

DERBYSHIRE COUNTY COUNCIL

CABINET

26 July 2018

Report of the Strategic Director Commissioning, Communities and Policy

**ICT STRATEGY
(COUNCIL SERVICES)**

1 Purpose of the Report

To seek approval to a new ICT Strategy covering the period 2018 to 2023.

2 Information and Analysis

The new ICT Strategy has been developed to support the Council Plan and the Enterprising Council agenda and sets out new ways of working to make sure that the use of ICT is aligned with business requirements.

It is important to recognise that much effort has recently taken place to prepare for significant change in the users experience of ICT.

ICT is a key enabler of service delivery and over the last two years a number of strategic projects have delivered, or are in the process of delivering, new technologies that will support cultural change and provide opportunities to support new ways of delivering Council services.

Strategic Projects include:-

• **Completed since 2016**

- Updating of the Wide Area Network (WAN) to provide faster access to services to support business efficiency;
- Successful switch over to the Microsoft Office 365 service for over 7,000 users;
- Retained accreditation to the latest version of ISO27001 (Best Practice for Data security);
- Implementation of a pilot SAP Mobile app solution to support front line staff.

• **Underway**

- Transition from Frameworki to Mosaic to support social care delivery

- to citizens (Summer 2018);
- Full rollout of Office 365 technologies such as Microsoft Direct Access (MDA) and Mobile Device Management (MDM) and collaboration tools to support creative new ways of working with partners (Summer 2019);
- Upgrade to latest version of Electronic Document Records Management system for long term document storage and compliance with new legislative requirements (Autumn 2018);
- Migration to the Windows 10 operating system (before December 2019);
- Self-service password resets 24/7 (Winter 2018);
- Implementation of Cisco Identity Services Engine (ISE) to support mobility and simplify the guest experience in a secure controlled environment (Summer 2018).

A consultation exercise was undertaken with end users and senior managers and this has been fed into the new Strategy and picks up on the issues raised such as support for mobile and flexible working and suitable equipment and software.

The Strategy sets out how the ICT Service will underpin the delivery of efficient and effective services to residents and will challenge and assist in making service efficiencies across the Council. There will be a new focus on innovative ways of working and new technology to help citizens as well as staff.

The Strategy encompasses eight Key Themes outlining specific business challenges and three business principles. In responding to these challenges a number of Strategy Deliverables have been developed by the IT Service to support changing service models that will facilitate improvements to organisational efficiency and effectiveness.

• **Changing Service Models**

- Delivering simple secure collaboration solutions with partners to share data effectively in support of joined up service delivery;
- Developing a business analysis service in support of business case creation and service re-design;
- Improving research and development capacity to enable the council to keep ahead of emerging technologies.
- Improved business intelligence leading to better decision making and more effective use of Council resources.

• **ICT Governance Structure**

- Strengthening governance to ensure ICT service delivery is fit for purpose and in support of culture change to become more agile and customer focused;

- Improving research and development capacity to enable the council to keep ahead of emerging technologies;
- Forward Plan of projects and procurements;
- Regular engagement with front line staff.
- **Mobile and Agile Workforce**
 - Implementing agile working by providing members, staff and partners with simplified access to the Council's computer network from Council supplied devices from any location. This will effectively allow staff to take their office with them;
 - Allowing personal devices to access the Councils systems subject to appropriate security and access policies.
- **Digital by Default**
 - Increasing the use of digital channels and social media to provide citizens with a wider range of communication options and easy self-serve access to services and information and in support of the Council's digital inclusion agenda.
- **Workforce ICT Competencies**
 - Training staff to use ICT more effectively in their role to maximise the use of technology to drive service delivery for citizens;
 - Maintain a separate budget for ICT staff training.
- **Corporate and Business systems**
 - Identifying unused or underused capability to ensure we maximise our investment in systems;
 - Provide a corporate solution for systems integration;
 - Developing Apps for high volume simple transactions.
- **ICT Infrastructure Delivery**
 - New telephony options with the objective of providing front line staff with improved communication facilities. Staff are able to be contacted anywhere through a single phone number;
 - New Internet feed implementation and associated infrastructure changes;
 - Providing fit for purpose devices to enable front line workers to conduct their roles more effectively when away from the office;
 - Extend corporate Wi-Fi coverage including further joint reciprocal arrangements with partners to provide increased availability and flexible working options for both Council and Partner staff;
 - Investigate whether further infrastructure savings can be achieved using alternative technologies or supply contracts.
 - Developing Apps for high volume simple transactions.

- **Responsible Data management**

- Supporting data governance arrangements for GDPR requirements.

In line with industry best practice and central government recommendations this Strategy is based on the principles of Simplify, Standardise and Share wherever appropriate. Briefly outlined below are examples of the different types of contexts and situations to which the principles will be applied:-

- **Simplify** – Review current processes and use ICT technologies to automate and reduce labour intensive activities; simplify access to corporate networks and back office systems.
- **Standardise** - Adopt industry best practice, reduce customised solutions and review all new ICT requirements to see if these can be met by current systems, with the aim of reducing the number of systems supported to minimise costs and maximise current technology investments.
- **Share** - Collaborate both internally and externally with partners on technology, business processes, information sharing and data management policies to support new models of service delivery; maintain regular contact with other councils and their ICT functions; work together with business partners to ensure that best practice and industry trends can be embraced in ICT provision in Derbyshire.

In order to deliver value for money all new ICT projects will be backed up by a robust and approved Business Case. ICT Services will oversee ICT projects from initial inception to system delivery but it is essential that the Business Owner of the new service produces the specification for the new requirements and takes responsibility for any organisational culture change initiatives and benefits realisation objectives.

The ICT Strategy for 2018-2023 is attached as an Appendix and details the approach taken to the delivery of ICT as an enabler of business change. The successful implementation of the Strategy will be a key driver of Council Plan objectives.

3 Financial Considerations

The Strategy will require investment in order to pump prime savings on new developments that will be captured and available to departments. The investment will be based on strong business cases and robust benefits realisation.

Capital investment of up to £2m per year will be built into the annual capital programme to support a council wide capital replacement programme for hardware, this should lead to revenue savings in budget currently used for this purpose, and a revenue base budget bid of £200k will be made to pump prime savings projects.

4 Other Considerations

In preparing this report the relevance of the following factors has been considered: legal, prevention of crime and disorder, equality and diversity, human resources, environmental, health, property and transport considerations.

5 Key Decision

No.

6 Call-in

Is it required that call-in be waived in respect of the decisions proposed in the report?

No.

7 Officer's Recommendations

That Cabinet approve the ICT Strategy 2018-2023.

That the Cabinet Member for Council Services receives regular updates on progress with delivering the strategy.

EMMA ALEXANDER

Strategic Director of Commissioning, Communities and Policy

A close-up photograph of a computer keyboard. A prominent blue key is in the foreground, featuring the word 'Strategy' in white, bold, sans-serif font. Below the text is a white icon consisting of a right-pointing arrow followed by two interlocking gears of different sizes. The background shows other black keys on the keyboard, slightly out of focus.

Strategy

**Derbyshire County
Council
Information and Communications
Technology Strategy 2018-2023**

Derbyshire County Councils Information Communication Technology

Strategy 2018 – 2023

Foreword



Councilor Angelique Foster
Cabinet member for the Council Services
Portfolio

Derbyshire's new Council plan is entitled "Working for Derbyshire" and sets out clear ambitions for an efficient high performing Enterprising Council delivering value for money services. Key to delivering these ambitions is the way the Council uses information communications technology.

This ICT strategy details a work programme intended to improve mobile and agile working for front line staff and partners enabling them to work remotely from any location. New smart phone apps will be deployed utilising digital technology and staff will be fully supported to make best use of these improved ways of working.

Committed to exploring emerging and developing technologies the Council will utilise these where appropriate to deliver services in different and innovative ways. In the near future the use of assistive technology and the Internet of Things (IoT)¹ will enable for example improvements such as the remote monitoring for vulnerable residents over the internet to support independent living and

enable them to stay in their own homes for longer. The Council is developing the use of drones to speed up bridge inspections and new smart apps will make it easier for children and young people to communicate with their care workers.

Derbyshire's online services are being enhanced through the launch of the updated Derbyshire website to provide more interactive self-serve applications for citizens to access services as and when they need them. The Council is increasing the use of Social media to provide improved ways of interacting with its services.

This ICT Strategy sets out how Derbyshire's ICT provision will underpin the delivery of efficient and effective services to Derbyshire citizens from 2018 to 2023 and help achieve the delivery of the Council Plan and its Enterprising Council approach to service delivery. It is recognised that the delivery of these technologies will require managed investment on an annual recurring basis.

¹ <https://www.local.gov.uk/transforming-social-care-through-use-information-and-technology>

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1. Strategy Introduction

The Council Plan 2017-2021 sets out clear ambitions to be an efficient and high performing Council delivering value for money services and achieving its aim of being an Enterprising Council. Being an Enterprising Council is supported by exploring creative ways to deliver customer focussed services. Information Communications Technology (ICT) is critical to the Council achieving these ambitions and addressing the challenges that lie ahead.

For any organisation it is important to change as the world changes, to modernise and take advantage of new technology and better ways of doing things for both residents and employees. Thinking and doing things differently, not shirking bold decisions and making the most of new opportunities will drive the approach – an approach which is ambitious and enterprising, where:

- Value for money is at the heart of everything that we do;
- We are efficient and effective;
- We focus on getting the best results for our residents, not on who provides the service, there's no one size fits all;
- We have a bold, innovative and commercial mind set;
- We do things 'with' local people rather than 'to' them and we value fairness, openness and partnership;
- We are proud of Derbyshire and are ambitious for our public services.

2. Strategy Purpose

This ICT Strategy covers the period 2018 to 2023 and details how Derbyshire County Council's ICT Services will deliver new technologies to support the ambitions and outcomes of the Council plan and Derbyshire's approach to becoming an Enterprising Council.

The Council recognises that ICT is a key enabler of service delivery and over the last two years ICT has conducted a number of strategic projects which have delivered, or are in the process of delivering, new technologies that will support culture change and provide opportunities to support new ways of delivering Council services.

Strategic Projects include:-

- **Completed since 2016**
 - Updating of the Wide Area Network (WAN) to provide faster access to services to support business efficiency;
 - Successful switch over to the Microsoft Office 365 service for over 7,000 users;
 - Retained accreditation to the latest version of ISO27001 (Best Practice

for Data security);

- Implementation of a pilot SAP Mobile app solution to support front line staff.

- **Underway**

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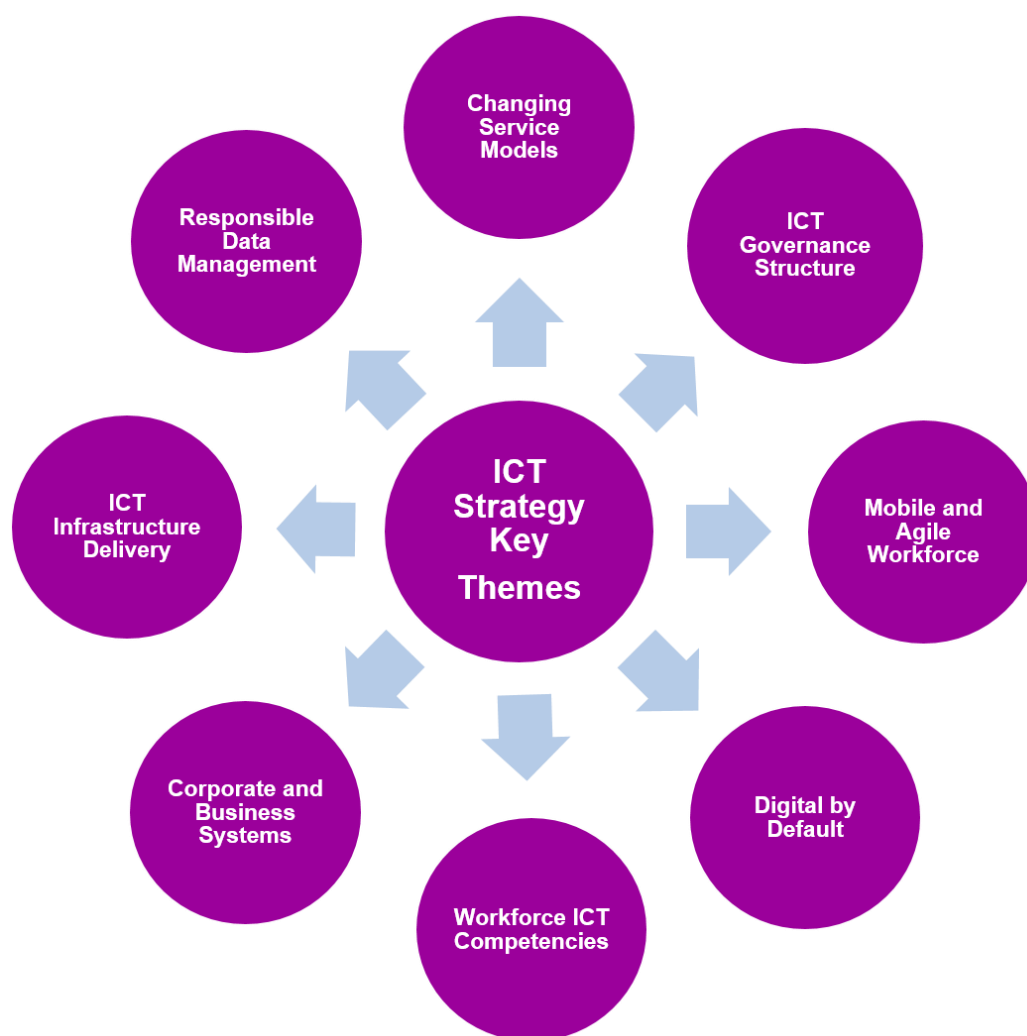
3. Strategy Consultation

This strategy was developed through consultation with stakeholder groups across all Council service areas to understand their current and future business challenges and requirements. Feedback received has been used to inform and shape the direction of travel of this ICT Strategy covering 2018-2023. We would like to thank all those who took part in the consultation and look forward to continuing this dialogue.

4. ICT Strategy

Developed from the consultation this strategy encompasses eight Key Themes outlining specific business challenges. In responding to these challenges a number of Strategy Deliverables have been developed by the IT Service to support changing service models that will facilitate improvements to organisational efficiency and effectiveness.

Each theme was appraised and expanded to develop the appropriate technology to provide solutions to meet the challenges and combined with the fostering of closer relationships with departments will lead to enhanced business/ICT alignment.

ICT Strategy Key Themes

4.1. Strategy Business Principles

In line with industry best practice and central government recommendations this Strategy is based on the principles of Simplify, Standardise and Share wherever appropriate. Briefly outlined below are examples of the different types of contexts and situations to which the principles will be applied:-

- **Simplify** – Review current processes and use ICT technologies to automate and reduce labour intensive activities; simplify access to corporate networks and back office systems.
- **Standardise** - Adopt industry best practice, reduce customised solutions and review all new ICT requirements to see if these can be met by current systems, with the aim of reducing the number of systems supported to minimise costs and maximise current technology investments.

- **Share** - Collaborate both internally and externally with partners on technology, business processes, information sharing and data management policies to support new models of service delivery; maintain regular contact with other councils and their ICT functions; work together with business partners to ensure that best practice and industry trends can be embraced in ICT provision in Derbyshire.

In keeping with the Central Government Technology Code of Practice all new projects must seek to:

- Identify all system users and fully define their needs;
- Maximise system accessibility;
- Make solutions secure, reliable and resilient;
- Make information privacy integral to the system design (Privacy by Design);
- Re-use, integrate and adapt existing technology, rather than buying new;
- Minimise data collection by collecting only what is needed and re-using existing data to avoid duplication of datasets.

In order to deliver value for money all new ICT projects will be backed up by a robust and approved Business Case. ICT Services will oversee ICT projects from initial inception to system delivery but it is essential that the Business Owner of the new service produces the specification for the new requirements and takes responsibility for any organisational culture change initiatives and benefits realisation objectives.

4.2. Summary of Strategy Deliverables

- **Changing Service Models**
 - Delivering simple secure collaboration solutions with partners to share data effectively in support of joined up service delivery;
 - Developing a business analysis service in support of business case creation and service re-design;
 - Improving research and development capacity to enable the council to keep ahead of emerging technologies.
 - Improved business intelligence leading to better decision making and more effective use of Council resources.

- **ICT Governance Structure**
 - Strengthening governance to ensure ICT service delivery is fit for purpose and in support of culture change to become more agile and customer focused;
 - Improving research and development capacity to enable the council to keep ahead of emerging technologies;
 - Forward Plan of projects and procurements;
 - Regular engagement with front line staff.
- **Mobile and Agile Workforce**
 - Implementing agile working by providing members, staff and partners with simplified access to the Council's computer network from Council supplied devices from any location. This will effectively allow staff to take their office with them;
 - Allowing personal devices to access the Councils systems subject to appropriate security and access policies.
- **Digital by Default**
 - Increasing the use of digital channels and social media to provide citizens with a wider range of communication options and easy self-serve access to services and information and in support of the Council's digital inclusion agenda.
- **Workforce ICT Competencies**
 - Training staff to use ICT more effectively in their role to maximise the use of technology to drive service delivery for citizens;
 - Maintain a separate budget for ICT staff training.
- **Corporate and Business systems**
 - Identifying unused or underused capability to ensure we maximise our investment in systems;
 - Provide a corporate solution for systems integration;
 - Developing Apps for high volume simple transactions.
- **ICT Infrastructure Delivery**
 - New telephony options with the objective of providing front line staff with improved communication facilities. Staff are able to be contacted anywhere through a single phone number;
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- Providing fit for purpose devices to enable front line workers to conduct their roles more effectively when away from the office;
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 - Investigate whether further infrastructure savings can be achieved using alternative technologies or supply contracts.
 - Developing Apps for high volume simple transactions.
- **Responsible Data management**
 - Supporting data governance arrangements for GDPR requirements.

In order to achieve the full benefits of these technology solutions, ICT Services will have to work closely with the Council's departments and partners.

4.3. Strategy Key Themes

4.3.1. Theme - Changing Service Models

The Council is embarking on a journey to become an Enterprising Council which will transform its traditional service delivery models. New service models will necessitate closer working arrangements with partners, including public and private sector organisations and the voluntary and community sector to provide cost effective public services. In some circumstances secure access by these parties to the Council's computer network and back office systems may be required.

Where staff have a requirement to share data this will be supported by products such as office 365 SharePoint so that the exchange of agreed data can be conducted easily. This will depend on the data owner ensuring that all data collection, privacy and consent regulations are being adhered to and that appropriate information sharing agreements, user access policies and data security provisions are approved.

Anticipated benefits

Improved effectiveness resulting from easier collaboration with partner agencies.



ICT Services will develop capacity to gain insight from other local authorities and key suppliers around ICT best practice and the use of business technology to deliver different service models.

In keeping with the Business principles ICT Services will supply a business analysis function to assist Business Owners with the creation of Business Cases including:-

- Identifying industry best practice in relation to the new services required;
- Finding suitable solutions which either re-use or are compatible with existing Council solutions and policies;
- Advising on mapping the “as-is” and “to be” processes in order to develop any culture change initiatives;
- Tools and methods for assessing potential costs and savings, and
- Assessments of the likely amount of resources required from each of the participants in the project;
- Advice on building specifications.

ICT services will strengthen its research and development capacity in order to keep abreast of emerging technologies such as the Internet of Things (IoT) and Artificial Intelligence.

IoT areas currently under investigation include the utilisation of a camera mounted on a drone to conduct Bridge inspections thereby reducing the time to complete this work; and the effective use of online social media campaigns to successfully recruit Foster carers; the use of telecare to remotely monitor disabled and elderly people in their own homes.

Anticipated benefits

The Council will be able to more quickly take advantage of solutions which are recognised as best practice and utilise emerging technologies more confidently.

Artificial Intelligence - the Council collects, produces and retains large volumes of data covering all aspects of its services. Much of this data is personal and sensitive

but can be anonymised, aggregated and analysed to produce business intelligence which underpins demand forecasting, provides performance metrics and allows improved service planning and efficiency initiatives. New tools and methods (under the generic headings “Big Data” and “Artificial Intelligence”) are becoming available and ICT Services will assess them for their potential to release even greater insights to help our corporate and customer facing services to perform better.

Anticipated benefits

Improved business intelligence leading to better decision making and more effective use of Council resources.

4.3.2.Theme - ICT Governance Structure

Effective ICT governance is key to ensuring that Derbyshire’s ICT Service is providing the right technologies to support new service delivery models and understanding the current and future business challenges and drivers. Corporate rollouts of technologies such as Office 365 and Windows 10, in combination with the application of the principles of Simplify,



Standardise and Share, requires improved communication and closer working arrangements to be implemented. To develop these relationships a new joint Departmental/ICT Service governance board based on best practice guidance will provide the leadership needed to ensure the ICT Service and the departments are strategically aligned and where necessary provide focus to determine the priorities for the ICT Service.

To support these changes a review of the role of the Service Relationship Manager in Departments and the support structures within ICT Services will be undertaken.

The remit of the ICT Governance board (ICTB) includes:-

- Provision of governance to direct and oversee implementation of the ICT Strategy across the Council including annual review and identification and monitoring of ICT performance related KPI's and business metrics;
- Ensuring that a balanced and accountable service led approach is adopted by the ICT Service to provide technology solutions that are fit for purpose and

support the Councils changing service models and journey to be an Enterprising Council and business objectives;

- Acting as advocates providing a conduit for communication supporting cultural change and the breaking down of silos to provide information and guidance to assist ICT to support the Councils business objectives;
- Supporting a commercial approach to ICT business case development with peer review to ensure consistency of approach across all Council departments;
- Acting as a focus for the identification of business challenges and sponsorship for new service re-design opportunities by working with ICT analysts to identify and promote emerging technologies and best practice from other public authorities and private industry;
- Ensuring that major ICT projects are aligned with and supportive of other key Council initiatives and strategies and in particular the workforce plan, the accommodation strategy and the objective of moving to an Enterprising Council approach;
- Prioritising, scrutinising and providing full assurance of ICT procurements and projects including associated risks and rewards in accordance with the Corporate Risk Strategy to ensure that business benefits are realised from the investment in ICT solutions;
- Developing and delivering a strategy implementation plan which will be reviewed and refreshed annually.

Anticipated benefits

Effective management of ICT service's in keeping with the aspirations of an enterprising Council.

A number of external influences may impact on the ICT Strategy which are outside of the ICT Services remit such as the new Commissioning, Risk Management and Procurement Strategy. Once these have been corporately adopted, if any of these do impact on the ICT Strategy these will be taken into consideration as part of the annual strategy review process.

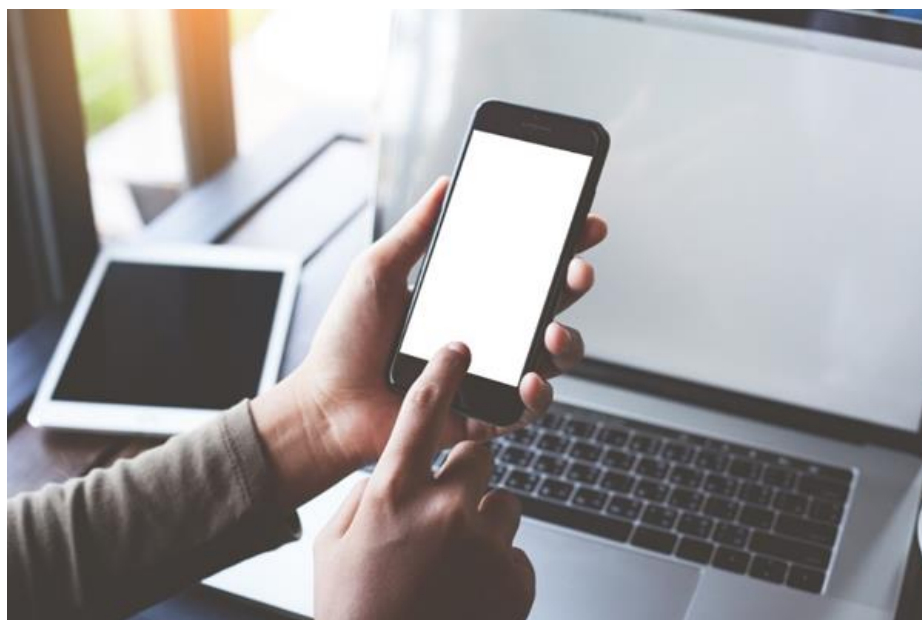
4.3.3.Theme - Mobile and Agile Workforce

A key consultation theme expressed by all Council business areas was a requirement for enhanced solutions to support a mobile and agile workforce. Although this requirement has existed for some time the increased use of smart technology within society in general has changed the expectations of front line staff

who want to exploit this smartphone technology in their roles. ICT Services will support this objective through the introduction of new flexible working technologies and mobile device management to allow front line staff to become independent of the office and support the delivery of services from anywhere.

The Council has invested in Microsoft Office 365 licensing and ICT Services will meet staff mobile technology expectations through a comprehensive rollout over the next two years.

Functionality will be implemented to support secure and easy access to the corporate Wide Area



Network (WAN) and back office systems, utilising a wide range of devices from anywhere with network connectivity. To support staff in areas of Derbyshire with poor network connectivity functionality will be implemented to enable documents to be worked on offline which will then synchronise back to appropriate file storage systems when network access is restored. During the consultation the demand for greater corporate Wi-Fi availability was identified. Provision of Wi-Fi varies considerably due to a number of factors including cost and physical building constraints. To enable staff to work flexibly from different offices and drop-in centres requires the current Wi-Fi coverage to be extended further than is currently available. A review of the options available to extend corporate Wi-Fi coverage including further joint reciprocal arrangement with partners will be explored on a case by case basis to provide increased availability and flexible working options for both Council and Partner staff.

Anticipated benefits

Lower cost to deliver improved access to the Council's network and services.

Provide a more responsive and streamlined delivery of services to residents.

A budget is in place to replace ageing equipment and encourage staff to take up suitable mobile devices including smartphones, tablets, iPads, laptops and specialist ICT equipment for staff to support specific business requirements. Consultation will

take place with relevant worker groups and Elected Members respectively to ensure devices procured are fit for purpose and support a mobile workforce agenda.

Anticipated benefits

Staff have up to date equipment which offers a higher degree of reliability and is appropriate to their role.

The current VOIP (Voice over Internet Protocol) telephony solution and mobile phone estate is not supporting staff to work as flexibly as

required. This will be addressing through a holistic telephony review which is detailed in ICT Infrastructure section of this document.



The ICT service has implemented a mobile device management (MDM) to support the increased use of smartphones and tablets. Data security is key to mobile working and Mobile Device Management (MDM) will allow smartphones and devices to be provisioned, secured and remotely wiped to ensure data security compliance with the Council's data protection and security policies.

Anticipated benefits

Reduced maintenance overheads, improved security of mobile devices.

To enable self-serve out of hours working a 24/7 password reset functionality will be implemented removing the restriction of only being able to change this in the office.

Anticipated benefits

Reduced pressure on ICT support services and simplified user self-service.

The Council has a number of systems which are not web enabled and these may require innovative solutions or replacement to support a mobile workforce agenda. ICT services will support the required changes through conducting joint reviews with departments and through providing innovative solutions to meet these business requirements.

Anticipated benefits

New and replacement solutions more closely aligned to business requirements.

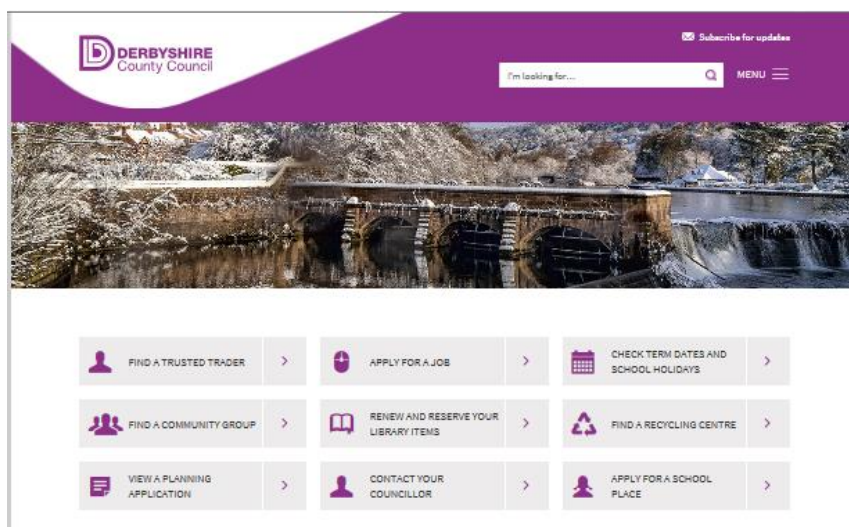
4.3.4.Theme - Digital by Default

Central government have led on the development of digital services for citizens through its Digital by Default agenda manifested in the online services available on the www.gov.uk website. Derbyshire is following this trend by providing new and innovative ways for citizens to access services online to help manage service demands and to meet user expectations of digital services .

The Council will target the three primary types of communication between citizens and the Council:

- **Informal Interactions**
e.g. Obtaining advice, reporting a pothole;
- **Formal Transactions**
e.g. Apply for a service , pay for Blue Badges; Pay for social care services;
- **Publicly available information** e.g. Requesting library opening times, school term times.

Updated Derbyshire Website

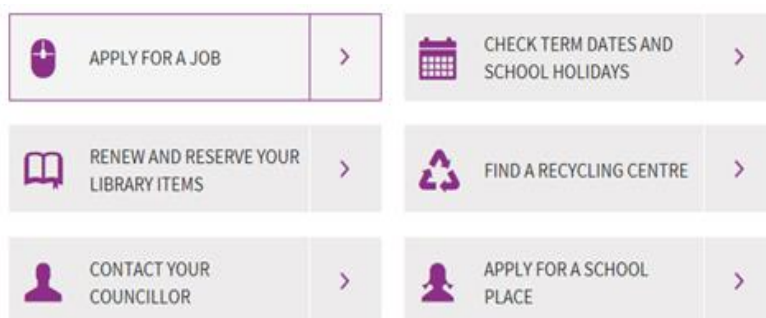


To meet these expectations the Council's website has recently been re-developed with an emphasis on citizen access using smartphones. The new site went live in April 2018.

Further work is planned to provide improved online access, automated back office integration for self-serve forms and to provide more interactive feedback and service update information for citizens.

Anticipated benefits

Improved user experience for service users, residents, and citizens, and lower data processing costs for the Council.



Examples of current Forms and Apps available on the site

The recent implementation of a new Contact Centre telephony solution will provide the Council with a multi-media platform to centrally manage all types of citizen contact including telephony, email, tweets and provide mediated assistance through web chat.

Anticipated benefits

More contact channels for service users, residents, and citizens, and lower cost to serve for Call Derbyshire.

Dnet, the Council's staff Intranet, is not currently fit for purpose and is due to be replaced with another solution.

Anticipated benefits

More inclusive solution for communication with all staff groups.

4.3.5.Theme – Workforce ICT Competencies (including ICT staff)

The Council recognises that both corporate and departmental business systems are essential for effective Council service delivery. Technology is changing at an ever faster rate and as the range of systems and new ICT solutions available has grown a so has the requirement for a modern workforce to be ICT literate and competent with ICT systems. During the consultation with staff it was clear that many had not received any formal ICT systems training and were not confident with the current technology or how to use it in their job role.

Login Derbyshire Learning Pool

Lack of formal training is leading to the build-up of local practice and limited functionality being exploited in the systems and technology deployed. This is poor return on investment especially when services are under pressure and functionality exists with the potential to automate processes or work smarter. To fully maximise the investment in ICT systems and technology requires staff to be confident in using new technology with a good example being the rollout of Office 365. To address this requirement

a whole Council approach to the review of staff ICT Training requirements will be required and this will be conducted jointly with Human Resources. Where a training needs analysis identifies a skills gap, the appropriate training will be identified and supported corporately as a rolling programme of workforce development to empower staff to use systems more effectively and improve ICT literacy.

Anticipated benefits

More focused training will allow staff to be more productive and help staff to see the Council as an organisation which supports them to provide effective services.

ICT skills requirements change rapidly and it is essential for ICT Services to maintain a budget for ICT staff training. This is separate from end-user training costs which should always be covered in project business cases.

4.3.6.Theme - Corporate and Business Systems

ICT Services supports over 270 Corporate and Business Systems for the Council. Many of the systems have unused or underused capability so to ensure we maximise our investment in these systems each will be examined at an appropriate point in its lifecycle to ensure that the Council makes full use of all of its procured licensing and system functionality. Where new business requirements are identified the first step will be to examine whether existing systems can provide the business critical functions required rather than procuring additional new systems. This approach will offer the opportunity to reduce licencing and longer term maintenance costs, though it may require business owners to change current associated business processes and working culture. All major projects will need to identify a change management owner in the sponsoring department or division to ensure that the potential of the technology changes is fully realised through streamlining of business processes. As well as benefitting the ICT Service in terms of reducing the number of skill sets needed to support the software there are also gains for business owners and end-users through the increased commonality in the look and feel of software interfaces, and the associated lower training and support costs.

Business change is a significant activity that can impact the Council's workforce development strategy and wider Council initiatives. The ICT board will need to ensure that major projects take account of these wider Council objectives.

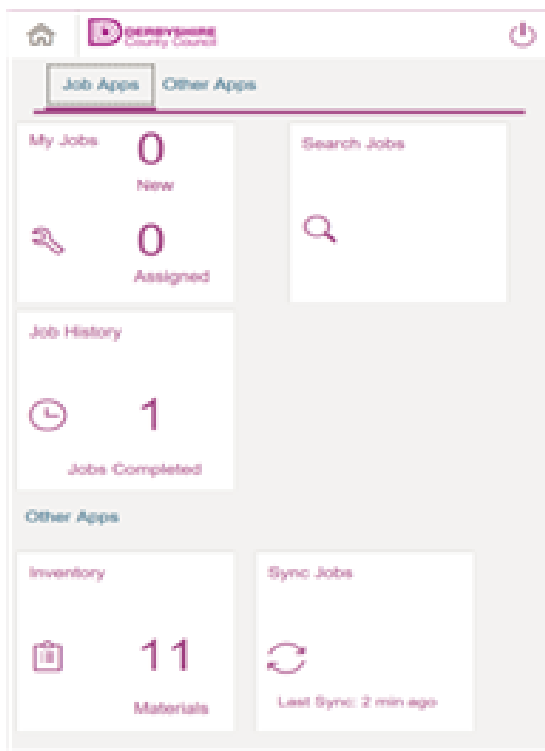
Anticipated benefits

Simplification and standardisation of the ICT estate, more joined-up Council activity at a lower cost.

Changing service delivery models and flexible staff working arrangements, including the use of smart and mobile devices, provides opportunities to deliver services and access to systems through secure mobile apps. A number of the Council's suppliers provide purpose built mobile applications and the ICT Service will work with these suppliers to securely deploy these more extensively.

Apps provide simplified methods to retrieve and enter data and the Council is now developing its own Enterprise Resource Planning (ERP) applications.

Further ERP processes will be reviewed and where appropriate additional mobile apps will be developed to support simplified access to commonly used high volume transactions.



DCC ERP Mobile Jobs APP

Anticipated benefits

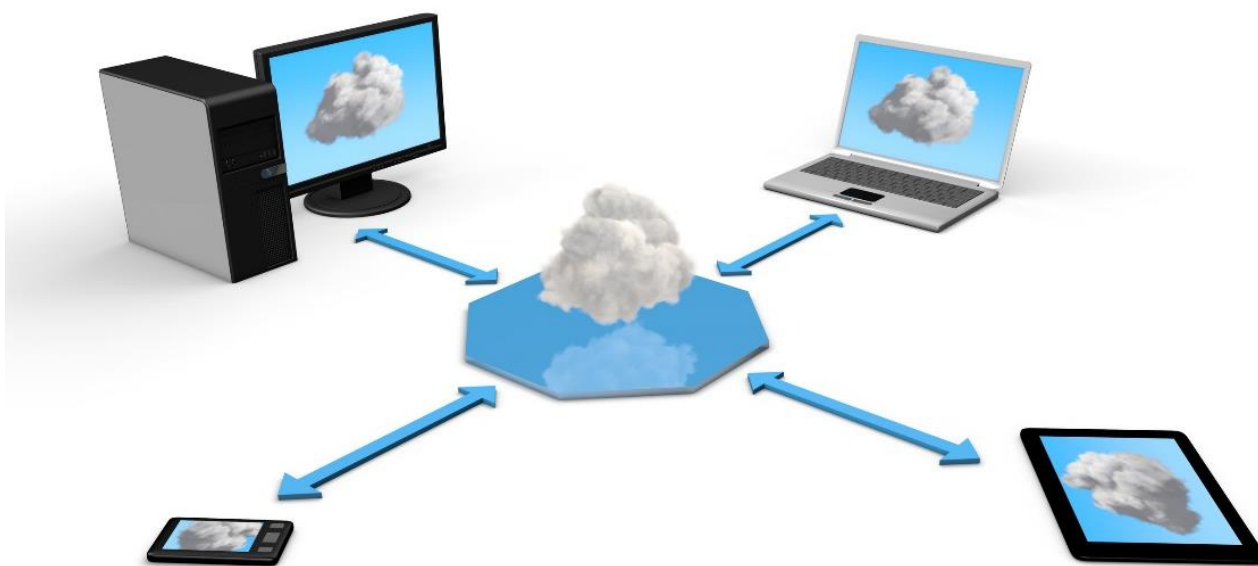
Simplified data collection and processing for staff working remotely.

With the adoption of Windows 10 and Office 365, keeping windows and office software up to date will be more automated. However, this will require that other Council software is kept up to date to maintain interoperability. A review of the licensing models and contracts will be conducted to identify and take appropriate action to ensure the wider estate is kept up to date.

Anticipated benefits

Lower cost of maintenance of core software and improved value for money from existing contracts.

4.3.7.Theme - ICT Infrastructure Delivery



ICT infrastructure is fundamental to the delivery of ICT services. Our in-house data centre provides a scalable, reliable and secure infrastructure to support current demand and respond to future requirements. During the lifetime of this strategy an assessment of the data centre will be initiated to investigate if Infrastructure as a Service (IaaS) could replace some of the current infrastructure requirements. This could save money whilst maintaining or improving system availability, resilience, scalability and disaster recovery services.

Anticipated benefits

Lower costs to deliver equivalent or better services.

The Council has invested in its Wide Area Network (WAN) to provide higher bandwidth and improved resilience to all sites. This was a point in time exercise and the bandwidth requirements will be kept under review including potential supplement or replacement of wired circuits with mobile data utilisation, taking account of the Council's workforce planning and accommodation strategies.

Anticipated benefits

Fast internet connections will support increased mobile and agile working.

There has been an increasing requirement to integrate and exchange information between different systems used within the Council. As the hosting of systems is now carried out at a range of different locations- for example the recent migration to

Office 365 cloud services is one of a series of Software as a Service (SaaS) and Infrastructure as a Service (IaaS) projects currently being implemented.



The type of hosting environment affects the choice of integration tools and methodologies and these should be costed as part of the overall business and risk analysis. Existing products that the Council is already licensed for such as SAP PI and Microsoft BizTalk are examples of the type of tools which could be used to handle such integration, and will be evaluated for suitability before any new products are purchased.

Anticipated benefits

Standardisation and increased ability to automate data exchange and enable improved collaboration with partners.

Currently non-Council devices can connect to the Council guest Wi-Fi service and a project is underway to provide similar connectivity for wired devices. This will simplify and standardise the provision of a range of network access options for Council and Partner equipment to support joint working arrangements.

Anticipated benefits

Lower cost to deliver improved access to the Council's network and services.

To reduce the number of passwords people manage and to simplify the login process, where appropriate and available the ICT Service will support the use of a single password for access to multiple systems.

Anticipated benefits

Simplified user experience.



An opportunity to take a holistic review of all the Council's telephony requirements will be taken before the current VOIP telephony contract is up for renewal.

Requirements to be detailed will include:

- Current and future telephony requirements for a flexible cost effective communication platform;
- Investigation of emerging technologies and solutions available within the industry including VOIP in the cloud;
- Investigation of the current dependencies on wired WAN connections and the benefits of using mobile data;
- A review of the current mobile network provision and use of Wi-Fi calling to reduce network blackspots;
- Negotiation with suppliers to improve network availability (may not just benefit staff but lead to improvements for residents generally);
- Impact of using Office 365 technologies such as Skype for business and Conference Calling facilities;
- The impact of using personal mobile phones for conducting the Council's business;
- Implications for business change.

Anticipated benefits

Telephony services appropriate to staff requirements using a combination of fixed line and mobile networks.

Where infrastructure requirements are identified these will be subject to review by the ICT Governance Board on a case by case basis.

Anticipated benefits

Improved ICT governance oversight will drive standardisation and simplification.

4.3.8.Theme – Responsible Data Management



Derbyshire County Council's Data Demon Campaign

Information is at the heart of everything the Council does. All decisions about service eligibility and provision are based on collection of data whether it be on paper or in a digital format. The Council has obligations to collect, use, store and ultimately destroy data safely and it is crucial that the parties responsible for the many different services the Council delivers understand their role as data owners and apply the legal and policy framework.

Derbyshire County Council takes data governance seriously and this is highlighted through the Council's Data Demon Campaign and retention of ISO27001 information security management certification, which is formally managed through the Council's Information Governance Group (IGG). In May 2018 the European General Data Protection Regulation (GDPR) came in to force empowering citizens with greater data protection rights under the law and has implications for all data owners and a large proportion of the data stored by the Council.

To support the implementation of GDPR within Derbyshire a cross departmental working group with a remit to assure compliance with the act has been created to identify and resolve issues and provide updated guidelines for Council staff to follow. To comply with these regulations, changes in working practices and policies and more extensive use of the Council's Electronic Data Record Management (EDRM) solution are being implemented.

The ICT Service will work with the GDPR group, departments and the IGG to provide the tools to manage data compliance and apply or implement appropriate retention schedules using offline/online storage to meet these standards. All Corporate and Business systems currently utilised by the Council will be evaluated by the Data Owners and where appropriate, action will be taken to ensure compliance. New system procurements will incorporate Privacy by Design as a principle to ensure that all future solutions or services utilised by the Council will comply with GDPR data requirements.

Anticipated benefits

Ensure the Council implements processes and solutions to comply with GDPR thereby maximising opportunities to collaborate effectively with partners.

5. Costs and Benefits

The ICT Service has achieved all its savings targets during the recent period of budget reductions, realising a 38% reduction in spend.

Infrastructure subscriptions for circuits and cloud services, and software purchasing and support and maintenance licencing costs form a significant proportion of ICT Service spend and many of the savings have been achieved by procuring new contracts on a like-for-like basis or improved services at lower costs. Opportunities to continue this approach will always be taken when they arise. In addition significant savings have been made by reductions in staffing particularly in senior management posts.

By introducing new software or upgrading existing software to provide richer functionality, process automation, workflow technology, and forms-based data collection, the Council has been able to reduce or remove many labour intensive paper based processes thus contributing to a steady reduction in lower grade posts. These savings are usually made in Departments or Corporate Divisions staffing budgets and often need initial ICT investment.

The gradual move to “self-service” options for the public when requesting or transacting with Council services has also delivered savings and there is more potential here – the Council’s new website technology will provide a platform for increased use of secure forms-based data collection from service users and greater opportunities for interactive digital services by using integration middleware such as SAP PI or Microsoft BizTalk. This will provide further opportunities for cost savings in departments and corporate divisions.

The steady increase in the use of smartphone technology and the Council’s Virtual Private Network facilities have encouraged wider use of mobile and flexible working options and again there is much more that can be done. The introduction of Office365, and its component services such as Direct Access, Skype for Business and SharePoint will reduce the need for staff to travel into offices to access systems and collaborate with colleagues providing further opportunities to reduce office space and travel costs.

The proposed holistic review of telephony services may also offer opportunities for cost savings in that the current fixed voice and data lines are considered separately from mobile voice and data contracts. There may be opportunities to improve value for money by reviewing our usage of fixed telephone lines and WAN circuits with mobile phone voice and data contracts. The introduction of soft phone technology and WI-FI calling may also offer potential cost savings.

There is also significant potential for efficiency gains through the introduction of mobile phone “apps” which can free managers and field workers from the office allowing them to approve transactions and receive and send job data whilst on the move and when meeting their service users. When built correctly these apps are intuitive and require little or no training to use correctly and include off-line capabilities so that data is available even when network connections are lost, and any new data captured is synchronised to the back office when connectivity is restored.

The Council operates over 270 software applications many of which have overlapping functionality. By thoroughly investigating the potential for use of existing systems for any new or changing ICT requirements it may be possible to reduce the overall number of systems supported (and the associated licensing, maintenance and support costs) though this may mean that the Business Owners have to change their transactional processes to fit in with the standard processes these software applications provide.

The ICT Service plays a significant role in supporting a range of traded services, predominantly to schools. There is opportunity to widen the type and scale of these services thus generating further income for the Council. The ICT Service will work with business owners to develop these objectives.

The significant opportunities that continued development of the Council’s use of ICT offers can only be captured if there is adherence to standardised approaches within the organisation, particularly around the type and age of equipment used and its’ functionality aligned to reduced numbers of different ICT systems supported. In order to deliver on the ambitions contained within the strategy, commitment needs to be given to a number of principles, these include: -

- An agreed replacement programme for hardware that is consistently applied across the Council;
- The availability of pump-priming resources to deliver standardised and simplified approaches to software replacement linked to a robust business case process as part of a rigorous governance regime;
- A commitment that all ICT developments must have business process change as a key outcome;
- Clear benefits identification and realisation as part of any change process to deliver savings in cash and/or service improvement wherever it is reasonable to do so. Delivery of the benefits realisation will be reported to CMT on a regular basis and may form part of the Council’s overall planning for budget savings in later years.

The strategy contains a challenging set of aspirations and they will need to be funded in two ways: -

- A full capital replacement programme will be developed and maintained with an expectation that all ICT hardware and software that qualifies as capital expenditure will be replaced over a five year cycle – initial requirements over this period are likely to be around £10m. The Capital Programme will therefore be constructed with an assumed £2m per year capital spend on ICT related activities. The resulting debt charges will be managed within the overall budget;
 - Some activities will require annual licence payments, support charges, some project costs staff time and training etc. to be paid for out of revenue budgets. The potential impact on revenue budgets will mainly be managed through existing resources, however, it is thought that a base budget bid of around £200k a year in each of the next five years (building to an annual budget of £1m by year 5) will be needed to help pump-prime savings on new developments that will be captured and available to departments to use as part of their budget planning. The use of improved business planning and governance arrangements looking at whole life-cycle costs/benefits will greatly aid the justification of spend within Enterprising Council principles.
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- The budget for ICT services for the year 2018/19 is £9,559,796, falling to £9,189,796 in 2019/20.
 - Invest to save
 - Strong Business Cases
 - Benefits realisation

The continued availability of resources to invest in new technology, based on sound business plans and meeting business need is key to the success of the strategy.

6. Glossary

Artificial Intelligence(AI)	The theory and development of computer systems able to perform tasks normally requiring human intelligence, such as visual perception, speech recognition, decision-making.
APP	Abbreviation for application: a small computer program or piece of software designed for a particular purpose that you can download onto a mobile phone or other mobile device.
Big Data	Very large data sets that may be analysed computationally to reveal patterns, trends, and associations.
BizTalk	Microsoft BizTalk Server is a Middleware System that enables organisations to automate business processes, through the use of adapters which are tailored to communicate with different software systems used in an enterprise.
Business Owner	The business owner is the person responsible for a particular service area (within a Council Department or a specific team) and defines the business need, produces the business case for a project, identifies the costs, risks and benefits of the project and drives out the benefits.
Cisco ISE	Cisco Identity S ervices E ngine (ISE) is a network administration product that enables the creation and enforcement of security and access policies for endpoint devices connected to the Council Computer network. The purpose is to simplify identity management across diverse devices and applications.
Cloud	A network of remote servers hosted on the Internet and used to store, manage, and process data in place of local servers or personal computers.
Corporate Systems	Systems that are used by all departments of Derbyshire County Council.
Data Owner	The Data Owner is the Officer that can authorise or deny access to certain data collected, used and disposed of in relation to a particular Council service, and is responsible for its accuracy, integrity, timeliness and compliance with legislation, regulations and policies.
Digital by Default	Digital online services so straightforward and convenient that all those who can use them prefer to do so.
ERP	E nterprise R esource P lanning is the integrated management of core business processes usually in real-time and using a suite of integrated software applications that an organisation can use to collect, store, manage and interpret data from its many business activities.
GDPR	The G eneral D ata P rotection R egulation (GDPR) (EU) 2016/679 is a regulation in EU law on data protection and privacy which has been adopted in the UK. It replaces the previous Data Protection Act 1998. The new regulation starts on 25 May 2018. It will be enforced by the Information Commissioner's Office (ICO).

IaaS	Infrastructure as a Service - is a form of cloud computing that provides virtualised computing resources over the internet.
ICT	Information and Communications Technology.
ICTB	The Council's Information and Communications Technology Board.
IGG	The Council's Information Governance Group.
IoT	Internet of Things - is the network of physical devices, vehicles, home appliances and other items embedded with electronics, software, sensors, actuators, and connectivity which enables these objects to connect and exchange data over internet connections.
ISO27001	ISO 27001 is a specification for an Information Security Management System (ISMS). An ISMS is a framework of policies and procedures that includes all legal, physical and technical controls involved in an organisation's information risk management processes.
KPI	A performance indicator or Key Performance Indicator is a type of performance measurement. KPIs evaluate the success of an organization or of a particular activity in which it engages.
Line of Business systems	Systems used by a particular departments or teams within Derbyshire County Council.
MDA	Microsoft Direct Access - allows connectivity for remote users to organisation network resources without the need for traditional Virtual Private Network (VPN) connections.
MDM	Mobile Device Management – Software for the administration of mobile devices, such as smartphones and tablet computers.
Middleware	Software that enables data to be exchanged between different systems on a network.
Mosaic	A software application for Adult and Children's case management on a single platform that will replace the current Frameworki system.
Privacy by Design	Privacy by Design is an approach to information processing projects that promotes privacy and data protection compliance from the outset.
SaaS	Software as a Service is a software licensing and delivery model in which software is licensed on a subscription basis and is usually provided as a cloud service.
SAP PI	SAP NetWeaver Process Integration (SAP PI) is a Middleware System that enables organisations to automate business processes through the use of adapters which are tailored to securely communicate between different software systems inside or outside the organization.
Skype or Skype for Business	A software application enabling spoken or video conversation with another party or parties over the Internet. Advanced functionality includes user availability status, desktop sharing, and instant messaging.

Smartphone	A mobile phone that performs many of the functions of a computer, typically having a touchscreen interface, Internet access, and an operating system capable of running downloaded apps.
Social Media	Websites and applications that enable users to create and share content or to participate in social networking.
WAN	Wide Area Network - An organisation's computer network that provides secure connectivity to and between each of the organisations buildings.
VoIP	Voice over Internet Protocol - a technology or set of standards for delivery of telephone calls and other voice communications over the Internet, involving conversion of analogue voice signals to digital form.
Webchat	Functionality to conduct an online exchange of textual messages in real time.
Wi-Fi	A facility allowing computers, smartphones and other devices to connect to a network wirelessly.
VPN	Virtual Private Network - a network that is constructed using public access to the Internet to securely connect remote users to a company's private internal network.
4G	A mobile communications standard including capabilities for high speed mobile web access, IP telephony, mobile television and video conferencing.