

Daventry District Council

ICT Strategy

2018 – 2021



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1. Version History

Version	Date	Description	Status
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0.3	13/10/2014	Third Draft	Draft
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1.0	10/01/2018	2018 Update Draft	Draft
1.1	17/01/2018	2018 Update Draft	Draft
1.2	28/02/2018	2018 Final Council Approved	Approved

2. Introduction

Daventry's Corporate Strategic Plan sets out the Council's priorities for the next three years. The plan sets out the top objectives and priorities that we will focus on over the next three years to help us achieve this.

The Council's Vision to 'Develop a Better District' is supported by four particular objectives:

- Improve our Business Economy, Learning and Skills
- Protect and Enhance our Environment
- Promote Healthy, Safe and Strong Communities and Individuals
- To be an Efficient and Effective Council

Making best use of Information and Communication Technology (ICT) is a key business success factor for the delivery of the Corporate Strategic Plan. An effective ICT service will support delivery of most of the Corporate Strategic Plan priorities. There are two specific measures for ICT, under the Improved Access to Services priority - H1.1 Number of e-enabled services added on or improved from the Council. - H1.2 Increase in access to services using self-serve. This strategy sets out the ICT foundations needed to support the delivery of the plan.

This document updates the ICT Strategy 2014 – 2017. The purpose of this review is to update the approach to ICT and to set a clear framework of how the Council will use ICT to support the delivery of services for the next three years.

This review of the ICT strategy takes place in a more stable financial environment for the Council with the recently reviewed Corporate Strategic Plan in place which sets the Council's direction for the next three years. This is however against the national backdrop of the fluid environment with regards Local and Central Government.

The strategy covers the use, maintenance of and development of ICT infrastructure to support delivery of and access to services.

The strategy has been developed by the ICT Steering Group; an officer working group of senior Managers, the Chief Financial Officer, the IT Manager and the Internal Audit Manager.

3. Context

The UK public sector faces major challenges. The scale of services delivered across organisational boundaries; the requirements of customers; the changing manner in which customers wish to interact with their local authority; the pressure to share services and common IT platforms; and the need for efficiency and

cyber resilience means that DDC must employ its technical resources effectively. Technology should always be a tool with which to deliver the corporate goals rather than a goal itself. All future investment in technology must be directly related to the delivery of the corporate plan and must represent an 'invest to save and serve' initiative.

The ICT Strategy is designed to ensure that appropriate ICT infrastructure is in place to enable the Council to deliver services efficiently and effectively to implement the Corporate Strategic Plan. The ICT Strategy is aligned to the Council's strategic objectives and the Corporate Strategic Plan with technology being an enabler of change to support the Council's priorities.

Good quality information handling and information risk policies are in place. The Council's Information Risk Policy with links to the Information Handling Practices and the ICT Usage Practices provide a secure environment with measures in place to maintain and safeguard the confidentiality, integrity and availability of our systems and data.

4. ICT Strategic Themes 2014 - 2017 and progress made

Theme 1: ICT Infrastructure – Resilience, Reliability and Security

Theme 1 – Outcomes and success measures

- Development and strengthening of the Council's ICT security framework with annual compliance and accreditation by Public Services Network (PSN). – **PSN compliance has been achieved each year.**
- Achievement of greater service capacity and resilience, including shared service exploration. – **Service capacity and resilience addressed with the recruitment of Service Desk Officer**
- Introduction of a capacity planning and reporting process. – **Project management methodology in use with projects discussed and approved at IT steering group who meet bi-monthly.**
- Continued development of staff cross skilling within the team to aid resilience along with the continued development of the Service desk knowledgebase to aid with multi skilling staff. – **This is an ongoing operational process within the team.**

- Continued use of partner organisations and suppliers to complement our existing in-house skillset and as an escalation point for complex issues that prove difficult to resolve. – **In place as an operational process.**
- Employment of industry best practise in support of different technology stacks (e.g. servers, storage, networks, desktops, applications, databases) and to ensure compliance with data and information security protocols. – **This is an ongoing operational process within the team.**
- Keep abreast of changes in the market and to ensure DDC remains on relevant and supported software/hardware platforms. Maintain a standard baseline for desktop and laptop computer solutions running Windows 7, Office 2010 productivity tools and Sophos/BitLocker security. – **Systems maintained on relevant and supported platforms.**
- Consolidate the use of, and leverage maximum benefit from existing platforms and applications such as Microsoft. – **System consolidation continues to be explored at appropriate times and where possible.**
- Continue with existing virtualisation direction of travel by continuing to maximise the use of virtualisation of Servers having moved to a new SAN and Blade environment by continuing to move remaining physical servers to a virtual environment to increase flexibility and efficiency of the datacentre along with supporting better ICT business continuity processes for backup and restoration. – **Virtualisation of servers is complete we have virtualised all the physical servers we had remaining. We will not look to explore the use of Cloud technologies where secure and appropriate for business systems.**
- The current ICT estate necessitates a programme of patching, upgrades and replacements relating to the applications, databases, server infrastructure, network hardware and boundary security in line with supplier product road maps. – **System update program continues to be actioned in line with supplier support road maps.**
- Improved ICT business continuity plans for the Council's website and all major line of business systems linked to annual testing. – **Business continuity testing undertaking annually at an alternative site as a bare metal restore (worst case scenario).**

Theme 2: Communications

Theme 2 – Outcomes and success measures

- Continued development of self-service and web-based forms the underpinning technology will be focused on web based services accessed through static and mobile devices. – **Continued ongoing development of online services using responsive web-based forms.**
- Increased use of mapping and spatial facilities to enhance customer web-site and intranet use. – **Implementation of Web mapping service online allowing the viewing of local information layers and places of interest, enhanced to also include the viewing of non-determined planning applications, existing incidents reported and the ability to raise service requests in to DDC by right clicking on the map to pinpoint the incident.**
- Upgrade DDC website content management system to latest product version to allow the configuration of mobile device optimised pages that will auto resize the information and layout according to you device screen size. – **Upgrade completed and mobile responsive design is currently being worked on rollover into new strategy.**
- Implementation of the Web Content Improvement Plan – **Web Content Improvement Plan exists and is being progressed by the Communications team.**
- Develop a future GIS programme. – **GIS mapping is mostly accessed via open source software Q-GIS with a handful of MapInfo licences being retained for power users.**
- Continue to improve existing 'IT Service Desk' provision to allow better reporting of incidents, by ensuring the self-serve portal is kept up to date and that communication of resolution and timescales are given each time a call is updated or resolved via auto emailing of form to customer. – **Service desk is kept up to date in line with supplier recommendations; new post Service Desk Officer now allowing us to better manage call resolution.**
- Introduce Payment Engine and bookings onto the DDC Website to allow further services to be moved online. – **To be rolled over into the new strategy as not completed**
- Maximise the use of existing online portals purchased by service areas to ensure the continuation of channel shift from phone and face to face. – **Rollout of previously purchased Capita online portal achieved allowing access to Business rates and Council Tax online.**

- In conjunction with Customer Services explore the use of online chat/presence for the DDC website to aid customers using the DDC website. – **Discussions ongoing to be rolled over into the new strategy as not completed.**
- Development of the necessary linkages to allow seamless connectivity with the proposed building control shared service. – **Completed.**

Theme 3: Information Management

Theme 3 – Outcomes and success measures

- Improved Email and Electronic Records Management. – **Ongoing work around General Data Protection Regulation (GDPR) included in new Strategy Document**
- Implementation of Electronic Document and Records Management System is planned for Development Control. – **In progress included in new Strategy Document**
- Accessibility to audio streams of Council/Committee meetings. - **Complete**
- Publication of open spatial XML datasets to meet the UK INSPIRE regulations. - **Complete**
- Develop comprehensive electronic mapping of environmental services including areas subject to different grounds maintenance regimes and make this available for public viewing and comment via the website. – **Development of comprehensive electronic mapping of environmental services in progress for new contract once we have received all data from the Business Team this work will be complete.**
- Upgrade existing Macfarlane ACD system to latest version this will allow us to move this system onto a virtual server removing another aging physical server from the network along with vastly improving the backup and recovery of the system in the event of a DR/Business continuity situation. - **Complete**
- Increase awareness and use of the National Public Sector Network (PSN) as a means of securely exchanging data with partners. – **Ongoing work to be carried forward to new strategy document.**

- To work with the land registry on the transfer of spatial Land Charges and service area data to enable them to eventually deliver the service centrally.
– **Ongoing project to be carried forward to new strategy document.**

Theme 4: Mobile/Remote Working

Theme 4 – Outcomes and success measures

- Proving the mobile concept in Environmental Health/Business Team. – **To be carried forward into the new strategy as not started**
- Implement remote access software for Building Control. – **Completed for required time now no longer required.**
- Improving remote access and mobile device management. – **Requirements for remote access for home working have been put on hold in line with business requirements; we have progressed with the rollout of MDM solution for mobile device management.**
- Investigate the use of video conferencing. – **Investigated and may be an option we will look to procure as part of our IP telephony upgrade**
- Review corporate policies for home and remote working. – **Reviewed home working is not currently a priority for the business**
- Continue the use a mix of 'thick and thin' client computing to support flexible/remote working. - **This has been continued and will eventually be replaced by greater use of Cloud.**
- Continued deployment and support of Smart Phone and Tablet type devices for staff on a business case basis to support flexible/remote working. – **Business case have come forward from teams wishing to utilise tablets / 2 in 1 devices for meetings and working away from the office and a number of Microsoft 2 in 1 devices have been procured.**
- Upgrade DDC website content management system to latest product version to allow the configuration of mobile device optimised pages that will auto resize the information and layout according to you device screen size.
– **Upgrade completed and mobile responsive design is currently being worked on, carry forward to new strategy.**

5. SWOT (strengths, weaknesses, opportunities, and threats)

5.1 Strengths

- Progress against the Action Plan from the previous ICT Strategy has been good.
- The ICT service operates a core infrastructure that is up to date and appropriate for the majority of the organisation's needs. Using a small group of experienced in-house staff who are valued by the organisation, all of whom have been with the Council over 5 years.
- Most technologies that have emerged over the last 5-10 years have been incorporated into the current Infrastructure (Virtual Servers, VoIP telephony, Thin Clients, Storage Area Networks, High Speed Core network switches, support for mobile and remote working, multi-function devices MFD's). Further work to be undertaken with wider use of cloud technology and services.
- Council is currently compliant with the PSN security compliance requirements.
- Established ICT Governance arrangements are in place and appear appropriate, involving all the correct personnel.

5.2 Weaknesses

- Online helpdesk fault reporting is not always well received by some users of the service and reduced level of personal interaction gives rise to a perception of reduced service.
- Capacity to communicate with users of the service during high workload periods can be an issue.

5.3 Opportunities

- Development of more self-service access of internal business processes for staff.
- Development/review of self-service access for customers (more responsive e-forms linked to CRM).
- Development of document management system across the organisation.
- Investigate further use of automation within the IT service for service tasks; investigate the use of AI Chat bots, voice automation for web channels.

5.4 Threats

- Loss of key staff and prolonged impact on service levels represents the largest single documented risk.

- Inability to respond to new requirements/major projects.
- Reduction of responsive service levels if resources diverted to project work.
- Removal of hardware or software support leading to system obsolescence.
- Failure to comply with the requirements of Public Services Network (PSN), GDPR, Data Protection or Freedom of Information.
- Cyber security related incidents.
- Failure of ICT Governance arrangements leading to incompatible or inefficient systems and equipment being procured.
- Failure to have sufficient resources in a Business Continuity situation.

6. Strategic Direction

Future strategic direction.

6.1 Cyber Security / System Upgrades / Replacements

Software applications require regular updates/patches to remain secure and supported, these updates are designed to fix security and functionality issues along with adding new features. Cyber security is a major threat to the councils service delivery, it is taken seriously by Senior Management Team who are keen to ensure staff have an awareness of IT security, cyber threats and online fraud, with a view to reducing the Council's exposure to cyber security threats through training and targeted deployment of systems to protect council services which is critical in the current business environment. The 5 year rolling review of ICT systems, monitored by the Corporate Procurement and Efficiencies Working Group, will potentially give rise to additional workload requirements.

6.2 Servers

The Council has already moved all of its servers/systems from physical hardware to virtual. The plan over the life of this strategy is to maintain the existing virtual environment and to increase the flexibility and efficiency of the datacentre along with supporting better ICT business continuity processes by exploring opportunities to run certain selected systems/process securely in the cloud ensuring it is setup and maintained with a security first approach to ensure it is setup and operated using current good practice.

6.3 Desktop

The Council currently uses PC's/laptops/2 in 1 Tablets for accessing systems from within the business. The Council currently runs Windows 7 on its PC/Laptops with Windows 10 on the 2 in 1 devices will continue to be the standard as supported until 2020 however we will begin to explore the wider

use of Windows 10 throughout the life of this strategy when 3rd party suppliers support this newer platform.

6.4 Geographical Information Systems (GIS) Development

Work will continue to enhance the online mapping offering by improving the amount of datasets available via the online mapping service. We will also explore updating of the underlying open source delivery platform GeoServer.

6.5 Document Management

Document Management via the Information@Work EDRMS (Electronic Document and Records Management System) - Development Control to be set up to use the Information@Work EDRMS. Also under consideration is possible future use for Environmental Health, subject to a bid being approved for funding. No business case currently exists to progress further use of the system corporately, however this should be reviewed during the life of this strategy as information management requirements on the organisation become more identified as major risk.

6.6 Intranet Development

The extension of “self-service” by employees has been identified as desirable. The level of automation/integration between HR systems and forms on the Intranet is yet to be assessed and may require development work or the purchase of additional module/s from the HR / Finance system supplier to facilitate this.

6.7 Web Site Development

A number of developments are included in the ICT Action Plan largely driven by the Comms team Web content improvement plan, continuation of making services available online via channel shift and ensuring the site follows a responsive design approach to ensure the site is accessible not matter what device you are accessing it from.

6.8 Use of Cloud Computing

Use of Cloud Computing/Hybrid Cloud Computing including Software as a Service (SaaS), Platform as a Service (PaaS) and Infrastructure as a Service (IaaS) will be explored, all potentially offer a level of flexibility to organisations wishing to upgrade/replace elements of their own on premise software with provision from the (Cloud). It is acknowledged that cloud does bring greater complexity in providing a similar level of service to that provisioned internally. Secure delivery of cloud services is key with the need to ensure any service meets the requirements for GDPR allowing secure storage of data offsite, deletion of information held by service providers in line with retention policies

and also ensuring we are able to move our data between providers if needed and are not subject to vendor lock in.

6.9 Open Source Software

Open source software (software supplied free and capable of alteration) already supports a number of services in use within the council. However as security and support are key within the business its use is limited to devices and systems with appropriate support and maintenance agreements to ensure it poses a reduced security risk. Any expansion of the use of open source will be considered where appropriate taking risks into account.

6.10 Secure Mobile/Remote Computing

The current mobile email system provides a PSN compliant means of connecting mobile devices to the Corporate Network for email access. Council issued devices also are governed by (MDM) Mobile Device Management to ensure the device is only using approved/safe applications in line with business need. Over the life of this strategy further investigation into the use of mobile responsive forms/webpages that can facilitate officers in work whilst mobile will be investigated.

The Council's remote access authentication system will be replaced with an Identity and Access Management system to bring it in line with current and future security requirements, this will reduce surface exposure to the internet and allow greater flexibility for presenting and securing web based systems for remote access whilst also being able to address the requirements of hybrid cloud by managing authentication to service hosted onsite and via the cloud using the one council login/identity. This provides flexibility and is a valuable means of accessing a wider range of DDC systems and data remotely for Members and Officers.

6.11 Modern/Secure Unified communications system (Phone, Contact Centre, Collaboration, voice, video calling and instant messaging)

As a relatively small Council with small teams of people, it is key to ensure access to secure and up to date and relevant systems to support service delivery. The Council has a 1st generation IP phone system that is no longer supported by the manufacturer and no longer receives updates to address security and functionality issues. The benefits from new unified communications phone system are many enabling the seamless use of Desk phone, PC based screen phones and phone on mobile app's, with the addition of features like presence, chat and conferencing improving the tool set available for service delivery. Moving to an updated system will also reduce costs and complexity over the aging existing system and will address the need to move away from ISDN line to SIP line's, alongside using more flexible internet

telephony arrangements (SIP) is proven to be of benefit as BT's goal is that by 2025 to have all customers migrated off ISDN.

6.12 Digital by Default / Artificial Intelligence (AI) & Automation

In 2012 the Government published its first "Digital by Default" strategy aimed at reducing costs across Government (including Local Government) by providing more means of direct customer access to services using technology, without the need for "back office" staff to be involved in processing requests. The Council will continue to follow this approach as detailed in the Governments latest transformation strategy 2017 by gradually expanding and improving its self service offerings to customers and exploring the use of AI, Automation and voice automation when delivering services.

6.13 Capacity

Continuation of existing capacity planning and reporting process allowing effective oversight and governance of the ICT Service and establish relative priorities of work.

6.14 Resources

The ICT Service has an establishment of 8.50 full time equivalents including the IT Services Manager. The service has an annual revenue budget of £610k and a capital budget for computer hardware/infrastructure currently £60k per annum. It is proposed to deliver the strategy with these resources.

Key external partners to support the delivery of ICT services including business continuity/disaster management are identified in the technical appendix.

6.15 Governance

This Strategy will be presented to Council for approval and adoption having been considered by Senior Management Team and Strategy Group. Management of the strategy and its action plan will be the responsibility of the ICT Steering Group with exception reporting to SMT.

The ICT Steering Group is in place with responsibility for the following within its terms of reference.

1. Developing and steering the Council's ICT Strategy and ICT Service Level Agreement and monitoring the action plan.

2. Managing the ICT Programme with regard to the relationships, risks, dependencies and cross-cutting implications between projects.
3. Receive and consider Lessons Learned reports on ICT projects and pass any points of wider note to Corporate Procurement and Efficiencies Working Group.
4. Monitoring the progress of the current year's programme and determining whether any new projects should be progressed or planned projects deferred.
5. Assessing and responding to the impact of new legislation/ regulations within the ICT arena
6. Considering any relevant operational or infrastructure issues identified by the IT Services Manager.
7. Consider outcomes arising from relevant internal audits.

The ICT Steering Group understands that the new ICT strategy will become the working handbook to guide decision making, but ultimately the strategy, changes to it and any new significant projects will require approval of the Chief Executive following consideration at SMT.

6.16 Project and Programme Management

The Council's project management methodology is applied to ICT projects of sufficient scale or consequence.

The ICT Steering Group manages the ICT programme and monitors progress. The Group determines a lead for each project and requires a project brief to enable the group to understand the project, its resource requirements, milestones and expected completion date.

7. Priorities and Key Actions

The following key themes are proposed for the delivery of the strategy, the outcomes and success measures will be included in the ICT Strategy 2018 - 2021 Action Plan.

Theme 1: ICT Infrastructure – Resilience, Reliability

The provision of ICT services is vital to service delivery. Essential ICT includes corporate infrastructure such as email, voice and data networks, servers and personal computers, mobile devices and increasingly internet and other e-

channels. The provision of such a level of capability requires a solid and dependable technology infrastructure that is secure, maintained and updated on a regular basis. It also needs to have an appropriate level of capacity, flexibility and resilience to reflect changing organisational and service demands/needs and data growth.

The effective management of ICT resources is critical to overall business success. ICT resources should be used effectively ensuring that all ICT activity meets strategic needs and outcomes.

Theme 1 – Outcomes and success measures

- Introduction of a capacity planning and reporting process.
- Continued development of staff cross skilling within the team to aid resilience along with the continued development of the Service desk knowledgebase to aid with multi skilling staff.
- Continued use of partner organisations and suppliers to complement our existing in-house skillset and as an escalation point for complex issues that prove difficult to resolve.
- Employment of industry best practise in support of different technology stacks (e.g. servers, storage, networks, desktops, applications, databases) and to ensure compliance with security, data and information security protocols.
- Keep abreast of changes in the market and to ensure DDC remains on relevant and supported software/hardware platforms in the cloud or on premise. Maintain a standard baseline for desktop and laptop/tablet computer solutions running Windows 7/10, Office 2010/2016 (Office 365) productivity tools. Plan and undertake early build testing of Windows 10 Desktop with selective rollout for service user testing. As more local government suppliers support their products under Windows 10 this will give us more scope for advance rollout before Windows 7 goes end of life on January 14th 2020.
- Testing and gradual phased rollout of Microsoft cloud services Exchange and Office365
- Continue to consolidate the use of software, and leverage maximum benefit from existing platforms and applications.

- The Council has maximised the use of server virtualisation as all are now virtual we will also ensure any new systems purchased run as virtual appliances .e.g. Converged Phone system. Future direction of travel will be to make greater use of hybrid cloud services working alongside onsite infrastructure to increase flexibility and efficiency of the datacentre along with supporting better ICT business continuity processes for backup and restoration.
- The current ICT estate necessitates a programme of patching, upgrades and replacements relating to the applications, databases, server infrastructure, network hardware and boundary/network security in line with supplier product road maps.
- Continue with annual testing of ICT business continuity with our partner for all major line of business systems.

Theme 2: Communications

The provision of information and access to services through the Council's website continues to be a significant and cost-effective method of communicating with and providing services for the Council's customers. The website is also used to promote the wider messages of Daventry District as an ideal place to 'live, work and play', emphasising issues related to our corporate objectives. The Council's intranet (Davnet) provides access to information and is a useful means of communication for employees and Members.

Theme 2 – Outcomes and success measures

- Continued development of mobile accessible self-service for increased access via mobile devices.
- Increase datasets available on the DDC website web mapping page allowing customers the ability to view spatial data relating to planning applications, local amenities and ability to view and log service requests to the Council directly from the map enhancing the customer experience.
- Continue rollout of mobile compliant web pages that will auto resize the information and layout according to you device screen size used.
- Implement upgrade to customer relationship management (CRM) system used within the contact centre.

- Implement web content improvement plan in conjunction with Communications team to ensure information on the Council's website is up to date and relevant.
- Utilise mapping technology and route planning software to work with waste partners to optimise and improve waste collection rounds.
- Continue to improve existing 'IT Service Desk' provision to allow better reporting of incidents, by ensuring the self-serve portal is kept up to date and that communication of resolution and timescales are given each time a call is updated or resolved via auto emailing of call summary forms to customer.
- Introduce Payment Engine and online bookings onto the DDC Website to allow further services to be moved online.
- Implement new online portals purchased by service areas to ensure the continuation of channel shift from phone and face to face.
- In conjunction with Customer Services explore the use of online chat/presence for the DDC website to aid customers using the DDC website.
- To work in conjunction with customer services to deliver new converged phone system and contact centre, to improve the customer experience when contacting DDC.
- Realising improved communication options of the converged phone system for Officers and Members through the use of presence, instant messenger, voice/video conferencing and unified phone number use across Desk phone, PC Software phone and mobile app allowing one number to be used to contact officers in the office and out of the office.
- Explore the usage options available of new converged phone system for Members.
- New Converged Phone system and Contact Centre will enable reduced operational costs, improve security and add features/functionality available by replacing old two part phone system.
- In conjunction with Customer Services look to further rollout hybrid mail and print for service areas to use to enable cost savings on postage and print when compared to onsite print and post.
- Work with Customer Services and Procurement officer on the re-procurement of the onsite MFD (Multi-function Device) and follow me print contract

reviewing requirements alongside use of Hybrid mail with a view to reducing contract costs further.

Theme 3: Information Management / GDPR

Information is one of the Council's key assets. Effective data and information management is vital to decision making and providing appropriate levels of security. This theme of the ICT Strategy builds upon the local and corporate achievements that have been made in improving information management and aims to further establish a fit for purpose information management and reporting environment.

Theme 3 – Outcomes and success measures

- Improved Email and Electronic Records Management by the introduction of protective marking and email encryption for sending Confidential records
- Implementation of Electronic Document and Records Management System for Development Control.
- Continue publication of open spatial XML datasets to meet the UK INSPIRE regulations.
- Maximise the use of existing GIS systems to develop comprehensive electronic spatial mapping layers of environmental services & planning data including areas subject to different grounds maintenance regimes or future development of land and make this available for public viewing and comment via the website.
- Increase awareness and use of Public Sector Network (PSN) as a means of securely exchanging data with partners along with wider use of email encryption tool when sending information to 3rd party agencies or customers not on the PSN network. To follow CESG guidance with regards to changes to PSN and a move away from gcsx.gov.uk to using the standard gov.uk domain and securing using TLS.
- To work with the land registry on the transfer of spatial Land Charge searches LLC1 and service area data to enable land registry to deliver the service centrally.
- Working with DPA Officer and colleagues in Audit to improve and maintain staff awareness of the need to be vigilant in the face of Cyber security threats,

Fraud and Phishing attempts by ensuring staff undertake mandatory e-learning alongside regular messages to staff via email, Davnet and Council courier on the subjects of Cyber security, Fraud and GDPR/Information security.

Theme 4: Mobile / Remote access to systems

Remote working offers opportunities to work more efficiently as demonstrated across the organisation. The current remote access systems and mobile email apps provides a PSN compliant means of connecting mobile devices to the Corporate Network although its current capacity is relatively limited. Investigate rationalisation of remote access systems to ensure security compliance and simplify remote access to systems. Investigate further use of mobile working within the Council.

Theme 4 – Outcomes and success measures

- Investigate further use of mobile in Environmental Health/Business Team.
- Investigate the use of audio/video conferencing as part of converged communication phone system deployment.
- Investigate rationalisation of remote access login method to improve access for mobile and remote working for Members and Officers (single point of login for access to Webmail, Davnet (intranet) and Citrix Desktop).
- Over the life of the strategy review and consider options around current mix of DDC issued hardware and BYOD (Bring your own device) used for remote access to DDC systems by Members. Investigate ease of use and access via multiple devices Laptop, Tablet and Smartphones.
- Continued deployment and support of Smart Phone and Tablet/notebook devices for staff on a business case basis to support flexible/remote working.

Theme 5: Cyber Security / Fraud

Cyber security is a major threat to the councils data and service delivery, it is taken seriously by Senior management who are keen to ensure staff have an awareness of IT security, cyber threats and online fraud, with a view to reducing the Council's exposure to cyber security threats through training and targeted

deployment of systems to protect council services which is critical in the current business environment.

Theme 5 – Outcomes and success measures

- Ongoing development and strengthening of the Council's ICT security position with annual externally undertaken security testing in line with Public Services Network PSN / CESG requirements undertaken by a Check/Crest accredited testers.
- Achievement of annual PSN accreditation allowing access to PSN network and associated government systems.
- Implement new (where required) and review existing security controls implemented across the council network to make sure we are making use of all features available and also following security good practice.
- Working with DPA Officer and colleagues in Audit to improve and maintain staff awareness of the need to be vigilant in the face of Cyber security threats, Fraud and Phishing attempts by ensuring staff undertake mandatory e-learning alongside regular messages to staff via email, Davnet and Council Courier on the subjects of Cyber security, Fraud and GDPR/Information security.
- Investigate the use of further Phishing email testing tools on staff to raise awareness of the dangers of links and attachments being sent in unsolicited emails “engaging the human” as our last line of defence as phishing email often are able to bypasses other technology. Review results to see if awareness is improving.
- Implement Identity and Access Management system to bring it in line with current and future security requirements, reduced external attack surface exposure to the internet and allow greater flexibility for presenting and securing web based systems for remote access whilst also being able to address the requirements of hybrid cloud by managing authentication to service hosted onsite and via the cloud using the one council login/identity.
- Investigate changing the Council's password policy to tighten up security and better reflect good practice we often advise people to use passphrases to improve usability and increase variety.
- Continued deployment of updates to Microsoft platforms on premise or cloud based, applying updates to non-Microsoft product when available or

when highlighted during testing ensuring we are using version of software and systems supported by the vendor.

- Continued review of mobile devices and handset platforms, replacing as required in line with security recommendations.
- Continue to build on ICT staff awareness and training around security and cyber security threats.
- Favourable audit opinion on IT audits – (TIAA – Council’s external IT auditor)

Theme 6: Better use of technology to support service delivery

Theme 6 – Outcomes and success measures

- Investigate the wider use of automation in workflow and System administration tasks
- Increase the use of existing automation software within the business with the use of “Planet Press Connect” for data manipulation/output/print management and the use of “FME” for matching and analysing complex disparate datasets and converting datasets between differing systems.
- To work with service areas and suppliers to maximise the use of existing software systems, explore what current systems are being used for working with suppliers and service areas suggesting better/alternative ways of utilising software and explore options around additional modules available to aid service delivery.
- Working with HR to widen the availability of purposeful ICT training course available to Members and Officers, improve signposting to online e-learning content via 3rd parties and the DDC intranet (Davnet).
- Work with external waste service delivery partners to deliver secure data integrations between systems that allow for reliable data exchange for consistent service delivery
- Investigate the use of AI Chatbot for online services delivery. AI Chatbot could be used across differing platforms website and mobile along with exploring the use of voice automation for web services.

- Look at ways of utilising Chatbot on Intranet and IT Service desk to aid staff with navigating information on the intranet and to access internal web services.
- Investigate the use of AI powered voice control for dealing with basic information queries and questions on council services.
- Horizon scan for new developments/products/modules from suppliers (new and existing) during the life of this strategy that may prove invaluable for transforming service delivery and improving workflow e.g. (Block chain for planning decisions, streamline workflow for staff expenses, time recording/time sheet, Annual Leave, employee training, staff appraisal and paperless meetings)

8. Implementation, Monitoring and Review

This strategy sets out the direction of ICT at the Council for the next three years. It will be delivered in conjunction with service providers and partners. It will provide opportunities to exploit new technologies and infrastructures and enable efficient delivery of our service plans.

This strategy will be monitored and steered by the ICT Steering Group with exceptions and any recommendations for change reported to the Senior Management Team.

The ICT Steering Group will review its terms of reference annually and this will provide opportunity to consider its role, ICT governance arrangements and the maturity of the project governance arrangements. In particular to consider the further development of the current corporate ICT governance arrangements providing a strong 'gate keeping' role and enforcing compliance to agreed ICT standards and procedures.

All ICT projects of sufficient scale or consequence are also to be managed in accordance with the Council's corporate project management methodology.

9. Action Plan

This action plan will be monitored and reviewed by the ICT Steering Group with exceptions and any recommendations for change reported to the Senior Management Team.

Theme 1: ICT Infrastructure – Resilience, Reliability			
Key Action	Project	Outcome	Target Date
	Backup SAN Network Storage Abbey building	New disk storage trays to replace existing Storage Area Network	April 2018
	ICT business continuity - IT Data Recovery Testing (Annual)	Successful test achieved	Annually in December
	Phased roll out of Windows 10 desktops	Phased roll out to identified users as systems/software is supported by suppliers under Windows 10	January 2020
	Upgrade Virtual platform	Virtual platform upgraded to latest supported version	Annually
	Changes to IT infrastructure, web e-forms and CRM Scripts for new waste contract with NORSE	Contract live - Norse able to receive customer service requests via API link relating to contract	June 2018
	Upgrade Remote access desktop to latest supported version	New solution implemented alongside existing system to allow testing before switchover	November 2018

Theme 2: Communications			
Key Action	Project	Outcome	Target Date
	Online services - Number of e-enabled services added to or improved from the Council (number cumulative within each year)	Target of 6 processes added or improved pa	Annually
	Converged IP Phone system and Contact Centre (Phase 1)	New converged IP Phone system and Contact Centre installed (initial phase 1), tested and put live	May 2018
	Converged IP Phone system enhanced features (Phase 2)	Converged IP Phone system enhanced features (Phase 2) installed, tested and put live	2020
	Implement new platform of customer relationship management system CRM used within the contact centre alongside existing.	Customer relationship management system CRM, installed, tested and running on newer version/platform	October 2018
	Hybrid mail and print rollout / Contract change	Review / Wider rollout within the Council	December 2018
	MFD and follow me print contract review and change / implementation	New contract for MFD devices and print management procured installed, tested and live	2018
	Working with service area and supplier to implement e-applications process for benefits	Installed, branded/Styled, tested and put live	March 2018
	Review introduction of Payment Engine and bookings onto the DDC	Review undertaken, solution implemented, tested and ready to be	2018

	Website to allow further services to be moved online	integrated into online processes	
	Communications Team - Web Content Improvement Plan	Assist with delivery of the Web Content Improvement Plan with Communications Team.	Annually

Theme 3: Information Management /GDPR			
Key Action	Project	Outcome	Target Date
	Planning records data capture by planning team/customer services	Records transferred into accessible electronic format ready for Land Registry project	2021
	Positional Accuracy Improvement project for mapping data	Mapping Positional Accuracy Improvement tool implemented and project undertaken/completed with supplier and officer in readiness for Land Registry project.	2021
	To continue to meet the UK/EU INSPIRE regulations by publishing XML datasets	To continue to meet the UK/EU INSPIRE regulations for the life of the strategy	2021
	Images@Work rollout within Development Control and link to APAS system	Images@Work rolled out to Planning, linked in with APAS system (APAS scan data migrated into Images@Work)	2018

	Improved Email and Electronic Records Management / introduction of protective marking (In line with PSN requirements)	Wider use of email encryption within the council, to have moved away from using GCSX.GOV.UK email to using standard GOV.UK email securely in line with PSN requirements	February 2019
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Theme 4: Mobile/Remote Working

Key Action	Project	Outcome	Target Date
	Mobile logging solution for conditions surveys for Commercial Properties	Able to log stock condition via mobile device once without the need to re-enter once back in the office.	2021
	Implement remote Identity and Access Management system	Procure, install, test and put live.	April 2018

Theme 5: Cyber Security / Fraud

Key Action	Project	Outcome	Target Date
	Ongoing development and strengthening of the Council's ICT security position with annual ITHC network testing and PSN submission to CESG	Annual ITHC testing undertaken by ext (Check/Crest) supplier, submission of PSN COCO to CESG with the council retaining accreditation to the PSN network	Annual
	Investigate revising	Look at best practice	2019

	password policy in addition to our existing two factor authentication.	and formulate response.	
	Apply further network edge protection	Further network edge protection implemented	2018
Theme 6: Explore use of Automation / Ai to aid service delivery and workflow			
Key Action	Project	Outcome	Target Date
	Investigate the use of Artificial intelligence Chatbot/Chat tool to aid online services delivery.	Proof of concept, procure, install, tested and put live Artificial intelligence Chatbot/Chat tool in use and dealing with live customer interactions	2019
	Investigate the wider use of automation in workflow and System administration tasks	Maximise use of existing automation software within the council	2021
	Proof of concept integrations with smart voice assistants (Google / Amazon) for basic information enquiry's on Council services	Concept proven and decision taken to implement, integrations with smart voice assistants (Google / Amazon) for basic information enquiry's on Council services live	2021
	Investigate the use of Web Push Notifications for website/services as a means to communicate/notify customers of	To have undertaken Proof of concept and reviewed success along with possible uses for services	2021

	news/events/service changes		
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