Smart Enabled Customers
Technology Strategy 2017 – 2022
DRAFT 0.7

June 2017

ROYAL *borough of* GREENWICH

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Revision History

Date	Version	Reason for change	Author
TBC	Working draft 0.1	Initial draft following discussions with the ICT management team and the supplier leads.	Jeremy Tuck
24 May 2017	Working draft 0.2a	This sets out the outset structure and first part of the strategy for the IT and CS Management team's first response.	Jeremy Tuck
26 May 2017	Working draft 0.3	Further updates to the 0.2 version for comments	Jeremy Tuck
02 June 2017	Working draft 0.4	Work done on the 'themes' sections. Incorporate the ICT Management. No work has been done to incorporate comments from previous versions at this point.	Jeremy Tuck
07 June 2017	Working draft 0.5	Revisions and incorporating comments ahead of the Strategy away-day.	Jeremy Tuck
09-14 June 2017	Working draft 0.6	Revisions through-out within and from the away-day and further comments. Principles, Business Systems. Risks and Actions included. Added the key contracts section.	Jeremy Tuck
15-16 June 2017	Working draft 0.7	Final draft version to provide to the CS and ICT Management teams. All comments incorporated.	Jeremy Tuck

Distribution:

This document has been distributed to:

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24 May 2017	Draft 0.2a abridged	CS and ICT Management Teams
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09 June 2017	Draft 0.6	CS and ICT Management Teams
16 June 2017	Draft 0.7	CS and ICT Management Teams

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1   Introduction

1.1   Smart Enabled Customers

The Council's Customers are smart, technologically savvy and their behaviours are different to traditional customers before them. We therefore need to engage with them in a more efficient way at every touchpoint of the interaction we have, giving them the freedom to use different technologies at any time. This isn't a one-off change for the way the Council does business with residents, but an ongoing process of improvement.

This Strategy sets the direction that Greenwich will take in investing and developing technology to ensure that the Council remains proactive in shaping the future of the way services are delivered.   Interacting electronically is the new default and nationally there is an ambition to reshape all government services to ensure people can access online services they need, whenever they need them, a step-change that is highlighted in government's Transformation Strategy[1] to put modern technology as the fundamental conduit between citizen and the state. This describes the need for all departments to embed good digital skills, as well as to make better use of data, as key elements of this change.

To understand its customers in a better way, the Council will need to embed a knowledge culture that promotes information sharing, uses business intelligence for decision-making, and manages data in a way that preserves the digital memory for ongoing consistency. Being customer focused, it will need to place a high value on customer satisfaction surveys and undertake proactive improvement measures as part of a dynamic and ongoing improvement journey with residents.

1.2   Focus and context

Greenwich has come a long way over the previous four years, winning Council of the year in 2013 and presently developing a new Greenwich Strategy through the Royal Greenwich Partnership, which will set priorities that will provide vital context for local direction.   This is important, because, like all local authorities, the Council operates to a network of national and local policies which it is legally obliged to adhere to, leading to several business and service based future objectives in play at any one time.   Overall, therefore, it needs to focus on being adaptive and flexible to inevitable change – while still focusing on specific outcomes.

The unifying context remains the Medium Term Financial Strategy, since this provides the basis for each service to understand the financial health of their part of the organisation. It plays a core role at the heart of the Council's Corporate Business and Performance Framework and brings those plans into one place. It also provides a mechanism for maintaining the highest possible quality and efficient services against the continual cuts to local government to secure a robust financial standing.   Key to the approach is the emphasis that it is no longer possible to make the necessary reductions on a service by service basis, but instead that the approach needs to be strategic and cross-cutting in nature.   This makes it even more essential to emphasise a clear direction of travel, since this enables Council service areas to coordinate their efforts.

This Customer-focused Strategy aims to indicate how technology can enable the changes required, so that the Council can achieve savings, improve efficiency and instil confidence that it knows where it is going. Importantly, it grounds the delivery of ICT in the business of the Council to support the over-arching vision for the borough as a great place in which to work, live, study

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[1] The Cabinet Office and Government Digital Service 2017 Government Transformation Strategy

and visit, striving to improve our services in response to both needs and aspirations of our residents and the priorities of partners and stakeholders.

1.3 Improvements since the 2013 ICT Strategy

Greenwich has come a long way since the development of the 2013 ICT Strategy. Much of the work over the previous four years has been focused on a large improvement programme to address the remedial legacy of the Council's IT systems and to implement more robust, resilient and, flexible systems, to facilitate new and better ways of working. The infrastructure environment has been stabilised and infrastructure improvements, implemented since July 2013, have maintained performance at a class leading level, within the existing budgets. This has had a positive impact on the way staff interact with their systems, and has improved reliability and responsiveness.
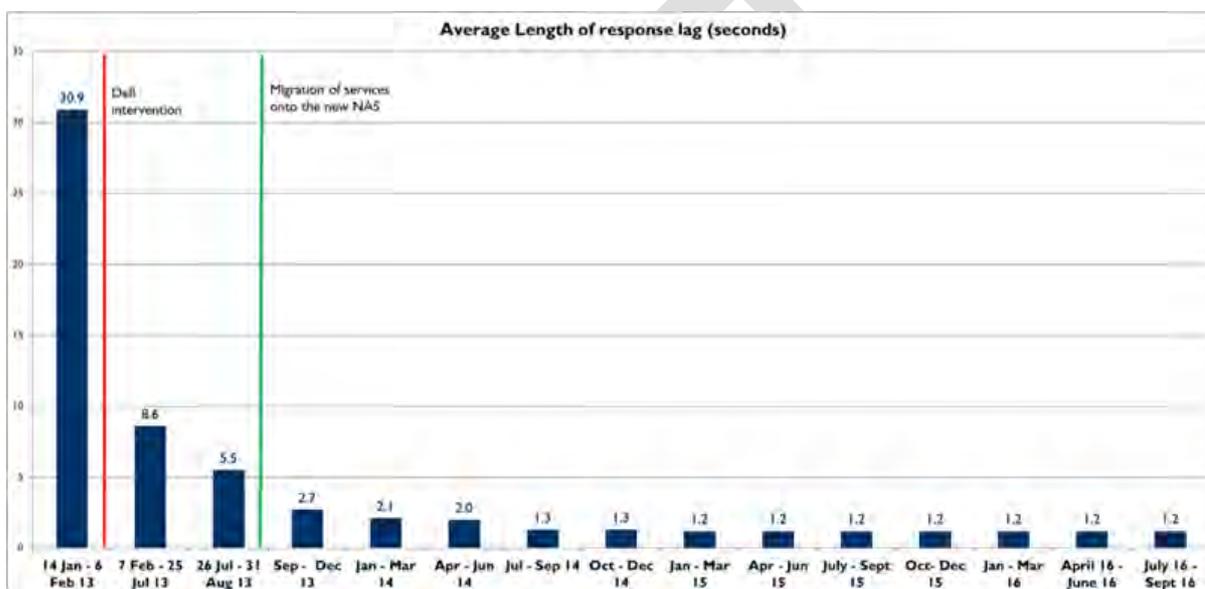
The modernised hardware has been complemented by modern core system software; now providing a "virtual" estate that has enabled better management of the council's 300+ line of business applications. With a more robust and flexible ICT infrastructure in place, the service has been able to adopt more user centric tools for staff. This includes the liberalisation of the user hardware standards, allowing a greater range of corporate devices to be supported and enabling "Bring your own device" for the first time. A roll out of Skype for Business conferencing software has started, as has the implementation of the Microsoft Office365 suite and the Dynamics Customer Relationship Management (CRM) system.

To facilitate these changes, the Council let new contracts for Application and Third-Line Technical Support in August 2015. The new supplier relationships have been effective, demonstrating greater awareness and understanding of the Council's needs and, consequently, delivering a higher standard of support, as well as providing more access to a broader resource and skills pool.

Work was completed to bring in-house the ICT Helpdesk and Desktop support services in February 2016. These contracts were managed by Northgate systems, and came to an end as part of this process. This insourcing has given the Council full control over its ICT service and spend, allowing the service to make the best use of the resources available to achieve the Council's business objectives.

Secure Printing was also implemented in 2016, as part of the Council's Paperless Council Strategy. Following a procurement exercise, a new printer estate has been rolled out. The new estate has replaced all the old printers and provided users with, multi-function (print, photocopy, scan) printers. The new fleet delivered a "follow-me" print solution, requiring users to authenticate themselves, using their staff access/ID cards at the printer, to pick up their printing. Because of this technology, the service has been able to reduce printing waste. By only releasing printing when the user is at a machine, the security of every print is guaranteed, thereby keeping personal and sensitive customer information secure.

The Council's ICT Network Management Services contract with Logicalis came to an end in February 2017. MLL Telecom and Updata have joined the supplier pool for the provision of Network services, with Logicalis providing the Council's main Data Centre, in Slough. These new arrangements provided a staging post for the completion of the upgrading of the network hardware, software and management arrangements.

The 2013-17 strategy included a refresh programme for the whole of the core estate. This included a full replacement of the server and storage hardware, a major software upgrade to the VMware operating systems and moving of the hardware estate to a new, hosted, primary data centre outside of the M25. In readiness for the move to the new IT infrastructure, a review of the ICT systems was performed at the end of 2015. This review created the 2016 action plan, that has implemented several configuration improvements that have increased system resilience and readied the estate for the refresh programme.

In April 2017, the refresh programme was completed. Having been designated a "Dell" house, the Council produced a detailed output specification, which Dell used to design a bespoke system for Greenwich. This system was turned into a single product code and placed in the market place. The Council was then able to run a procurement exercise to purchase the system from Dell resellers. This process was completed within 1 month. The work was programme managed by the Council, but broken down into 3 work packages, which were undertaken by Dell (hardware), Logicalis (network and data centre) and Trustmarque (data migration). This partnership model delivered the system refresh programme in 13 months and without interruption to the user community. This is a first for the Council.

As well as improving and modernising the council's technology estate, the ICT service has also used industry best-practice to define a host of working practices and governance arrangements aimed at increasing its operational effectiveness and maturity of its service provision. This was performed with less reliance on external contractors and agency staff, with an approach which has seen the ICT service rebuild its depleted workforce and skill base, which has included bringing in-house user support. Part of this has been the establishment of a strong project management practice to support its own work and to assist colleagues in other parts of the council in implementation of their business applications.

The period was also one that considerably advanced the management of information governance and cyber security. In the field of Information Governance and Security, the Council endeavours, to exceed the legal minimum standards. The Council is committed to putting the customer at the heart of what it does and therefore, uses this principle to determine how the Council handles customer data; a customer centric approach. Building on the Public Services Network (PSN) security systems certification, work has been undertaken to secure the people processes of the Council. Information Governance is now high profile, with both Members and Officers having detailed guidance and support.

The ICT service is now well placed to be a key delivery function in the Council's transformation

programme and to continue to deliver cost effective and fit for purpose services. The energy, skills and talents of the ICT service, stand ready to deliver the next ambitious programme, a programme that will, over the next 4-years, bring about transformational change at the next level of focus.

1.4 Innovation and horizon-scanning

Greenwich has a long-established association with innovation, discovery and technology. Technology has the potential to fundamentally create a better future for our cities and communities. The need to keep systems current and up to date is often competing with two other pressures: the need to ensure the Council's infrastructure and services are stable – which has been a huge success over the previous four years, but remains a core component of the service. Then there is the requirement to transform existing services to bring about efficiencies and improvement.
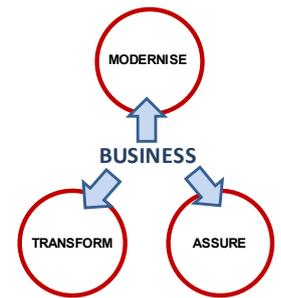
The proactive eye on the horizon will then positively impact the direction of the transformation agenda. Traditionally, transformation work has been in the form of IT projects and in many respects this is reactive.

Moving forward, the direction will be to refocus this, interacting with opportunities to modernise, and always with the understanding that such programmes typically have a long lead time and therefore might require further exploratory work, pilots or benchmark reviews/comparisons of work done elsewhere. There is therefore an interplay between the two pressures.

The work done by Greenwich and innovative companies working with the Council such as NEC have created proof of concept and pilot work which needs to form the important ingredient to future developments at an early stage. In addition, there have been important developments nationally, such as Government-as-a-Platform, which is an attempt to get cross-government platforms and components re-used in the public sector, such as GOV.UK's 'Notify' and 'Verify' technologies which aim to make it quick and easy to assemble digital services. The Council can also begin to understand how it might consider the use of various technologies in this process, including the potential of artificial intelligence and machine learning, wearables, better use of biometrics and the opportunities arising from the Internet of Things, many of which have been at the heart of the government's (March 2017) Digital Strategy, with a major review launched and millions of pounds allocated for research.

This Greenwich IT strategy, therefore, must ensure that there are the right governance arrangements in place to facilitate these pressures, so that innovation and forward-looking opportunities are part of the way the council does its work. In this way, it can support the broader aspirations of government to make the UK the ideal place for digital businesses, new technology and advanced research. In addition, more practically, it can hone the focus on the need for highly skilled Local Government Officers, in supporting this work, as well as the importance of data management and shared use across the public sector.

1.5 Broadband for all and the Greenwich Smart City Strategy

The Council launched its Smart City Strategy in October 2015 and has set up Digital Greenwich, a private company owned by the Council to achieve this. The multi-disciplinary team involved aim to use advances in technology to identify opportunities for deploying them for the borough. This is done through partnerships with industry, research institutions, academia and future-focused government organisations. Digital Greenwich also manages the Digital Innovation Centre at Mitre Passage on the Greenwich Peninsula, supporting 30 established and start-up digital businesses.

By remaining separate from the Council's operational ICT Service, while still reporting to the Chief Executive, the Digital Greenwich team can focus on innovative, research and development and longer-term initiatives. Key to this work is the development of ultra-fast digital broadband to all

neighbourhoods and the associated focus on addressing the digital divide, not only in access to technology, but through the promotion of skills. The Council needs to fully understand how it can work cohesively in tandem with this work to ensure that the work around the Smart Enabled Customer is joined up and benefits from economies of scale. The Council will therefore work with the Digital Greenwich team to look beyond being more efficient towards changing and improving the way it engages with citizens. It will harness this relationship to make better use of business intelligence to re-use data and assets for the delivery the best results for Greenwich residents.

More broadly, the Council will also leverage the broader opportunities by collaborating more closely and incorporating lessons learnt, innovation and the outcomes of joint projects. Therefore, there needs to be an ongoing relationship between the Council and the Digital Greenwich team, which has been built into core aspects to this strategy.

2   Vision

A vision is a picture of the future. This helps to focus all activities, projects and decisions in a way that is specific. It supports the ambitions of the overarching Greenwich Strategy to achieve a unified and efficient Customer experience that improves the lives of the residents of Greenwich.

2.1   A picture of Greenwich in 2022

- o All Customer interactions with the Council will be primarily electronic, automated and efficient.
- o Our expert Customers are enabled to access all services through the technology of their choice.
- o Staff will be highly skilled and use the right tools since they know their areas the most to deliver excellent customer services.
- o The Council's effective and efficient technology make it a great organisation to work at.
- o Staff will be empowered to continually improve the way technology supports their work.
- o Experts will come from within the Council and share their ongoing knowledge with their peers.
- o Service areas will work together to embed better technology without silos or obstacles.
- o Council Chief Officers will be confident to lead on transformational technology change.
- o Improvements to technology will be evidence based using Customer metrics.
- o Knowledge of Greenwich customers will be available to every member of staff through CRM.
- o Innovation and re-use will be fundamentally part of the way all change is delivered.
- o Council-wide tools will be stable with incremental improvements happening as they are released.

2.2   Technology outcomes to deliver the vision

The Vision provides the future picture and requires specific technologies to be in place which enable this to happen. These outcomes are the following:

- o Cloud solutions are implemented wherever practical.
- o There will be a convergence of technologies wherever possible.
- o Modern tools are available by default with complex adoption being iterative.
- o All software is updated iteratively with solid testing, avoiding major projects for upgrades.
- o A data-drive approach focusing on business intelligence is key to decision making at all levels.
- o Data is well managed; in the place everyone expects with fit-for-purpose controls.
- o Business relationship management is embedded within the Council breaking down silos.
- o Skilled staff can work anywhere and flexibly.
- o Staff use collaborative tools reducing email, including presence, calling and messaging.
- o New tools for telephony that integrate into the single delivery system
- o Solid security controls are built into the technology itself, based on trust, not deniability.
- o Excellent network resilience is the norm for staff and citizens.

o   Greenwich experts are grown and skilled within the Council.

o   Transformation is proactive and anticipates future projects leading to flexible decisions in time.

2.3   Priority programmes to support the vision

2.3.1   Customer Relationship Management

Embedding Customer Relationship Management (CRM) with the development of Microsoft Dynamics is a fundamental building block for the delivering services to the end Customer.   This will be the hub for developing back-end integrations that provide the front-end transactional delivery that residents will expect. The work includes business process re-engineering, technical integration, and the design of an end-to-end architecture so that CRM becomes the key transactional engine for online services. This work should dovetail with any further work being done as part of an online or digital strategy.

2.3.2   Social Care Transformation

The Health and Adult Service in Greenwich is undergoing a period of transformation with the aim of improving outcomes for adults needing care and support. The focus is to directly engage with users of social care to improve quality, choice and control. A multi-agency Adults Transformation Board provides collaboration and leadership to a programme of work and includes a "Digital Offer" - a digital platform where people who have social care needs can access and manage information about their health and social care, using tools to make informed choices without having to approach the council. The platform will help the council and other providers to understand people's preferences and will enable a partnership approach with the user to provide outcome focussed support.

2.3.3   Digital Greenwich / Superfast Broadband for all

One of the key deliverables by the Digital Greenwich team is the development of ultra-fast digital broadband to all neighbourhoods and the associated focus on addressing the digital divide, not only in access to technology, but through the promotion of skills. This will support the way in which the Smart Enabled Customer is able to access Council services.

2.3.4   Greenwich Digital Workspace: Staff environment for Office 365

The Greenwich Digital Workspace will change the way staff interact internally using Office 365 and the associated tools, such as Teams, Groups, SharePoint. In this way it will focus which skills and expertise should be the standardised, with an emphasis on collaboration, paperless communication and innovative thinking with new ways of working with documents and collaborating with teams, whether these are organisational or cross-organisational 'communities of practice'. With the inclusion of telephone (Skype for Business) and Instant Messaging, this fundamentally changes the way staff work and makes Greenwich a modern, exciting, efficient and innovative place to work.

2.3.5   Paperless Council

The Paperless Council Strategy embraces tablet and smart phone technologies to deliver services and reduce council costs from printing, storing and disposal of paper. The strategy is a Lead Member priority for 2016-17. The core of this area of focus is the importance to the Council in using technology to improve communication, to provide Officers and Members with the ability

to work from remote and home locations, and for these users to have the choice as to what devices they use. Improving real time information for decision makers and removing the need for paper based communication / traditional ways of working, is also a focus of the endeavour.

2.4 Principles to support the vision

2.4.1 Technology will be an improvement agenda for all

Technology will be the common thread improving the way all services deliver their work and therefore it will be a Greenwich Management Team 'Blue' priority, supported by operational Champions and a commitment to IT Assurance arrangements supported by all services.

2.4.2 Technology improvement will focus firstly on the needs of Council's customers

The Council will focus on services, not websites, on digital first, and on security measures that make it easier to engage with the council with a determined approach to remove obstacles to ease of use.

2.4.3 There will be an active ICT Strategy

An ICT Strategy will provide the overall approach and actions that will be undertaken to deliver an improved future.

2.4.4 There will be learning through active benchmarking

Horizon scanning and learning about the approaches that others are doing will form an active part of the way technology is considered as part of any transformation work.

2.4.5 Research, development and active benchmarking will be valued and used

Research and development will be highly valued, and learning about the approaches that others are doing will form an active part of the way technology is considered as part of any transformation work.

2.4.6 The Council commit to convergent technologies while remaining standards-based

The Council will aim to minimise the number of different technologies in order to keep things simple, but will ensure all technologies adopted are standards-based. The Council is strongly aligned with VMWare, Microsoft and Dell and will therefore continue to use their products.

2.4.7 The Council will always opt for Virtual over physical technologies

The Council will always seek to embed applications that can be virtualised or, where appropriate cloud-based, over those that require physical implementations.

2.4.8 Council will own all technology decisions and embed assurance

All technology decisions will be fully owned and made by the Council, including the design, delivery and assurance of corporate and business systems, as well as the ongoing performance of these systems

2.4.9 New technology trends will be embraced but not always adopted

There will be clear knowledge and understanding of the trends such as consumerisation, the impact of Cloud computing, but take a considered view before adopting.

2.4.10 Best value will always consider total cost and risk analysis

ICT has a longer-term view and any total cost analysis needs to consider the whole cost as well as project this cost into the future.

2.4.11 The council will invest in skill sets to deliver the ICT strategy

To deliver the strategy, the council will invest in the skill sets required to deliver the strategy at all

levels necessary.

2.4.12 Everything is paperless

The focus will be to drive all processes to being digital with an emphasis on changing all and any processes towards being delivered electronically wherever possible.
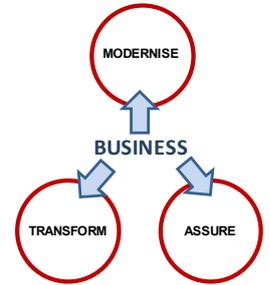
3 Transformation and Assurance Framework

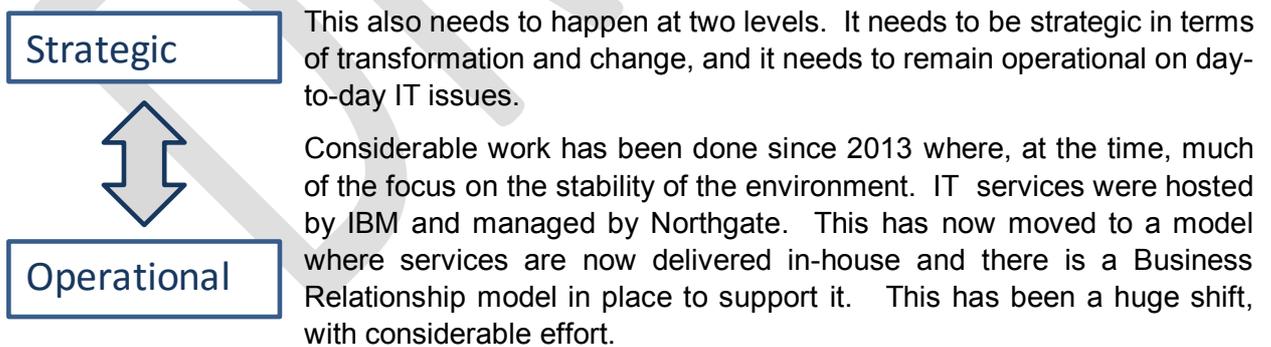## 3.1 Engagement and Governance

3.1.1 Overview

The Council will embrace the exciting opportunities modern technology provides to improve the way everyday things are being done. For staff, there is an increased expectation to embed this in the tools used for work and, for Customers, there will be an increasing demand for efficient, simple ways to engage with the Council. This need to modernise is a constant pressure which presents opportunities and risks and therefore needs mechanisms in place to keep it focused.

The framework to enable Transformation (the need to change/improve) and provide Assurance (keeping things stable and controlled) are different needs which require distinct governance arrangements in place. This is people-based by definition, and dependent on the culture, perception and skills of the organisation. The challenge is that governance shouldn't simply aim to mirror what is already in place, but should also provide the mechanisms for transforming the relationship with technology through skills, knowledge management, engagement and openness – so that the Council can genuinely use technology to improve the way it does everything.

3.1.2 Changing the culture towards a common responsibility around technology

The vision of this strategy is to focus on ensuring the Council has the capability and is ready for the Smart, Enabled Customer. While this is a simple concept, it provides a powerful message that all services need to join up their efforts to achieve this and, therefore, within the Council this is about a relationship. The ICT Service will need to facilitate how technology can best be utilised, through knowledge of industry standards, best practice and converging efforts around fewer technologies. Service Areas, who are experts running the business of the Council, will need to set out clear deliverables they want achieved.

This also needs to happen at two levels. It needs to be strategic in terms of transformation and change, and it needs to remain operational on day-to-day IT issues.

Considerable work has been done since 2013 where, at the time, much of the focus on the stability of the environment. IT services were hosted by IBM and managed by Northgate. This has now moved to a model where services are now delivered in-house and there is a Business Relationship model in place to support it. This has been a huge shift, with considerable effort.

The shift towards thinking more strategically will require an equally large shift. The period ahead, therefore, is a critical one, since the focus needs to be about the transformation that will require a closely coordinated approach. Solid cultural change has already started. Chief Officers, for example, are accustomed to taking the responsibility as Project Executives on technology change projects. In addition, there has been a concerted focus about the improvements needed to online transactions at a Digital Transformation Board.

What is needed moving forward is an emphasis on collaborative strategic decisions about important ICT investment at the most senior level.

3.2   Strategic Transformation

3.2.1   The need for a Strategic Board to lead the Enabled Customer Agenda

Technological transformation will require investment of time and effort at a senior level. The cultural change required won't happen in a reactive, business-as-usual sort of way, but will require engagement at a senior management level. Practically this will need to be organised, with a roadmap and an open agenda for change. This is difficult territory and requires an overall strategic champion to keep senior managers focused on the end goal.
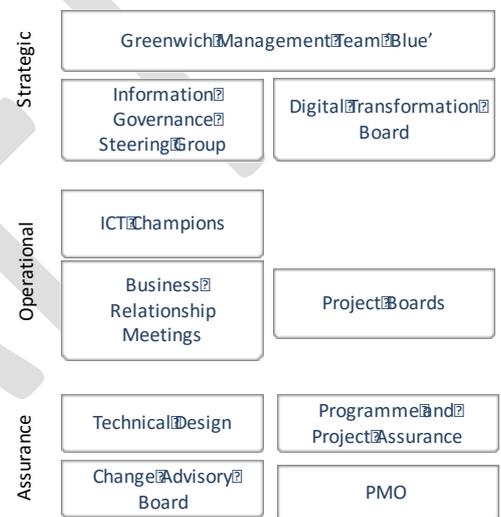
It is important that such a board is not bogged down with operational issues, which has the impact over time of not keeping senior management engagement (and attendance).   A successful strategy board needs to be managed and board members stimulated through careful thought about the agenda, focus and representation at the meetings.

3.2.2   GMT 'Blue' to lead the agenda

The Greenwich Management Team (GMT) is the Council's most senior officer group who have the remit for the Customer Services and ICT transformation agenda and for setting forward the 'blue-sky' thinking.

With an emphasis on leading this important transformation, GMT 'Blue' will need to serve as the strong, senior managers to harness the joined-up working that will be required across the Council.

Senior commitment will re-emphasise the message in this strategy that the customer-focused vision is a common agenda for all and, therefore, approaches to technology need to be fundamentally joined-up and must avoid siloed approaches. GMT Blue will provide the strongest mechanism for harmonising trust and good relationships across the Council around the vision that is customer-orientated.

Strategic
- Greenwich Management Team 'Blue'
- Information Governance Steering Group
- Digital Transformation Board

Operational
- ICT Champions
- Business Relationship Meetings
- Project Boards

Assurance
- Technical Design
- Programme and Project Assurance
- Change Advisory Board
- PMO

Actions:

a) To set in place the expectations by GMT Blue to deliver this strategy.

b) To develop a roadmap needed that revolves around a vision for the future and to chart progress against this vision.

3.2.3   Tier 2 Business Transformation Champions in each Service Area

Each Service area has several key 'line of business' systems for which they are responsible. Therefore, each Service will need to identify their (Tier 2) Business Transformation Champion to make strategic decisions about those systems.

Honing all services around the agenda of the Smart Enabled Customer is about cultural change across the organisation and requires a joined-up approach to ensure that existing (and new) initiatives are all focused on contributing to the vision of improved services to Greenwich residents.

While GMT Blue will remain the forum for the ongoing strategic development of this ICT Strategy, the GMT Blue meetings may be extended to include these (Tier 2) Business Transformation Champions to provide the necessary further detail to the meetings and partake in the ongoing

discussions to progress the vision.

Technology is the fundamental enabler of this business transformation. However, there are changes in perception that will need to change related to this for there to be a success. Technological change cannot be something that only the ICT Service delivers – it is a joint strategy to enable service delivery to the resident. In addition, across the Council there is an ardent need to improve the skill level of all managers. Everyone needs to use modern technologies, understand what is meant by digital, so that there can be a common discourse about forward direction with confidence and good technical decision-making.

This Business Transformation agenda will require agreement at the most senior management level and will require all services areas to join their efforts into a single outcome. Care needs to be taken to ensure Service Areas don't feeling they are being undermined, nor that the Transformation agenda is compromising any other work that they believed was more imperative.

Actions:

a) To set the Business Transformation programme up with named Business Transformation Champions in each Service to support GMT Blue.

b) To proactively identify opportunities and skills to ensure all officers involved in this process are technologically savvy and get the opportunity to become so.

3.2.4 Ongoing Innovation, benchmarking and Horizon Scanning

To set in place a culture and environment for the level of improvement and transformation that will be required over the next four years, there are several cultural and skill-level areas to focus upon. One of these is familiarity with technology. There needs to be an acceptance that good technology skills don't always require a lengthy training course, but even the act of collaborating on something real provides the basis to learn new skills. In addition, however, there should be an acceptance that staff should use their basic tools better. The use of MS Office, for example, is something all members of staff are expected to simply get on with. Using it well and collaboratively, however, is something that would increase efficiencies massively.

Staff should also be enabled to use modern tools, social media alongside better working arrangements. Alongside this should be an active encouragement of highly valuing learning and innovation, so that every member of staff is encouraged to look for areas where technology or business process changes can lead to efficiencies and support the vision.

Active benchmarking with other public sector bodies should be something encouraged and there needs to be an open forum for discussing "why we're not doing that here" since this encourages staff to be aware of what is happening elsewhere and brings new ideas into the Council.

Actions:

a) To create virtual forums for Active Benchmarking which are actively monitored and incorporated into the mainstream technology strategic analysis.

b) To develop corporate-wide projects that fundamentally review how technologies (e.g. GOV.UK's Verify) could or could not benefit the Council. These Research and Development projects should be fully structured around re-usable research write-ups.

c) To create collaborative areas where Lessons Learnt can be shared with a view to building up a knowledge bank of what has worked and what does not.

d) To assess and write up those Proof of Concept projects which are closed or seen not to

deliver.

3.2.5 Strategic Convergence through a Technical Roadmap

The Council's Technical Architectural function will be pivotal in helping to shape the way major investments are made and can help to assist identify the key technology building blocks required for the overall vision. This, however, needs to be done proactively and requires the function to ensure that there is a technical roadmap which is realistic about the length and complexity of some of the work which is needed to deliver the vision. Strategically this will undoubtedly be about convergence of technologies, i.e. reducing the number of different technologies, as well as emphasising the needs for standards. Convergence and Standards will move the emphasis away from the technology itself, towards an approach which is focused on what the technology does to support business

Such a roadmap and role should therefore engage with piece of work at an early stage, ensure there are benchmarking opportunities that might benefit work being done across the major programmes and that project decisions, even at board level, are mindful of their valuable contribution to the customer-centric vision.

Actions:

a) To develop the enterprise systems architectural vision and technology roadmap which is visible and available to all service areas.

b) To actively become engaged in those programmes, projects and benchmarking exercises where a shift at an early stage could have a considerable impact on subsequent decisions by the Council.

3.3 Operational Engagement

3.3.1 The ICT Champions Group

A considerable amount of work has been done with service areas in terms of business relationship management. Work has been done to develop terms of reference and thought given to the working methods and methodologies that would be employed through this engagement.

Moving forward the emphasis needs to be on pulling this together into a single group. To date there are concerns about doing this - out of concern that possible issues at this level become parochial – and therefore tedious. However, coordinating technology requirements and having sight of these changes across service areas can be beneficial for others to see (comparatively) and it also moves away from the notion of the ICT service delivering technology, towards one where technology improvements is something done jointly.

Business
experts in service delivery

Engagement
ways to communicate effectively

Assurance
solid standards to ensure success

ICT Service
facilitators of enabling technology

Following on from the development of the (Tier 2) Business Transformation Champions to supplement GMT Blue, it is essential that there is ongoing and good dialogue between the operational ICT Champions and the Business Transformation Champions in each service area. It also means that each Service area can escalate issues to their Business Transformation Champions, but should only do this if it cannot be resolved at the ICT Champions Group meetings in the first instance.
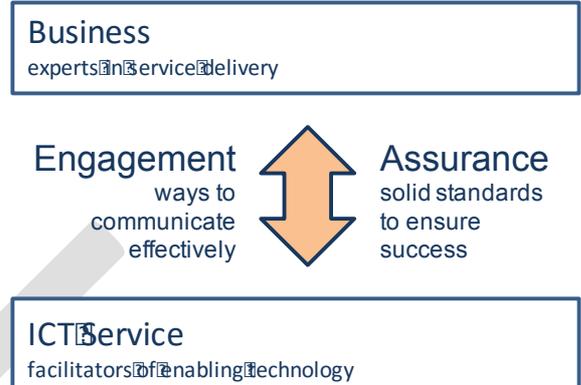
Actions:

a) To hold joint ICT Champions Group meetings with coordinated agenda items.

b) To actively encourage and plan the meetings around specific themes.

c) To set in place an engagement plan which speaks about progress on key programmes, but doesn't become bogged down with single project updates.

d) To devise a plan for routinely updating the group with common metrics.

3.3.2 Business Relationship Management

With the ICT Champions Group in place and meeting regularly, there is still a need for a business relationship management function. The ICT Service has organised itself to deliver this specifically and having a direct communication vehicle is essential. This is important so that local concerns can be aired outside a more formal group meeting and so that service specific issues can be worked through. There is, however, a solid helpdesk in place for operational requests and it is vital the Business Relationship meetings complement the Champions Meeting, rather than replace it. It would be useful to move towards collaboratively meetings that are ad hoc – e.g. Microsoft Teams / SharePoint.

Actions:

a) To review and set in place 'virtual' service specific meetings and move face-to-face discussion towards Champions meetings.

b) To set in place clear protocols for running 'virtual' meetings to ensure that these complement

service desk calls (e.g. escalations) and Champions meetings.

3.4 Continued Excellent Assurance

3.4.1 Overview

There are good arrangements in place to provide assurance at the levels where this is critical and this is working very smoothly. This is vital given that in the not too distant past the Council's external infrastructure model wasn't working. Good assurance, however, requires ongoing consistent effort and this remains fundamental to the strength, perception and delivery of anything else.

3.4.2 Technical Assurance

Good technical design has been embedded as a function within the ICT Service with a role dedicated to this function. In addition, it has been developed through a Technical Change Control Group which has actively been a technical filter on matters being reviewed at the more business Change Advisory Board.

The Technical Design function sits at the heart of the process and serves a fundamentally important role and continues to provide Quality Assurance and the technical viability of any piece of work against agreed standards, the principles of this strategy and any other technical design or architecture over which it has a remit. This function should not be focused on the business case of a project unless the work is making technical assumptions which are incorrect.

With the new technical design role being filled in the ICT Service, it is vital that a group still meets and that this is made up of appropriate leads from the various areas of specialism. A suggestion would be: technical architect, data security lead, network engineer, web manager, technical supplier leads, any affected project manager, and any other ad hoc expert required to review items coming to the attention of the group. Meetings do not have to be face-to-face (i.e. they could be virtual), but they should receive formal, written requests for review and should keep a risk log up to date. All decisions must be recorded.

Actions:

a) To review the set-up of the Technical Change Control Group and review the terms of reference including membership.

b) To take responsibility for the development of an enterprise systems architectural vision and technology roadmap.

c) To ensure that the web manager and security concerns are fundamentally part of the technical discussions that impact the public facing website, intranet or social media.

3.4.3 Change Control Assurance

The Change Advisory Board has been a successful mechanism for evaluating ongoing changes to the technology environment. It comprises technical staff and decision makers, but there has been a separation of highly technical discussion (which is picked up at the Technical Change Control Group) from more business-related changes, which makes the meetings more focused and therefore efficient. The group needs to ensure the right people with the right information, knowledge, and background are there to effectively review each change.

Actions:

a) To continue the rigorous change control assurance levels which have put the Council in such a stable position technically.

b) To broaden the involvement of specialists across the organisation to include the web manager where there are matters which affect the public facing website, intranet or social media.

c) To ensure that Customer Services are directly involved in all interface and system discussions which could potentially affect CRM.

3.4.4 Programme and Project Assurance

Programme and Project Assurance is provided through the well-structured Programme and Project Assurance Board which meets regularly, which uses only qualified Project Managers and has a strong, specific role for Project Management Office (PMO) - to oversee the quality of the processes being undertaken. 2016 saw the service move from having most its Project Managers being contract Project Managers, to having most its Project Managers being permanent staff. This is a product of the service's "grow your own" programme, with the staff who joined the service in 2014 and 2015 achieving promotion into either Project Manager or Senior Project Manager roles. The section manager and deputy manager are both long standing members of staff, who themselves have been promoted, following leadership and management training.

All "on staff" Project Managers hold ITIL foundation certificates and are Prince2 qualified Practitioners (highest grade qualification for project management in the Prince qualification). A number have also certified as Agile Project Managers, able to deliver projects using both methodologies.

All projects with ICT implications must be presented to the ICT Programme and Project Assurance Board, made up of a group of subject matter experts, across both ICT and other services, such as Finance. This board reviews projects on behalf of the Chief Information Officer (CIO) and makes recommendations on a project's soundness and viability, in terms of technical design, financial assessment and strategic alignment with the ICT Strategy. These are then passed to him to make the corporate decision on projects moving to implementation.

Although all projects are delivered using Prince2 principles, and are evaluated by the Programme and Project Assurance Board, the success of the project is down to the departmental Project Sponsor. It is their role to oversee the project and ensure that the delivery of the intended solution meets the objectives initially set out as the project's business case. Project Sponsorship, given that it has the ultimate responsibility for each project being delivered, is key to success. Sponsors are senior managers within each department, usually at Assistant Director / Head of Service level, and they would have sponsored the project through the governance structure.

At the initial stage of any project, the business vision, a feasibility assessment, is undertaken. This ensures that the project can deliver the specified business change needed. By understanding the intended solution's business case, along with the costs / benefits of its delivery, the project can be tested and assurance gained that the project has a clear objective and the appropriate sponsorship; so, ensuring that the project has the best opportunity of being delivered

successfully.

By introducing and maintaining strict support and governance, ICT have been able to build a detailed programme of ICT change, understanding both ICT led change and any service delivered change. This has allowed ICT to start to implement standard practices around ICT change, so the service can start to look at future change and encourage a more joined up approach where services are looking to have a common business outcome.

While projects operate well, there is a need to improve the way risks and issues arising from them are appropriately highlighted at a programme level and within each Directorate. This is to prevent those issues not suddenly becoming a surprise at a programme level. (Procedurally, this could be dealt with by each programme setting a tolerance for each of the constituent projects, but until this level of programme maturity develops, the need for an early-warning system is essential.)

Actions:

a) To continue the rigorous project assurance levels which have instilled confidence in ICT projects and put rigour around the Business Case, feasibility and delivery processes.

b) To broaden the involvement of specialists across the organisation to include the web manager where there are matters which affect the public facing website, intranet or social media.

c) To set in place full Programme life-cycle monitoring to ensure that when project tolerances are exceeded and become a risk, that there is an early-warning system to alert each Directorate (Tier 2) Business Transformation Champion.

3.4.5 Proactive Project Management identification and improvements

Many transformation changes manifest themselves as projects and these are usually managed in a reactive way in the engagement model with ICT. Moving forward, however, there needs to be a thorough, proactive set of activities which identifies opportunities and projects early on. This is not something ICT can do alone, but requires joint working with service areas. One area, for example, where service areas are notoriously busy, is comparative benchmarking. During major procurements site visits are well undertaken. However, ongoing learning through benchmarking needs to become the norm.

Projects, therefore, should be identified very early in the process – even at a concept level – and there needs to be work with the ICT Service to assist in shaping these ideas with the disciplines and support that would assist service areas immensely.

Another area where there are often delayed projects that may cause tactical decisions to be made is in those areas where contracts are coming to an end and the service area underestimates the effort required to set in place a new supplier or undertake an extensive upgrade.

Projects need to focus on ensuring there is an appropriate 'transition into service' process, whereby a project delivers, closes the project and then all subsequent work is only dealt with by Business As Usual support staff. The symptom of a project manager remaining involved as a point of contact well after the project has completed as an indicator that this process needs to be improved. Once it is embedded all parties benefit: BAU Support teams will have the documentation, skills and knowledge they need to support new systems, and the Change Management project managers will be able to continue to deliver projects.

Actions:

a) To set aside time for the ICT PMO and Project leads to actively spend time incorporating projects on the horizon onto the programme dashboard.

b) To proactively monitor contracts, providing service areas with a realistic lead time to undertake the work required to delivery upgrades, changes to contracts or new developments.

c) To Set in place a well-followed Transition into Service process for all Projects which must include the training of Support Staff. This needs to be a pre-requisite for all and any project go-live position.

d) To set in place a full life-cycle agreement as part of the project cost so that decommissioning old systems is part of the project closure process.

3.5 The operational ICT Service

3.5.1 Continuous improvement

Following the changes to ICT delivery from 2013 onwards an ICT Service was set in place to ensure the consistent and robust team required to set the foundation for the infrastructure improvements that were needed. With roles and responsibilities in place, the service is ready for the next level of operational maturity.

The following depicts a hierarchy of technology needs, based on the maturity of the organisation. These are related to the workforce, culture and skills of the organisation.

This flows from the more fundamental needs being met at the bottom, with initial emphasis on Affordability – based on management focus on costs.

As Greenwich has matured the needs and capabilities have increased, from the GREEN layer's aspects and, moving forward into the 'advanced user' needs, which relate to improved collaboration, scalability and interoperability.
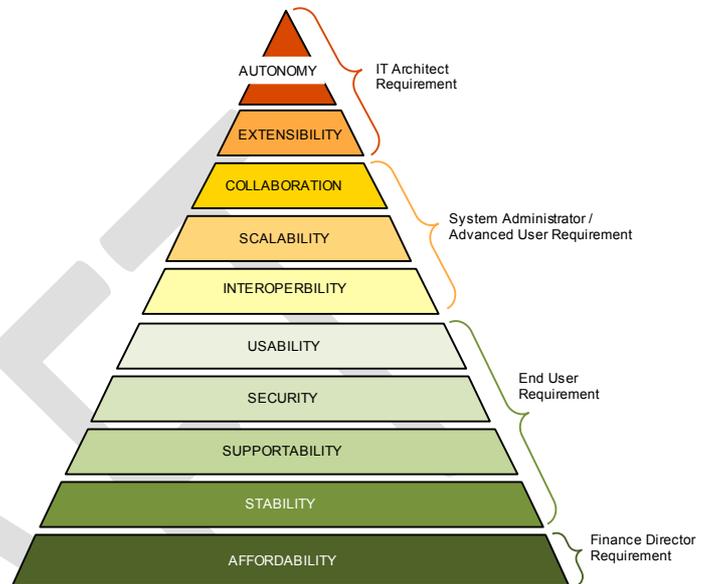
The Council should therefore be focusing on embedding skills, knowledge and expertise within the operational capability to move towards these layers of skill, with a focus on extensibility and ultimately on automation, which, with customer focused BOTS and self-serve automated computing users are starting to see at their bank and support sites. This, therefore, is a model the Council could strive for with online Smart Enabled Customer self-service.

3.5.2 Operations manager and the suppliers as an 'in-house' resource

The Council has brought most ICT service delivery 'in-house'. It now has the structures with the help desk and has consolidate a single in-house operational support desk with multiple tiers of support. This is nearing completing and needs to be consolidated so that the primary support roles are all in-house and there is a clear mechanism to coordinate provision with the remaining suppliers.

Actions:

a) To finalise all remaining restructuring to fully consolidated the in-house help desk.

b) To focus on supportive / helpdesk tools into a single framework, working on a means to set CRM as a strong basis to support this.

3.5.3 Re-affirming the Service: SLAs and Technology as a portfolio of services

The Council needs to re-affirm the service being provided to the business of the Council, restating and clarifying it is being delivered. This is partly a contractual issue, but remains a core audit that the Greenwich ICT team need to have in place with the model of federated support that exists. The emphasis should be to describe ICT as a portfolio of services to the businesses of the Council in the same way the manufacturing industry would treat 'products'. The result is a service catalogue that describes each service as well as which service level agreements are associated with it, who can request it, how much it costs and how to fulfil it. If the council can consider technology as a portfolio of services, then it would be easier to understand the value of those services, the quality needed and understand where it would be possible to reduce and/or alter those services. This is an important transparent way of operating in times where it is sometimes unclear what impact financial reductions may have on service delivery.

Actions:

a) To develop a detailed service catalogue that forms the basis for work to be delivered on the SLA.

b) To develop a mechanism for how Service Delivery will be measured, including indicators and engagement through the ICT Champions Group meetings.

3.5.4 Managing ICT suppliers outside the corporate ICT service

The Council needs to have a good handle on any business ICT supplier relationships that exist, especially where these impact on the business of the Council. At present many departments engage with ICT suppliers outside of the corporate model.

Actions:

a) To define a process for managing external suppliers.

3.5.5 Contract life cycle management

Contract life cycle management is the process of efficiently managing contract creation, execution, analysis and exit of a contract to ensure efficient operational and financial performance along with minimising risk. With increasing pressure to reduce costs and improve financial and operational performance, it is important to recognise the benefits of an effective contract management.

Supplier management is not just about having a collaboration to deliver our services within the contract, but also understand the Council's constraints and realise the expected business benefits and where value for money can be achieved. The expectancy of our suppliers is to be co-operative and responsive with a transparency that doesn't leave us with any surprises.

Actions:

a) To continue to corporately manage and commission all ICT contracts to ensure they are consistent with corporate policy and sound commercial, ethical and legal practices.

b) To identify and then manage Contract Milestones and Key Performance Indicators through the change management process and Service Area reviews.

c) To set in place a communication plan to ensure that all or any contract milestone issues are known and can be appropriately escalated.

d) To proactively identify when an existing contract will exit and agree the exit plan, including all assets which have an impact to the Council.

e) To set in place a communication method so that suppliers are aligned to the Council's priorities, making the fully aware of the importance of customer satisfaction and value for money.

f) To prepare a register for all contracts that indicates confirmation that Disclosure and Barring Service (DBS) checks have been carried out for contracts where these are needed.

3.5.6 Monitoring service delivery: Measures and reports

As part of closer engagement at the ICT Champions meetings and for the aspiration of closer working, it is vital to provide a performance measure. This accountability and transparency to directorates, as well as to ensure that there is proactive activity on system management and maintenance. This should be explicitly discussed at the ICT Champions group and should include items such as: Fault & Incident resolution; System & Network availability; Customer Satisfaction; and Capacity/Demand usage.

The ICT Service will introduce a 7-step improvement process across the teams to measure and report on service improvement as a standard. This should also include a review of how each service area (not just ICT) has been performing (e.g. how many calls for forgotten passwords in a month) so that the work is data driven.

Actions:

a) To agree the indicators to be routinely presented, working with the ICT Champions.

b) To set in place a standard dashboard at the ICT Champions meetings where monthly progress of these metrics is described.

c) To implement the 7-step process to ensure that there is an evidence based, data-driven culture based on indicators related to this strategy.

3.5.7   Service Asset and Configuration Management

The Council will keep a register of service assets and manage this to a strict configuration management process. This will include agreeing and documenting the scope for this process and which should be subject to configuration management.   This work is based on ITIL and will require a fit-for-purpose approach to defining the design and implementation of the Configuration Management system which will include change management, release and deployment management, and knowledge management.

Actions:

a) To Agree which Service Assets should be treated configuration items and set up an ITIL-based activity to set these in place.

b) To set in place a fit-for-purpose Service Asset and Configuration Management (SACM) system.

c) To ensure all fixed assets are being managed by a sustainable Configuration Management Database.

d) To Train all staff who interface with the SACM on the principles, processes and procedures.

3.5.8   Capacity and Demand management

Capacity management balances costs with resources against the demand that exists for that service. Effective demand management is needed to ensure that the needs of the organisation are prioritised and can be met. Capacity Management will be used to set budgets and prioritise savings/revenue growth in future years.

Actions:

a) To establish a robust demand baseline of the current use of technology services.

b) To deliver better Business Capacity Management: Translating business needs and plans into requirements for ICT services and infrastructure.

c) To improve Service Capacity Management: Predicting, managing and controlling the end to end performance of the operational ICT services and their workloads.

d) To monitor service take-up and adjust accordingly enabling better use of available capacity.

e) To manage and controlling thresholds – monitoring workload, patterns, changes in utilisation.

f) To model and review trend utilisation – including base-lining, trend analysis, analytical modelling and simulation modelling.

g) To develop an approach of application sizing – estimating the resources required to support change to services or the implementation of a new service, to ensure it meets it's required service levels.

4 Delivering to the modern customer

4.1 The layers of the Customer-focused experience

4.1.1 Expectations in a digital age

Customers are increasingly used to a simple, yet effective experience when doing online banking, purchasing things online, or searching for activities. Much of this digital experience is commonplace and when Council residents interact with the Council they will expect that services are joined up, that the Council knows who they are and that there is a consistency of service. At the same time, they expect their data is safe, that they will be asked before information about them is shared and that their right to privacy will always be sacred. The Council is not one single legal entity, but comprises services to different legislative drivers and policy initiatives. Most of this is seamless to the end Customer, therefore, requires a joined-up approach.

customers

Customer Enablement

Skilled staff

Business systems

Data into knowledge

Security and Trust

Infrastructure

Customers are technologically savvy and have high expectations about how to transact and communicate with the Council. To enable this and deliver an end-to-end process that is efficient and streamlined, work needs to be done at each of the constituent layers that make up that experience. Many of these layers are invisible to the end user. Organising the work in this way, however, provides an effective focus on which areas need more attention over time and providing a way of ensuring that the right effort is put into the parts which make up the whole.
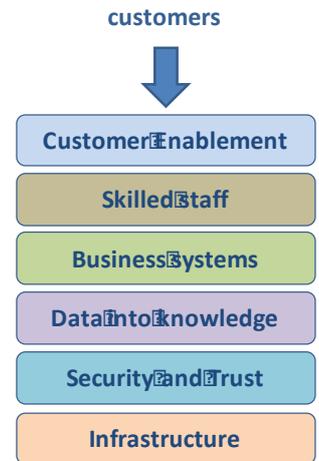
4.2 Layer 1: Customer Enablement

customers

4.2.1 The importance of Customer Relationship Management

Core to the Council's success about a consistent interaction with Customers, will be the use of Customer Relationship Management (CRM) tools to support as well as enable this experience. CRM software provides a mechanism for recording Customer interactions and the tools to support these interactions through automated workflows, links to back-end systems, and overall business intelligence about the trends within these interactions. To be successful, CRM tools are dependent on all the other enabling layers of Customer-focused engine working well together. It is, therefore, a core hub of this interaction.

| Customer Enablement |
| Skilled staff |
| Business systems |
| Data into Knowledge |
| Security and Trust |
| Infrastructure |
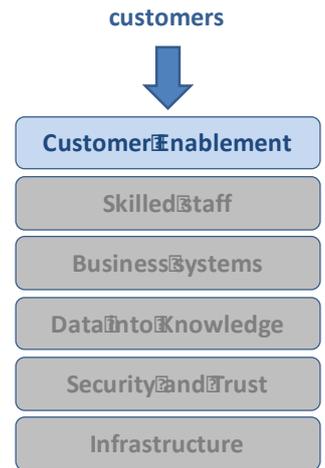
The Council has been using outdated CRM tools for the last 8 years which has limited the direct integration potential and meant that many of the tools are cumbersome when looking towards doing more complex integrations that can also be web-enabled. The Council therefore sees investing in this part of the technology stack as the foundation for many years into the future.

Modern CRM solutions provide excellent tools for online access, are more interoperable to back-end systems, and work in a smoother, more usable way, integrating not only with major line of business systems, but seamlessly with enterprise-wide tools (e.g. email).

4.2.2 Cultural transformation to support CRM

Setting CRM as the hub for Customer transactions will require work to be achieved on a business level across the Council and, as such, will require that all services focus their attentions on a single, joined-up approach. This is a change to the business culture of the organisation and requires that all services structure themselves so that the Council can provide joined up services to its Customers.

This means it is vital to move the emphasis and messaging around CRM away from Finance/ICT/Customer Services and embed it into the core business areas of the Council.

Actions:

a) To produce a full CRM Communications and Engagement Strategy so that the CRM Programme is adopted by the Enabling Customer Board and part of any new system thinking and development where the Council system is based on Customer data.

4.2.3 Replacing the CRM system

A Programme has been set in place to implement Microsoft Dynamics as the principal system for CRM, and includes the delivery of the underlying technology, infrastructure and associated systems required to operate Microsoft Dynamics as the key business system for Customer Services, and longer term, as a scalable solution for a variety of services which perform a front/back-office role in customer relationship management. The intention is that the CRM programme will be delivered in phases, with each successive phase building upon the initial implementation, with increasing levels of complexity and reach within the Council.

Due to the importance of CRM as a hub, many of the other layers of enabling technology need to ensure that they are constantly focused on developing their constituent part. Each phase, therefore, must make sure that it starts to build the overall architecture so that the endpoint is fully realised. The technology deployment is also different – being cloud-based, which brings

with it a set of new complications.

Fully achieving this will require the re-design of business processes, integration into systems where this is viable, and the design of an end-to-end architecture so that CRM becomes the key transactional engine for online services. This work should dovetail with any further work being done as part of an online or digital strategy.

Actions:

a) To deliver the Replacement programme of the legacy CRM system with Microsoft Dynamics CRM as the foundation platform for future development.

b) To deliver a Detailed Plan for all further phases of CRM implementation, including components within this strategy around: architecture, the golden record and the website.

4.2.4 Developing the new CRM architecture

CRM is the hub that requires all the constituent layers of enablement to be developed in a holistic way. This needs to be carefully thought through in terms of the architecture of the system so that it can ensure that the following key components are developed sufficiently:

- o   An approach to the Golden Customer Record.
- o   An approach to electronic document and record management.
- o   The consistent approach to system integration, the skills required and the ongoing support arrangements.
- o   An approach to other CRM-related tools, such as a mediated intranet environment, i.e. internal online tools customer service agents can use with all the information they require, including information not readily found publically.   This could simply be a well architected SharePoint team site or portal.

Part of the design should be to keep things simple, to prevent a complex environment that requires highly skilled developers to maintain it and, in short, to design out the middle office so that customer-focused systems are directly able to access the data needed.

Actions:

a) To design a CRM Architecture Design and Roadmap. This will need to include all components within the architecture, with an emphasis on all or any data sources outside the CRM (e.g. linked systems, document management).

4.2.5 Golden records, Indexes and Customer data

The concept of a golden record is simple in nature – the correct record that can be re-used. However, this can be extremely difficult to maintain unless there is full commitment, budget and business buy-in to do so. These golden records or indexes relate generally to people records (customers and/or staff), business records, and then property-based records (e.g. the National and Local Land and Property Gazetteer).   The issue is not whether to have a golden record, but, instead, architecturally how to maintain, store and manage this record so that it can be repurposed.

There are two major models: (1) hold the golden record separately and allow all systems that need to use it to use it; or (2) maintain it in a primary system and all systems that need to use it

to have access to it through this system. The important thing the Council will need to resolve is how the records are validated as a true record of that person. On low level transactions, this may seem like an overhead, but on transactions that require online authentication and online transactions, this process is fundamental. Since the Council is at the start of a new technology regime with CRM, it is an important point in time to set the direction around how this will operate.

Actions:

a) To produce a Customer Golden Record Architecture Strategy, which sets out the approach and delivery of the single golden record for Customers so that this approach is something all relevant system projects can easily understand to adopt.

b) To produce an Address-based Strategy, which emphasises how the NLPG and LLPG will be used for all address data and how this will be achieved, i.e. either as a hub or as a repurposed system.

c) To produce a Strategy for the Migration of Services into the CRM to be adopted at the Greenwich Management Team.

d) To produce a Strategy for CRM Online Self-service describing how the CRM will be developed to enable online self-serve.

4.2.6 Customer Insight to improve Customer Service

Customer Insight is about understanding the Council's customers based on their behaviour and existing interactions, to make improvements to these exchanges in the future. The intention is to analyse quantitative and qualitative data to achieve this insight to make it part of the business decision-making process. Insight allows for segmentation, i.e. the acknowledgement that different groups of customers want different things, which allows the Council to respond to these different needs rather than having a single, blanket approach. The Microsoft Dynamics software, which include useful tools such as PowerBI should be standardised to ensure that data analysis, reports and integration work are standardised.

The web team have undertaken a review of all the high frequency transitions and this analysis is vital in providing the level of focus needed to understand how customers are using the website

Actions:

a) To develop an active Customer Insight Scorecard and build the review and consequential outcomes / actions into Customer Services management meetings.

b) Develop a Customer Insight Communications Briefing for the Greenwich Management Team and the operations Champions Group to communicate changes, actions and to ensure all decisions are clearly based on evidence.

c) Actively create a Website and Customer Services Forum which drives forward much needed dialogue across internal organisational boundaries and ensures that potentially competing interests are joined up for the best experience of the Customer. This should involve key business areas and should have a rotating chair.

d) Provide the responsibility to a key lead individual within the organisation who has knowledge, skills and expertise to use the right tools, understand the impact of the Insight, and propose actions in the form of understandable reports.

4.2.7 Delivering Services Online as part of the public-facing website

A large part of the Customer experience is through the public facing website. The Council wants to radically improve the way it interacts with customers. In March 2017 consultants SOCITM provided support to the Council to develop a Digital Roadmap to help achieve this and emphasised that the Council needs to make changes at a much faster rate if it is to keep up with the speed of digital change happening in its communities. In addition, this analysis pointed the Council at being less focused on the actual website, and more on access to services online. To undertake end-to-end transactional improvement, with an emphasis on digital improvement, the public facing website needs to ensure that it is part of an overall approach that provides a consistent model for Greenwich residents.

The current website carries information and access to over 400 services, however not every service is delivered electronically. To meet increased expectations from Greenwich's residents and businesses services need to be transaction-based and this needs to continue. This has been part of a corporate Digital Transformation programme that has been running since October 2015 with the overarching aim to improve the way local residents and organisations can do business with the council online.

To achieve this the model of a transactional website which is architecturally linked to CRM and has the depth of back-office integration for the longer term, there needs to be joined up work between the current web team, ICT and the Customer Services teams to ensure that technologies and approaches are aligned and deliver the vision of the enabled customer.

In addition to the transactional components of the online customer experiences, all online services are currently and need to continue to be promoted to residents and businesses on the council's website, through email alerts, social media (including Twitter and Facebook) and Greenwich Time newspaper, as well as by the relevant service in their direct communication with customers.

In addition, the website is need of further upgrading for it to meet the ease of technology integration that will be needed over the next four years.

Solid work has been done to identify those business processes where there are high value transactions online. This needs to become a programme of work to proactively identify the level of business process re-engineering that may be required to improve these business processes for direct Customer access. This work is needed for the CRM and for Online Transactions and therefore should be part of a single stream of activity.

Actions:

a) To produce a Strategy for Online Self-service transactions describing a plan for online self-service, which will go through CRM, and which require considerable business process re-engineering. This should be in the form of a detailed action plan so that services considering their online presence can align their efforts. This needs to be jointly owned by Customer Services and the Webteam and should be a key document agreed at the Website and Customer Services Forum (see Customer Insight section).

b) To produce a Documented approach to online authentication and to consider the GOV.UK Verify model and/or other models that can be re-used.

c) To move the legacy hosted website onto an Integrated Website hosted model that creates the best technological framework for integration into CRM, authentication methods and system integration, while preserving all the functionality needed for modern social media approaches.

d) To set out Greenwich's approach and policy to Responsive Web Design so that business areas have a clear corporate direction when considering this work.

e) To devolved web publishing and the underlying content model part of the way all council employees develop and deliver content so that it is up-to-date, correctly marked in terms of sensitivity and available to residents in a coherent way.

4.2.8 Developing other CRM tools through a mediated collaborative workspace

Part of the approach is that the Council adopts cloud-based solutions for mediated access to systems which are not in themselves directly Customer facing. This environment will complement the CRM and the corporate website and be a simple, yet effective collaborative space for customer services agents to develop content, share learning and post new innovative ideas about how to improve the service.

This development of the Mediated Intranet should follow the development of a contact agent information needs review – i.e. there needs to be a clear understanding of what a contact agent needs to provide good customer focus. This 'needs review' must consider the approach being taken by the website, i.e. it will only contain critical information that is not considered 'public', e.g. FAQs. Ideally there should be considerable harmony in a single approach between what call agents require and what is published on the website. The one clear benefit of the Customer Focus Mediated Intranet, is that it can be managed in a devolved way – unlike the corporate website which is managed by a single team.

Actions:

a) To develop a Collaborative Workspace for Customer Contact Agents which is needs based, follows rules and has a consistent training regime.

4.3   Layer II: Skilled Staff

4.3.1   Overview

Highly skilled staff are fundamental to the improvement and transformation that will deliver a modern Greenwich environment. The UK Government's own 2017 Digital Strategy emphasises the need for government to grow a skilled body of civil servants that have expertise in digital, data and technology.

Skilled staff use tools, understand the opportunities they bring, acknowledge the obstacles and become champions for an improved, efficient delivery environment. This increases confidence which has an exponential impact on the way staff can bring technology into their working practices and take advantage the ever-changing and improving array of tools to support their productivity.

customers

Customer Enablement
Skilled staff
Business systems
Data into Knowledge
Security and Trust
Infrastructure

A skilled workforce is not a luxury anymore—it is a necessity.   Finding new employees and getting them up to speed is costly and time-consuming and impacts on Council service delivery. The approach therefore is to retain top talent by keeping them motivated, engaged, and productive.
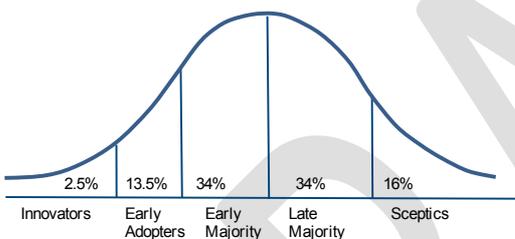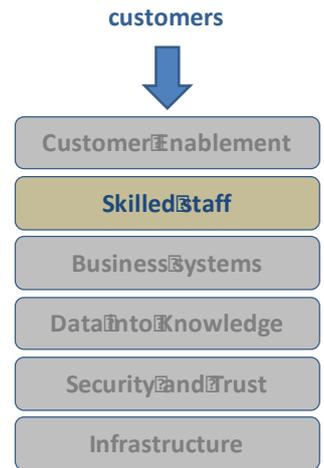
Introducing new technology necessitates that there is an understanding and approach to accelerating the way these tools are diffused, particularly amongst slow adopters. This requires a cultural change, but also an emphasis on 'reference' groups within the organisation who can see how others have adopted the technology and how this affects overall efficiency. In terms of the Diffusion of Innovation Adoption Curve[2] (see diagram) there will always be visionaries and innovators. The Early Majority are pragmatists and the struggle, often, is to get the later 34% to make these adaptations, even when the benefits are clear.

One approach is to develop Communities of Practice, i.e. internal groups of staff working in different areas across the council, who use the tools well and can demonstrate, by example, how adopting the tools improve their approach to work. In addition, service areas need to consider those they already know to be early adopters or innovators, so they can begin to use these e-Culture evangelists to help demonstrate and drive forward the change.   This section of the strategy has, therefore, proposed that a group focusing on productivity tools – the Productivity Champions – pick up this mantle by focusing on tools for better working.

4.3.2   Better ways of working: Mobile workforce and the Agile programme

The Council has made tremendous strides over the previous four years, from legacy desktop software without the option of working from home opportunities, to what is now a modern working environment, with the most up-to-date desktop software, complemented by the Cloud-based opportunities with Microsoft's Office 365. This has been such a rapid change, however, that the Council needs harnesses the opportunity so that all staff are up-to-speed at the same rate as the technological change.

A key focus over the previous four years has been improved ways of working under the banner 'Agile' which aimed to embrace new tablet and smart phone technologies to improve the delivery

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[2] Developed by Everett Rogers

of services and reduce Council costs from printing, storing and the disposal of paper. Under this programme of work, the new home and remote working solutions have been implemented. Key elements have been mainstreamed and rolled out to the whole estate. Officers now have access, for their mobile phone needs, to iPhones, Blackberries and Bring Your Own Device (BYOD). For remote and home working, in addition to the current Stone Laptops, iPads and Microsoft Surface tablets have been added to the equipment list. As many Officers undertake complex field based roles, requiring access to a greater range of back office systems than Members, a new home and remote working solution has also been implemented.

The Virtualised Desktop Infrastructure (VDI) solution is a bespoke virtual network access application which can provide designated end-users with a familiar "full desktop" PC experience. It has been rolled out to enable staff to remotely connect, using either a 2-factor authentication method (RSA token and network credentials), for equipment that they own or, with their network credentials (username and password), for corporately owned and managed devices. The solution, VMware Horizon View provides access on any type of device, including iPads, iPhones, PCs, Android powered tablets and Android smart phones.

The upgrading of the mobile phone estate has enabled users to have a choice over the devices they use, providing secure access for iOS devices (iPads and iPhones), Blackberry, Android and Windows phones. The estate is now a mixed economy of devices, based on the user-preference.

The Council's Mobile Device Management (MDM) solution offers a secure managed capability, to control application access and functionality and tools to "push" or "remove" specific work related applications. The infrastructure (the MDM Blackberry Enterprise Servers (BES)) continues to be upgraded and enhanced, to enable access for higher quantities of users and ensure improved security and applications. The next step will be to exploit the use of applications. However, Customers expect mobile applications to be intuitive and attractive – and bug free – which means end user-testing is essential to the success adoption.

Actions:

a) To deliver and actively engage with service areas to identify specific Applications based on demand and ease of implementation.

b) To segment staff use of access based on ICT Personas with a standardised approach to appropriate applications and their associated equipment.

c) To set in place a Mobile Device Management offering for service-based applications which require them, with an emphasis on security management (e.g. Social Care).

4.3.3   Office 365 Rollout and Enterprise-wide Productivity tools

One of the new areas of change will be the introduction of Office 365 for all staff, a cloud-based Office suite.   With such an array of modern tools, however, there is a need to ensure that once staff using them that they use them in a consistent way that supports all the prerequisites across the layers of the technological environment, so that they store data correctly, access it security and can integrate this into systems where appropriate. Therefore, unlike the delivery of the previous Microsoft Office suite, with a controlled environment (i.e. it was on the desktop and all security and data storage areas were controlled centrally) there is a need to train and educate staff. This can be through a network of champions, but is vital if the Council is going to benefit from the huge potential of working more flexibly and so that staff don't become so enthusiastic with technology only to be told they need to change their way of working.

The Microsoft Suite allows staff to work across a hybrid environment of familiar desktop applications (e.g. Outlook for email) and the parallel cloud option. Offering a choice of platforms and an enhanced remote connection experience allows staff to be more active in their choice of working environment, application, device or location, yet with the ability for the Council to ultimately determine policies that govern restrictions, data protection, and acceptable use. Moving forward, however, the approach should be to get staff to move wholly to the cloud options to benefit from the integrated, collaborative space this provides and to change working practices fully into paperless, location-independent and communication-based productivity.

Actions:

a) To continue the rollout of VDI for staff that require access to desktop applications with a parallel drive of staff towards a Primary Choice of Cloud-based Enterprise Applications Approach - based on Office 365.

4.3.4   The new baseline for skills – the Greenwich Digital Workspace

An intranet is the digital workspace for staff. Intranets have changed conceptually and need to cater to a rising complexity of staff needs. The new Office 365 suite fundamentally changes the way this Digital Workspace can be used. In general, the intranet has been considerably under-utilised. The Greenwich Digital Workspace is the opportunity to focus what skills and expertise should be the standard for all staff, with an emphasis on collaboration, paperless communication and innovative thinking.   However, this will not happen organically and requires an approach based on improving the way all staff work.

As a maturing organisation, the intranet killer application will remain HR, since this is a point that all staff need to use and therefore the intranet approach needs to revolve initially around Must Do tasks and then evolve into a task-based environment.

Done well the New Digital Workspace will demonstrate to staff that they will want to move off legacy applications (e.g. MS Word on the desktop), simply because the collaborative abilities of the cloud-based alternatives improve collaboration and efficiency on a completely new level. Changing the Look-and-Feel (especially since the intranet has remained static for years) has a big impact with relatively little effort. This doesn't need to mean a once size fits all. The emphasis should be on engaging service areas and understanding how they are using and sharing their internal information – with a view to understanding how a new Greenwich Digital Workspace can improve this.

The New Digital Workspace needs to form part of a new knowledge and information management framework that establishes a new way of working with documents and collaborating with teams,

whether these are organisational or cross-organisational 'communities of practice'. This should focus on bring information to the fore for better management awareness and decision-making. With the inclusion of telephone (Skype for Business) and Instant Messaging, this fundamentally changes the way staff work and makes it a modern, exciting place to work, as well as one where efficiency and innovation are key values sewn into the tools being used.

Actions:

a) To develop a Greenwich Digital Workspace Strategy which has at least HR, the Web Team and Corporate ICT's Knowledge and Information Manager, to agree the direction, approach and possibilities of leveraging current tools.

b) To develop a structured Office 365 Collaborative Team Sites Approach – as part of the Greenwich Digital Workspace Strategy, with clear mechanisms and disciplines for deploying these consistently.

c) To embed document management processes into the way users interact with the intranet.

d) To deliver clear mechanisms for updating staff information and accessing their details on the telephone directory using the HR staff record as the 'staff master record'.

e) To establish greater consistency of the intranet user-interface and make it look good (refresh branding).

4.3.5 ICT Training for all staff

Part of the approach to skills is to identify what technologies, tools and processes should be common to any member of staff. Staff who are trained in technology are happier – creating a better organisational ethos and, as a result this improves service delivery. To support this, therefore, there needs to be a standard training plan that ensures that staff at all levels can exploit the tools that they already have, rather than focusing on the belief that new technology will enhance the way staff work.

Not all staff, however, have the same job requirement. Some are required to be out in the field and some entirely in the office. In addition, the way in which staff engage and use tools depends on how much they need to collaborate within a team and how much they are required simply to bring specialist skills to the table. To cater for these differences, it is also essential that a training programme recognises these different types of workers.

Actions:

a) To develop a maturity model that measures the e-skills of the organisation and sets targets for improving the e-culture and skills over the course of time.

b) To develop an in-house training course for key ICT skills, focusing on delivering this in an efficient way, i.e. half a day, and to make this available to all staff. This should focus on exploiting the software already in place.

c) To focus on the development of core ICT skills within the corporate technology department and actively to set a programme internally to ensure that all skills are shared to avoid dependence on individual tacit knowledge.

d) To establish a catalogue of technologies available for types of ICT personas / job roles and to make this part of an ICT service catalogue.

e) To work with Human Resources to establish Standard roles and ICT Persona Types per

service area, to establish the minimum council skilled persona, and then undertake a gap analysis to assess how much work needs to be done to raise the standard.

4.3.6 Productivity tools for the future

Adopting Productivity tools, is more about a process, with an emphasis on approach and attitude, than it is about any one particular product suite. While the Council is ostensibly a Microsoft house, which means there are excellent tools at the disposal for each member of staff. However, the process should be one where there is constant innovation and use of tools within a clearly defined safety measure of controls, so that staff are clear when they are testing or using tools which are considered 'new' or 'innovative' and behave accordingly, but indicate that they understand the responsibilities they have.

There is an array of tools such as Trello, Wunderlist, Basecamp, etc. which are cloud-based, boost productivity immeasurably and could easily be adopted for a period or alongside the formal Office 365 Suite. How these are managed, however, should be an approach which is flexible enough to enable staff to dabble and test the tools, while being fully mindful of the remit of such work.

Actions:

a) To develop a Network of Productivity Champions who lead the way, become formally trained to use the tools and work together to help shape how tools and controls are implemented within their service areas. This Network will lead on the delivery of the Office 365 suite and become involved in the policy controls needed to ensure it is well embedded within teams.

b) To set in place a Remote Working Policy for Productive workers. This will focus on the use of tools generally for work, a policy for remote access to Office 365 including storage, rules around local data and a clear policy on security measures (e.g. two factor authentication).

c) To develop Productivity Tools - Innovation Guide, which sets out how staff can use new tools for innovative development and what they need to do to provide the assurances that the data is well managed, security and compliance of Data Protection legislation.

4.3.7 Paperless Council Strategy

The Paperless Council Strategy aims to embrace new tablet and smart phone technologies to improve the delivery of services and reduce Council costs from printing, storing and disposal of paper. The paperless objective is focused on using less paper, yielding a positive environmental impact for the organisation. The core of this strategy is to stop paper being the default medium for accessing information, by providing Officers and Members with the ability to access the information they need from locations other than at a traditional office desk and PC.

In 2016, the strategy successfully implemented several hardware and software projects. The introduction of "Paper free" meetings, was facilitated by the implementation of iPads for Members and Chief Officers attending full Council, plus a range of other formal meetings. User adoption has been good and the project objective achieved. Following the successful implementation of iPads to Members, the project is now focused on Chief Officers, field based staff, home workers and remote workers, who are peripatetic in their bases of operation.

The Paperless Strategy has recognised that it requires multiple streams working in tandem to achieve the ambition of paperless and therefore includes the related strands of activity: secure printing; home and remote working; smart phone roll out; and Member ICT.

The Paperless Council Strategy has been driven by technology and enabling technologies, such as the replacement of the corporate printer estate and the new VDI solution. Without these important technology building blocks, nothing could be delivered. However, the next phase, must

be focused on how do we use these enabling technologies to challenge every paper driven system within the Council and eliminate as many as possible.

Actions:

a) To continue the Paperless Drive by identifying proactive opportunities to pilot and then implement paperless approaches to all team working, supporting this with collaborative working and setting the Paperless as a key delivery of the Network of Productivity Champions.

4.3.8   Secure Printing

The Council has introduced a fundamental change to the way that staff print by introducing the delivery of the "follow-me" print solution, which requires users to authenticate themselves at the printer to pick up their prints. This has been made easy for users by allowing users to swipe their staff access/ID cards on any machine and pick up their printing from there. Because of this technology, the service has been able to reduce printing waste and put in place central monitoring of the printed output.

In addition to providing fast, reliable printers; the new estate's easy log in process, has enabled staff to easily scan documents, for storage or transmission. Having a ready method to scan documents is a key enabling capability. Further, by only releasing printing when the user is at a machine, the security of every print is guaranteed, thereby meeting the obligations to keep personal and sensitive customer information secure.

The next steps will be to enable printing from smart phones and tablets. Secure cloud printing, will enable these devices to transmit their data to the secure print queue and then allow this to be collected from any machine. This is key for field based staff, who currently must print everything that they think they will need before heading out into the field, whereas this process will allow them to print what they need, while in the field, safe in knowing that they can pick this up when back at their home base.

Moving forward there is still a culture of people wanting hard copies of documents. With the new tools around collaboration that can be access anywhere, this change in culture is fundamental to the success of a paperless environment.

Actions:

a) To Set up Printing from Smartphones and Tablets and roll this out for all staff.

4.3.9   Telephony tools

As part of the Agile programme, Microsoft Lync was identified as a tool to reduce the use of e-mails for short messages and to give indication of staff presence through the status of indicators. In the summer of 2015, a proof of concept stage was launched to staff in ICT Strategy to test the usage of the application. In October 2015, the pilot was then extended to the 32 Chief Officers of the Council and their support staff. Lync has been replaced by Skype for Business and is an instant-messaging, presence, video conferencing and Voice Over IP (VoIP) technology to enable staff to interact directly via headsets or traditional phones in a single, collaborative environment.

At present Customer Services are using Skype for Business extensively as a tool for managing the day-to-day operations in the Corporate Contact Centre and Service Centres.

a) To rollout Skype for Business for all staff as part of the new productivity suite.

DRAFT

4.4 Layer III: Business Systems

4.4.1 Overview

Council Service Areas deliver the day-to-day business of the Council have high expectations about what they need from their Business Systems. To achieve efficient, consistent and converged systems, transformation is typically undertaken in the form of projects, particularly when there are large scale improvements or where new systems are implemented.

Engagement about improved Business Systems will take place through the operational ICT Champions meetings, or individually through the Business Relationship Management process, and, where the matters have a strategic impact or need Senior Management engagement, these will have raised at the Greenwich Management Team Blue.

Business Roadmaps need to be developed to demonstrate where the priorities lie, what changes might be coming and what support the service may be looking for during this period.

Actions:

a) To produce a plan for Service Business engagement that can be taken to the Greenwich Management Team Blue, (Tier 2) Business Transformation Champions and other Assistant Directors.

b) To take the existing mechanism of requesting projects to the ICT Operational group to populate a council-wide roadmap of ICT delivery.

c) To deliver service area roadmaps for all service areas as the basis for future project prioritisation.

4.4.2 Known Business Projects

The corporate ICT Business Transformation Programme coordinates, manages and monitors projects that are being delivered and should play a key role in producing the service area roadmaps.

There are specific key projects being undertaken:

- o Adult Social Care Digital Platform
- o Adult Social Care Frameworki & Data Improvement Project
- o Britsafe - Workspace assessment on line
- o Building Management System
- o E - Tendering
- o HMO
- o Hosting Web Servers
- o Idox & Cadcorp Server restructure
- o New Electoral System
- o New Financials Civica hosting
- o Planet Press upgrade
- o Print Room Procurement

customers

Customer Enablement

Skilled staff

Business systems

Data into Knowledge

Security and Trust

Infrastructure

- o Teleboooking
- o Housing V5 Replacement
- o CRM Programme
- o BACS
- o Benefit E-forms
- o CRM: Customer Services Implementation
- o Digital Cities Data sharing
- o Environmental Management system
- o Housing V5 - V6 upgrade
- o LLPG
- o M3 Replacement
- o Pensions servers move
- o Revenues and Benefits upgrade
- o Children's Services Safeguarding and Social Care System
- o Education System (Impulse replacement)

Actions:

a) To use the current knowledge of existing projects and those that are pending to form a first service area roadmap plan for review at the Greenwich Management Team Blue.

b) To standardise the status of each of these pieces of work (and other known work) against assurance criteria from the assurance bodies (e.g. needs a TDB review; needs a full Business Analysis options appraisal).

c) Develop a Business Roadmap risk plan which should be reviewed at the Greenwich Management Team.

4.4.3 Corporate Capabilities and Better ways of working

Service areas need to understand the way in which the corporate solutions and offerings will assist the direction of their line-of-business system roadmaps. For example, where a business system has a remote working solution, online app, or tablet solution, it should be clear what direction they should take in terms of adopting the corporate solution.

Actions

a) To use the ICT Champions Group meetings to set out how corporate capabilities can complement or fully deliver service based needs.

4.4.4 Proactive Benchmarking with Corporate ICT Expertise

Service Areas will be familiar, to a large degree, about what other local authorities are doing with technology in the area of their own business system. However, there is often a lack of sufficient expertise to make these decisions when there is a proliferation of technologies available. With ICT setting in place an enterprise architect function and taking a more proactive role in project identification, a process needs to be in place whereby service areas can work to set up benchmarking visits, proof of concept discovery projects and test cases. Ultimately this will lead to better decision making based on an informed view.

Actions

a) To set in place an Advisory Benchmarking Process whereby service areas can engage with the centre and use skills and knowledge to assist in decisions related to adoption.

b) To set in place a process for service areas to undertake mini-projects and Proof of Concept projects, including the involvement of experts in the area (e.g. the technical architect).

4.4.5 Greenwich CCG and Health and Wellbeing Board – Local Digital Roadmap

The Greenwich Health and Wellbeing Board sets out high-level objectives and commitments to improve health and wellbeing in the borough. The Greenwich Clinical Commissioning Group have developed a Local Digital Roadmap as part of the Sustainability and Transformation Plan (STP). This ambitious vision for south east London examines the opportunities to exploit new technology over the next five years and beyond.   It focuses on:

o Being paper-free at the point of care by 2020;
o Digitally enabled self-care empowering patients in the management of their care;
o Real-time data analytics at the point of care;
o Whole systems intelligence to support population health and effective commissioning and research

While the Local Digital Roadmap is primarily driven by Greenwich CCG, the overarching STP is an umbrella plan for the Council and the CCG, and there are opportunities and overlaps to be monitored in the future.   Greenwich, as a national Integrated Care Provider, are acting as an exemplar for the delivery of integrated care, are developing and testing new ways of joining health and care services, utilising expertise of the voluntary and community sector.
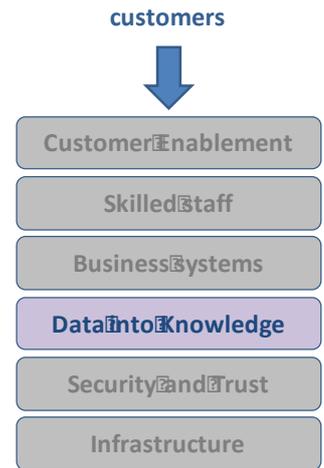
Actions

a) To monitor work being done through the Sustainability and Transformation Plan and seek opportunities for joint working.

4.5 Layer IV: Data Into Knowledge

customers

The Council collects and stores data in multiple systems to support the business it does. Used effectively this has the potential to improve decision making through better access and analytics, as well as by ensuring that this data is made more widely shared.

| Customer Enablement |
| Skilled staff |
| Business systems |
| **Data into Knowledge** |
| Security and Trust |
| Infrastructure |

Data and the focus on 'big data' is part of government's approach to become more transparent and foster innovation, with Sites such as the Data.gov.uk site bringing data into a single, searchable website demonstrating the active work being done in this area.

The Council has developed this model by recruiting a role to develop improved knowledge and information management, with the philosophy that when the council makes effective use of data it will make more tailored decisions for customers – for example, using data by front-line staff to ensure that customers get the best possible support for their needs. In this way, the Council will promote a data-driven approach to support better decision-making, improve policy development and serve the Customers of Greenwich.

4.5.1 Data Into Knowledge – the pursuit of wisdom

Actionable Insight comes from organising information and data in such a way so that better decisions are clear and informed. This means these decisions can be evidence-based and open to review.

Understanding in order for effective decision-making

WISDOM

KNOWLEDGE
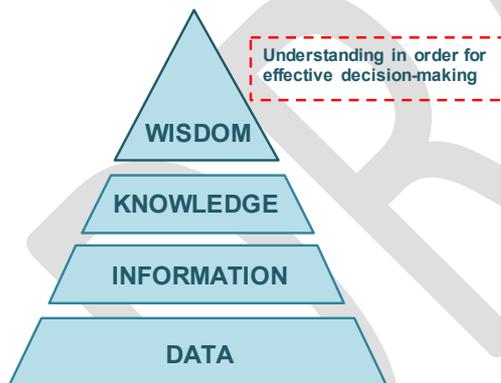
INFORMATION

DATA

The Data Into Knowledge approach will unlock the value of knowledge and information, whilst keeping the corporate memory secure. This is not a technical journey, but requires work is done in developing people, process and then tools. This will include the development of processes and policies to support the way the Council uses to create, organise and exploit information and knowledge. The work will be to build the capabilities of the organisation, equipping the Council to deal with the emerging challenges of a complex digital society.

(Systems store huge amounts of data. However, data items have (e.g. lists, numbers) have no value when taken out of context. Information provides this relevance and meaning by explaining the data (who, when, where, what). Knowledge, therefore is the ability to consider the information and, based on our own experience, in order to make wiser, informed decisions.) This model operates at any level, i.e. a Director, or frontline staff member. Both require mechanisms to convert the data available into information – to achieve the knowledge to make good, informed decisions.

This has implications at all levels. A data strategy, particularly relating to data quality, should be fit-for-purpose, i.e. the data only needs to be good enough for the appropriate level of information and decision-making. Vice versa, from top down, those decisions which are difficult to make due the fact that there is insufficient data available (e.g. resident demographics), should drive a data collection strategy.

At the knowledge layer there is a need to share 'tacit' knowledge – between people related to subjects – in Communities of Practice, which should drive the maturity of what information and

data is needed in the longer-term and creates an environment that is evidence-based and where there is a knowledge sharing culture.

Actions:

a) To develop and maintain an Enterprise-wide Information Asset Register – which should highlight where the assets are located, how they are protected, how they are shared where appropriate and use to inform decision-making.

b) To develop a Knowledge and Information Management Community of Practice as an ongoing network of people across the Council to champion knowledge sharing using modern tools and practices.

c) To develop a proactive approach to unleashing data repositories which should otherwise be re-used to support the vision of an e-enabled, seamless and integrated service.

4.5.2 Records Management and Corporate Memory

The Council has a Records Management Policy in place to comply with the Code of Practice on Records Management issued by the Lord Chancellor under section 46 of the Freedom of Information Act 2000. This however, is not widely known about and there needs to be an increase in the approach to records management standards and approaches, particularly with the adoption of the new Microsoft Office 365 Suite is to be a success over the longer term.

Any evidence of the Council's business activity is a record. Records, therefore, can be paper documents, electronic files, emails, databases, maps or images. Keeping records and managing them appropriately in a way that meets the Council's legal obligations is the responsibility of all staff. Records are the Council's corporate memory and can improve the process of decision-making and facilitate business administration. They are, therefore, a corporate asset. The development and application of retention schedules is a requirement of the Lord Chancellor records management Code of Practice under Section 46 of the Freedom of Information Act and is described in ISO 15489. Work has been done to develop a Records Management Policy.

Data Audits will be undertaken to routinely and consistently review the state of the Council's data. Data auditing is the process of conducting a survey to assess how the Council's data is fit for a given purpose – by examining and reviewing business processes and the data recorded in those processes. Staff training and awareness is critical to the success of records management within the Council. Records management will be included in the Council's corporate induction in a general sense so that staff are aware of their responsibilities.

Actions:

a) To develop a specific Records Management Training and Awareness Programme for all staff.

b) To develop a Community of Records Management Champions who are the service leads to help implement the Records Management Policy and for both ICT's Knowledge and Information Manager and the Council's Web Manager work closely to develop this.

c) To update the Records Management Policy.

d) To Review and update Records Management Standards in terms of naming conventions, document storage, domain names and Shared Drives.

e) To set in place a repeatable, Sustainable Data Audit, which could dovetail or complement and Information Asset Register (as set out in the Records Management Policy).

f) To develop the Greenwich Business Classification Scheme which maps to a Retention Schedule (as set out in the Records Management Policy).

4.5.3 Formal adoption of SharePoint as the corporate EDRMS

The Council will formally implement an Electronic Document and Records Management system (EDRMS) for the organisation to deliver:

- New document repositories for services with no document management system.
- Replace existing document management systems that are already in place.
- A viewer/ explorer to search documents within other document management systems which cannot be replicated/ replaced within a new EDRMS.

This ambition is to establish an EDRMS built on SharePoint as a scalable system. A key outcome is to establish a toolkit to migrate data, view into other EDRMS, and create new collections that can be rolled-out wider to include further Council staff in the future.   Microsoft Office 365 and will initiate a roll out to a wider number of users across the estate. The deployment of SharePoint should be based on a cloud solution in line with recent and planned future deployment of Microsoft applications via the cloud. Therefore SharePoint needs to become a fundamental component of the Greenwich Digital Workspace.

Actions

a) To embed the SharePoint EDRMS Rollout with the Greenwich Digital Workspace – so that it is an inherent component of the new intranet and Office 365 infrastructure.

b) To implement a SharePoint Corporate Fileplan and Classification Scheme for consistent document management.

c) To develop the approach for SharePoint Records Management Functionality, including retention.

d) To develop a coherent approach to the way staff will use OneDrive on their own computers, devices and their own devices.

e) To roll out SharePoint Team Sites with clear mechanisms and disciplines for deploying these provided to staff.

f) To embed document management processes into the way users interact with the intranet.

4.5.4 Shared drives and compliant document management

This relates closely to the desktop strategy, the intranet and document management. Shared drives remain unstructured areas where a huge amount of data and information is routinely stored and which is constantly increasing. This means that there is a requirement to have this constantly backed up without a process for streamlining this.   To address this, there will need to be a clear policy on the use of the shared drive as part of a robust information management strategy that introduces mechanisms by which content can be managed automatically using retention periods. Good document management tools (such as SharePoint) enable better collaboration, increase findability, and enable in place records management for overall compliance and long term sustainability – to ensure that data is held correctly.

Actions:

a) To move to a single document management environment using appropriate tools (e.g. considering SharePoint) and to implement this based on solid records management principles.

b) To detail the policy on the use of Shared Drives and Personal Drives as part on a new information based desktop strategy.

c) To produce clear policy guidelines for the storage and access of 'sensitive' data currently stored on personal drives.

4.5.5 Customer insight

To set in place technology to support improved access, it is important that the council understands the preferences of residents and the likely demand. Customer insight relates to how well the council understands its customers, based on evidence and information gathered during interacting with those individuals. Tools for gathering this information include reviewing customer journeys, developing an approach to customer segmentation, developing customer feedback tools, and using service usage data.

Actions:

a) Develop a customer insight project that reviews the existing sources of data for customer analysis and proposes improvements to this evidence data.

b) To make customer insight an ICT priority by engaging directly with initiatives where the council is striving to improve the understanding overall of the residents being served by the council. The strategy will also place an emphasis on any work that supports channels based on this insight.

4.5.6 PowerBI for corporate Business Intelligence

Business Intelligence has the capability to enable considerable evidence based decisions at all levels of the organisation. It tends, however, to fall to many different departments or functions, who generally deploy isolated tools, without it being considered as a strategic, cross-functional initiative with dedicated responsibilities for architecture, tools and technology, content or data quality.

Actions:

a) To develop a documented Approach for deploying PowerBI and ensure it dovetails into other strategies and groups responsible for performance and information.

4.6 Layer V: Security and Trust

Digital interaction and the wide use of smart technology to enable a connected and integrated relationship that is efficient and easy. At the same time it brings with it increased threats which requires a considered focus on cyber security. Government has responded with a National Cyber Security Strategy[3] and it remains a strong theme in the national UK Digital Strategy 2017[4].

Sharing data between services and between authorities needs to increase if there is to be the joined up service delivery that the modern customer expects. Doing this securely, therefore, needs to remain embedded in the behaviours and technologies in place to achieve this.

Customer Enablement
Skilled staff
Business systems
Data into Knowledge
Security and Trust
Infrastructure

The Council is committed to putting the customer at the heart of the approach to information governance and security, therefore uses this principle to determine how the Council handles customer data: a customer-centric approach.
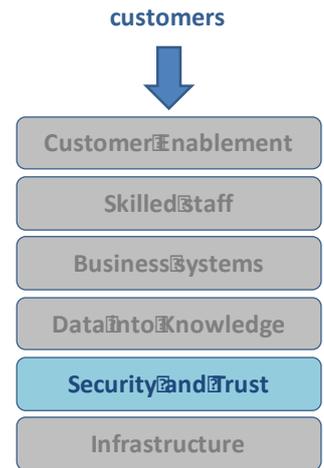
4.6.1 The Information Governance Steering Group

The Information Commissioner's Office recommends that a Senior Information Risk Owner (SIRO) is identified at board level. The Director of Finance performs this role for the authority in accordance with Local Government Association guidance and best practice. The Director of Finance also acts as the Information Governance Lead for the authority chairing the Information Governance Steering Group (IGSG). The IGSG serves as the standing committee accountable to drive information governance agenda forward and to provide the assurance that effective information governance mechanisms are in place within the Council. The IGSG are responsible to ensure that policy is in place and that implementation strategies are implemented.

In common with other councils, the volume of data that the Council handles and processes increases year on year. In handling key data sets for Public Health and social care, the Council has moved into areas of increasing sensitivity; now routinely handling sensitive personal data. There is therefore a new and increased expectation for public authorities to continuously improve the rules, culture, accountability and scrutiny of data handling.

In addition, all new ICT projects are reviewed by the Corporate Data Guardian (on behalf of the Chief Information Officer (CIO)) for Data Protection and Information Security compliance through the Project and Programme Assurance process.

Actions

a) To maintain the Information Governance Policy Development Register to manage the review process of ICT, Information Governance and Information Security Policies.

b) To maintain and update (as part of the Greenwich Digital Dashboard) a common place on the Intranet where all staff have access to policy and guides for information governance matters.

c) To maintain an Information Governance Risk Log and associated Information Governance Improvement Plan.

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[3] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/567242/national_cyber_security_strategy_2016.pdf

[4] See https://www.gov.uk/government/publications/uk-digital-strategy/uk-digital-strategy#a-safe-and-secure-cyberspace---making-the-uk-the-safest-place-in-the-world-to-live-and-work-online

4.6.2 Information Governance Policies – and the Cloud

Information Governance policies are in place to ensure that data is accurate; confidential where required; well-managed; available to authorised individuals; and well-handled. In a reactive capacity the authority has set in place good governance and the roles to support this.

However, there remains a pressure on ICT to reduce the levels of security within the system. File exchange sites like DropBox have the potential to directly by-pass the scanning systems that keep the Council safe. Further, users are increasingly blurring the line between their work systems and personal systems, with again a pressure to install, on Council equipment, domestic software, which in and of themselves may be safe but expose the user to mailing lists that could cause compromising software to be loaded to the network, opening "back-doors" to systems.

With the increased adoption of Cloud-technologies, it is important that staff are reminded of their responsibilities and that there is a proactive review of the policies to ensure that projects, staff and day-to-day behaviour remains safe and compliant. Some of the key considerations moving forward are for the Council to fully understand and comply with the privacy laws, have a clear knowledge of where the Council's cloud provider will protect the Council's data, and the focus on how data will be erased.

Actions

a) To develop specific Proactive Cloud-based data security guidelines for awareness by all staff.

b) To agree the standard for enterprise cloud-based applications and then set in place a simple Cloud-based data processing agreement to be adopted by any staff using any other cloud-based applications.

c) To maintain a Register of Council Cloud-based Applications which should stipulate where the data is stored and whether/what personal data is being stored. This should be reviewed routinely at the Information Governance Steering Group.

d) Develop a Cloud Application Data Erasure Policy – to stipulated how data will be erased from cloud-based applications once the service has been terminated.

4.6.3 The General Data Protection Regulation

The new General Data Protection Regulation (GDPR) will come into effect on 25 May 2018, and will be unaffected by the UK's decision to leave the EU. GDPR will have a significant impact on how the Council complies with the principles of good information management and governance, with greater penalties and fines imposed on "data controllers" and "data processors" in the event of a breach.

The IG Working Group has been reviewing, at a high level, the implications of the GDPR. In order that the Council's notices stay current with this new guidance and current ICO standards, the IG Working Group is in the process of drafting a new Corporate Privacy Notice. A Privacy Notice describes to our customers how the Council will use and process personal information. The ICO deem this good practice for all Data Controllers, which will become a mandatory requirement for organisations under the new GDPR.

Like the existing Data Protection Act, GDPR applies to 'personal data', however, the GDPR definition is more detailed and makes it clear that information such as an online identifier – eg an IP address – can be personal data.

The GDPR creates some new rights for individuals and strengthens some of the rights that exist under the Data Protection Act. While it is vital that the Council reviews and adopts a full GDPR

action plan, there are key components which this strategy sets out.

Actions

a) To ensure that the Council has an evidence base of technical and organisation measures to demonstrate that it complies with GDPR.

b) To develop and maintain a corporate register of Data Protection Impact Assessments with clear guidance for how services need to deliver and then store these.

c) To proactively develop a GDPR Community Of Practice using Office 365 Technologies (e.g. Teams or SharePoint) to ensure that active collaboration and knowledge sharing happens at an operational level.

4.6.4   Network Security

Each year the Council is required to meet the Public Services Network (PSN) Code of Connection (CoCo) security standard so that it is authorised to connect its network with other Government networks and systems such as the Department of Works and Pensions (DWP), NHS and Ministry of Justice (MoJ). This secure connection is also used by Electoral Services.   The award of a PSN certificate gives assurance that the Council's ICT infrastructure meets an appropriate standard of security. The Council has again successfully completed the latest assessment and has received its certificate of compliance for 2016/17.

No ICT system can be considered 100% secure, as the detection systems are updated in response to changes in the form and structure of cyber-attacks. Mindful of this, the Council has increased the frequency of externally conducted ICT Health checks, which pro-actively identify potential system vulnerabilities in order to maximise defensive capabilities.   The ICT service is drawing up a 3-year tender to conduct independent IT health checks of its ICT estate and infrastructure; a requirement of the PSN certification process. Currently, this work is tendered on a year by year basis. However, this has led to inconsistencies of approach and therefore in and of itself could pose a risk, in terms of things being missed between auditors.

ISO/IEC 27001:2013 (ISO 27001) is the international standard that describes best practice for an ISMS (information security management system). Achieving accredited certification to ISO 27001 demonstrates that the Council is following information security best practice, and delivers an independent, expert assessment of whether your data is adequately protected.

Actions

a) To Procure and set in place a three-year third party IT Health Checks service.

b) To establish a project to deliver ISO 27001 accreditation in parallel to the ongoing processes focused on network security management.

4.6.5 Information Governance Toolkit for Connecting to Health

The Council is required to submit an annual Information Governance Toolkit return to NHS Digital to allow it to access NHS digital services directly. The approval of the Council's IG Toolkit submission to HSCIC gives an assurance of the Council's Information Governance practices, policy and processes. This has been a successful process and through the accreditation for 2015/16 the Council's score increase from 71% to 83%.

Actions

a) To Set in place and delivery ongoing compliance with the Information Governance Toolkit and to submit this annually, raising new issues with the Information Governance Steering Group where appropriate.

4.6.6 The review of health and social care data

Following a Data Security, Consent and Opt-Out review by the National Data Guardian for Health and Care (Dame Fiona Caldicott) made recommendations to the Secretary of State for Health aimed at strengthening the safeguards for keeping health and care information secure and ensuring the public can make informed choices about how their data is used. These propose new data security standards for the NHS and social care, a method for testing compliance against the standards, and a new opt-out to make clear how people's health and care information will be used and in what circumstances they can opt out.

Actions

a) To ensure that the Council's Information Governance Steering Group is fully aware of the implications of the review and that social care service areas can accommodate these requirements (e.g. opt out) options where appropriate (e.g. in the social care system).

b) To embed the recommendations into health and social care sharing agreements.

c) To ensure that future social care improvements are compliant with the National Data Guardian recommendations (e.g. upgrades to their systems or the review of portal environments).

4.6.7 Data Zones and protective marking

While it is vital that Greenwich continues to take strong measures to protect restricted, sensitive and personal data that it has a legal duty to protect, the council also has to ensure that it caters for the pressures of consumerisation and new technology. If the measures in place are too restrictive, business areas will find alternate ways of making and accessing data.

Data zones

ZONE 1 — Public ← freeing — ZONE 2 — Confidential — ZONE 3 — Restricted Sensitive Personal
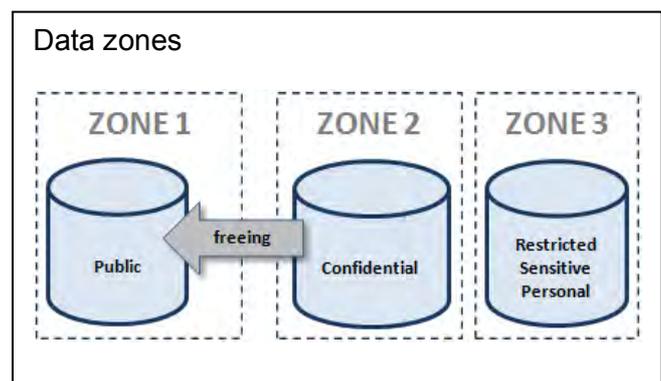
The council will consider developing a culture where there is an open, public approach to most data the council officers create unless there are legal restrictions from doing this. The council will develop zones of data publishing and protectively mark data according to risk and sensitivity in order to achieve this. In addition the council needs to accept that it will need to be more robust in the way it approaches 'roles' and how those roles have access to 'data'. This will mean having an approach making changes to (1) Trusted roles, (2) Zones of data, (3) balanced controls based

on level of risk, and (4) focusing on users and data as security perimeters.

Actions:

a) To set in place an architecture and infrastructure approach that allows for data zoning that can also be used to facilitate new mobility access approaches such as BYOD, Office 365 and Cloud access.

b) To develop a protective marking scheme that reflects this zoning.

4.6.8 Cyber Security and Attacks

High profile attacks on private sector companies and a ransomware incident experienced by a County Council (LCC) led to loss of network connectivity, loss of trust and adverse media coverage. The Council has in place front-line defences against various malicious cyber threats including SPAM, phishing and malware such as Trojans and illegal botnets. The Council's defences block approximately 3,000 of these threats each month.

Government produced 10 Steps To Cyber Security[5] and the Council will review and adopt the key principles from this work. Much of this is about embedding an appropriate risk management regime across the organisation, supported by good governance. It includes communicating the approach to risk management through policies and practices. These should aim to ensure that all employees, contractors and suppliers are aware of the approach, how decisions are made, and any applicable risk boundaries.

Actions

a) To review and embed key principles related to Cyber Security to assure the Council from Cyber-attacks.

b) To set in place specific Cyber Security Policies and Guidelines where existing policies do not sufficiently address these issues and to further embed the message to all staff.

4.6.9 Security training

User awareness of Information Governance and Information Security is the Council's biggest form of defence. It's all too easy to concentrate on the attacks coming from outside and ignore the risks posed - wittingly or unwittingly - by people inside the Council. The biggest cyber threat to the Council is un-informed users clicking on email attachments or URLs they believe are from trusted sources. The ICO recommends that staff are made aware continuously of information governance policies and guidelines.

Actions

a) To review and set in place an updated Information Governance Training Course.

b) To embed information governance and GDPR principles into the HR induction process and checklist for e-Learning

c) To conduct a Data Security audit to deliver a full, corporate risk audit for the attention, escalation, and mitigation of senior management. This will focus on systems, processes as well as people risks and will focus on core Data Protection Principles.

d) To undertake a risk assessment on the effectiveness of the security policies and the

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[5] https://www.ncsc.gov.uk/guidance/10-steps-cyber-security

associated mitigating actions set in place for ICT Security monitoring.

4.6.10 Secure email

The Council operates three secure e-mail systems for the transmission of confidential information. Following recent guidelines from the Cabinet Office, a review of the Council's e-mail systems is underway. These reviews will look to better secure the main Council e-mail system (.gov.uk) and potentially allow for the retirement of the other e-mail services. This could simplify the use of corporate e-mail and provide a secure mail system to all users.

Actions

a) To undertake a review of secure email to simplify the tools and adopt a simplified, Enterprise-wide Secure Email model.

4.6.11 Confidential waste

The process for removing and destroying confidential waste in The Woolwich centre has been overhauled. New lockable confidential waste bins and an offsite shredding process have replaced the use of unlocked yellow sacks.   The new contract with TNT now provides for the first time an off-site, archive, retrieval and destruction capability.

Actions

a) To monitor the Confidential Waste process and make recommendations to Information Governance Steering Group where risks have been identified or where improvements can be achieved.

b) To ensure that all staff are routinely made aware of the correct processes around confidential waste as part of Staff Information Governance Training and Review.

4.6.12 Mobile data encryption

There will be a full policy and response to the growing need for mobile data encryption. The emphasis is to embrace and manage the pressure that exists for data to be transferred securely on mobile devices. This needs to be appropriate for the device since the current encryption standard (EAS) is slow and slows things down for users – leading to the driver to work around secure data management. The Greenwich approach will be to establish mechanisms that work with the data zones and, where appropriate, encrypt data at the source.

The Council will continue to protect restricted, sensitive and personal data in line with legal obligations. But recognising the growing pressures around access to commercial applications and new technologies, the council must be open to change and adapt alongside the consumer market whilst maintaining the highest levels of data management and security. Mobile device and secure data solutions (i.e. encryption) and offerings will be primarily managed in-house, but must remain supported by several third-party vendors to provide specific expertise around particular services.

Action:

a) To develop a policy and approach to mobile data encryption that complements the notion of data zones and sets the direction for the council as the pressure to use this technology steadily increases.

4.6.13 Third party data ownership and IPR

The Council may choose to deliver services directly or via other organisations. With the increased consideration around cloud technologies it is likely that ownership of systems and how the data they hold will become more and more unclear. It is, therefore, important that the council has a clear policy about data ownership and that suppliers hold this data in a way that can easily be handed back to the council if the contractual relationship should end. The council must ensure to enshrine the council's rights of IPR in contractual arrangements.

Action:

b) To produce data ownership and data holding policy that becomes part of any contractual arrangements with third party suppliers

4.6.14 Freedom of Information and the Greenwich Digital Workspace

The Council is committed to continuously improving the way it responds to requests for information under statutory access regimes, including the Freedom of Information Act (2000), the Data Protection Act (1998), the General Data Protection Regulations and the Environmental Information Regulations (2004).

An emphasis of the Data Into Knowledge Layer and approach provides the Council with tools to improve the way data and information is managed to such a degree Freedom of Information compliance should become considerably easier to address. This, with an emphasis on improving the tools around a Greenwich Digital Workspace, provides the basis for an improved information management approach across the Council.
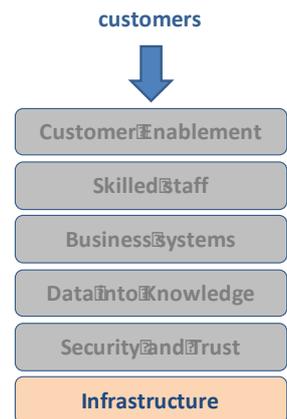
Actions:

a) To deliver an up-to-date Access to Information Policy which should also set out an approach to how Office 365 and a Greenwich Digital Workspace will deliver the environment for improved information management and corporate records management.

4.7 Layer VI: Infrastructure

customers

Customer Enablement

Skilled staff

Business systems

Data into Knowledge

Security and Trust

Infrastructure

4.7.1 Overview

From 2013-2017 the programme focused on building the resilience of the Council's core systems, ready for the 2017/18 replacement of the core infrastructure. The virtual environment has been migrated to the Slough Data Centre. It has been a period of considerable change which has now set the Council ready for the next period of time, with an emphasis on stable, resilient infrastructure underpinning the strategic ambitions of the other layers of technological development.

4.7.2 Core infrastructure

In terms of the scope of the service, during a typical day, the Council will send or receive around 165,000 emails, create more than 104Gb of new data and generate over a million electronic transactions. The Council has an active user base of approximately 3,487 accounts operating from 67 sites. Of these around 2,700 will be logged on concurrently during a working day.

The core environment, which is housed in the Slough Co-located Data Centre, is provided through 28 production and 4 Test/Dev Dell Server Blades. The virtual servers, which run on the Blades, now attach to the Dell Compellent Enterprise Storage Area Network (SAN) in one of two ways. The first is through the existing cluster of 4 physical Dell PowerVault Network Attached Storage (NAS) file servers, which provide access to Application data. The second is through two new five-node Virtual File Server clusters and one three-node Virtual File Server cluster, which provide access to user Home and Shared drive data

The virtual server environment has grown in the last year from 232 to 261 servers, these are hosted on the 28 Dell physical Blade servers. In addition to the Blade servers, there are standalone servers in the estate. There has been a small growth of these, with an additional 2 servers installed. The total blade and standalone physical servers is 67, supporting around 382 "line of business" applications.

The Storage Area Network (SAN) environment contains 160 disks; which has remained stable for the last year. There are 147 disks in live operation at any one time, with 13 in reserve as 'hot-spares'. The disk capacity of the SAN is managed through an annual capacity management plan. This plan ensures that the overall number of disks and the total volume of data storage available, keeps pace with the Council's storage demands. The storage is measured in Terabytes (Tb), 1 Tb = 1,099,511,627,776 bytes = 1012 bytes = 1,024 gigabytes.

4.7.3 Data Centres and Infrastructure options

The Council will consider the Total Cost of Ownership of options around a <u>Cloud-based Infrastructure as a Service</u> solution, which removes the onus on the council to manage an in-house infrastructure environment.

The primary data centre in Slough sits at the heart of the council's systems and represents one of the council's most important assets. It is the physical location(s) for secure and controlled environments to support equipment that stores, processes and transmits the council's information. This includes electricity and cooling, and networking systems, such as switches and routers, and storage systems, such as tape and disk. Key factors in ensuring good availability of systems is the provision of solid redundancy and fault tolerance in power, air-conditioning and telecommunications. The council needs to formalise it secondary location and consider options around hosted solutions in the cloud. The Council will also undertake the necessary business

analysis to fully understand the total cost of ownership of providing such a service.

Action:

a) To undertake Business Analysis on IaaS - on options of moving infrastructure into the cloud and detailing an understanding of how this would be managed within the council.

b) To review options that look at the trend of moving ICT Service Management to the cloud and to produce a cost-benefit analysis – looking over the longer term.

c) To set in place the design and approach for the Logicalis data centres – contracts which will expire in 2021.

4.7.4   Improving access to the Internet and the Cloud

Access to the Internet is a fundamental enabling technology for providing technology that supports better ways of working electronically.   This requires attention on the Council's connectivity architecture to ensure they are robust of cloud-based, online transactions and the increased move towards these technologies. With cloud based solutions being part of all line of business system changes and improvements, the approach to data storage, processing power and, importantly, network capacity on connectivity are much more critical than before.

In addition the role of enterprise architecture becomes even more critical in digital environments, as critical business processes are increasingly dependent on the technology platforms. These platforms must necessarily be much more robust, scalable and resilient to support growing and fluctuating volumes of users, to handle the increased and more complex workloads, to support huge and ever-growing data flows, to allow for load balancing and, if needed, graceful degradation of services and to protect against growing threats of data loss, cyber attacks and other adverse events with potential to prevent the business from operating.

Actions:

a) To ensure that the Network latency and capacity can support all users on the network with the known envisaged application environment.

b) To set in place Network Performance monitoring and capacity tools which cater for the increased demand for continuous Internet Connectivity

c) To prepare a policy for service areas moving business applications to the Cloud, since there is an ongoing and increasing impact on the Council's Internet connection for each service added.

d) To set in place a reliable Active Directory database for the further development of cloud-based services which will rely upon this

4.7.5 Enterprise systems architecture

The enterprise systems architecture is the depiction of an overall system, structured to depict the various components that work together to deliver a logical and cohesive whole. Without such a vision, projects and investment will continue to remain ad hoc and without a context. Once an organisation has an enterprise systems architecture vision in place, it becomes easier to engage, debate and discuss the direction of travel and, once agreed, easier to ensure that work is delivering against it.

Another area to focus on is where new technology is introduced. There are good examples of where the Council is introducing new technologies, but not disposing of old – leading to the requirement of doubling up of the support requirement.

Actions:

a) To develop an overall enterprise architecture plan, which sets the roadmap for core technologies and what the various technology building blocks and interfaces are.

b) To set in place an Infrastrucure plan to increase the Internet Bandwidth of Unit 4, or alternatively devise a plan to cater for the network demand

c) To coordinate all technology development through a single Technical Design Board (TDB), based upon the enterprise architecture.

d) To challenge projects regarding support arrangements - to set in place either a process, budget and process for decommissioning old technology where this is being replaced by new, or to provide additional FTE resources to support both.

4.7.6 Business Continuity and Disaster Recovery

The core environment has a separate backup solution called "NetVault", which has both hard disk and tape storage. On a weekly basis, the solution writes a copy of the data off to a tape drive for off-site storage. Each tape is kept for 13 months, allowing in the case of simultaneous, catastrophic corruption of the core system and the backup system, for the system data to be recovered back to any point in that timeframe. However, in normal operation, corruption of data in the SAN, is rectified by having the backup data "played" back into the system from the hard disk copy in the backup solution.

As part of the 2013 ICT Strategy, NetVault was introduced during the migration to the new Slough Data Centre. It has been sized to fit the new environment and, with a new licencing model in place, will produce cost-savings compared with the previous (CommVault) solution.

NetVault is one of two backup solutions currently in place. The second is called "BackupExec", which provides data protection to the Council's legacy physical servers, located at our secondary, off-campus Data Centre. This solution is a 'straight to tape' solution, and has adequate capacity to service the servers in this estate. As with the NetVault tapes, BackupExec tapes are stored in an off-site location.

In addition to the back-up solution, the core environment itself has data protection systems. The core environment takes 'Snapshots' of user and system data at key points in the day. This enables almost immediate restoration of the entire live data pool, back to the last snapshot point.

The environment is subject to a comprehensive operational management and maintenance regime. This ensures that routine proactive maintenance takes place in a programmed and timely

manner. As part of this programme, security and update "patches" are applied monthly to desktops and quarterly to servers. Appropriate system and firmware updates are applied on an annual basis.

Monitoring systems are in place at different levels across the infrastructure to provide early detection of component failures or changes that could affect the operation of the hardware. The monitoring team, who monitor these systems, turn these reports into proactive fixes that prevent system failure affecting users, or users' experience of the system.

Actions:

a) To produce an ICT Business Continuity Plan that is up-to-date, subject to change control and in line with BS 25999 (the standard for business continuity).

b) To set in place Cloud / Hybrid Business Continuity that focus on a high availability service, based on the above plan, using the Cloud.

c) To produce plans to ensure that rehearsed ICT business continuity exercises are undertaken as part of the ICT Business Continuity Plan.

d) To develop an ongoing, routinely reviewed ICT Business Continuity Risk Log, which identifies potential threats and the impacts to operations that those threats might cause, related to business continuity.

4.7.7   IT Support Team

The Service Desk receive, on average, 2,700 phone calls and 3,500 email interactions per month from both staff, Members and external 3rd party suppliers. The Service Desk was one of the services in-sourced from Northgate in February 2016. However, the supplier didn't transfer any staff to the Council as part of this process, nor provided the Council with the full set of historic performance data. This meant that transitional arrangements had to be put in place at the 11th hour. This resulted in staff and managers needing to be sourced at the last minute, in order to complete the transition on time.

The opportunity was taken to change the service, implementing the tools, culture and ethos exhibited within Customer Services. The team now handles calls using Customer Services' methods and performance standards. This includes implementing call recording for quality and training purposes. The Service Desk team now work to the same standards as the Corporate Contact Centre, in terms of logging every incident and service request that the desk agent handles, providing each with a unique reference number, in a similar way to a Contact Centre Agent.

Performance was stabilised in quarter 2, when the transitional Agency Manager and Team Leader was replaced by internal promotions of staff who have both ICT and Contact Centre skills, generated through our "grow our own" leadership programme. The new leadership team have pushed forward with appointing permanent staff for the helpdesk and focusing the team on the customer experience. This has had a positive impact on the service and plans are now in place to develop the service to provide more self-service fault reporting.

The Housing IT team formed part of the Directorate of Housing until its disaggregation in November 2015, when the unit became part of the IT Strategy division. The team initially reported into the Governance, Systems, Performance and Customer Experience (GSPaCE) team. In the April 2016 Finance Department reorganisation, the team have been homed under the management of the ICT Operations group, with a focus of back office ICT operations.

The Housing IT team is responsible for the administration and support of 17 systems, a number of which are legacy. As well as system support, the team provide hardware support to Asset Management in relation to the Lenovo handheld devices.

Mobile working is supported for Estate Wardens and Tenancy Services with the Estate Wardens having completed 1,104 beats and logged 10,751 issues via handhelds. They were also able to log 982 new Anti-Social Behaviour cases and close/resolve 827 of them. System support is provided to allow the raising of responsive repairs and cyclical servicing orders.

The team implemented a document verification system (Trust ID) for Housing, Audit and Customer services users, along with various system updates and enhancements for Income, Allocations, Repairs and M3 (Environmental Health system).

Staffing this service is vital and where there are periods of understaffing this has a considerable impact on the service's ability to deliver.

Prior to insourcing, work was governed by a contract and clear demarcation points were in force, which enabled the forecasting and effective management of tasks. This has now ceased and IT Support are the one stop shop for all IT Issues leading to a higher volume of Incident and Requests.

Actions

a) To identify task owners, set demarcation points and produce ongoing process documentation to keep the Service Desk skilled to undertake First Line Tasks.

b) To proactively contribute and provide resources to actively support a new Project Transition Into Service Process which must include the training of support desk staff where appropriate.

c) To ensure there are high skill levels for Datacentre Management (Unit 4 and other sites) to implement controls and boundaries around the datacentres and ensure best practice is followed.

d) To set in place a Proactive   PSN Remediation Tasks process (following the reviews) and to dedicate staff to undertake this work for set periods.

4.7.8 Application Development

Application Development will be fundamental as the Council moves towards a more complex, integrated environment with CRM as the hub and application interfaces enable end-to-end transactions. At present the model has been to use an external, third party to develop applications for the current environment, but this is unsustainable and creates a gap in knowledge and support.

Moving forward the approach will be to develop existing third line engineers to undertake the work and to begin to develop this function as an in-house capability.

Actions

a) To set out a sustainable approach and embed this skill-set within the organisation structure of the ICT Department.

b) To set out an application development approach which is based on standards, interoperability and looks to ensure convergence of technologies over time.

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4.7.9 Desktop and application environment

Council Staff have a hybrid desktop available to them. The Microsoft Office Suite is available to them on the desktop. Access remotely to applications are available to them using Horizon View – virtual desktop infrastructure, and staff are also able to access modern cloud-based services using Office 365.

There is a need to rationalise this where possible to reduce complexity of support. There are also several different methods to deploy applications to end-users including local install, System Centre Configuration Manager (SCCM) and AppV. IT support need to ensure these applications are kept patched and up-to-date to reduce security and compliance risks.

The current desktop estate is over 5 years old and out of warranty. This is creating additional incident calls due to an increase in power supply and hard drive failures. A proposal to refresh the desktop estate has been put forward and will replace the existing desktop PC's with more modern, faster desktops with dual-screens. There is an opportunity, as part of this refresh, to pilot a zero or thin client solution utilising the existing Virtual Desktop environment.

Actions

a) To rationalise the desktop application offering around a staff persona

b) Carry out a rolling review of supported and installed applications to keep them up-to-date and compliant

c) Pilot a zero or thin client desktop solution utilising the existing Virtual Desktop environment

4.7.10 Email and Office 365 to all staff

Email remains the primary and most used tool on the corporate desktop. For the council to continue to host this wholesale inside the council, it will also need to provide assurance that it has replication and therefore business continuity. The council has identified a routine need to communicate sensitive personal data and restricted email securely, with partner agencies as well as individuals. Currently these decisions are made on a departmental level. Corporate email needs to be made available through Cloud options, such as Office 365, to provide a hybrid email solution that enables webmail and other tools, dependent of the type of role accessing.

One of the areas will revolve around data security – the need for two-factor authentication. A further consideration is on the approach to secure email (the Security and Trust Layer section).

A further piece of work done was related to Skype for Business as the Voice over IP solution for all staff. This was originally established as a Proof of Concept and then rolled out to 300 users. Moving forward there needs to be a full assessment of the resilience of the environment if there will be complete reliance on it.

Action:

a) To undertake a full options analysis on how Office 365 and can be deployed to all staff in a way that is consistent with data security requirements.

b) To undertake Skype for Business network and latency testing to ensure that the network can cope with the future vision of using this on all desktops.

4.7.11 Greening ICT Policy

Green ICT aims to achieve being environmentally sustainable and carbon neutral. IT support have implemented 'Wake-On-Lan' across the core Campus sites. This provides the ability to turn desktop PC's on and off remotely, allowing ICT to not only wake PC's up out of hours to deploy patches (reducing impact to end-users), but also turn them off to reduce electrical power usage.

Actions:

a) To define, through the Technical Design Board, a clear policy on green procurement that ensures that all new development is using a favourable model for greener ICT. This will include the implementation of green ICT metrics: kilowatts per year consumed by data centre and the number of supported ICT users.

b) To reduce environmental impact through robust, challenging procurement activities and supply chain management.

c) To deliver good asset management – by keeping assets for longer.

d) To undertake responsible recycling of all ICT assets in line with statutory responsibilities

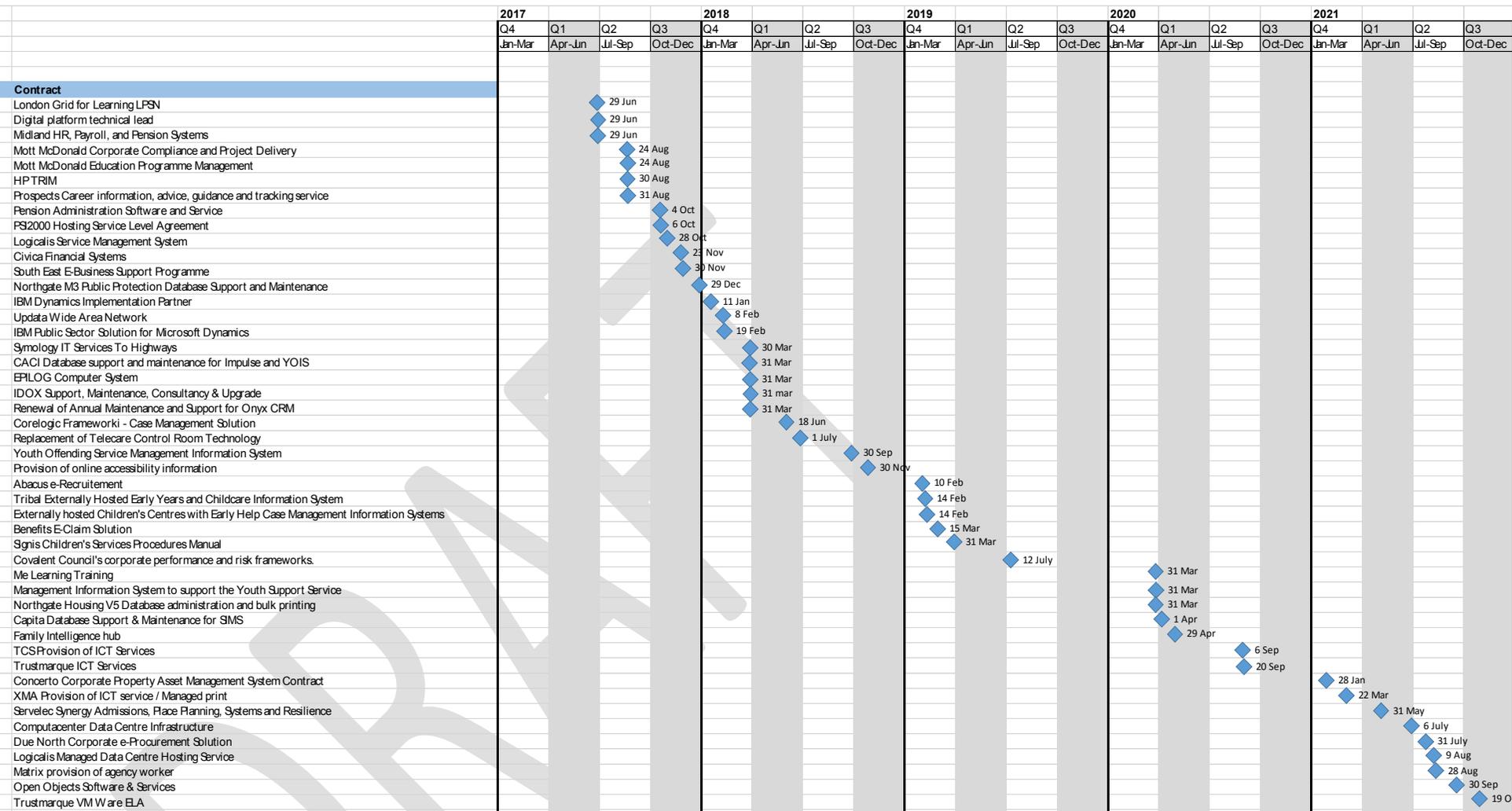# 5 Timeline for key contracts

5.1 ICT Contracts

Key contracts provide the basis for being proactive in terms of work where there may be the need to consider a new system, major upgrade or a review of the technology altogether. The Chart (next page) lists all contracts over the duration of this strategy which have a major ICT impact.

(Also please see the Section Contract life cycle management)

5.2   Chart of key contracts

Service Area	Contract	Milestone
...ef Executive	London Grid for Learning LPSN	29 Jun
...alth and Adult Services	Digital platform technical lead	29 Jun
...ance	Midland HR, Payroll, and Pension Systems	29 Jun
...ES	Mott McDonald Corporate Compliance and Project Delivery	24 Aug
...ES	Mott McDonald Education Programme Management	24 Aug
...mmunity Services	HP TRIM	30 Aug
...ldren Services	Prospects Career information, advice, guidance and tracking service	31 Aug
...ance	Pension Administration Software and Service	4 Oct
...mmunity Services	PSI2000 Hosting Service Level Agreement	6 Oct
...ance	Logicalis Service Management System	28 Oct
...ance	Civica Financial Systems	23 Nov
...ES	South East E-Business Support Programme	30 Nov
...mmunity Services	Northgate M3 Public Protection Database Support and Maintenance	29 Dec
...ance	IBM Dynamics Implementation Partner	11 Jan
...	Updata Wide Area Network	8 Feb
...ance	IBM Public Sector Solution for Microsoft Dynamics	19 Feb
...ES	Symology IT Services To Highways	30 Mar
...ldren's Services	CACI Database support and maintenance for Impulse and YOIS	31 Mar
...mmunity Services	EPILOG Computer System	31 Mar
...ES	IDOX Support, Maintenance, Consultancy & Upgrade	31 mar
...ance	Renewal of Annual Maintenance and Support for Onyx CRM	31 Mar
...ES	Corelogic Frameworki - Case Management Solution	18 Jun
...ance	Replacement of Telecare Control Room Technology	1 July
...ldren's Services	Youth Offending Service Management Information System	30 Sep
...alth and Adult Services	Provision of online accessibility information	30 Nov
...ance	Abacus e-Recruitement	10 Feb
...ldren's service	Tribal Externally Hosted Early Years and Childcare Information System	14 Feb
...ldren's Services	Externally hosted Children's Centres with Early Help Case Management Information Systems	14 Feb
...ance	Benefits E-Claim Solution	15 Mar
...ldren's Services	Signis Children's Services Procedures Manual	31 Mar
...ntral Services	Covalent Council's corporate performance and risk frameworks.	12 July
...ance	Me Learning Training	31 Mar
...ldren's Services	Management Information System to support the Youth Support Service	31 Mar
...mmunity Services	Northgate Housing V5 Database administration and bulk printing	31 Mar
...ldren's Services	Capita Database Support & Maintenance for SIMS	1 Apr
...ldren Services	Family Intelligence hub	29 Apr
...ance	TCS Provision of ICT Services	6 Sep
...ance	Trustmarque ICT Services	20 Sep
...ES	Concerto Corporate Property Asset Management System Contract	28 Jan
...ance	XMA Provision of ICT service / Managed print	22 Mar
...ILDRENS SERVICES	Servelec Synergy Admissions, Place Planning, Systems and Resilience	31 May
...ance	Computacenter Data Centre Infrastructure	6 July
...ance	Due North Corporate e-Procurement Solution	31 July
...ance	Logicalis Managed Data Centre Hosting Service	9 Aug
...ance	Matrix provision of agency worker	28 Aug
...ILDRENS SERVICES	Open Objects Software & Services	30 Sep
...HEX - IT	Trustmarque VM Ware ELA	19 Oct

6   Risks

The following risks flow from the actions that need to be taken and range from overall governance issues to specific technical ones.

The following risks flow from the actions that need to be taken and range from overall governance issues to specific technical ones.

6.1   Adoption, governance and culture change risks

Ref	Risk	RAG	Mitigation
A	There is no desire for change across the organisation.	A	The new ICT Strategy is supported by a Smart Enabled Customers Communications and Engagement Strategy, supported by ICT Training and these form part of the key messages which are raised with GMT.
B	The Strategy is not understood or is misunderstood	A	Ensure that the action plan in Appendix A becomes part of individual and or team objectives within Corporate ICT and the wider Council where appropriate.
C	Core principles are not adopted during routine ICT procurement, implementation and engagements.	A	Ensure that these are part of a proactive piece of work done by the ICT Champions and Business Relationship Management process and that this forms part of the Smart Enabled Customers Communications and Engagement Strategy.
D	The Greenwich Management Team are too busy to provide the required focus and attention to ensure that ICT is embedded to deliver the strategy	R	Ensure that there is a dedicated lead to drive forward the communications to GMT. Ensure all papers / presentations are engaging, interesting and refer to service-based deliverables.
E	The ICT Champions Group does not meet as a group and joined up meetings are considered unnecessary.	G	Place emphasis on the Resources and ICT Strategic Service Manager's role to ensure that meetings are regularly held and seen as core meetings for disseminating vital, yet operational changes, to the business. Ensure that all Group meetings are well prepared from and that work presented is engaging, interesting and relevant to service areas.
F	No work is done to proactively identify projects on the horizon, leading to rushed procurements, unnecessary upgrades and tactical decisions about key business systems.	G	The ICT PMO and Project leads actively spend time incorporating projects on the horizon onto the programme dashboard.
G	Business engagement and	A	Business engagement becomes a core priority

	roadmaps fail to be developed, leaving service areas to seek their own solutions.		of the ICT Service and the delivery of a council-wide roadmap of ICT delivery a priority.

6.2   People & Skill Risks

Ref	Risk	RAG	Mitigation
A	No skills and training programme is undertaken and no in-house course is produced.	A	The ICT Service Management team to lead on setting up an in-house training course for key ICT skills. HR are fully engaged to deliver and support this.
B	Office 365 is rolled out without proper training, leading to sporadic take-up, misunderstandings, confusion and ultimately frustration.	A	To set in place short (e.g. one hour) and simple courses that explain the best use of some of the collaborative features (e.g. how to use Teams / SharePoint). Develop the architecture / understanding to support Office 365 in advance. Develop a structured Office 365 Collaborative Team Sites Approach
C	No work is done to develop the Greenwich Digital Workspace "intranet" as a joined up collaborative environment.	A	Develop the Greenwich Digital Workspace Strategy with HR, the Web Team and Corporate ICT's Knowledge and Information Manager, to agree the direction, approach and possibilities of leveraging current tools.
D	The ICT Service does not embed the concept of Communities of Practice (COP) - skilled groups collaborating across the organisation - leading to the lack of development of the COP Productivity Champions, COP Knowledge and Information COP, Records Managers, and COP for Data Analysis.	A	The newly created Knowledge and Information Manager role leads on the development of skills and knowledge sharing across the organisation, focusing primarily on 'people' and then only on technology and processes.
E	Benchmarking is regarded as taking up too much time with insufficient benefit, leading to the reinvention of error and a lack of learning from other organisations.	A	ICT Lead on an Advisory Benchmarking Process and set in place a process for mini-projects and Proof of Concept projects.

6.3   Technology Layer risks

Ref	Risk	RAG	Mitigation
A	CRM is implemented to replace the older system in such a way that it is not extensible and this hinders further phases of development.	A	A CRM Architecture Design and Roadmap is designed as the basis for the implementation and all subsequent phases
B	A customer-focused technology architecture is not developed leaving the council unable to make technical integrations and remain on point / inefficient mechanisms (e.g. web forms to email).	R	Work is done to include the CRM Architecture Design and Roadmap into current programmes of work.
C	There are too many assumptions about the need to design a Customer Golden Record, the LLPG and methods related to the migration of services, without giving this a 'fresh' look at integration, based on the opportunities of the newer technology.	A	Benchmark approaches elsewhere (quickly) and not only in the public sector, to understand working models for ongoing integration and the overheads that accompany them.
D	There is a lack of internal agreement to the way in which Online Self-Service Transactions need to be delivered, leading to no sustainable and foundation work being done – which means work may need to be redone at a later stage.	R	Produce and implement a Strategy for Online Self-service transactions describing a plan for online self-service and agree this at the newly formed Website and Customer Services Forum.
E	SharePoint as a technology is not implemented well because it is under-estimated and there are fears that it may become too all-consuming a piece of work.	A	Embed the SharePoint EDRM Rollout with the Greenwich Digital Workspace (therefore it must consider the O365 implementation) and make it fit-for-purpose based on a corporate records management approach.
F	There is no corporate Business Intelligence approach that is strategic, cross-functional initiative with dedicated responsibilities for architecture, tools and technology, content or data quality.	A	Set in place the approach for deploying PowerBI and ensure it dovetails into other strategies and groups responsible for performance and information.
G	There is no specific security approach to Cloud-based applications, because the basic commitment to data security is considered already being met by existing policies – this leads to gaps in the understanding by staff and due to the flexibilities of the technology – which leads to a data loss or breach.	A	Develop specific Proactive Cloud-based data security guidelines for awareness by all staff, maintain a register of Cloud-based applications and develop a data erasure policy.

H	The new General Data Protection Regulation (GDPR) comes into effect and the Council is unprepared for the required changes needed.	R	Prepare a plan to demonstrate readiness to GDPR, including an evidence base of technical and organisation measures that are in place, a register of DP Impact Assessments and building internal teams to support it across the organisation.
I	As more services move to the Cloud, the Council's infrastructure, reliant on Internet connectivity, is overloaded in terms of latency, speed and resilience.	A	Each project which moves a service towards Cloud-based infrastructure also needs to take into the account the overall impact – and where necessary the corporate centre would need to increase capacity to achieve this (including costs to deliver this).
J	Data zones are implemented as a good way around data security restrictions and the environment is not architected correctly.	A	Data zones becomes a core project with key input from the Technical Architect.

7 Appendices

7.1 Appendix A: Full list of actions collated

Transformation and Assurance Framework Actions		
3.2.2	GMT 'Blue' to lead the agenda	a) To set in place the expectations by GMT Blue to deliver this strategy. b) To develop a roadmap needed that revolves around a vision for the future and to chart progress against this vision.
3.2.3	Business transformation champion	a) To set the Business Transformation programme up with named Business Transformation Champions in each Service to support GMT Blue. b) To proactively identify opportunities and skills to ensure all officers involved in this process are technologically savvy and get the opportunity to become so.
3.2.4	Ongoing Innovation, benchmarking and Horizon Scanning	a) To create virtual forums for Active Benchmarking which are actively monitored and incorporated into the mainstream technology strategic analysis. b) To develop corporate-wide projects that fundamentally review how technologies (e.g. GOV.UK's Verify) could or could not benefit the Council. These Research and Development projects should be fully structured around re-usable research write-ups. c) To create collaborative areas where Lessons Learnt can be shared with a view to building up a knowledge bank of what has worked and what does not. d) To assess and write up those Proof of Concept projects which are closed or seen not to deliver.
3.25	Strategic Convergence through a Technical Roadmap	a) To develop the enterprise systems architectural vision and technology roadmap which is visible and available to all service areas. a) To actively become engaged in those programmes, projects and benchmarking exercises where a shift at an early stage could have a considerable impact on subsequent decisions by the Council.

3.3.1	The ICT Champions Group	a) To hold joint ICT Champions Group meetings with coordinated agenda items. b) To actively encourage and plan the meetings around specific themes. c) To set in place an engagement plan which speaks about progress on key programmes, but doesn't become bogged down with single project updates. d) To devise a plan for routinely updating the group with common metrics.
3.3.2	Business Relationship Management	a) To review and set in place 'virtual' service specific meetings and move face-to-face discussion towards Champions meetings. b) To set in place clear protocols for running 'virtual' meetings to ensure that these complement service desk calls (e.g. escalations) and Champions meetings.
3.4.2	Technical Assurance	a) To review the set-up of the Technical Change Control Group and review the terms of reference including membership. b) To take responsibility for the development of an enterprise systems architectural vision and technology roadmap. c) To ensure that the web manager and security concerns are fundamentally part of the technical discussions that impact the public facing website, intranet or social media.
3.4.3	Change Control Assurance	a) To continue the rigorous change control assurance levels which have put the Council in such a stable position technically. b) To broaden the involvement of specialists across the organisation to include the web manager where there are matters which affect the public facing website, intranet or social media. c) To ensure that Customer Services are directly involved in all interface and system discussions which could potentially affect CRM.
3.4.4	Programme and Project Assurance	a) To continue the rigorous project assurance levels which have instilled confidence in ICT projects and put rigour around the Business Case, feasibility and delivery processes.

		b) To broaden the involvement of specialists across the organisation to include the web manager where there are matters which affect the public facing website, intranet or social media.
3.4.5	Proactive Project Management identification and improvements	a) To set aside time for the ICT PMO and Project leads to actively spend time incorporating projects on the horizon onto the programme dashboard. b) To proactively monitor contracts, providing service areas with a realistic lead time to undertake the work required to delivery upgrades, changes to contracts or new developments. c) To Set in place a well-followed Transition into Service process for all Projects which must include the training of Support Staff. This needs to be a pre-requisite for all and any project go-live position. d) To set in place a full life-cycle agreement as part of the project cost so that decommissioning old systems is part of the project closure process.
3.5.2	Operations manager and the suppliers as an 'in-house' resource	a) To finalise all remaining restructuring to fully consolidated the in-house help desk. b) To focus on supportive / helpdesk tools into a single framework, working on a means to set CRM as a strong basis to support this.
3.5.3	Re-affirming the Service: SLAs and Technology as a portfolio of services	a) To develop a detailed service catalogue that forms the basis for work to be delivered on the SLA. b) To develop a mechanism for how Service Delivery will be measured, including indicators and engagement through the ICT Champions Group meetings.
3.5.4	Managing ICT suppliers outside the corporate ICT service	a) To define a process for managing external suppliers.
3.5.5	Contract and vendor management	a) To continue to corporately manage and commission all ICT contracts to ensure they are consistent with corporate policy and sound commercial, ethical and legal practices.

		b) To identify and then manage Contract Milestones and Key Performance Indicators through the change management process and Service Area reviews. c) To set in place a communication plan to ensure that all or any contract milestone issues are known and can be appropriately escalated. d) To proactively identify when an existing contract will exit and agree the exit plan, including all assets which have an impact to the Council. e) To set in place a communication method so that suppliers are aligned to the Council's priorities, making the fully aware of the importance of customer satisfaction and value for money. f) To prepare a register for all contracts that indicates confirmation that Disclosure and Barring Service (DBS) checks have been carried out for contracts where these are needed.
3.5.6	Monitoring service delivery: Measures and reports	a) To agree the indicators to be routinely presented, working with the ICT Champions. b) To set in place a standard dashboard at the ICT Champions meetings where monthly progress of these metrics is described. c) To implement the 7-step process to ensure that there is an evidence based, data-driven culture based on indicators related to this strategy.
3.5.7	Service Asset and Configuration Management	a) To Agree which Service Assets should be treated configuration items and set up an ITIL-based activity to set these in place. b) To set in place a fit-for-purpose Service Asset and Configuration Management (SACM) system. c) To ensure all fixed assets are being managed by a sustainable Configuration Management Database. d) To Train all staff who interface with the SACM on the principles, processes and procedures.
3.5.8	Capacity and Demand management	a) To establish a robust demand baseline of the current use of technology services. b) To deliver better Business Capacity Management: Translating business needs and plans into requirements for ICT services and infrastructure.

		c) To improve Service Capacity Management: Predicting, managing and controlling the end to end performance of the operational ICT services and their workloads. d) To monitor service take-up and adjust accordingly enabling better use of available capacity. e) To manage and controlling thresholds – monitoring workload, patterns, changes in utilisation. f) To model and review trend utilisation – including base-lining, trend analysis, analytical modelling and simulation modelling. g) To develop an approach of application sizing – estimating the resources required to support change to services or the implementation of a new service, to ensure it meets it's required service levels.

Delivering to the Modern Customer		
Customer Enablement Actions		
4.2.2	Cultural transformation to support CRM	a) To produce a full CRM Communications and Engagement Strategy so that the CRM Programme is adopted by the Enabling Customer Board and part of any new system thinking and development where the Council system is based on Customer data.
4.2.3	Replacing the CRM system	a) To deliver the Replacement programme of the legacy CRM system with Microsoft Dynamics CRM as the foundation platform for future development. b) To deliver a Detailed Plan for all further phases of CRM implementation, including components within this strategy around: architecture, the golden record and the website.
4.2.4	Developing the new CRM architecture	a) To design a CRM Architecture Design and Roadmap. This will need to include all components within the architecture, with an emphasis on all or any data sources outside the CRM (e.g. linked systems, document management).
4.2.5	Golden records, Indexes and Customer data	a) To produce a Customer Golden Record Architecture Strategy, which sets out the approach and delivery of the single golden record for Customers so that this approach is something all relevant system projects can easily understand to adopt. b) To produce an Address-based Strategy, which emphasises how the NLPG and LLPG will be used for all address data and how this will be achieved, i.e. either as a hub or as a repurposed system. c) To produce a Strategy for the Migration of Services into the CRM to be adopted at the Greenwich Management Team. d) To produce a Strategy for CRM Online Self-service describing how the CRM will be developed to enable online self-serve.

4.2.6	Customer Insight to improve Customer Service	a) To develop an active Customer Insight Scorecard and build the review and consequential outcomes / actions into Customer Services management meetings. b) Develop a Customer Insight Communications Briefing for the Greenwich Management Team and the operations Champions Group to communicate changes, actions and to ensure all decisions are clearly based on evidence. c) Actively create a Website and Customer Services Forum which drives forward much needed dialogue across internal organisational boundaries and ensures that potentially competing interests are joined up for the best experience of the Customer. This should involve key business areas and should have a rotating chair. d) Provide the responsibility to a key lead individual within the organisation who has knowledge, skills and expertise to use the right tools, understand the impact of the Insight, and propose actions in the form of understandable reports.
4.2.7	Delivering Services Online as part of the public-facing website	a) To produce a Strategy for Online Self-service transactions describing a plan for online self-service, which will go through CRM, and which require considerable business process re-engineering. This should be in the form of a detailed action plan so that services considering their online presence can align their efforts. This needs to be jointly owned by Customer Services and the Webteam and should be a key document agreed at the Website and Customer Services Forum (see Customer Insight section). b) To produce a Documented approach to online authentication and to consider the GOV.UK Verify model and/or other models that can be re-used. c) To move the legacy hosted website onto an Integrated Website hosted model that creates the best technological framework for integration into CRM, authentication methods and system integration, while preserving all the functionality needed for modern social media approaches. d) To set out Greenwich's approach and policy to Responsive Web Design so that business areas have a clear corporate direction when considering this work.

		e) To devolved web publishing and the underlying content model part of the way all council employees develop and deliver content so that it is up-to-date, correctly marked in terms of sensitivity and available to residents in a coherent way.
4.2.8	Developing other CRM tools through a mediated collaborative workspace	a) To develop a Collaborative Workspace for Customer Contact Agents which is needs based, follows rules and has a consistent training regime.
Skilled Staff Actions		
4.3.2	Better ways of working: Mobile workforce and the Agile programme	a) To deliver and actively engage with service areas to identify specific Applications based on demand and ease of implementation. b) To segment staff use of access based on ICT Personas with a standardised approach to appropriate applications and their associated equipment. c) To set in place a Mobile Device Management offering for service-based applications which require them, with an emphasis on security management (e.g. Social Care).
4.3.3	Office 365 Rollout and Enterprise-wide Productivity tools	a) To continue the rollout of VDI for staff that require access to desktop applications with a parallel drive of staff towards a Primary Choice of Cloud-based Enterprise Applications Approach - based on Office 365.
4.3.4	The new baseline for skills – the Greenwich Digital Workspace	a) To develop a Greenwich Digital Workspace Strategy which has at least HR, the Web Team and Corporate ICT's Knowledge and Information Manager, to agree the direction, approach and possibilities of leveraging current tools. b) To develop a structured Office 365 Collaborative Team Sites Approach – as part of the Greenwich Digital Workspace Strategy, with clear mechanisms and disciplines for deploying these consistently. c) To embed document management processes into the way users interact with the intranet. d) To deliver clear mechanisms for updating staff information and accessing their details on the telephone directory using the HR staff record as the 'staff master record'.

		e) To establish greater consistency of the intranet user-interface and make it look good (refresh branding).
4.3.5	ICT Training for all staff	a) To develop a maturity model that measures the e-skills of the organisation and sets targets for improving the e-culture and skills over the course of time. b) To develop an in-house training course for key ICT skills, focusing on delivering this in an efficient way, i.e. half a day, and to make this available to all staff. This should focus on exploiting the software already in place. c) To focus on the development of core ICT skills within the corporate technology department and actively to set a programme internally to ensure that all skills are shared to avoid dependence on individual tacit knowledge. d) To establish a catalogue of technologies available for types of ICT personas / job roles and to make this part of an ICT service catalogue. e) To work with Human Resources to establish Standard roles and ICT Persona Types per service area, to establish the minimum council skilled persona, and then undertake a gap analysis to assess how much work needs to be done to raise the standard.
4.3.6	Productivity tools for the future	a) To develop a Network of Productivity Champions who lead the way, become formally trained to use the tools and work together to help shape how tools and controls are implemented within their service areas. This Network will lead on the delivery of the Office 365 suite and become involved in the policy controls needed to ensure it is well embedded within teams. b) To set in place a Remote Working Policy for Productive workers. This will focus on the use of tools generally for work, a policy for remote access to Office 365 including storage, rules around local data and a clear policy on security measures (e.g. two factor authentication). c) To develop Productivity Tools - Innovation Guide, which sets out how staff can use new tools for innovative development and what they need to do to provide the assurances that the data is well managed, security and compliance of Data Protection legislation.

4.3.7	Paperless Council Strategy	a) To continue the Paperless Drive by identifying proactive opportunities to pilot and then implement paperless approaches to all team working, supporting this with collaborative working and setting the Paperless as a key delivery of the Network of Productivity Champions.
4.3.8	Secure Printing	a) To Set up Printing from Smartphones and Tablets and roll this out for all staff.
4.3.9	Telephony tools	a) To rollout Skype for Business for all staff as part of the new productivity suite.

Business Systems Actions		
4.4.1	Overview	a) To produce a plan for Service Business engagement that can be taken to the Greenwich Management Team Blue, (Tier 2) Business Transformation Champions and other Assistant Directors. b) To take the existing mechanism of requesting projects to the ICT Operational group to populate a council-wide roadmap of ICT delivery. c) To deliver service area roadmaps for all service areas as the basis for future project prioritisation.
4.4.2	Known Business Projects	a) To use the current knowledge of existing projects and those that are pending to form a first service area roadmap plan for review at the Greenwich Management Team Blue. b) To standardise the status of each of these pieces of work (and other known work) against assurance criteria from the assurance bodies (e.g. needs a TDB review; needs a full Business Analysis options appraisal). c) Develop a Business Roadmap risk plan which should be reviewed at Greenwich Management Team Blue.
4.4.3	Corporate Capabilities and Better ways of working	a) To use the ICT Champions Group meetings to set out how corporate capabilities can complement or fully deliver service based needs.
4.4.4	Proactive Benchmarking with Corporate ICT Expertise	b) To set in place an Advisory Benchmarking Process whereby service areas can engage with the centre and use skills and knowledge to assist in decisions related to adoption. c) To set in place a process for service areas to undertake mini-projects and Proof of Concept projects, including the involvement of experts in the area (e.g. the technical architect).
4.4.5	Greenwich CCG and Health and Wellbeing Board – Local Digital Roadmap	a) To monitor work being done through the Sustainability and Transformation Plan and seek opportunities for joint working.

Data Into Knowledge Actions		
4.5.1	Data Into Knowledge	a) To develop and maintain an Enterprise-wide Information Asset Register – which should highlight where the assets are located, how they are protected, how they are shared where appropriate and use to inform decision-making. b) To develop a Knowledge and Information Management Community of Practice as an ongoing network of people across the Council to champion knowledge sharing using modern tools and practices. c) To develop a proactive approach to unleashing data repositories which should otherwise be re-used to support the vision of an e-enabled, seamless and integrated service.
4.5.2	Records Management and Corporate Memory	a) To develop a specific Records Management Training and Awareness Programme for all staff. b) To develop a Community of Records Management Champions who are the service leads to help implement the Records Management Policy and for both ICT's Knowledge and Information Manager and the Council's Web Manager work closely to develop this. c) To update the Records Management Policy. d) To Review and update Records Management Standards in terms of naming conventions, document storage, domain names and Shared Drives e) To set in place a repeatable, Sustainable Data Audit, which could dovetail or complement and Information Asset Register (as set out in the Records Management Policy). f) To develop the Greenwich Business Classification Scheme which maps to a Retention Schedule (as set out in the Records Management Policy).
4.5.3	Formal adoption of SharePoint as the corporate EDRM	a) To embed the SharePoint EDRM Rollout with the Greenwich Digital Workspace – so that it is an inherent component of the new intranet and Office 365 infrastructure. b) To implement a SharePoint Corporate Fileplan and Classification Scheme for consistent document management. c) To develop the approach for SharePoint Records Management Functionality, including retention.

		d) To develop a coherent approach to the way staff will use OneDrive on their own computers, devices and their own devices. e) To roll out SharePoint Team Sites with clear mechanisms and disciplines for deploying these provided to staff. f) To embed document management processes into the way users interact with the intranet.
4.5.4	Shared drives and compliant document management	a) To move to a single document management environment using appropriate tools (e.g. considering SharePoint) and to implement this based on solid records management principles. b) To detail the policy on the use of Shared Drives and Personal Drives as part on a new information based desktop strategy. c) To produce clear policy guidelines for the storage and access of 'sensitive' data currently stored on personal drives.
4.5.5	Customer insight	a) Develop a customer insight project that reviews the existing sources of data for customer analysis and proposes improvements to this evidence data. a) To make customer insight an ICT priority by engaging directly with initiatives where the council is striving to improve the understanding overall of the residents being served by the council. The strategy will also place an emphasis on any work that supports channels based on this insight.
4.5.6	PowerBI for corporate Business Intelligence	a) To develop a documented Approach for deploying PowerBI and ensure it dovetails into other strategies and groups responsible for performance and information.

Security and Trust Actions		
4.6.1	The Information Governance Steering Group	a) To maintain the Information Governance Policy Development Register to manage the review process of ICT, Information Governance and Information Security Policies. b) To maintain and update (as part of the Greenwich Digital Dashboard) a common place on the Intranet where all staff have access to policy and guides for information governance matters. c) To maintain an Information Governance Risk Log and associated Information Governance Improvemnet Plan.
4.6.2	Information Governance Policies – and the Cloud	a) To develop specific Proactive Cloud-based data security guidelines for awareness by all staff. b) To agree the standard for enterprise cloud-based applications and then set in place a simple Cloud-based data processing agreement to be adopted by any staff using any other cloud-based applications. c) To maintain a Register of Council Cloud-based Applications which should stipulate where the data is stored and whether/what personal data is being stored. This should nd review this routinely at the Information Governance Steering Group. d) Develop a Cloud Application Data Erasure Policy – to stipulated how data will be erased from cloud-based applications once the service has been terminated.
4.6.3	The General Data Protection Regulation	a) To ensure that the Council has an evidence base of technical and organisation measures to demonstrate that it complies with GDPR. b) To develop and maintain a corporate register of Data Protection Impact Assessments with clear guidance for how services need to deliver these and then store these. c) To proactive Develop a GDPR Community Of Practice using Office 365 Technologies (e.g. Teams or SharePoint) to ensure that active collaboration and knowledge sharing happens at an operational level.
4.6.4	Network Security	a) To Procure and set in place a three-year third party IT Health Checks service. b) To establish a project to deliver ISO 27001 accreditation in parallel to the ongoing processes focused on network security management.

4.6.5	Information Governance Toolkit for Connecting to Health	a) To Set in place and delivery ongoing compliance with the Information Governance Toolkit and to submit this annually, raising new issues with the Information Governance Steering Group where appropriate.
4.6.6	The review of health and social care data	a) To ensure that the Council's Information Governance Steering Group is fully aware of the implications of the review and that social care service areas can accommodate these requirements (e.g. opt out) options where appropriate (e.g. in the social care system). b) To embed the recommendations into health and social care sharing agreements. c) To ensure that future social care improvements are compliant with the National Data Guardian recommendations (e.g. upgrades to their systems or the review of portal environments).
4.6.7	Data Zones and protective marking	a) To set in place an architecture and infrastructure approach that allows for data zoning that can also be used to facilitate new mobility access approaches such as BYOD, Office 365 and Cloud access b) To develop a protective marking scheme that reflects this zoning.
4.6.8	Cyber Security and Attacks	a) To review and embed key principles related to Cyber Security to assure the Council from Cyber-attacks. b) To set in place specific Cyber Security Policies and Guidelines where existing policies do not sufficiently address these issues and to further embed the message to all staff.
4.6.9	Security training	a) To review and set in place an updated Information Governance Training Course. b) To embed information governance and GDPR principles into the HR induction process and checklist for e-Learning c) To conduct a Data Security audit to deliver a full, corporate risk audit for the attention, escalation, and mitigation of senior management. This will focus on systems, processes as well as people risks and will focus on core Data Protection Principles.

		d) To undertake a risk assessment on the effectiveness of the security policies and the associated mitigating actions set in place for ICT Security monitoring.
4.6.10	Secure email	a) To undertake a review of secure email to simplify the tools and adopt a simplified, Enterprise-wide Secure Email model.
4.6.11	Confidential waste	a) To monitor the Confidential Waste process and make recommendations to Information Governance Steering Group where risks have been identified or where improvements can be achieved. b) To ensure that all staff are routinely made aware of the correct processes around confidential waste as part of Staff Information Governance Training and Review.
4.6.12	Mobile data encryption	a) To develop a policy and approach to mobile data encryption that complements the notion of data zones and sets the direction for the council as the pressure to use this technology steadily increases.
4.6.13	Third party data ownership and IPR	a) To produce data ownership and data holding policy that becomes part of any contractual arrangements with third party suppliers
4.6.14	Freedom of Information and the Greenwich Digital Workspace	a) To deliver an up-to-date Access to Information Policy which should also set out an approach to how Office 365 and a Greenwich Digital Workspace will deliver the environment for improved information managemnet and corporate records management.

Infrastructure Actions		
4.7.3	Data Centres and Infrastructure options	a) To undertake Business Analysis on IaaS - on options of moving infrastructure into the cloud and detailing an understanding of how this would be managed within the council. b) To review options that look at the trend of moving ICT Service Management to the cloud and to produce a cost-benefit analysis – looking over the longer term. c) To set in place the design and approach for the Logicalis data centres – contracts which will expire in 2021.
4.7.4	Improving access to the Internet and the Cloud	a) To ensure that the Network latency and capacity can support all users on the network with the known envisaged application environment. b) To set in place Network Performance monitoring and capacity tools which cater for the increased demand for continuous Internet Connectivity c) To prepare a policy for service areas moving business applications to the Cloud, since there is an oingoing and increasing impact on the Council's Internet connection for each service added. d) To set in place a reliable Active Directory database for the further development of cloud-based services which will rely upon this
4.7.5	Enterprise systems architecture	a) To develop an overall enterprise architecture plan, which sets the roadmap for core technologies and what the various technology building blocks and interfaces are. b) To set in place an Infrastrucure plan to increase the Internet Bandwidth of Unit 4, or alternatively devise a plan to cater for the network demand c) To coordinate all technology development through a single Technical Design Board (TDB), based upon the enterprise architecture. d) To challenge projects regarding support arrangemnts - to set in place either a process, budget and process for decommissioning old technology where this is being replaced by new, or to provide additional FTE resoruces to support both.

4.7.6	Business Continuity and Disaster Recovery	a) To produce a ICT Business Continuity Plan that is up-to-date, subject to change control and in line with BS 25999 (the standard for business continuity). b) To set in place Cloud / Hybrid Business Continuity that focus on a high availability service, based on the above plan, using the Cloud. c) To produce plans to ensure that rehearsed ICT business continuity exercises are undertaken as part of the ICT Business Continuity Plan. d) To develop an ongoing, routinely reviewed ICT Business Continuity Risk Log, which identifies potential threats and the impacts to operations that those threats might cause, related to business continuity.
4.7.7	IT Support Team	a) To identify task owners, set demarcation points and produce ongoing process documentation to keep the Service Desk skilled to undertake First Line Tasks. b) To Proactive contribute and provide resources to actively support a new Project Transition Into Service Process which must include the training of support desk staff where appropriate. c) To ensure there are high skill levels for Datacentre Management (Unit 4 and other sites) to implement controls and boundaries around the datacentres and ensure best practice is followed. d) To set in place a Proactive PSN Remediation Tasks process (following the reviews) and to dedicate staff to undertake this work for set periods.
4.7.8	Application Development	a) To set out a sustainable approach and embed this skill-set within the organisation structure of the ICT Department. b) To set out an application development approach which is based on standards, interoperability and looks to ensure convergence of technologies over time.
4.7.9	Desktop and application environment	a) To rationalise the desktop application offering around a staff persona b) Carry out a rolling review of supported and installed applications to keep them up-to-date and compliant c) Pilot a zero or thin client desktop solution utilising the existing Virtual Desktop environment

4.7.10	Email and Office 365 to all staff	a) To undertake a full options analysis on how Office 365 and can be deployed to all staff in a way that is consistent with data security requirements. b) To undertake Skype for Business network and latency testing to ensure that the network can cope with the future vision of using this on all desktops.
4.7.11	Greening ICT Policy	a) To define, through the Technical Design Board, a clear policy on green procurement that ensures that all new development is using a favourable model for greener ICT. This will include the implementation of green ICT metrics: kilowatts per year consumed by data centre and the number of supported ICT users. b) To reduce environmental impact through robust, challenging procurement activities and supply chain management. c) To deliver good asset management – by keeping assets for longer. d) To undertake responsible recycling of all ICT assets in line with statutory responsibilities