the main report).
Government brings E-targets dates forward.	Low. Provided the Council does not abandon its genuine e-government strategy and move to a "tick list" approach to meeting fixed targets the impact should be minimal. However the Council may be criticised for not meeting the revised target dates.	High. The government appears to be preparing to bring forward the 100% e-options target from 2008 to 2005. However, many people believe that in local government at least such a target is not practical.
Failure of the Internet to develop as a major channel for service provision or the development of an alternative technology that replaces it.	Medium. Any shift towards newer technology is likely to include a upwards compatibility route for ICT systems developed for interactive internet.	Very Low (in the lifetime of this strategy). Horizon technologies (e.g. Digital TV and web-enabled mobile phones) have to mature and can't yet operate at all in many areas served by this Council. Other radical replacement technologies are very unlikely to mature within this period.

Risk Area	Business Impact	Probability
E-development partner fails to deliver as expected.	Low – providing project management is effective and development investment is transferable to alternative partners.	Medium. Care needs to be taken in choice of partner, agreeing a contract and the continued development of the partnership relationship.
Projects run over time/budget	Medium to High. Implications for business plans, credibility with the citizens and other stakeholders and budgets.	Medium. Some of these project developments are difficult to define and central guidance on best practice is still in the early stages of development. This underlines the importance of effective project management.