

Information Technology and Digital Strategy 2017-2020

South Derbyshire DC

Final Version July 2017

South Derbyshire DC Information Technology and Digital Strategy

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Introduction by the Leader of the Council

Information Technologies (IT), and associated digital technologies, are now key drivers for the success of an organisation, changing traditional ways of doing things, providing new opportunities and empowering people. They are impacting public services by driving improvements in efficiency and productivity and providing new ways to open up a dialogue with communities and businesses.

We recognise the power of technology. We want to find ways to use digital technology to save money and improve services through co-production, collaboration and cooperation with our communities.

There are now opportunities for councils to redesign public services around the customer experience, enabled by personal mobile digital technology. These opportunities will also provide ways to reduce costs and improve services to local taxpayers. The Information Technology and Digital Strategy outlines our priorities for IT to address these opportunities.



Councillor Bob Wheeler Leader

Information Technology and Digital

Over the last five years the Council has experienced significant change. In particular, customer expectations are now that Council services should be available 24/7 via digital channels and that finding information, paying bills or applying for benefits should be easily available electronically. At the same time, the Council has experienced reductions in central funding and continued pressure on all service areas to reduce costs whilst improving service quality.

It is against this backdrop that the *Information Technology* & *Digital Strategy* 2017 - 2020 has been developed. The purpose of this strategy is to provide a clear roadmap for how technology can enable the Council to provide better services that meet customer demands and deliver better outcomes whilst ensuring efficiencies are achieved.

The Information Technology and Digital Strategy will allow stakeholders to understand our IT objectives and how these are aligned with the Council's priorities and business direction. It will also provide a blueprint for IT service delivery and priorities over the next three years. It identifies the systems and services required and how these will contribute to the overall success of the organisation.

2.0 Council Vision and Corporate Objectives

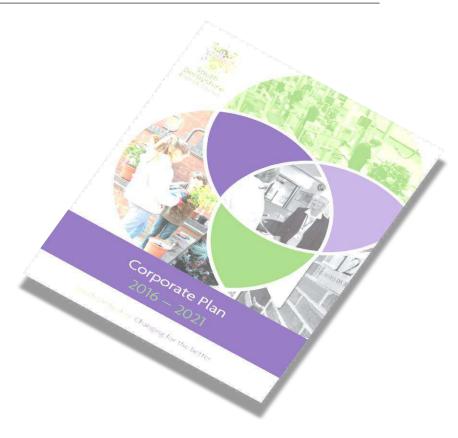
The Corporate Plan

The Council adopted a new Corporate Plan in 2016. It sets out an ambitious programme to develop and further improve services between then and 2021.

'Making South Derbyshire a better place to live, work and visit' is our vision, supported by a comprehensive Corporate Plan which focuses on key activity areas, each underpinned by clear outcomes:-

- 1. People Keeping residents happy, healthy and safe
- 2. Place Creating vibrant communities to meet residents' needs
- 3. Progress Encouraging inward investment and tourism
- 4. Outcomes Work that underpins all of our activities

Technology will be a key enabler of outcomes for the Corporate Plan. The Council has therefore recognised the importance of ensuring that the technologies support and underpin the Corporate Plan through the development of the Information Technology & Digital Strategy 2017-2020.



Making South Derbyshire a better place to live, work and visit

3.0 Technology - delivering Council Outcomes

Council Outcomes

The Corporate Plan identifies a series of key outcomes.

Maintain financial health
Maintain Corporate Governance
Enhance environmental standards
Maintain a skilled workforce
Maintain customer focus
Manage financial, legal and environmental risks

Technology will support the delivery of these Corporate Plan outcomes through:

Improved productivity – modern technology will support the automation and speed of undertaking tasks and improve collaboration.

Reduced costs – supporting the need to deliver Council savings, technology can reduce the cost of services particularly when applied to repetitive and transactional tasks.

Improved Customer Service – technology provides a significant opportunity to provide improved 'real-time' services for customers, often delivered using mobile technologies to access services remotely.

Increased Skills – the introduction of new technology offers the opportunity to increase the skills of the Council's workforce through training and new ways of working.

The Information Technology and Digital strategy has been developed by consulting with the organisation about the technology requirements needed to deliver overall Council services and the outcomes of the Corporate Plan. The organisation identified a number of key business requirements outlined overleaf. Key technologies such as **Cloud Computing**, mobile technologies, Collaboration and Integration Tools are crucial to delivering the overall outcomes. The Information Technology and Digital Strategy therefore prioritises investment in key technologies over the next 3 years to deliver the capability to meet the Council's Corporate Plan and business requirements.

Fact Box	Fact
What is technology integration?	What Comp
A way of ensuring IT systems, applications and software work effectively together.	The p a netv serve Intern
	mana

Box

is Cloud puting?

practice of using work of remote ers hosted on the net to store. manage, and process data, rather than a local server or a personal computer.

Fact Box

What are Collaboration Tools?

Computer Software Applications designed to help people involved in common tasks achieve their goals.

4.0 Summary of Business Requirements

A summary of nine current and future business requirement priorities have been identified from consultation with the organisation. These are required to support the delivery of the Corporate Plan.

Summary of Key Business Requirement

1. Capability to **deliver services digitally**, wherever appropriate, including a customer self-service and faceto-face and telephone-assisted self-serve

2. A stable, secure modern ICT infrastructure which enables the organisation to deliver an efficient service

3. Internal services for staff and managers delivered through **digital self-service** wherever possible (reducing manual and paper-based processes)

4. Stable and 'fit for purpose' line of business application(s) which support the efficient operation of the Council

5. Ability to **work in new ways** including collaboratively, flexibly and remotely from office locations using **mobile technologies**

6. Ability to share information, systems and services securely with partner organisations

7. Ability to record, track and manage customer activities which support modern joined-up service delivery

8. Identification of ways to reduce the cost of service delivery of the Council using digital technologies

9. Ability to access **business advice and technical capability** to support **identification**, **procurement and integration** of best of breed IT tools

5.0 Information Technology Vision and Principles

Vision

The vision for the ICT Service is to 'enable and support modern digital public service delivery and help transform how the Council works, reducing cost and improving efficiency.'

The *Vision* is underpinned by a set of principles relating to how the IT service will be managed and delivered.

Principles

The IT Principles are identified in four categories:

- 1. Technology Infrastructure and Solutions
- 2. Service Design and IT Transformation
- 3. Governance and Security
- 4. Partners and Suppliers

The purpose of the IT principles is to ensure an effective Information Technology Service is established and maintained which supports consistent, secure and efficient service delivery. The principles will ensure compliance with standards, security and methodologies.

The principles are intended to provide an effective framework which applies to all ICT operations within the Council as part of the Information Technology and Digital Strategy.



5.1 Information Technology Principles



1. Technology Infrastructure and Solutions

The Council will adopt a 'Cloud First' approach – all future Information Technology projects will consider the use of cloud-based services where adoption is possible (without adverse impact on security of ICT architecture) and is financially advantageous.

The Council will separate applications from devices – the Council will support multiple end user devices. Applications will be procured wherever possible which are not dependent on using particular end-user computing devices.

The Council will optimise a 'mobile first' approach – the Council will look to ensure that all new applications and changes made to existing systems consider mobile standards and mobile functionality as part of the core application, business processes and work flow.

The Council will standardise core technology solutions – but will give equal consideration to free or open source software when deciding on technology solutions.

The Council will adopt the Government Digital Services Code of Practice – this will ensure delivery of consistent, secure ICT services https://www.gov.uk/government/publications/technology-code-of-practice



2. Service Design and IT Transformation

Services will be designed around the Customer understanding and building Information Technology and Digital services around the needs of our customers through consultation with business and customer stakeholders.

Services will be Digital by Design – wherever possible we will ensure that we design our services by putting modern technology at their heart, delivering efficiencies and reducing cost.

Information Technology will Reduce Costs – Investment in Information Technology and Digital services will be an enabler for reduced cost in many areas of the Council. The process for identifying key IT priorities will include an assessment of the potential of the project to deliver savings, improve efficiencies or reduce cost.

Information Technology will enable Business Transformation – we will use Information Technology and Digital tools to support business transformation – for both customers and employees.

5.2 Information Technology Principles

3. Governance and Security

Security and Information Governance will be considered as part of the design process and operational running of all digital services so as to protect information assets and ensure all staff are adequately trained.

Good financial planning will support effective Information Technology - appropriate levels of financial planning (Opex/Capex) will be put in place to ensure any works resulting from this strategy are adequately funded and are sustainable.

Business Continuity and Disaster Recovery will be considered as part of Information Technology service design to ensure a return to operational running as required by Services.

A Programme and Portfolio Project Management approach will be used to manage Information Technology projects in the delivery of this strategy.

The Council will coordinate Application Management centrally – improvements in governance and support from corporate ICT will ensure that main Line of Business Application support is co-ordinated and overseen and corporate programme management standards are applied.



4. Partners and Suppliers

The Council will adopt a 'mixed economy' model to the supply of IT services. In practice this means that IT services will be delivered by a mix of 'in-house' and external service providers chosen based on organisational requirements, technical fit and value for money.

In selecting partners and suppliers the Council will consider both commercial and technological requirements. This will include moving from big single supplier contracts to multiple smaller supplier contracts and ensuring the organisation selects 'off the shelf' technology products and services wherever possible to avoid costly bespoke development.

The Council will develop commercial and IT procurement skills and capability to support the effective sourcing of IT products and services.

Will always consider IT service management end-to-end integration of the IT operating model when selecting different IT suppliers and services.

Introduction

The Technology Roadmap has been developed by undertaking an assessment of the IT business requirements as well as an assessment of the current technology and capabilities within the IT service. A gap analysis has been undertaken to identify priority areas for technology investment.

The adoption of the technology and services outlined in this roadmap will provide necessary service improvements to:

- Enable the transition from traditional office/site centric, low flexibility IT Service model to highly flexible/agile, location independent IT Service model adopting a hybrid cloud computing model (see 6.2)
- Provides significant improvement in disaster recovery and business continuity support
- Provides a secure supported IT environment with stable and secure IT infrastructure being the key to the provision of effective and efficient IT Services
- Supports the IT Strategy's principles for Technology, Services, Security, Governance, Partners and Suppliers outlined in this document

Approach

The key elements of the technology roadmap are prioritised as follows:

- **1. Stabilise current IT infrastructure** to ensure a secure IT environment e.g. address urgent technology infrastructure gaps and ensure business continuity
- 2. Replace older technology to ensure compliance with the Public Service Network (PSN) requirements
- **3. Develop 'hybrid-cloud' IT architecture model** to move software and hardware services off-premise and into the cloud
- 4. Assess and review technologies which will delver increased digital capability and support transformation e.g. mobile working and customer selfservice portals



6.1 Technology Roadmap – Key Projects and Phases

Summary of Key Projects

The IT and Digital Strategy supports a move towards a hybrid-cloud adoption and mobile technology capability.

Key infrastructure projects are:

- Endpoint computing replacement of VDI, current desktop operating systems with Windows 10 laptop/hybridlaptops, roll-out of mobile end computing
- Email, Messaging & Collaboration consolidate existing configurations and move to Office 365 cloud solutions
- **Telephony** move towards cloud-based telephony services
- Server Computing and Storage move to Microsoft Azure cloud-based services including cloud-based back-up solutions and upgrade of remaining server environments
- Digital Solutions review of key digital technology building blocks to be undertaken on a case-by-case basis

Phases

To ensure delivery of the key IT Projects, taking account of resource and budget constraints, the strategy is divided into phases (Note: this includes Phase 3 planning for projects beyond the life of this strategy):

Phase	Period
Stabilisation Phase	April -17 – Mar 18
Investment Plan Phase 1 (Priority Projects)	April 18 – Mar 19
Investment Plan Phase 2	April 19 – Mar 20
Investment Plan Phase 3 (planned beyond this strategy)	April 20 onward

6.2 Cloud Computing

Introduction

Cloud Computing is commonly defined as the following three service approaches:

- Infrastructure as a Service IaaS
- Platform as a Service PaaS
- Software as a Service SaaS

The diagram on the right demonstrates the move from a traditional computing model towards a cloud model. When the services are provided by one of the global cloud providers e.g. Microsoft, Amazon, Google etc. it is termed public cloud. Organisations with existing IT infrastructure require these public cloud services to be integrated as part of a cloud adoption strategy, termed 'hybrid cloud'.

Cloud Adoption

Typical steps for cloud adoption are:

- Migrate mature infrastructure services such as Email to a SaaS solution e.g. Office 365 Exchange Online
- Migrate on premise or external data centre hosted servers and storage to public laaS hosting to create a hybrid cloud model
- Once IaaS hybrid cloud migration is complete migrate suitable systems to a PaaS based provision
- For any new system or system replacement select a SaaS based solution e.g. cloud first principle
- Cloud computing is charged on a consumption basis, therefore the use of automation in the management of these services is key to obtaining maximum value e.g. automatic de-provision of leaver, scheduling the close down of non active systems etc.

,	Traditional	laaS	PaaS	SaaS	
	Applications	Applications	Applications	Applications	
	Data	Data	Data	Data	
	Runtime	Runtime	Runtime	Runtime	Managed by
	Middleware	Middleware	Middleware	Middleware	the Business
	O/S	O/S	O/S	O/S	
1	Virtualisation	Virtualisation	Virtualisation	Virtualisation	Managed by
N	Servers	Servers	Servers	Servers	the Cloud Vendor
1	Storage	Storage	Storage	Storage	
1	Networking	Networking	Networking	Networking	

6.3 Draft IT Technical Roadmap – Key IT Architecture Projects

Project Description	Architecture Ref	Stablisation 17/18	Phase 1 18/19	Phase 2 19/20	Phase 3 2020 & beyond
Third Party Remote Access	D8				
Proactive System Monitoring	D11				
Mobile Device Management	D15				
Domain Migration	D16				
Hornbill IT Helpdesk	D6/D13				
CRM Review and Option Apprisal	C1				
Mobile Management Option Appraisal	C6				
Cloud (Azure) Scoping	F2/F3				
Licence Dashboard	D13				
Options appraisal voice/SMS/softphones	D10				
Option Appraisal Integration Tools	C8				
Option appraisal Security Software	D17				
Windows 10 Build and Deploy	D7				
Remote staff access technology	D9				
Desktop upgrade/replace VDI laptop/hybrid	D7/E1/E5				

Notes

1. Timeline is indicative based on current resource projections and estimated implementation timescales

2. Architecture References refer to Functional IT Architecture model shown in Appendix 1

6.4 Draft IT Technical Roadmap – Key IT Architecture Projects

Project Description	Architecture Ref	Stablisation 17/18	Phase 1 18/19	Phase 2 19/20	Phase 3 2020 & beyond
Office 365 and Office 2016 deployment	D1/D7/D16				
SQL Server 2008 Replacement	D5				
Windows 2008/2008 R2 replacement	D4				
Azure IaaS Server Hosting	F2/F3				
SIP Upgrade/Cloud Host Mitel telphony	E2				
One Drive Sharepoint	C5				

IT Funding Approach

Work has been undertaken as part of the strategy development to estimate investment costs to deliver the strategy outcomes over the next three years. This investment is identified by each of the strategy phases as shown in 7.1. The table below identifies estimated indicative investment over each phases. Further detail of cost breakdown in shown in Appendix 2. Every project, within each phase, will require the development of a business case to support a more accurate identification of costs:

Phase	Indicative Cost
17/18 Stabilisation Phase	£108,500
18/19 Investment Plan Phase 1 (Priority Projects)	£417,500
19/20 Investment Plan Phase 2	£175,000
20/21 Investment Plan Phase 3 (beyond this strategy)	£-
Total	£701,000

It should be noted that a move to a cloud based computing environment will shift the provision of computing services from physical based assets to IT services provided on a subscription based model. This is likely to increase revenue budget costs but reduce one-off IT investment costs.



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8.0 Governance

Introduction

To support the implementation of the IT and Digital Strategy the Council will adopt Project Portfolio Management (PPM) to identify, prioritise and manage all future IT projects.

PPM is a structured methodology, widely used in the IT industry, to align and balance the IT project demands of the organisation with overall council priorities, available recourses and capacity. PPM systems build a set of agreed criteria which attempt to ensure that scarce resources are used to deliver the most important projects which deliver the greatest benefit for the organisation.

Prioritisation

Four project prioritisation categories are proposed:

Category 1 - Public Services Network (PSN) projects or projects to ensure legal compliance - projects related to ensuring the Council is compliant with Government standards, and legal requirements

Category 2 - Major IT Projects – those large-scale priority IT projects - for example new systems and system replacements of main IT applications - the Council wishes to undertake

Category 3 – Other IT Projects for Prioritisation – smaller IT projects, upgrades where decisions on priority can be taken

Category 4 – Minor IT changes - small IT changes, modifications or change control requests

Each IT project will fall into one of the four categories allowing the projects to be prioritised based on an agreed set of criteria identified in the PPM policy.

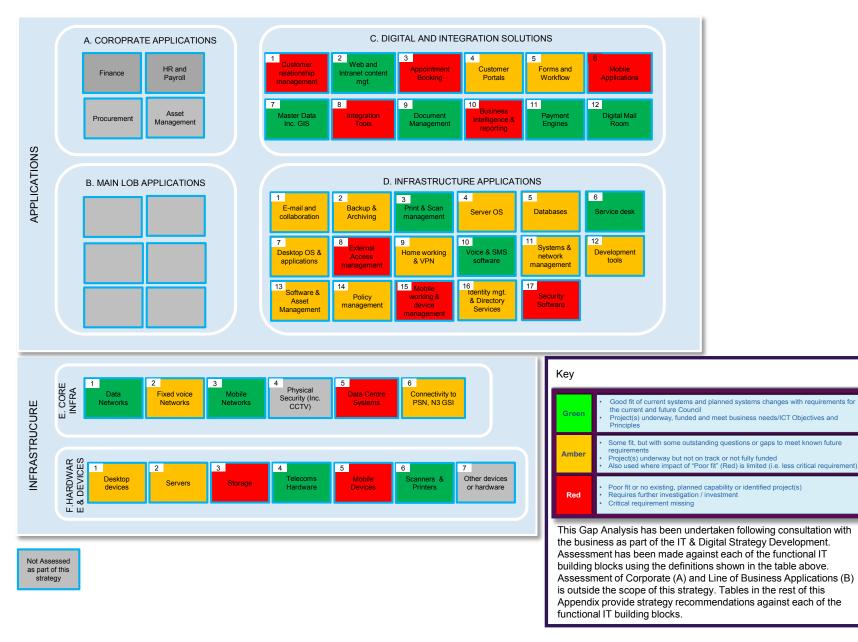
Review and Governance

All projects will be reviewed and prioritised regularly by the IT Project Portfolio Board (ITPPB) chaired by the Director of Finance and Corporate Services.

9.0 Appendix 1

Gap Analysis and IT Strategy Statements

Gap Analysis (functional IT Architecture Model)



C. Digital and Integration Solutions

Building Block	Draft Strategy Position
1. Customer relationship management (CRM)	: Conduct an options appraisal on replacement of existing CRM system.
2. Web and Intranet content mgt.	: Implement Weblabs Web Content Management System (WCMS).
3. Appointment Booking	: Conduct an options appraisal on corporate appointment booking solutions.
4. Customer Portals	: Expand use of the Weblabs WCMS to provide portal capabilities.
5. Forms and Workflow	 Review the capabilities of existing deployed systems and if suitable deploy: Weblabs - Forms Workflow - Info@Work
	Also consider Office 365 Flow
6. Mobile Applications	: Conduct an options appraisal on the use of Line of Business (LoB) mobile applications vs a mobile application management system (e.g. NDL MX, TotalMobile).
7. Master Data Inc. GIS	: Review provision of GIS services to ensure outsourced arrangements are effective
8. Integration Tools	: Conduct an options appraisal on approach for integration and the technology solution to be adopted e.g. batch, API point-to-point, service hub, service bus (SOA) etc.
9. Document Management	 Conduct an options appraisal on the approach for document management – single solution e.g. Info@Work for document management vs Info@Work for EDRMS requirements and Office 365 SharePoint for general document management services.
10. Business Intelligence & reporting	: Conduct an options appraisal for a business intelligence & reporting solutions. Link with move to Azure Cloud for potential reporting capability. Standardise on a single reporting tool.
11. Payment Engines	: Retain existing solution
12. Digital Mail Room	: Continue use of existing Digital Mail Room solution.

D. Infrastructure Applications (1)

Building Block		Draft Strategy Position
1. E-mail and collaboration	:	Migrate to Office 365 - Cloud hosted Email, Enterprise IM (Skype for Business), File Storage (OneDrive and SharePoint).
2. Backup & Archiving	:	Undertake review with view to migrating to Cloud based backup and archiving solution e.g. Microsof DMP with Azure Cloud Storage. Review implementation of Cloud based disaster recovery for key systems e.g. Microsoft Active Site Recovery (on premise systems mirrored in the Azure Cloud)-typically this is adopted by an organisation as the first step in moving to cloud based provision.
3. Print & Scan management	:	Continue use of the existing print & scan solution.
4. Server OS	:	Upgrade all Windows Server 2008/2008 R2 instances to Windows 2012/2012 R2 or higher before the end of 2018.
5. Databases	:	Upgrade all SQL Server 2008/2008 R2 instances to SQL Server 2014 or higher before mid 2018.
6. Service desk	:	 Implement Hornbill ITSM with focus on development to support the following: 1. ITSM control and resolution processes (Configuration, Change, Release & Deployment, Incident & Service Request, Problem Management). 2. User Self-Service facilities for Service Request fulfilment and Incident Reporting. 3. Implement external audit recommendations on Service Desk
7. Desktop OS & applications	:	Migrate from Windows 7 Desktop to Windows 10 Desktop before the end of 2018. Upgrade the Office suite from Office 2010 to Office 2016 before the end of 2018.
8. Access management	:	Provide solution for secure access to 70 servers through tool such as LogMeIn
9. Home working & VPN	:	For Windows Laptops/Hybrid Tables deploy Windows Direct Access. If VDI Virtual Desktop solutions are still operating implement Vmware Horizon Mobile Secure Workplace configuration.
10. Voice & SMS software	:	Undertake review of Mitel Mi-Voice softphone clients integrated with Skype for Business to provide Unified Communication capabilities.

D. Infrastructure Applications (2)

Building Block		Draft Strategy Position
11. Systems & network management	:	Short term: Implement proactive monitoring using WhatsUP monitoring tool Medium/Long Term: Review with hybrid cloud implementation with a view to Implementing Microsoft System Centre Configuration Manager (SCCM) for Windows desktop and server software management (image deployment, software and patch deployment, assets reporting). Review implementation of Microsoft System Centre Operation Manager (SCOM) integrated with Azure Operations Manager (OMS) to manage a Hybrid Cloud environment (transition from an on premise to a Cloud hosted server estate).
12. Development tools	:	Conduct an options appraisal on development tools.
13. Software & Asset Management	:	Use Hornbill ITMS system for configuration and physical asset management and use Phoenix Licence Dashboard Manager for software asset management
14. Policy management	:	This capability can be provided by the Hornbill ITMS system.
15. Mobile working & device management	:	Short Term: Replace Air Watch MDM with Sophos Mobile to provide support for corporate own personal enabled (COPE) devices and bring your own devices (BYOD). Medium/Long Term: Consider implementing Microsoft EM&S to provide similar facilities if only COPE provision is required.
16. Identity management & Directory Services	:	Consolidate the two current Active Directory instances into a single Active Directory instance, then federate with Azure Active Directory to simplify identity management and provide single sign-on capabilities for accessing cloud based applications.
17. Security Software	:	Medium Term: Review security, event and incident management and implement cloud based solution. Long Term: Conduct an assessment for the replacement of the existing desktop Anti-Virus product with Microsoft SCCM Endpoint protection (this is provided as part the existing Microsoft EA licenses). As part of the Office 365 implementation, conduct an assessment of dropping the email Anti-Virus product and using the email Anti-Virus facilities within the Office 365 environment.

E. Infrastructure Core

 Physical Security (Inc. CCTV) : Not assessed Data Centre Systems : Move from an on premise data centre model to a hybrid cloud model, with the aim of moving the on premise server workload to public cloud computing hosting as soon as realistically possible. 	uilding Block		Draft Strategy Position
 environment. Within the next 2 year review the capabilities of Microsoft Office 365 Cloud PABX and the viability to replace the Mitel cloud hosted environment. Mobile Networks Continue with the existing network infrastructure and solutions. Physical Security (Inc. CCTV) Not assessed Data Centre Systems Move from an on premise data centre model to a hybrid cloud model, with the aim of moving the on premise server workload to public cloud computing hosting as soon as realistically possible. Connectivity to PSN, N3 GSI Continue with the existing Government network interconnect infrastructure and solutions, unless compliant alternative solutions are available e.g. replacement of Government Connect/PSN email with secure Office 365 email (configured for transit over the internet between government organisations using Transport Layer Security (TLS) version 1.2 or later 	. Data Networks	:	Continue with the existing network infrastructure and solutions.
 A. Physical Security (Inc. CCTV) : Not assessed b. Data Centre Systems : Move from an on premise data centre model to a hybrid cloud model, with the aim of moving the on premise server workload to public cloud computing hosting as soon as realistically possible. b. Connectivity to PSN, N3 GSI : Continue with the existing Government network interconnect infrastructure and solutions, unless compliant alternative solutions are available e.g. replacement of Government Connect/PSN email with secure Office 365 email (configured for transit over the internet between government organisations using Transport Layer Security (TLS) version 1.2 or later 	. Fixed voice Networks	:	environment. Within the next 2 year review the capabilities of Microsoft Office 365 Cloud PABX and the
 5. Data Centre Systems 5. Data Centre Systems 6. Connectivity to PSN, N3 GSI 7. Continue with the existing Government network interconnect infrastructure and solutions, unless compliant alternative solutions are available e.g. replacement of Government Connect/PSN email with secure Office 365 email (configured for transit over the internet between government organisations using Transport Layer Security (TLS) version 1.2 or later 	. Mobile Networks	:	Continue with the existing network infrastructure and solutions.
 b. Connectivity to PSN, N3 GSI c. Connectivity to PSN, N3 GSI c. Continue with the existing Government network interconnect infrastructure and solutions, unless compliant alternative solutions are available e.g. replacement of Government Connect/PSN email with secure Office 365 email (configured for transit over the internet between government organisations using Transport Layer Security (TLS) version 1.2 or later 	. Physical Security (Inc. CCTV)	:	Not assessed
unless compliant alternative solutions are available e.g. replacement of Government Connect/PSN email with secure Office 365 email (configured for transit over the internet between government organisations using Transport Layer Security (TLS) version 1.2 or later	. Data Centre Systems	:	the on premise server workload to public cloud computing hosting as soon as realistically
	. Connectivity to PSN, N3 GSI	:	unless compliant alternative solutions are available e.g. replacement of Government Connect/PSN email with secure Office 365 email (configured for transit over the internet between government organisations using Transport Layer Security (TLS) version 1.2 or later

F. Infrastructure - Hardware & Devices

Building Block	Draft Strategy Position
1. Desktop devices	: Move away from thin client (VDI) to a total laptop/hybrid tablet model to support mobile/flexible working and retain a smaller thin client estate for static working.
2. Servers	: Where possible migrate from on premise server hosting to Cloud server hosting e.g. Microsoft Azure IaaS. (Hybrid Cloud). For retained on premise hosting refresh obsolete server hardware with consolidated server/storage products.
3. Storage	: Short Term remain as is with good housekeeping. Medium Term – move to hybrid cloud solution as described in F2.
4. Telecoms Hardware	: Retain the existing Mitel handsets for fixed desk working. For mobile / flexible working deploy microphone / headsets for use with the Mitel MiVoice softphones on laptops/hybrid tablets.
5. Mobile Devices	: For "non office" mobile working select the device most appropriate to the service requirement, but within the constraints that it must be manageable using the corporate MDM solution, must be able to comply to the Council's mobile working security standards and should be able to run the Mitel MiVoice Softphone.
6. Scanners & Printers	: Continue with the existing scanner and printer hardware solutions.
7. Other devices or hardware	: Not assessed

10.0 Appendix 2

Strategy Funding Investment Model

Strategy Funding/Investment Model (Indicative Costings July 2017)

						Stabilisation Plan	Investment Plan	
Functional IT								
Architecture					Implementation			
Block	Description	Start	Stop	One off costs	Ongoing costs INT/EXT	2017-18	2018-19	2019-20
D7	Windows 10 Build Test and Deploy	01/04/2018	31/03/2019	£25,000	£- EXT	£-	£25,000	£-
D9	Remote Access for staff	01/07/2018	31/12/2018	£10,000	£5,000 EXT	£-	£15,000	
D7, E1, E5	Desktop Computing	01/04/2018	31/03/2019	£300,000	£10,000 EXT	£-	£200,000	£110,000
D1,D7,D16	Office 365 and Office 2016	01/04/2018	31/03/2019	£50,000	£20,000 EXT	£-	£50,000	£20,000
D5,C5, D9	One Drive SharePoint	01/04/2019	31/03/2020	£30,000	£- EXT			£30,000
F2,F3	Azure laaS Server/Storage Hosting	01/07/2018	31/03/2019	£40,000	£15,000 EXT		£40,000	£15,000
D4	Windows Server 2008/2008 R2 Replacement	01/10/2018	31/03/2019	£10,000	£- INT	£-	£10,000	£-
D5	SQL Server 2008 Replacement	01/07/2018	30/09/2018	£10,000	£- INT	£-	£10,000	
D8	3rd Party Remote Access	01/08/2017	30/11/2017	£8,000	£8,000 INT	£8,000	£8,000	
D11	Proactive Monitoring	01/07/2017	31/10/2017	£7,000	£7,000 INT	£7,000	£7,000	
D15	Mobile Management	01/10/2017	31/03/2018	£8,500	£8,500 INT	£8,500	£8,500	
D16	Domain Migration	01/01/2018	31/03/2018	£15,000	£- EXT	£15,000	£-	£-
D6, D13	Hornbill CDBM	01/04/2018	31/07/2018	£-	£2,000 EXT		£2,000	
C5	CRM Review	01/01/2018	31/03/2018	£-	£- INT	£-		
F2,F3	Azure Scoping	01/10/2017	31/12/2017	£7,000	£- EXT	£7,000	£-	£-
D13	Implementation of Licence Dashboard and additional Licences	01/01/2018	31/03/2018	£28,000	£24,170 EXT	£28,000	£24,170	
E6	IT Healthcheck	01/01/2018	31/03/2018	£4,000	£- EXT	£4,000		
E5	UPS Upgrade	01/07/2017	30/11/2017	£8,000	£- EXT	£8,000	£-	£-
D13	Catch up on Patching	01/09/2017	30/09/2017	£6,000	£- EXT	£6,000	£-	£-
E5	Further Server Room Enhancements	01/12/2017	31/01/2018	£10,000	£- EXT	£10,000		£-
E2	SIP Upgrade/Cloud Hosting of Mitel Telephony	01/04/2018	31/07/2018	£7,000	EXT	£7,000	£-	
D17	Security, Event and Incident Management Solution review and implement preferred solution	01/04/2018	31/07/2018		£18,000 EXT		£18,000	
				£583,500	£117,670	£108,500	£417,670	£175,000

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