West Berkshire Council
ICT & Digital Services Strategy 2017 - 2020

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This version of the strategy is not for publication externally

West Berkshire Council

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1. Foreword by the ICT Portfolio Holder and the Chief Executive

ICT Portfolio Holder, Cllr Dominic Boeck

Executive Summary

1.1 West Berkshire Council is dependent upon Information and Communications Technology (ICT) for most of it day-to-day interactions and transactions with its citizen, customers, service users, partners and suppliers. Therefore it is extremely important that the ICT infrastructure and systems are continually maintained and developed to ensure they remain fit-for purpose for this important role and that are affordable within shrinking council budgets.

1.2 Continued technological advancement, such as the widespread popularity of ever more capable smartphones and the widespread use of social media has changed the way many people interact with each other and with their service providers. The challenge for an organisation like the Council is to keep pace with these advancements and changes in customer preferences in a way which improves customer satisfaction and delivers process efficiencies.

1.3 In embracing new technologies we need to ensure that we invest in sustainable solutions i.e. ones that will not disappear overnight and that we maintain the security of our systems and data in the face of increasing cyber threats.

1.4 This new 3-year ICT and Digital Services strategy sets out the Council's aims which are to embrace technological advancements to;

- move some of our ICT infrastructure or systems into 'the cloud' where beneficial
- increase the mobility of our staff so that they may serve our customers better
- transform more of our services so that they may be delivered by digital means
- enhance existing systems and processes to improve system integration and data re-use

In implementing our strategy we will expect to;

- be more agile and responsive to the changing needs of our business and customers
- provide more access channels for many citizen and customer interactions
- achieve greater take-up of customer self service
- deliver greater availability and resilience for many of our systems

2. Introduction

2.1 Purpose

In common with other organisations the use of Information and Communications Technology (ICT) is intrinsic to the day-to-day operation of West Berkshire Council (hereafter referred to as the Council).

The purpose of this document is to set out the Council's ICT and Digital Services Strategy for the next 3-years (2017-2020).

2.2 Vision for ICT

The Council's vision is to embrace technological advances to create an ICT enabled environment within the Council that is flexible yet secure, highly functional yet cost effective and which is agile enough to meet the changing needs of our staff, customers and service users.

We will develop our processes and our digital services to ensure they are the best they can be to help the Council deliver its corporate objectives and to address the challenge of meeting increasing customer demand whilst Council funds and resources are diminishing.

2.3 Harnessing new opportunities

Rapid developments in technology over recent years has revolutionised how people communicate with each other and how they interact with businesses and service providers. Listed below are some specific opportunities that will be harnessed by, or will influence, the Council's new ICT and Digital Services Strategy.

- **Broadband infrastructure improvements** – As a result of commercial broadband rollout and the State-aid funded Superfast Berkshire project almost all premises in West Berkshire will have access to superfast broadband services (24Mbps or faster) by the end of 2017.

  As well as benefitting communities and allowing citizens and consumers to access Council services online, this technology is being exploited directly by the Council to reduce some of its intra-site networking costs.

- **Growth in smartphone ownership** - A report [1] published by Deloitte in Autumn 2016 records that 4 out of 5 adults in the UK now owns a smartphone and increasingly they use these in preference to computers for conducting online transactions such as banking, bookings and purchases.

  Since the advent of 4G, mobile coverage and bandwidth has increased considerably and continues to improve. The Council will enhance its online facilities to engage with this smartphone owning audience to improve customer interaction and to reduce transaction processing costs.

[1] Deloitte "**There's no place like phone** | Global Mobile Consumer Survey 2016: UK Cut"

- **Public sector move towards digital transactions** – Central Government's GOV.UK initiative has dramatically changed the way customers apply for car tax, renew their passports or driving licences etc. Processes have been redesigned so that performing them online has become the easiest option for most people. These redesigned processes have removed many labour-intensive elements and reduced or eliminated the use of paper forms and licences.

  As large sections of the public have now become accustomed to conducting these type of activities digitally it should be easier for the Council to get its customers to accept and adopt any new digital services it develops.

- **The 'Internet of Things'** – Over the lifetime of this strategy we will expect to exploit the technical advancement and adaptation of traditional assets which allows them to connect to the internet. In their personal lives people have become used to smart TVs,Smartphone controlled heating systems, cars whose software is updated remotely via an onboard SIM card and more recently smart electricity meters.

  As the 'Internet of Things' gathers pace we will expect to see traditional Council assets replaced with 'smart' equivalents that may be automatically or remotely controlled and managed . These will include, but will not be limited to, smart streetlights, automated parking pay stations, number plate recognition systems, smart building controls, vehicle mounted GPS. We also expect to see greater use of telemedicine and telemonitoring for our homecare and reablement services

2.4 Challenges and constraints

There are some specific challenges to developing a new 3-year Council ICT strategy worth acknowledging, including;

- **Government funding reductions** – Councils, including West Berkshire Council, have suffered successive Government funding cuts over recent years and this trend is continuing.

  These cuts have meant we have had to deliver ICT services with fewer people, and lower goods and services budgets. This has encouraged us to introduce tools to automate processes, to negotiate better deals with our ICT suppliers, and to switch to cheaper systems or solutions when available.

  The need to make further savings provides motivation to explore how ICT innovation and targeted investment in technology (invest to save) can be deployed to reduce the cost of labour-intensive activities across various council departments.

- **Council funding model** – West Berkshire Council's ICT costs currently comprise a mix of recurring annual revenue costs (circa £2.2million per annum) which is spent on items such as staffing, software maintenance/licences, data usage and telephony charges etc. together with periodic capital investments (averaging £800k per annum) used to procure ICT assets such as computers, servers, data storage devices, network equipment and other hardware items which typically require renewal every 5-7 years.

  It is the Council's revenue budgets which are under greatest pressure, and this can act as a disincentive for the ICT department to move away from (capital funded) inhouse systems to (revenue funded) cloud-hosted alternatives, even when these appear to offer a lower whole life cost over a number of years, or where they would offer greater operational flexibility.

  It is also worth noting that many software vendors are moving away from offering traditional perpetual licences towards annual subscription-based services , and this may place an additional strain on already stretched Council ICT revenue budgets.

- **Business system supplier conservatism** – With only 418 principal local authorities in the UK, software suppliers for specialist council functions such as Planning, Revenues & Benefits, Social Care etc., are catering to a relatively small market. These specialist application vendors have significant expertise and investment in traditional client-server applications and are often unwilling to risk alienating their existing customer base by moving too soon to a new platform. We will work with our neighbouring authorities and through organisations such as Socitm [2] to influence and encourage our system vendors towards earlier adoption of new technologies to support digital services and mobile working.

- **Cyber security threats** – The dramatic rise in the number of people conducting their financial transactions online has also resulted in online fraud (including telephone scams) becoming one of the most prevalent crimes in recently published statistics. This, together with new threats, such as the emergence of ransomware (which is used to extort money from people to unlock maliciously encrypted computers) means that the Council needs to maintain and strengthen the protection it has in place to counter these threats.

- **Pace of technological change** – The pace of technological change continues to increase, particularly with regard to devices like computers and smartphones, such that it is now not unusual to see devices superseded within 2-years of their introduction.

  Whilst these changes can provide opportunities for the Council to deliver many of its services by digital means in order to provide a better or more cost effective service, it also makes it harder to maintain standardised devices, systems and policies for the Council's computer users. Too frequent changes in technology can have an adverse affect on staff proficiency to use it, may increase staff training needs (and associated costs) and can make IT support more labour intensive.

[2] Society of Information Technology Management
A professional association, founded in 1986, for ICT managers working in or for the public sector.

3. How was this strategy developed?

3.1 This strategy was developed by;

- Considering the resource and financial constraints we are working within
- Reviewing the corporate aims of the Council articulated in its various strategies
- Consulting with Council Members, officers, parish councils, customers and services users and with peers from other Local Government organisations
- Reviewing current and emerging technology trends
- Adopting best practice guidelines set out by HM Government guidelines and by professional bodies such as the Society of Information Technology Management (Socitm)

4. Key Principles

4.1 This strategy conforms to four key principles, as listed below;

1. **Cost effectiveness and cost saving** – We will ensure, through making good choices, procuring competitively and negotiating hard, that our ICT costs are as low as practically possible. We will also invest in technology that can be demonstrated to lower our service delivery costs by process improvements or in driving customer self-service.

2. **Customer centric** – Our systems, processes and information provision will be tailored to the needs of our customers. This means developing systems that are easy to access and easy to use and that encourage self-service. Our customer include our internal computer users (officers and Members) and the Council's citizens and service users.

3. **Safety and security** - Our systems will be maintained up-to-date, be designed for resilience and be configured in a way which safeguards the integrity and security of the sensitive and personal data with which the Council is entrusted. We will also maintain necessary safeguards against existing and emerging cyber-security threats.

4. **Innovation and agility** - We will stay in-tune with the changing needs of the business and will adopt new ICT systems and business processes as quickly as possible to support these needs.

5. Supporting Infrastructure

Every computing task performed within the Council, every customer accessing online information or digital services and every ICT enabled front-line service activity is reliant upon the underlying ICT infrastructure of networks, servers, business systems and databases etc. This section will outline our current infrastructure setup and explore how we expect this to develop over the period of this strategy.

5.1 The Council's current ICT environment

The Council's ICT service is run by Council staff as a centralised service based in its Market Street offices in Newbury. This service supports around 1,600 computer users across a network comprising 36 sites. The majority of its 350 or so application and file servers (Mostly virtual servers), are hosted in the 3 data centres within our office estate, together with our data storage facilities

Most of our computers currently run Microsoft operating systems and business software and these are licenced under a Microsoft Enterprise Agreement.

We also run more than 100 specialist back office applications and around 120 desktop applications from a variety of vendors, which support the work of the various departments and teams across the Council.

Our telephony estate employs a mix of desk phones and mobile phones (smartphones) The Council employs a unified communication system which allows its mobile staff to redirect their primary published phone numbers either to any of the Council's desk phones, or to their mobile phone, or to any other convenient phone that they have access to during the course of their work
The Council also operates a customer contact centre which receives around 13,500 telephone enquiries per month from our customers. The Council also receives around 10,000 calls a month to its switchboard and 50,000 direct dialled incoming calls to its various departments.

The Council's website(s) are an increasingly important channel for the public to access the Council's information and services. The Council website www.westberks.gov.uk receives around 90,000 visits per month together with a further 54,000 visits per month to our planning applications portal and 12,000 visits to the online library system.

5.2 System replacement strategy

The Council owns and operates a significant ICT estate and most of these assets have a relatively short lifespan (3-7 years) before they need replacing. It is anticipated that as we update/replace systems then more of them will be cloud hosted rather than managed on site in our Council data centres. This is explored further in the sections below.

5.3 Network strategy

Wide Area Network

Although most of West Berkshire Council staff are based in its Newbury offices the entire Council property estate (excluding schools) comprises 36 separate sites connected together on a wide area network (WAN)

Originally these sites were physically connected to our Newbury via expensive leased line network circuits in a 'hub and spoke' arrangement. More recently we have been exploiting the improved superfast broadband coverage in the district and substituting many of our leased line connections with lower cost alternatives i.e. connecting sites to the internet via a local connection then using virtual private networking (VPN) solutions to connect back to our centralised computing facilities in Newbury.

Our network strategy is to continue to lower our costs through the expansion of our virtual network model. We will also be reviewing our core network supplier arrangements with the following objectives;

- Ensuring we achieve best value for the bandwidth and availability we require
- Ensuring we have the bandwidth and flexibility to support future changes in data requirements (Whether that be data growth or data decline)
- To explore opportunities to develop Gigabit cities or smart city partnerships (See note below)

Gigabit Cities and Smart Cities

The West Berkshire district is largely rural, so does not naturally lend itself to the smart gigabit and smart city initiatives being explored and adopted by some more urban areas. However, even in Newbury there is supplier interest in looking at the ultrafast broadband requirements of local public bodies, including the Council, alongside the needs of local businesses and to consider whether to invest commercially in fibre infrastructure upgrades.

There is also interest from suppliers to access assets such as public buildings and street furniture to use as sites for their networking equipment, such as Wi-fi transmitters, CCTV cameras etc. The Council may be able to 'trade' the granting of this access for free or subsidised services e.g. town centre public wifi.

Local Area Network (LAN)

In order to ensure the continued productivity of our office based staff we are upgrading the LAN infrastructure to provide high speed (1Gbps) connectivity to every desktop in our core offices. We are also upgrading the speed of the server network infrastructure in our data centres to 40Gbps.

Wireless

In a home setting wireless internet connectivity, or WiFi is becoming the norm. Providing wireless connectivity in Council building with sufficient bandwidth, signal strength and with the security requirement prescribed for Council data is more of a challenge than in a domestic setting. However we recognise the role that 'blanket cover' Wi Fi connectivity will play in supporting the always on, always connected agile working practices the Council is moving towards and expect to have this infrastructure completed by 2019.

5.4 Server and data storage strategy

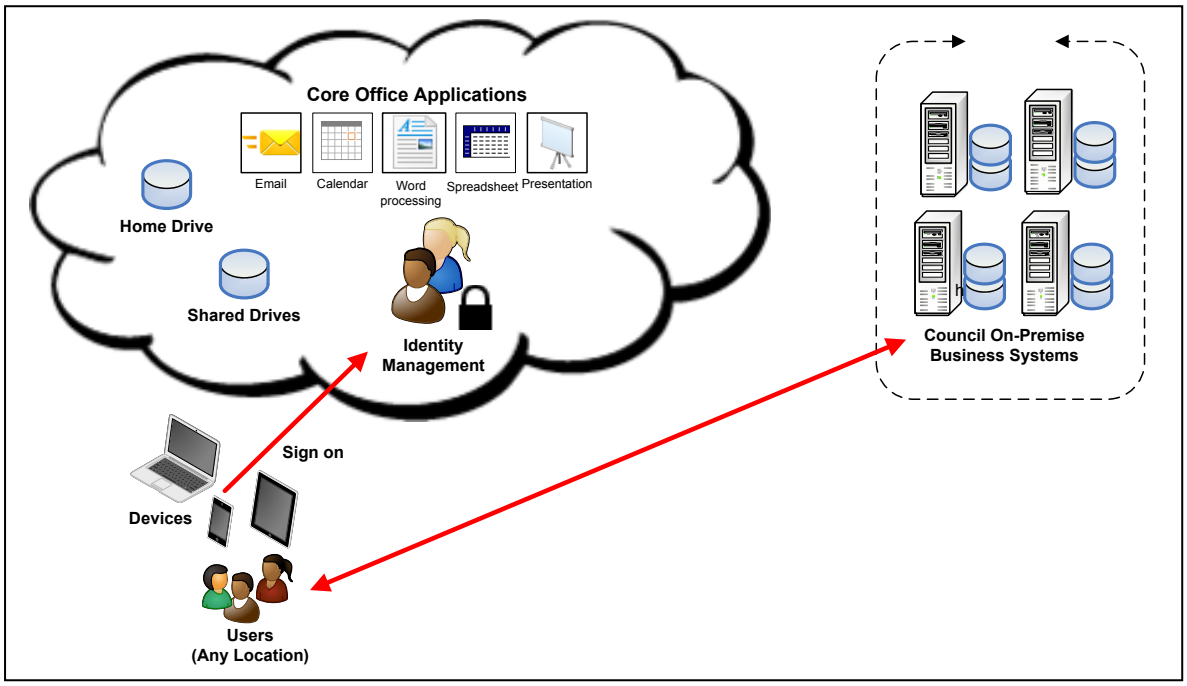
Some councils are now pursuing 'infrastructure free' or cloud–based infrastructure models and cite a variety of reasons for this strategy including;

- **minimising capital expenditure** on renewing aging on-premise hardware
- **supporting ICT support insourcing** , where following previous outsourcing they no longer have on-premise data centre facilities
- **improving agility** in responding to significant organisation change for example when a Council changes to a commissioning only organisation

As an early adopter of VMWare virtual server technology the Council has a modern consolidated on-site server and storage infrastructure in modern Newbury-based data centres. Recent analysis indicates that there is currently no compelling reason for a quick or wholesale move of the Council's infrastructure into the cloud.

However it is recognised that a selective cloud migration of certain infrastructure or systems could yield resilience benefits and allow our support staff to gain the support skills the organisation will require in the future. We are investigating two specific cloud migration scenarios which are described below.

Migration of our core office services to the cloud

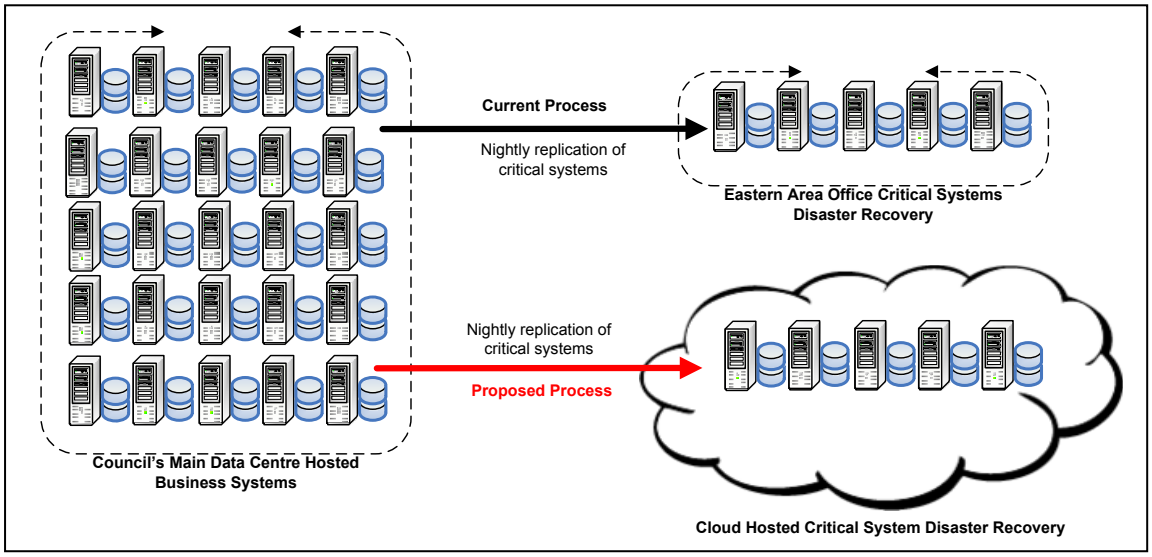


A high proportion of WBC's computer users can undertake some, or all, of their computer-based tasks using only a relatively small subset of the ICT systems and functions employed across the whole Council. These core office services include logon authentication, internet connectivity, personal or 'Home' data drives/folders, shared data drives/folders, email and Microsoft Office applications.

By hosting these systems/functions in the cloud, rather than in the Council's data centre(s), would enable staff to work using their laptop or tablet computers from any internet-connected location, even during periods when the Council's other systems are unavailable due to system maintenance, or some type of system or utility failure.

Migration of our disaster recovery facility to the cloud

The Council operates a replicated subset of the critical systems that are hosted in its Newbury data centre in a second data centre in the East of the district. This facility is designed for the initial recovery phase of systems and business functions in the event of a disaster, such as a fire or flood, which incapacitates our Newbury data centre.



Moving our disaster recovery facility into the cloud would make it easier to keep it up to date, provide us with more accommodation options in the event of a disaster and its superiority scalability would allow us to replicate/recovery/reinstate a larger number of systems than the critical subset currently supported in our eastern area office.

6. Device Strategy

6.1 Providing the right tools for the job

In order to make it easier to control, manage and support an organisation with such a diverse range of departments and services the ICT service has traditionally restricted staff choice when providing ICT devices (computers, smartphones, tablets etc.).

Nowadays people have more choice than ever before over the variety of items and services they can buy and who provide these. Unsurprisingly our IT users expect this same choice in their workplace, particularly over the type of computer or smartphone they should have and which software applications they are allowed to use.

The Council's future strategy is to allow greater choice of ICT equipment to ensure that staff have the best tools for their job. However with choice comes responsibility and we probably all know someone who has bought a sports car or convertible that they have always desired instead of the 'sensible' family car they really needed!

ICT equipment choice will be governed according to agreed criteria which identify which type of device is best suited to each individual's job role, rather than leaving this to personal preference. We will also enhance our central management tools to ensure the extra demands of supporting choice can be met within our existing manpower resources.

6.2 Computing strategy

The Council ran its "*Timelord Programme*" from 2009-2011 which introduced large-scale flexible working practices to the Council. This allowed us to operate from fewer office buildings and for our staff to work in a more flexible and mobile fashion.

More than 79% of our workforce is currently classed as mobile. Each of these mobile staff members is currently equipped with a laptop computer and/or a smartphone together with software which allows them to access systems and data from any location and to use '*follow me'* systems to redirect their telephone calls and to print documents using a device local to their chosen work location on any given day.

Our strategy is to enhace the mobility of staff by supporting a greater range of computers than before, specifically we expect;

- **lighter more portable laptops** to be issued
- **greater numbers of tablets** to be issued , possibly including some non-Windows tablets (using iOS or Android operating systems)
- greater use of **always-on wireless connectivity**
- **biometric security measures** to be introduced (We are working with CESG as part of their Secure by Default Programme to explore the use of biometric passwords and secure access to data whilst on the move.

To manage this diverse computing estate without increasing manpower resources, we will extend the capability and utilisation of our centralised software configuration and deployment tool, Microsoft System Centre Configuration Manager (SCCM).

6.3 Telephony strategy

Our **mobile telephony strategy** is to migrate away from our legacy BlackBerry only smartphone estate to a mixed mobile estate.

This new estate will comprise a mix of modern 4G smartphone choices of all types and manufacturer (Android, BlackBerry, iOS), according to which is best suited to each individual's job role or business function.

We will utilise a suitable mobile device management (MDM) tool to ensure our more diverse estate can be centrally managed with our available manpower resources.

We will competitively retender our mobile device contract to ensure it provides the right mix of device choice and flexibility and provides the lowest cost call and data tariffs for our anticipated future demands.

Our **fixed phone strategy** is to review our desk phone estate to determine whether staff issued with smartphones also need access to a desk phone when working in the office. Depending upon the outcome of this review we will consider reducing the number of desk phones deployed in the Council offices.

Our **telephone contact strategy** is to retain one (follow me) number for each member of the Council's mobile staff. However we will seek to integrate the functionality of our unified communication (UC) system that supports this number e.g. instant messaging (IM), voicemail, presence management, audio and video-conferencing etc. into the Microsoft Outlook interface.

7. Other Development Themes

This section identifies other (non-infrastructure) themes that will be a focus of this new 3-year strategy.

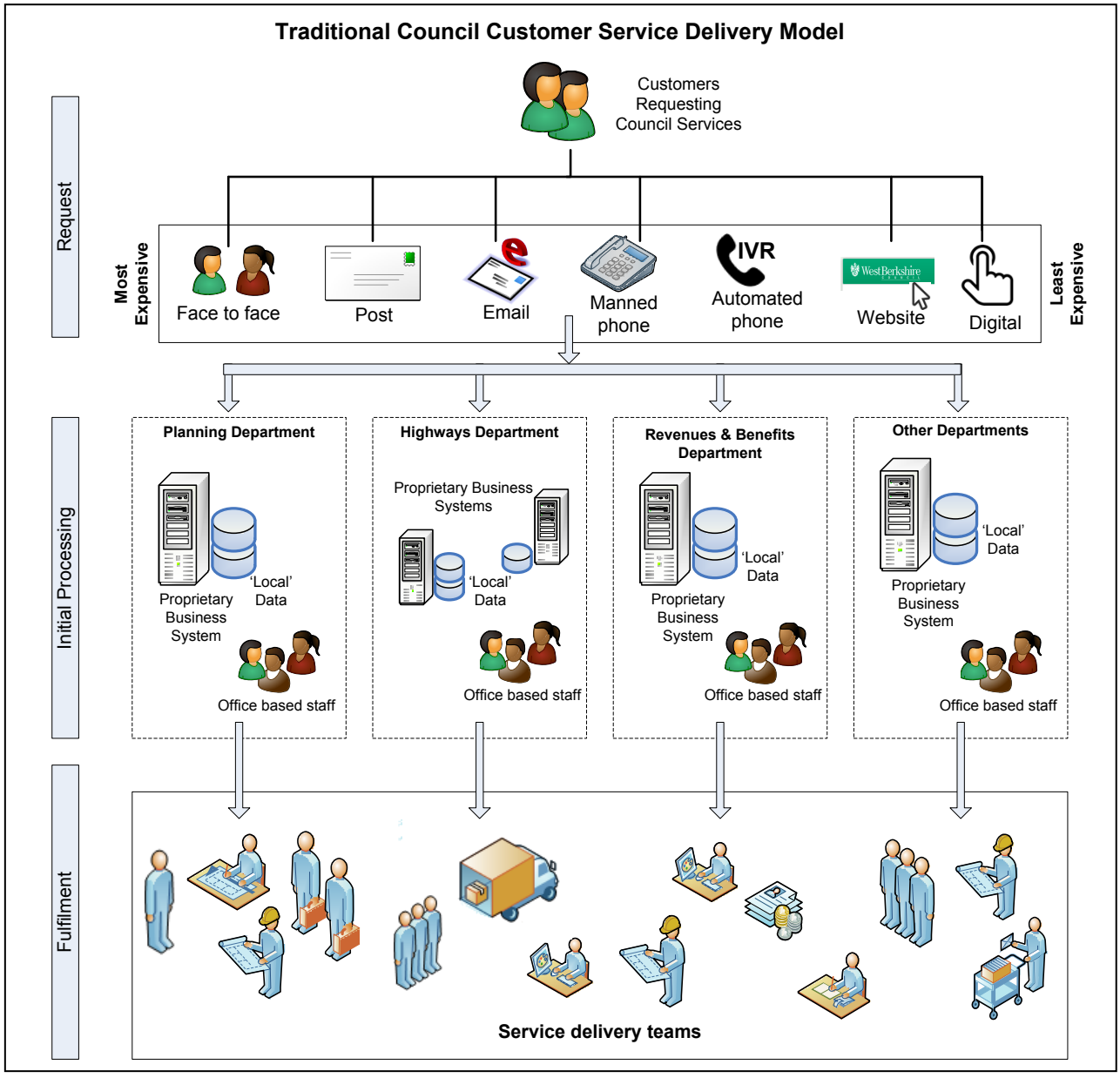
7.1 **Communication improvements** – Good communication is essential in any organisation, both internally and with external stakeholders. This strategy will consider implementing or improving a number of different technologies capable of enhancing communication, including;

- Audio/Video-conferencing – The Council already makes regular use of audio conferencing to facilitate 'virtual meetings' and to reduce unnecessary staff travel between sites. Our strategy will be to further increase take-up of this technology and to introduce video-conferencing too where appropriate.
- Customer Contact Channels – The most cost-effective way for the Council to communicate with its citizens is through online channels. Our strategy is to maintain all current forms of customer contact, so as not to exclude anyone, these will include online, telephone and face-to-face and we will investigate the introduction of web chat channels where appropriate. However our strategy will prioritise the delivery of services and information by digital means and establishing the Council as a digital by choice organisation.
- Social Media – The Council already makes use of social media channels such as Facebook and Twitter to share information and video sites such as YouTube to provide informational videos. There is significant variance between departments regarding how well or how frequently these social media tools are used. Our strategy is to raise the confidence and competence of those non-adopting departments so that they can use social media channels to provide more and better information to our service users.
- Video Streaming – The Council internet streams some of its public meetings in order to make them accessible to a wider audience, thus improving democracy and transparency. Our strategy is to increase the number of meetings streamed where this will increase engagement with our communities and service users and/or where it will improve the transparency of the Council's decision making processes.

With the continued development of the Internet and the increasing power and sophistication of smartphones, many of our customers have got used to accessing the information and services that they need at anytime and from anywhere. Increasingly they will expect the same facilities to be provided by their Council.

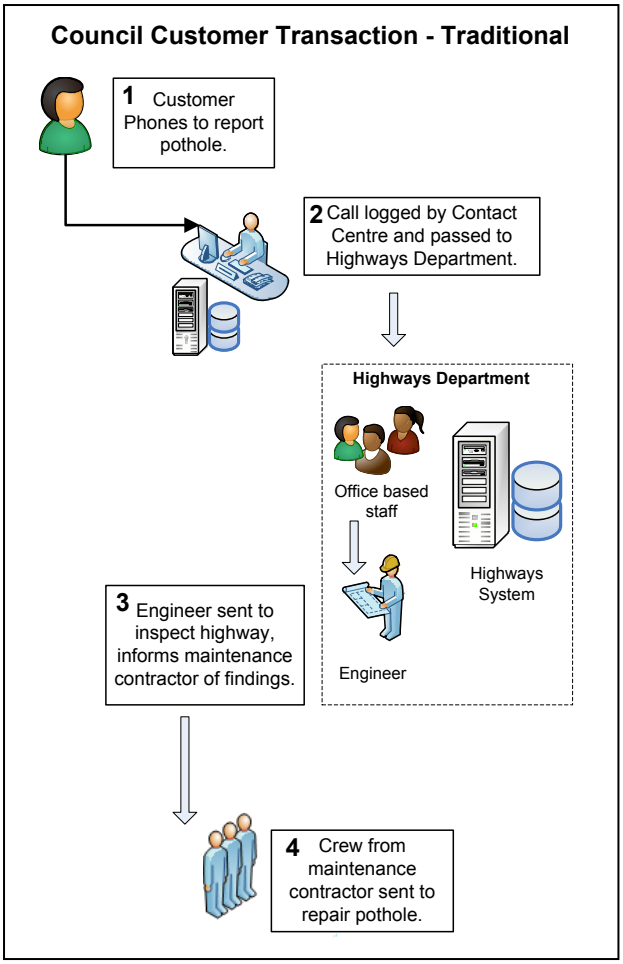
7.2 **Delivering digital transformation** – We will transform many of our customer-facing processes and move West Berkshire Council towards being a *Digital by Choice* organisation (building on the principles of the Government's GOV.UK Digital Service Standard).

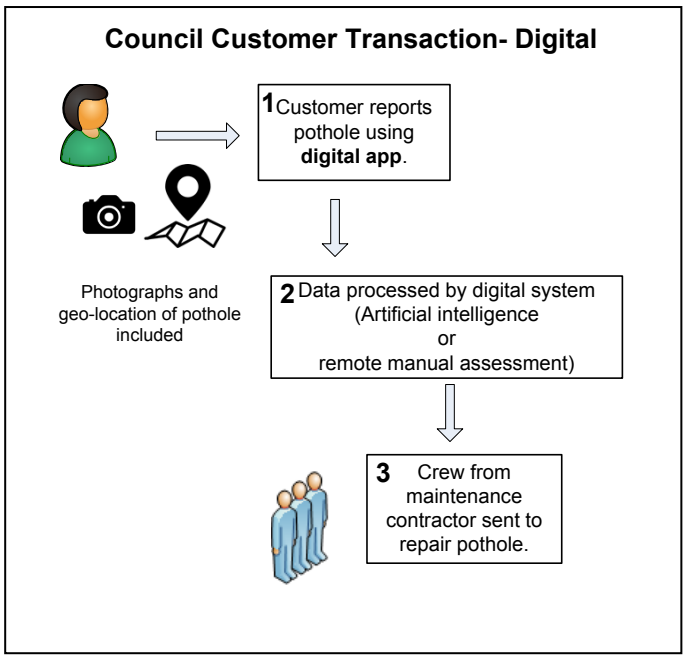
The diagram below illustrates a cross section of the Council and the departments and processes currently in place to service requests from citizens or service users.



The aim of digital transformation is to find the shortest and most cost-effective route from customer request to service fulfilment and to reduce the amount of Council manpower and other resources consumed by each process.

An example customer transaction, based on components from the diagram above is illustrated below to compare the current (traditional) process with a digitally transformed alternative.





Advantages of the digitally enabled service delivery are that;

- it uses fewer ICT systems
- it involves less data input (by council staff)
- it involves fewer, or no council staff
- it can be available 24x7x365

Digitally transformed processes will by design;

- be delivered by online web channels, or via a mobile app if appropriate
- be customer-focussed
- encourage self-service
- eliminate unnecessary process steps
- reduce or eliminate paper forms
- reduce the amount of council manpower and resources used for fulfilment
- be (re)developed using Agile software development methodology

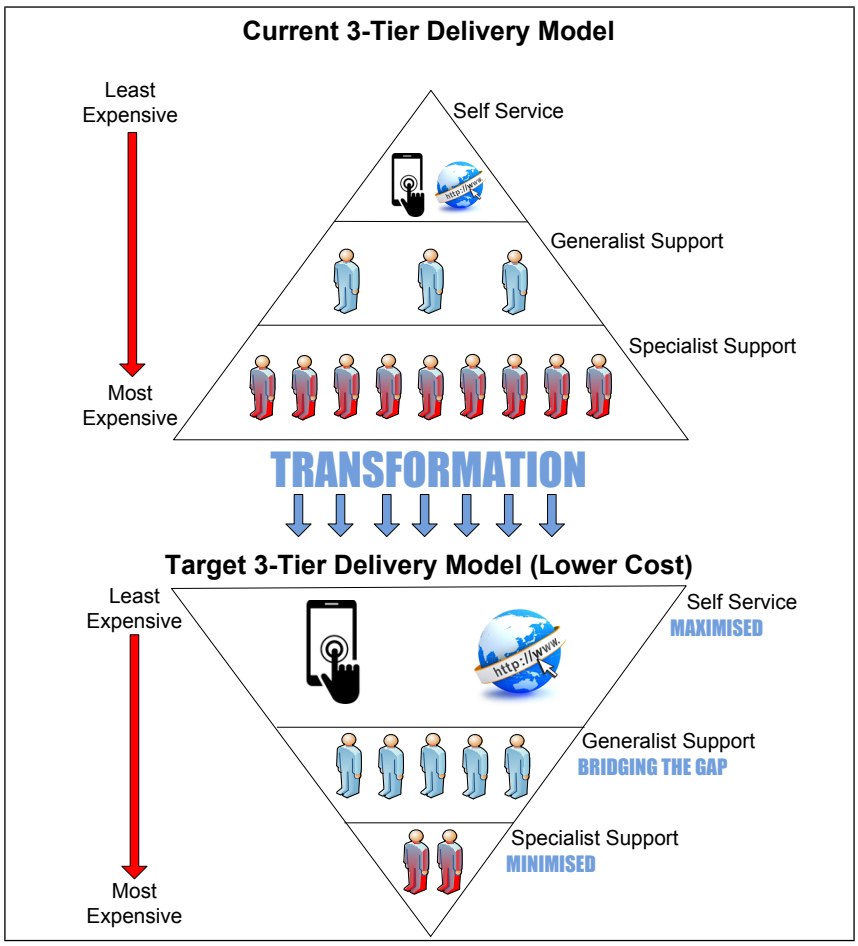
The challenge for digital transformation developments is to break tasks out of their traditional Council departmental 'silos' and from the constraints of the specialist line-of-business applications used by those departments.

7.3 Supporting alternative operating models

The services that the Council provides can be considered to consist of 3 tiers;

- **Tier 1 – Customer Self Service** (Provided by online information or transactions)
- **Tier 3 – Specialist Support** (Provided by Council professionals/specialists with an in-depth knowledge of a particular subject or discipline)
- **Tier 2 – Generalist Support** (Provided by Council staff with a reasonable depth of knowledge across a wide range of topics). Tier 2 bridges the gap between what can not be done through self-service, yet does not require high-cost professional knowledge

The diagram below illustrates the Council's current and target service delivery models.



The current model employs relatively little self-service functionality and for many services is highly reliant upon high-cost professionals.

Transformation tools will include;

- Case recording/tracking
- Knowledge management
- Online content/apps
- Video instructions
- Web chat

The target model makes use of digital transformation and a range of technology tools to flip the 3-tier model on its head so that the self-service tier is maximised and the high-cost specialists tier is minimised, allowing the Council to operate within its shrinking budgets.

7.4 ICT System and process improvements

Wherever possible our aim is to simplify our ICT infrastructure and systems by reducing the number of discrete applications, databases and devices used by the Council, whilst still meeting the needs of the business. Where systems cannot be consolidated we aim to improve the integration between them to automate processes and to avoid data re-entry. This improvement strategy will involve a number of different activities including;

- Device convergence – Many of the Council's mobile staff have a mobile phone or smartphone, and a laptop to use whilst away from the office but use a desk phone when in the office. As we negotiate better mobile tariffs and the functionality of smartphones increases we are likely to be able to reduce the size, and therefore costs, of our desk phone estate and in many cases equip staff only with a smartphone, rather than providing 2 separate devices.

- Application consolidation - The Council currently employs over 100 individual line-of-business applications of varying size and complexity and the functionality provided by some of these systems overlaps with others. Our strategy is to review how much rationalisation is possible in order to reduce the number of systems supported, without negatively impacting business efficiency within individual departments. This review will be undertaken whenever any system reaches end-of-life or requires replacement and more proactively by looking across our entire software estate.

- Re-using data – Wherever possible we will link to local or publically available data sources such as address lookups, or vehicle registration data to save time in completing applications/updating records and to verify peoples eligibility to access certain Council services e.g. residents parking permits, access to recycling centres, etc.

7.5 Exploiting spatial data and geographic information systems (GIS)

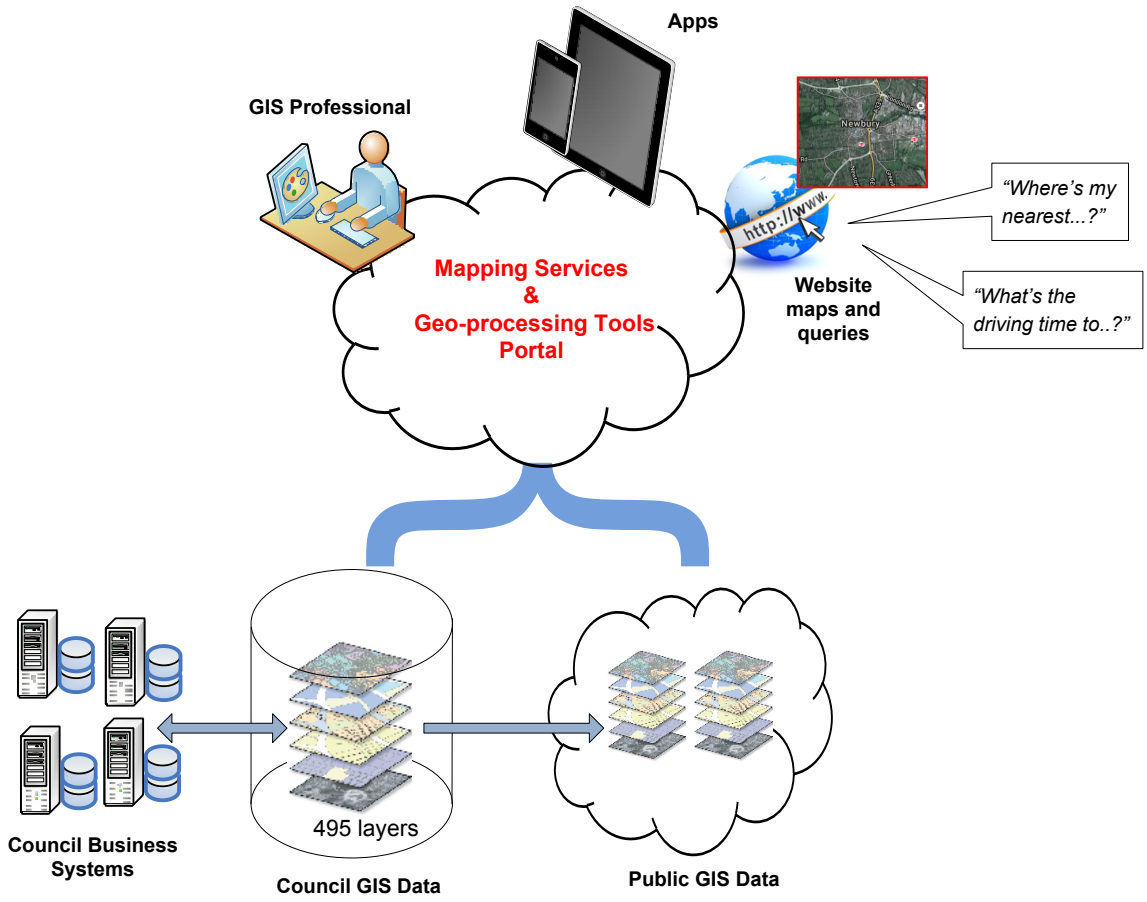
The Council continues to make extensive use of geographic (spatial) data in many of its databases and systems. This provides a detailed understanding of where our citizens live, where our assets should be located, how our resources should be deployed and how our services should be designed to best serve our customers'.

The Council's GIS system currently holds 495 'layers' of data on addresses, flood plains, property ownership, road layouts , school catchment areas etc. This data is deeply embedded within many of the Council's business processes and systems.

The shares much of its data publicly as part of the European INSPIRE directive for geospatial data.

In order that we can effectively maintain and manage the Councils valuable data resource and to provide greater access to it we are modernising and restructuring our systems so that they are easier to keep up-to-date and so that they can provide more benefit to more people, specifically our new GIS facilities will allow us to;

- **automate data management** processes to improve data quality and integrity with fewer man-hours of effort
- **integrate geographic data** with more of our business system
- **develop GIS applications quickly** by using standard template solutions and avoiding the requirement for bespoke developments
- **exploit public data sources and mapping services**[3] in addition to the Councils own data
- **publish maps and geo-processing services** through a portal on our web site promoting data sharing with partner organisations
- **support digital transformation** activities by providing a simple interface to map functionality for our website developers.



[3] ***Public GIS data sources include :*** *ArcGIS Online, British Geological Survey, Canals & Rivers Trust, Data.gov.uk, Health & Safety Executive, Elgin, English Heritage, Environment Agency, Land Registry, Met Office, National Grid, Natural England, NHS, Office of National Statistics, Ordnance Survey ,Southern Gas Network.*

7.6 **Employ Data Analytics** – Data is collected and stored for a wide variety of purposes by the Council and this is often analysed to produce performance report to ensure we are delivering according to prescribed service standards.

Our strategy is to use our analytical skills to perform more predictive analysis of our data to uncover trends that we were not previously aware of and to use this to help improve services, save money and to plan for our future service provision.

8. ICT Governance

8.1 Good governance is important to ensure the reliability, security and effective use of resources when implementing and using ICT in the Council. Our governance methodologies include;

- Agile development: The Council has recently adopted Agile development principles for its digital services initiatives.

- IT Infrastructure Library (ITIL): The processes used by the Council's ICT Service are based upon OGC ITIL Best Practice Guidelines.

- Project Management Methodology (PMM) **:** The Council's Prince-2 based methodology is used to manage most ICT and other projects (except where agile is being used) to help keep them on track in terms of budget and timescale and to help ensure they deliver their specified objectives.

- Risk Management Methodology**:** The Council employ a likelihood vs impact matrix methodology for assessing risks each with scores ranging from 1-4 which are then multiplied together. Gross risks (before mitigation applied) and net risks (after mitigation applied) are assessed for key ICT systems and processes and during the implementation of ICT projects.

8.2 An important role of the Council's ICT Service is to understand the 'big picture' context for technology deployment and to advise individual parts of the organisation, who may be proposing to procure or implement new business systems, on the suitability of their chosen systems in order to ensure these function for the common good of the whole organisation.

Practitioner needs and preferences for a particular ICT system are sometimes at odds with corporate policies, national security standards or local system compatibility considerations. Our governance bodies are used to broker the best compromise when these situations arise. Governance bodies within the Council include;

- Change Advisory Board (CAB): A small group of Council officers who meet on a weekly basis (every Wednesday morning) to assess the viability and impact of ICT change requests and to prioritise the allocation of resources to implement approved changes.

- Capital Strategy Group (CSG): An officer/Member group which oversees the Council's Capital Programme. The Council's ICT Capital Programme has an annual budget of circa £700k per annum.

- ICT Programme Board (ICTPB): An Officer Board which oversees the Council's portfolio of active ICT projects, ICT procurement decisions and ICT policy and strategy. The group also makes recommendations to Capital Strategy Group on the required budget quantum for the 5-year ICT Capital Programme.

- Executive: The main decision making body of the Council. ICT matters are represented at Executive by the Council's ICT portfolio Member.

9. ICT Standards

9.1 The Council conforms to a number of standards for the use of ICT and information. These are all listed at Appendix A, but key standards include;

- Information Security **–** Complying with the requirements of HM Government Public Services Network (PSN)

- Cyber Security **–** Employing HM Government's *Cyber Essentials* scheme to assess and address common internet based threats to the Councils systems and information

- Digital Services – We will create digital services in accordance with the Local Government Digital Services Standard

10. Delivery Activities

10.1 Listed below are currently identified activities that will help deliver what has been set out in this strategy

Principle Supported	Activity/Project	Objectives	Target Year			
			2017	2018	2019	2020
Safety & Security	PSN Accreditation	Maintain appropriate system and information security controls to satisfy requirements of PSN annual accreditation. Task is ongoing as the security threat is continually changing.	●	●	●	●
Communication Partnership Working	Superfast Berkshire project	Pan-Berkshire State aided initiative to improve the county's public superfast broadband coverage towards 100%.	●	●		
Ease of Use Partnership Working	Secure Mobility	Working with CESG to review how mobile devices (tablets, smartphones) can be used by Council staff in the field whilst maintaining both security and ease of use.	●			
Cost Saving	ICT Tools Review	To review the applications used for essential activities such as disk encryption, anti-virus, ICT asset mangement etc. To see if these can be delivered more cost-effectively	●	●		
Business Alignment	Social Care System Replacement	Replace the current social care case-mangement system (Careworks Raise) before it reaches end of life with a modern successor system (Careworks Care Director)	●	●		
Business Alignment Safety & Security	Data Storage Review/Replacement	Replace the Council's data storage facilities before the current inhouse systems go end-of-life and to ensure it continues to meet the needs of the Council. Replacement inhouse SANs, cloud hosting or hybrid models will all be considered when designing and procuring the replacement facility.		●		
Cost Saving Customer Centric	Digital Transformation	Use Agile project managment methodology to identify and create "common capabilities" for digital services e.g. booking modules, payment modules, ID verifification to enhance the ease of use by customers of our online services, so that they become the customers' first choice method of perrforming transactions	●	●		
Business Alignment Ease of Use Safety & Security	Corporate Replacement Programme (CRP)	A rolling programme to ensure that computers, servers and telephony devices used within the Council are kept up to date and remain fit for purpose. Our CRP aims to have no computer assets in use that are more than 5-years old.	●	●	●	●

Glossary of Terms

Acronym	Stands for	Description
4G	4th Generation standard for mobile phones (Supersedes 3G)	Describes the cellular network used by modern mobile phones, smartphones and tablets to access Internet services.
GIS	Geographic Information Systems	Systems and software for capturing, storing, analysing and manipulating geographical data for assets owned, managed or served by the Council.
ITIL	Information Technology Infrastructure Library	A Best Practice Framework set up by the Office of Government Commerce to describe how ICT services should be managed and delivered.
MDM	Mobile Device Management	A tool for the central administration of mobile devices such as smartphones, laptop computers and tablets for ease of software update and to ensure data security controls are maintained.
UC	Unified Communications	A communications system that utilises multiple media usually including phone/voice, video, email, text. Most UC systems have a concept of 'presence' where users can identify whether they are available to communicate with, or not, together with the ability to dynamically (re)direct communications to different destinations or devices.
Socitm	The Society of Information Technology Management	A professional association, founded in 1986, for ICT managers working in or for the public sector.

Term	Description
Internet of Things	A development where everyday and previously passive objects are made 'smart' by being connected to the internet. Examples include smart electricity meters, smart TVs, internet connected vehicles.
Local Government Digital Service Standard	A standard published by LocalGov Digital. The Standard suggests a common approach for local authorities to deliver excellent quality, user centered, value for money digital services.
Superfast Broadband	Broadband service with a download speed in excess of 24Mbps usually delivered wholly or partially via fibre optic cables.
	A communications system that utilises multiple media usually including phone/voice, video, email, text.

Appendix A - ICT Standards Employed by West Berkshire Council

Standards being updated for inclusion here.