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CABINET - 21 NOVEMBER 2013 **PORTFOLIO: FINANCE AND EFFICIENCY**

ICT STRATEGY 2014 -2019

1. PURPOSE

1.1 This report proposes the Information and Communications Technology strategy and the related funding required for its delivery for the period 2014 to 2019.

2. BACKGROUND

2.1 The ICT Strategy covering the period 2009 -2013 has been successfully delivered. This strategy aligned ICT investment with major council objectives covering the period 2009 to 2013. The main objective of the ICT Strategy for 2009 -2013 was to deploy ICT to facilitate the successful implementation of the Office Optimisation programme. The programme of projects making up the ICT Strategy included:

- The deployment of a new telephone system across the council, enabling greater flexibility for employees to work at any location.
- The installation of networked, multi-functional printing devices to reduce paper consumption and other consumables to aid flexible working, reduce costs and be more environmentally friendly.
- The installation of improved computer facilities in the form of two data centres, making use of more energy efficient environmental controls and improved physical security.
- The implementation of a network of virtual servers, enabling over eighty physical servers to be de-commissioned, reducing the energy consumed by ICT resources.
- The utilisation of social media including the launch of a mobile phone application to report matters to the Customer Services Contact Centre.
- The implementation of a council-wide, electronic document and records management system (EDRMS).
- The migration of housing information systems to a more modern IT architecture to position the service for; increased ability for customer self-service and consultation / feedback via the internet using mobile devices and to enable more mobile working opportunities for employees. The project team in ICT Services recently gained an award for outstanding achievement in terms of progress on this complex project.

3. INTRODUCTION

3.1 ICT has a key role to play in supporting and leading change through exploiting current and emerging technologies to support the provision of services. The ICT strategy 2014 - 2019 sets out how the investment in information technology and strategic information management will underpin the corporate plan priorities and service plans.

4. WHAT OUTCOMES WILL ARISE FROM THE ICT STRATEGY (2014 – 2019)?

4.1 The successful delivery of the ICT strategy will ensure that:

- Our citizens can access our services and information in a far wider range of ways.
- Employees and councillors are provided with the tools they need to be able to deliver services more easily at the point of contact with citizens.
- The move to more agile working will be underpinned by a secure ICT infrastructure, enabling further opportunities to be taken to optimise the council's property assets.
- The council will be able to deliver its services more effectively in partnership with other public organisations, where appropriate.
- The overall cost of ICT delivery could be reduced by exploiting opportunities to further collaborate with other organisations such as the New Forest National Park Authority and Hampshire County Council.
- Decisions about key council services will be made with timely and relevant business information (e.g. by analysing the efficiency of telephone call handling and the *customer journey* through other customer contact channels).
- Economic growth will be supported through the extension of Superfast Broadband to rural areas.

4.2 Some technical terms are used in this report. A glossary of terms attached at Appendix A.

5. THE CURRENT ICT CONTEXT AT NEW FOREST DISTRICT COUNCIL

5.1 NFDC has in place a well established ICT infrastructure comprising wide and local area, networks, virtual and physical servers, network deployed printing and copying facilities, state-of-the-art- telephone systems and well performing business applications with robust support arrangements in place, to support users and manage third party suppliers.

5.2 There has been a steady and sustained investment in ICT over a long period of time and as a consequence there are no significant gaps in the current ICT infrastructure in the sense that no new "vertical" business applications (such as the Financial Management system, Planning system, or Leisure Centre Members Booking system) are flagged for replacement in the next four to five years. Of course commercial

activities, legislative changes or failure to maintain software development may result in a software supplier leaving the market or selling the product and that might have consequences for customers such as NFDC.

5.3 Without exception, all areas of the council's operations rely on ICT whether that is through vertical applications, desktop systems (such as Microsoft Office applications), telephone call handling or the use of the internet and social media to promote services and engage with customers.

5.4 The fact that there are few "gaps" in the councils' ICT infrastructure at this point in time (and for the foreseeable future) indicates there is no single major investment required in a particular technology or information system. The ICT infrastructure must be maintained to be fit for purpose and especially to be secure in order to protect the council's key information assets, and to minimise any possible disruption to the services that rely so heavily upon ICT. Ensuring that information systems security is well managed and that systems are available to users for the maximum possible time, in the face of an ever increasing number of threats, is a key strategic objective.

6. THE TECHNOLOGY LANDSCAPE

6.1 The technology landscape has changed as a result of the following factors:

- The dominance of the internet.
- The introduction of virtualisation technologies.
- The commoditisation and standardisation of technologies.
- Increasing bandwidth and quality of internet connectivity.
- The convergence of voice and data services from a single provider.
- The growth in Cloud computing.

6.2 The speed of this technology change combined with the pressures of the current economic climate means that traditional software and hardware buying models are disappearing fast. With Cloud computing comes the prospect of paying for software on a subscription basis, avoiding the need for capital expenditure.

6.3 Sophisticated computing resources are now widely available to consumers. Individuals are able to use smart phones or tablet devices across wireless networks. They can access and download a huge variety of applications designed to run on such smart phones and tablet devices. They can save data (such as documents, photographs or music) in the Cloud for a small monthly subscription. The easy, available access to these technologies is also changing the way that people interact with each other and with organisations, including local authorities.

6.4 Whilst service industries in the private sector have been reasonably quick to adopt these technologies to meet customer demands and to develop agility in the provision of services, local authorities have been necessarily slower to do so. Compliance with information assurance regimes such as the Code of Connection for the Government Secure Intranet (Co-Co) and more recently the Public Services Network (PSN) have slowed the pace of take up in the public sector.

6.5 Wireless computing, cloud computing, remote access to corporate information systems via mobile devices (including employees' own devices) will be enabled by the end of 2014/15. The more that we expand the means of access to our information systems the greater the risk of a breach of security. Full risk assessments and risk mitigation will need to be produced in order to safely exploit these "mobile" technologies. The risk mitigation required in key compliance regimes (such as the Government Code of Connection) can be extremely onerous. The adoption of these technologies when appropriately applied will bring benefits in terms of costs and efficiencies. Again it will be necessary to ensure that effective security measures are put in place to use these facilities safely.

7. THE ICT WORK PROGRAMME SUPPORTING THE ICT STRATEGY

7.1 The ICT strategy will require current ICT policies and standards to be updated to reflect technology changes. The operational format of ICT Services will also need to be reviewed to ensure that the right skills are available and the correct level of resources is in place. It is through a number of carefully managed projects that the ICT Strategy will be delivered. The programme of projects making up the ICT Strategy fall into two categories:

a) corporate (council-wide)

b) service specific (as identified in Service Plans)

7.2 A list of proposed projects together with the estimated costs of these projects is attached at Appendix B.

8. ENSURING THAT THE DEPLOYMENT OF ICT IS COST EFFECTIVE

8.1 The ICT Work Programme identifies the investment required to take ICT forward over the period 2014 -2019. The ICT Strategy must also take into account the scope to ensure that value for money is achieved by the investment to date and any planned ICT investment. In the current financial climate it is more important than ever to review existing arrangements to see if there is the scope to procure goods and services at a lower cost whilst still maintaining a high level of service.

8.2 In the first year of this five year strategy (2014/15) it is proposed to review the following areas to identify the scope for savings:

- The purchase, installation and maintenance of servers and PC/workstations (including a consideration of whether a user needs a PC or terminal type device and / or a mobile device such as a tablet.
- The purchase of desktop software (typically Microsoft) to move towards a standard version and ultimately lower maintenance costs.
- The opportunities to host selected business applications "in the cloud", where it is cheaper or where there are sound business reasons to have applications hosted outside of NFDC's secure infrastructure.

9. BENCHMARKING THE ICT SERVICES TEAM

9.1 Earlier in the year, the Head of ICT Services subscribed to an independent ICT benchmarking service operated by the Society of IT Managers (SOCITM). The objective of this independent benchmarking activity was to evaluate the efficiency of the ICT function and how it relates to wider organisational performance.

9.2 The SOCITM Benchmarking service is designed to identify:

a) How we are performing.

b) If we are improving or getting worse.

c) How we compare with our peers.

d) What we need to do to improve.

9.3 The benchmarking exercise compared NFDC with; 6 County Councils, 2 Metropolitan District Councils, 2 Shared Services organisations, 1 part of devolved government and a Housing Association.

9.4 The benchmarking exercise began with a review of user satisfaction based on an on-line questionnaire using the same questions and definitions of terms for all of the participating organisations. In NFDC, this anonymous survey attracted 155 responses covering all aspects of ICT Services. The primary question was “give us your overall opinion of the quality of service offered by ICT Services”.

9.5 ICT Services scored 5.36 out of a maximum 7 which is at the top of the median score for the group. This level of user satisfaction is very encouraging given the demand for ICT support but it does leave scope to improve in certain areas such providing more feedback on calls logged with the service desk and on our current service level agreements. There are other results derived from the benchmarking exercise that will need to be reviewed as part of the ICT strategy, including the level of resources perceived to be required and the procurement cost of PCs and software.

10. WORKING IN PARTNERSHIP

10.1 ICT Services is currently working in ICT related partnerships with Hampshire County Council and support services are being provided to the New Forest National Park Authority and several Town and Parish Councils. This type of partnership working gives the partners some additional capacity and promotes collaboration and knowledge sharing. There is certainly scope to work more closely with Hampshire County Council IT Services where a positive relationship already exists. In this strategic cycle it is proposed to further explore the potential for more joint working with Hampshire County Council.

11. FUNDING THE ICT STRATEGY AND EQUIPMENT REPLACEMENT PROGRAMME

11.1 The ICT Investment plans are informed by two areas:

a) The investment required to fund projects and initiatives in the ICT Strategy 2014 - 2019.

b) The investment required to maintain an ICT infrastructure (hardware and network equipment) as part of a planned replenishment programme.

11.2 The operational requirements of ICT Services (e.g. employee costs including training) are kept under review. The operational format of ICT Services will be reviewed in the context of the ICT strategy and any bids and savings will be identified as part of the budget preparing process for 2014/15 and onwards.

11.3 A summarised investment plan for ICT is shown at Appendix C.

12. CONCLUSION

12.1 The ICT Strategy 2014 to 2019 sets out an investment programme for the development and maintenance of an ICT infrastructure that will support the corporate plan and service action plans for the council in future years. A steady and sustained investment in the ICT infrastructure and in the ICT Services team has helped to minimise the need for large-scale investment in specific technologies and skills to address deficiencies in the availability or performance of the current ICT infrastructure. In a period of financial austerity, the ICT strategy is forward looking and includes projects to implement maturing technologies such as secure wireless networks, tablet devices and cloud based ICT services.

13. COMMENTS OF CORPORATE OVERVIEW AND SCRUTINY PANEL

The Corporate Overview and Scrutiny Panel supported the recommendation in this report.

14. PORTFOLIO HOLDER'S COMMENTS

Subject to a closer review of the various projects and the yields they may return the Strategy has my support.

15. RECOMMENDATION

15.1 That it be a recommendation to Council that the ICT strategy for the period 2014 - 2019 is approved.

Background Papers

Corporate Overview and Scrutiny Panel on 21st March 2013 - Progress Report on Implementing the ICT Strategy 2009 – 2013.

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APPENDIX A

GLOSSARY OF TERMS

Virtual Servers

Server virtualisation is the partitioning of a physical server into smaller virtual servers to help maximise server resources. In server virtualisation the resources of the server itself are hidden from users and software is used to divide the physical server into multiple virtual environments, called virtual servers. This is in contrast to dedicating one server to a single application or task.

Social Media

Websites and applications that enable users to create and share content or to participate in social networking.

Electronic Document Records Management System (Meridio)

Electronic document and records management aims to enable organisations to manage documents and records throughout the document life-cycle, from creation to destruction. Typically, systems consider a document as a work in progress until it has undergone a review, approval, lock down and (potentially) publication, at which point it becomes a formal record within the organisation. Once the document has achieved the status of a record, the organisation may apply best practice or legally enforced retention policies which state how the second half of the record life cycle will progress. This typically involves retention and protection from change, until some event occurs which relates to the record and will trigger the final disposition schedule to apply to the record. Eventually at a set time after the event(s) the record undergoes destruction.

ICT infrastructure

ICT infrastructure is the physical hardware used to interconnect computers and users. ICT Infrastructure includes the transmission media, including voice and data communications lines, routers and other devices that control transmission paths. ICT infrastructure also includes the software used to send, receive and manage the signals that are being transmitted.

Vertical Business Application

A vertical application is any software that supports a specific business process and targets a smaller number of users with specific skill sets and job responsibilities within an organisation such as the Customer Services Contact Centre System.

Cloud Computing

Cloud computing can be defined as “scalable” computing resources provided as an external service via the internet on a pay as you go basis. In other words, resources, software and information can be provided as a utility in the same way as electricity or water. Cloud

services can be faster, cheaper and easier to access because there is little capital investment or set up required.

Code of Connection for the Government Secure Intranet (GSI)

In the UK, the Code of Connection (Co-Co) is a mandatory set of requirements that must be demonstrated before local authorities in England and Wales can connect to the Government Secure Intranet (GSI). Co-Co which has been in effect since September 2009 requires local authorities to provide a compliance statement that documents how their information technology meets baseline requirements set up by Central Government. Co-Co compliance is assessed annually and a local authority can be audited at any time.

Public Services Network (PSN)

The Public Services Network (PSN) is a UK Government programme to unify the provision of network infrastructure across the United Kingdom public sector into an interconnected "network of networks" to increase efficiency and reduce overall public expenditure. PSN compliance certification is issued on the basis on commitments made by service providers and customers against the requirements set out in three PSN codes:

1. The Code of Interconnection (CoiCo) sets out the requirements for PSN networks to connect directly to the Government Conveyancing Network (GCN) – the PSN backbone.

2. The Code of Practice (COP) sets out the requirements for other PSN networks and network services.

3. The Code of Connection (Co-Co) sets out the requirements for customer environments to connect to the PSN. The PSN Co-Co is based on the existing GSI and GSX codes of connection.

APPENDIX B

ICT STRATEGY WORK PROGRAMME 2014/15 to 2018/19

One-Off Costs

Corporate Projects	2014/15	2015/16	2016/17	2017/18	2018/19	Totals
Wireless networking	40,000	15,000				55,000
Financial and HR System Upgrade	15,000	15,000	15,000	15,000	15,000	45,000
Web Site upgrade	30,000					30,000
Electronic Document and Records Management System Integration	30,000	35,000	25,000	20,000	20,000	130,000
Data Communications Links (Disaster Recovery)	5,000					5,000
Travel and Expenses System Upgrade		10,000				10,000
Storage Area Network		20,000	20,000	20,000	20,000	80,000
Geographic Information System Development	10,000	10,000	10,000	10,000	10,000	50,000
Customer Services (CRM) System Annual Development	10,000	10,000	10,000	10,000	10,000	50,000
Secure Mobile Device Management (Mobile / Remote access)	35,000					35,000
E-Training Facilities		10,000		5,000		15,000
E-Post Room	20,000	10,000	10,000			40,000
Service Level Projects						
Contractor System		15,000	10,000	5,000	5,000	35,000
Security Hardware and Software	10,000	10,000	10,000	10,000	10,000	50,000
SMS Text Broadcasting	10,000					10,000
"In Cab" Technology		70,000	10,000	10,000	10,000	100,000
Tree Safety Management Software	5,000					5,000
Health and Leisure Centre ICT Development	25,000	25,000	25,000	25,000	25,000	125,000
Mobile Device Applications Development	15,000	15,000	10,000	10,000	10,000	75,000
Computer Aided Design Expansion	30,000					30,000
Totals	**290,000**	**270,000**	**155,000**	**140,000**	**135,000**	**990,000**

APPENDIX B Continued

ICT WORK PROGRAMME 2014/15 to 2018/19

Recurring Costs

Corporate Projects	**2014/15**	**2015/16**	**2016/17**	**2017/18**	**2018/19**
Wireless networking	10,000				
PSN / Co-Co Compliance	10,000	10,000	10,000	10,000	10,000
Financial and HR System Upgrade		10,000			
Web Site upgrade	10,000				
Electronic Document and Records Management System Integration	5,000	5,000	5,000	5,000	5,000
Data Communications Links (Disaster Recovery)	17,000				
Travel and Expenses System Upgrade		1,000			
Storage Area Network		30,000			
Geographic Information System Development	2,000				
Customer Services (CRM) System Annual Development	2,000	2,000	2,000	2,000	2,000
Secure Mobile Device Management (Mobile / Remote access)		10,000			
E-Training Facilities		4,000			
E-Post Room		5,000	5,000		
Service Level Projects					
SMS Text Broadcasting	3,000	3,000			
"In Cab" Technology		15,000			
Tree Safety Management Software	4,000				
Health and Leisure Centre ICT development	5,000	5,000	5,000	5,000	5,000
Mobile Device Applications Deployment	5,000	5,000	3,000	3,000	3,000
Computer Aided Design Expansion	2,000				
Totals	**75,000**	**105,000**	**30,000**	**25,000**	**25,000**

APPENDIX B

Cont

ICT WORK PROGRAMME (2014 - 2019) -PROJECT SUMMARIES

Wireless Networking

This bid relates to the installation of wireless network points controlled by a secure server in the main council offices (initially) to enable mobile working on tablet and other portable devices.

Financial and HR System Upgrade

This bid relates to a major version upgrade to the *Agresso/Unit 4* Financial and HR system and an annual provision to cover necessary changes and enhancements (e.g. auto enrolment for pensions) arising from legislative or new business requirements.

Web Site Upgrade

The council's web site needs to migrate to a more secure software architecture which allows for improved support and more flexible development to embrace web site deployment to mobile devices and linking to the EDRMS system.

Electronic Document and Records Management System Integration

The corporate Electronic Document and Records Management system will soon be operational in all areas of the council's services. There is scope to improve how the system integrates with the intranet (*Forestnet*) and the web site to minimise multiple instances of the same documents. This bid relates to integration with other systems and the development of workflow features to automate some business processes.

Data Communications Links for Disaster Recovery

This bid relates to implementing a high capacity link to the internet to provide added resilience against downtime. It is proposed to replace the current link used for CCTV and to bring this connection under the umbrella of the HPSN2 service. There would be an offset saving.

Travel and Expenses System Upgrade

This bid relates to a proposed upgrade to the Travel and Expenses system.

Storage Area Network

A new Storage Area Network (SAN) is being installed in the final quarter of 2013/14. The system has been specified to be expandable to cope with a massive growth in data volumes.

This bid sets out a provision to enhance the capacity of the SAN as and when it is required and in line with the data retention scheme.

Geographic Information System

The corporate Geographic Information System (GIS) is used across services and is a valuable information asset containing thousands of polygons, representing important data in a map based format.

Most recently it has enabled close working with Town and Parish Councils in the areas of land ownership and open spaces maintenance. This bid relates to extending the use of the system more widely across the council and where possible with partners in Town and Parish Councils.

Customer Services System (CRM) Annual Development

The Customer Services Contact Centre received 108,000 telephone calls in 2012/13. The contact centre handles (70,000) telephone calls for Health and Leisure Centres and (38,000) calls for other services; ranging from refuse collection to selling car park clocks. Each year the service is required to assist with handling telephone calls in support of important new initiatives (e.g. kerbside collection for glass re-cycling). More often than not these operational changes require changes or further development of the underlying information system in use in the Contact Centre. This bid sets out an annual provision for those ongoing changes to the services offered.

Secure Mobile Device Management System

With more people using their own tablet devices such as i-pads, there is a growing demand to enable employees to access their “work based” systems using their own devices. This might have certain attractions to the council as it might save on providing laptop PCs and other devices if the demand becomes significant. Even if the council does not support this development known as *Bring Your Own Device* (BYOD) there is likely to be a shift towards more mobile working and a demand to use mobile devices. Such devices will need to be able to access the Council’s system securely and in a way that satisfies the requirements of the PSN Co-Co. This bid relates to a hardware and software solution that controls and manages secure network access for the new generation of remote / mobile devices.

E-Training Facilities

This bid relates to the extension of training courses that can be delivered through PC based e-learning software.

E-Post Room

The new EDRMS system is already having an impact on how post is processed and distributed in some buildings. There is an opportunity (that will be subject to a full business case) to make further use of the EDRMS system by increasing the scanning capacity and

throughput of incoming documents and establishing resources to undertake the scanning of historical documents and records.

SMS Texting Facilities

A number of services want to utilise the ability to send broadcast text messages to customers and businesses that are signed up to the service (e.g. to issue flood alerts or notify of changes to refuse collection rounds). Additionally there is a possible use for these facilities in the Elections service arising from proposed changes in the voter registration process and also in the Building Maintenance service for housing repairs e.g. to confirm appointments with tenants.

Contractor System

This bid relates to the extension of the new contractor (job / operative scheduling) system that is going live in the Building Maintenance service, in the second quarter of 2014/15. Once the Building maintenance service has been live on the system and a post implementation review is undertaken, it may be extended into other operational areas such as Engineering works.

Security Hardware and Software

The security threat arising from the greater use of ICT and the ever increasing threats to public sector sites require an on-going investment to be made in ICT security products (hardware and software) to manage the risk of security breaches and to be able to respond quickly to events (e.g. to commission a new server, firewall change or make an urgent upgrade to critical application software. This bid makes an annual provision for hardware and software resources as security threats emerge and in order to maintain maximum availability of systems.

“In Cab” Technologies

Telemetric systems are now widely installed in operational fleets. The systems monitor the driver’s performance, the vehicles performance, route scheduling and health and safety diagnostics.

Tree Safety Management Software

There is a requirement to upgrade the system that ensures the safety of trees owned by the council.

Health and Leisure Centre ICT Development

The Health and Leisure centres have recognised the need to use effective ICT to provide convenience for customers and to compete for customers against private sector service providers. During 2013/14, Health and Leisure centres have been engaged in implementing a system to provide parent access via the internet to the swim academy, following on from poolside updates on a child’s progress and a facility to book and pay for exercise classes and courses on-line. This standing bid aims to establish a provision for beneficial ICT investment (e.g. into software aimed at lifestyle management) to support marketing strategies in the service.

Mobile Device Applications Development

The council is responding to customer expectations by producing downloadable applications to run on mobile devices. The first such application “In Touch” dovetails with the contact centre to route any incidents reported to the correct service for action. Health and Leisure centres are developing an application to promote services and extend book and pay for classes and an outline specification for a mobile application to assist council members has been produced. There is even wider potential to deploy mobile applications to other services and this bid seeks to establish funding for a number of application development projects over the five year period.

Computer Aided Design (CAD) Enhanced / Additional Licenses

The Property Services team requires three high-end CAD software licenses to undertake the new Building Information Modelling requirements that come into force in 2014.

In addition there is a shortfall in CAD software licenses in the Landscape Design team. CAD software is relatively expensive, with little competition in the marketplace. At present there can be bottlenecks for users running the software under the current license provision.

APPENDIX C

SUMMARY OF ICT EXPENDITURE (2014 - 2019)

Budget Required For	2014/15 £	2015/16 £	2016/17 £	2017/18 £	2018/19 £	Total(s)
ICT Equipment Replacement	310,000	219,000	207,000	324,000		
Sub Total	***310,000***	***219,000***	***207,000***	***324,000***		
ICT Work Programme (one off)	290,000	270,000	155,000	140,000	135,000	990,000
ICT Work Programme (recurring)	75,000	105,000	30,000	25,000	25,000	
Sub Total	***365,000***	***375,000***	***185,000***	***165,000***	***160,000***	
Grand Total(s)	**675,000**	**594,000**	**392,000**	**489,000**		