# Greenwich ICT Strategy 2013

*Version 1.0*

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**ROYAL** *borough of*
**GREENWICH**

**Revision History**

| Date | Version | Reason for change | Author |
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| 18/02/2013 | Working draft 0.1 | Initial draft following discussions with the ICT management team and the supplier leads. | Jeremy Tuck |
| 19/02/2013 | Working draft 0.2 | Revision following comments from Kevin Gibbs, AD Customer Contact | Jeremy Tuck |
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| 04/03/2013 | Working draft 0.6 | AD Customer Contact |
| 04/03/2013 | Working draft 0.7 | AD Customer Contact |
| 14/01/2014 | 1.0 | Finance and Public Services Panel |

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Greenwich ICT strategy

# 1 Introduction

## 1.1 Purpose of strategy

This Information and Communication Technology (ICT) Strategy sets out the direction for the ICT service to establish ICT as a core part of the business decision-making process. This echoes the theme in Government's recent ICT Strategy[1] (2011) that technology requirements need to be considered early in the policy-making process.

Technology, therefore, needs to (a) be a core enabler of the business of the Council, by understanding and transforming the business (usually in the form of projects); (b) provide a reliable and stable Business-As-Usual service; and (c) be sufficiently modern and able to leverage the benefits of new and modern technology trends. These three pressures, as per the diagram, are disparate and pull an ICT service in different directions, often at the expense of the other. The aim of the strategy will be to coordinate and set proper governance in place in order to facilitate those pressures.
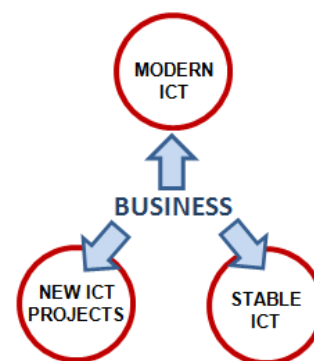
## 1.2 The Modernisation Programme

The aim of the council's Modernisation Programme has been to restore civic pride in the borough through investment in essential infrastructure – property, service delivery and technology – to the benefits of the public, as well as for staff working for the council.

While the initial emphasis was on building rationalisation, a second phase has been **Better Ways of Working**, which aimed to maximise the investment to ensure that services are managed to improve the customer experience and delivered in an efficient and effective way. Two core themes within this are (a) the better management of customer contact, and (b) the better use of technology to manage the knowledge, information and data required to enable customer-focused service delivery and staff effectiveness.

## 1.3 The Digital Enterprise Centre – not in the scope of this strategy

The council has worked closely with Cisco to direct investment and accelerate the development of the Digital Peninsula as a hub for digital enterprise. This includes the Royal Borough's Digital Enterprise Greenwich Centre, next door to the world-class digital university college, Ravensbourne. This centre, located at Mitre Passage, provides serviced office and meeting spaces for digital businesses wishing to locate to what has become London's newest business district. It is also host to a hub of Cisco systems referred to as the 'National Virtual Incubator' aimed at driving innovation and helping new business flourish.

The work on the Digital Enterprise Centre is deeply rooted in the council's objectives around regeneration, with a core focus of stimulating growth in this area. The development of this work, therefore, is out of scope of this ICT Strategy – which is more inwardly focused at how the council, itself, delivers technology.

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[1] See http://www.cabinetoffice.gov.uk/resource-library/uk-government-ict-strategy-resources

## 1.4 Technology pressures and drivers

### 1.4.1 Changes to hosted arrangements to the council's systems

Since 2007 the majority of the council's systems were hosted at IBM's facility at Warwick. The council made the financial decision to manage the service more closely for reasons that were primarily financial and in order to assert more control. The council embarked on a programme called the Greenwich Hosting of Services & Technology (G.HOST) to oversee the council's exit from IBM and the introduction of a new service delivery model called 'Greenwich IT'. The project's aim was to procure and build a brand new state-of-the-art ICT environment in The Woolwich Centre's Data Centre to which the council's systems would be migrated. Bringing the service 'in-house' meant, in fact, that it was replaced by several different contracts to new suppliers, each focusing on different areas. There is an important need to ensure that there is appropriate governance around these different contracts.

### 1.4.2 Modernisation and new technology

The council needs to respond to modern opportunities in a well thought out way in order to leverage the benefits these may present. The consumerisation of technology raise expectations from residents about what is possible, staff want to explore the growing need to Bring Your Own Device (BYOD) and there are opportunities around Cloud computing, including the Government Cloud, which requires corporate ICT to be responsive and clear about what it wants to do.

## 1.5 The need to be strategic about ICT: a step change

This strategy represents a step change in the way ICT has been delivered to date. In 2005 consultants Deloitte produced a 452 blueprint of extremely detailed information covering areas such as technical infrastructure, departmental structures, service delivery models, applications, locations and asset management. While much of this work has been referenced, there is a need to refresh some of the ideas so they are relevant to the new operating model and to respond to the many technological advancements that have been made in recent years.

It is often easy to focus on the 'what' – and to be too easily blinded by the 'new technology', particularly in the exciting age that we're living in, and the possibilities this brings for improving the way we work. This strategy does focus on these things. However, more importantly, the strategy focuses on 'how' – with an emphasis on getting the structures and governance right in order to enable business transformation and provide the levels of stability the council needs. A recent Head of ICT at Royal Greenwich started working on a strategy to address what he believed was "in serious need of improvement".

In simple terms, being strategic saves money, improves efficiency and instils confidence that the council knows where it is going with technology. Importantly, it grounds the delivery of ICT in the business of the Council. The strategy is delivered as part of the council's commitment to doing things differently, and having strong leadership that demonstrates that the council is adapting to make the improvements that are needed.

## 1.6  Structure of the strategy

This strategy is structured in the following way:

a) **Core Principles**: this sets out the principles to guide the future direction of ICT development and services as a mechanism for ongoing decision-making.

b) **Governance and Delivery Framework**: this sets in place 'how' technology needs to be governed and delivered to ensure that there is assurance for existing ICT support (operational) as well appropriate measures for the future (strategic).   The elements of the governance framework are routed in best practice ITIL[2].

**customers**

c) **Technology Layers**: this describes 'what' will be done, by 'whom' and sets for each focal layer specific actions that can be part of the more detailed Roadmap (the 'when').  The logic is the flow that exists from customer to underlying infrastructure.  Examining ICT in this way ensures that each 'layer' is given due consideration when prioritising action and investment in ICT.

Customer Access

Skilled staff

Business systems

Secure data zones

Infrastructure

d) **Modern and Agile**:  this describes how the council is responding to current and future pressures to ensure that it remains modern and able to respond to the expectations of residents and staff.

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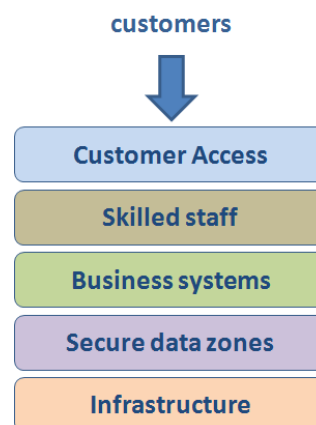
[2] Information Technology Infrastructure Library

## 1.7 Core Principles

### 1.7.1 ICT will be business focused

ICT will align a corporate framework, while integrating the business needs of each department and business unit.

### 1.7.2 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. It will be governed by the needs identified by the Customer Contact Board and implemented by the ICT Strategy Board.

### 1.7.3 There will be good governance of ICT

The service will prioritise good ICT teams, department-engaged governance structures, and assurance groups to provide the longer term approach to better ICT investment and reliability.

### 1.7.4 Shared services will be considered wherever possible

Royal Greenwich will pursue opportunities for shared services with partners and neighbouring authorities, usually focusing on specialist skills not easily re-developed in-house.

### 1.7.5 There will be learning through active benchmarking

Learning from what others are doing will be based on benchmarking and involvement in groups such as SEaLEGs (the South East London CIO group) and the security Information Security for London (ISfL) group.

### 1.7.6 Open standards will be pursued by default

Royal Greenwich will adopt open standards to protect the council from pursuing technological paths and investments that force it to remain with specific vendors, products and data structures.

### 1.7.7 Research and development will be valued and used

Research and development will ensure there is good horizon scanning to understand trends and opportunities as they emerge.

### 1.7.8 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 (including the Government Cloud), but take a considered view before adopting.

### 1.7.9 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.

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

In order to deliver the strategy, the council will invest in the skill sets required to deliver the strategy at all levels necessary.

# 2  Governance and delivery framework

## 2.1  Improving governance

### 2.1.1  The need to change the way ICT is governed

There have been some big changes to the way suppliers are being used at Greenwich. The early contract break in the hosted provision of services by IBM's and the physical location of services within the council has changed the way the operational ICT service provision is being delivered. This, however, does not affect the relationship that ICT has with the business of the Council and the important thing to note is that one cannot outsource governance.

Royal Greenwich has to consider that the existing suppliers for the sake of ICT governance are an inherent part of ICT delivery. What needs to change is how this is managed. The key thing to ensure is set in place correctly is the relationship with ICT in a holistic way, and the business of the Council. In this respect, there is a fundamental need to improve the way ICT is governed in Greenwich in order to ensure that technology is regarded as a business enabler. In order to do so, however, there is a need to improve engagement between corporate ICT and the wider Council – and to improve disciplines on both sides. The benefit of getting this new model right is: (a) There is clarity about the checks to be in place during new / transformational technology projects, and therefore, (b) Corporate ICT can be confident to support new systems.

### 2.1.2  The need for a champion and the structure to support that champion

This strategy does not intend to prescribe that way the ICT Service is structured, because there are many different permutations that that the organisational structure could take to underpin the service. There are, however, specific roles that need to be in place and the section on governance and delivery focuses on this in a general sense. It is important, however, that the structure that exists is able to support the governance capability. The key role that is needed, is a lead Chief Officer who can position ICT correctly in relation to the wider Council, as well as oversee that good governance is set in place. This role is needed and is a key message of this strategy.

### 2.1.3  Supporting business-led technology

In order for technology to better underpin the business objectives of the council, there needs to be better engagement at an early stage. Royal Greenwich already has in place a two stage process for business case review, prior to the approval of project delivery. This, however, has never been enforced. The intention will be to set in place the governance arrangements so that the business of the Council and ICT are able to consistently achieve this.



**Actions:**

a) To document the existing business aspirations that exist to assess current technology projects and ICT activities that need review.

b) To review the **Business Analysis process** to ensure the focus is always on delivering an output in a form that describes 'options' for a decision to proceed (or not) to project delivery.

## 2.2 ICT Governance Boards

### 2.2.1 Refreshing engagement methods

There is a need to 'refresh' the governance arrangements that need to be in place to ensure that the Council as a whole is fully engaged in any new transformational work. None of this is new, e.g. the notion of an ICT Strategy Board has been in place in Greenwich before. The idea of ICT Champions worked well in the G.HOST project and the idea would be to keep this idea – with champions being operational leads from the service areas.

### 2.2.2 The ICT Strategy Board

The need to embed ICT in the business of the Council requires strong business engagement at an Assistant Director level. The ICT Board will have refreshed terms of reference to reflect the post-G.HOST delayed council. In the past the ICT Strategy Board became bogged down with operational issues and this resulted in more and more junior representatives turning up for the meetings. A successful strategy board needs to be managed and board members stimulated through careful thought about the agenda, focus and representation at the meetings.

**Actions:**
a) To refresh the **ICT Strategy Board** and keep the board managed, focused and interesting.
b) To establish and review **the terms of reference of the ICT Strategy Board** and review the membership of the board.
c) To develop the **architectural roadmap** needed to help drive this work through the ICT Strategy Board.

### 2.2.3 The ICT Champions Group / Board

The proposal is to create an ICT Champions Group/Board that will formally meet. This would report into the more strategic ICT Strategy Board, but would comprise managers responsible for ICT from the wider Council and Corporate ICT, responsible for Service Level Management.

**Actions:**
a) To plan a full **ICT Champions engagement plan** that sets the meeting up, establishes membership and is set for routine delivery.
b) To established and review **the terms of reference of the ICT Champions Group/ Board** and review the membership of the board.
c) To plan for this meeting to focus on operational reporting, e.g. performance metrics that relate to the Service Level Agreements and holding all ICT teams to account for incident, problem, requests and change management.
d) To develop and present an **operational forward plan** that includes all issues such as agreed downtime and any other corporate projects that will affect all users.

## 2.3  ICT Assurance bodies

### 2.3.1  Overview of the assurance bodies needed

Assurance bodies and groups are needed as a formal vehicle for checking and agreeing their part in the process.  The organisation is already accustomed to, and using,  most of these governance elements (e.g. project boards), but there is a need to revitalise these and explain these fully – usually with a documented terms of reference.  A project board, for example, in Prince2 has a fully defined structure and clear roles.  It is fundamental that this same level of clarity exists for all other 'assurance' bodies.
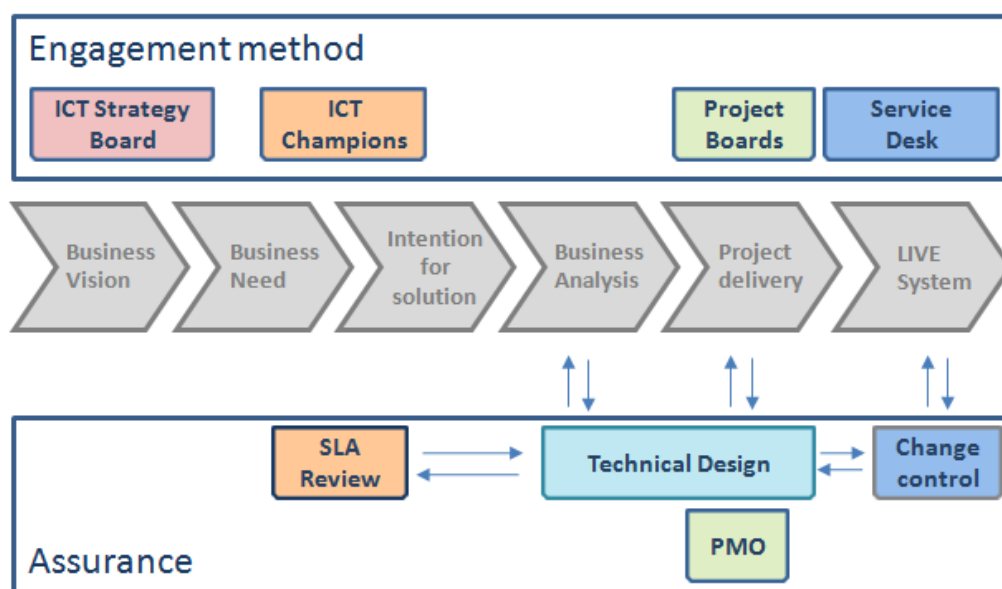


### 2.3.2  Technical Design Board

The Technical Design Board (TDB) sits at the heart of the process and serves a fundamentally important role.  The main purpose of this group is to Quality Assure 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.  The TDB should not be focused on the business case of a project.  The TDB acts to improve better control over the way systems are tested, procured and implemented.  The TDB is a group and needs to be made up of appropriate leads from the various areas of specialism. A suggestion would be: technical architect, data security manager, 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.  The TDB should receive formal, written requests for review and should keep a risk log up to date.  All decisions must be recorded.

> **Actions:**
>
> a)  To **set up TDB terms of reference** including membership and to have these approved at the ICT Strategy Board.
>
> b)  To take responsibility for the development of an **enterprise systems architectural vision and technology** roadmap and to review all work against this roadmap.
>
> c)  To regularly review a calendar of significant events and to coordinate this with the Change Control Group when appropriate (the group should define what is considered 'significant').

### 2.3.3 Technical Change Control Group

Greenwich needs to set in place an improved 'technical' change control group. This needs to be an appropriate operation Change Control group that meets regularly (usually weekly) to review any changes to the live environment. This group needs to be sufficiently technical to understand the technical impact of the changes being requested and the impact of the changes once agreed. There is a direct relationship (see the diagram) between the Change Control Group and the Technical Design Board – when issues are too complex the Change Control Group **must** escalate this to the TDB and, therefore, not agree the change. Ideally any complex technical issues should be examined in advance. This enables the TDB to simply focus on structured and complex issues.

This board will also oversee and ensure that all systems have four key environments in place: (1) development, (2) test/training, (3) staging, and (4) live and that there is always real data available and presented within the testing/training environment for real checking before systems go live.

**Actions:**

a) To establish a Technical Change Control Group with clear roles and a mechanism to review change requests.

b) To set in place the process for escalating issues to the TDB.

c) To set in place the process for emergency measures that need a rapid response.

d) To manage an initial and ongoing review of the four environments for systems

### 2.3.4 Project Boards and Project Management Assurance

Project Boards are constituted as a mechanism to deliver work, but have generally only been mandatory for projects driven or visible to the corporate centre. There needs to be a restating of the need for all or any ICT project to be managed by a formal project board. All project managers should be provided by the centre and where there are capacity issues, the ad hoc procurement of additional contract resources should also be managed by the centre.

**Actions:**

a) To establish **communications to all sponsors** that all projects will have as a mandatory requirement to have senior user engagement from the business of the Council.

b) To provide **all projects with clarity about the governance arrangements** described in this strategy, including that all ICT projects need to be channelled through the PMO.

c) To have on all boards the **actual suppliers of the service** that will be responsible for operational support for that work – this is a step change from the current process.

### 2.3.5 A Programme Management Office

There needs to be well managed Programme Management Board (PMO) which can scrutinise and quality assure the way projects are being delivered.

**Actions:**

a) To **develop an independent PMO** based on the good practice that exists.

b) To establish routine meetings and to invite sponsors to join these meetings on an ad hoc basis, with an emphasis

### 2.3.6   Routine Business / ICT meetings

Service meetings are an important vehicle for ensuring that local concerns are able to be known outside of a formal board meeting.  Therefore, the need remains for strategic interaction between the corporate centre and business ICT leads in the departments.  This will be developed to enable the following:

**Actions:**

a)   To identify the ICT leads that can serve as engagement managers with the business of the Council.

b)   To hold **service meetings** to understand requirements and identify how ICT can support as an enabler for business change/transformation.

c)   To develop **solid, robust, open relationships** built upon mutual respect and transparency with both internal and external customers.

### 2.3.7 An overview of the whole Delivery Framework Model

The diagram below depicts the overall Delivery Framework Model for the way in which the technology service delivery will be improved across the council. The emphasis of this model is on transformation – i.e. to manage change and new technology development. The colours represent the fact that there needs to be a relevant 'business role' and ICT role for each step of the process for the governance framework to succeed.
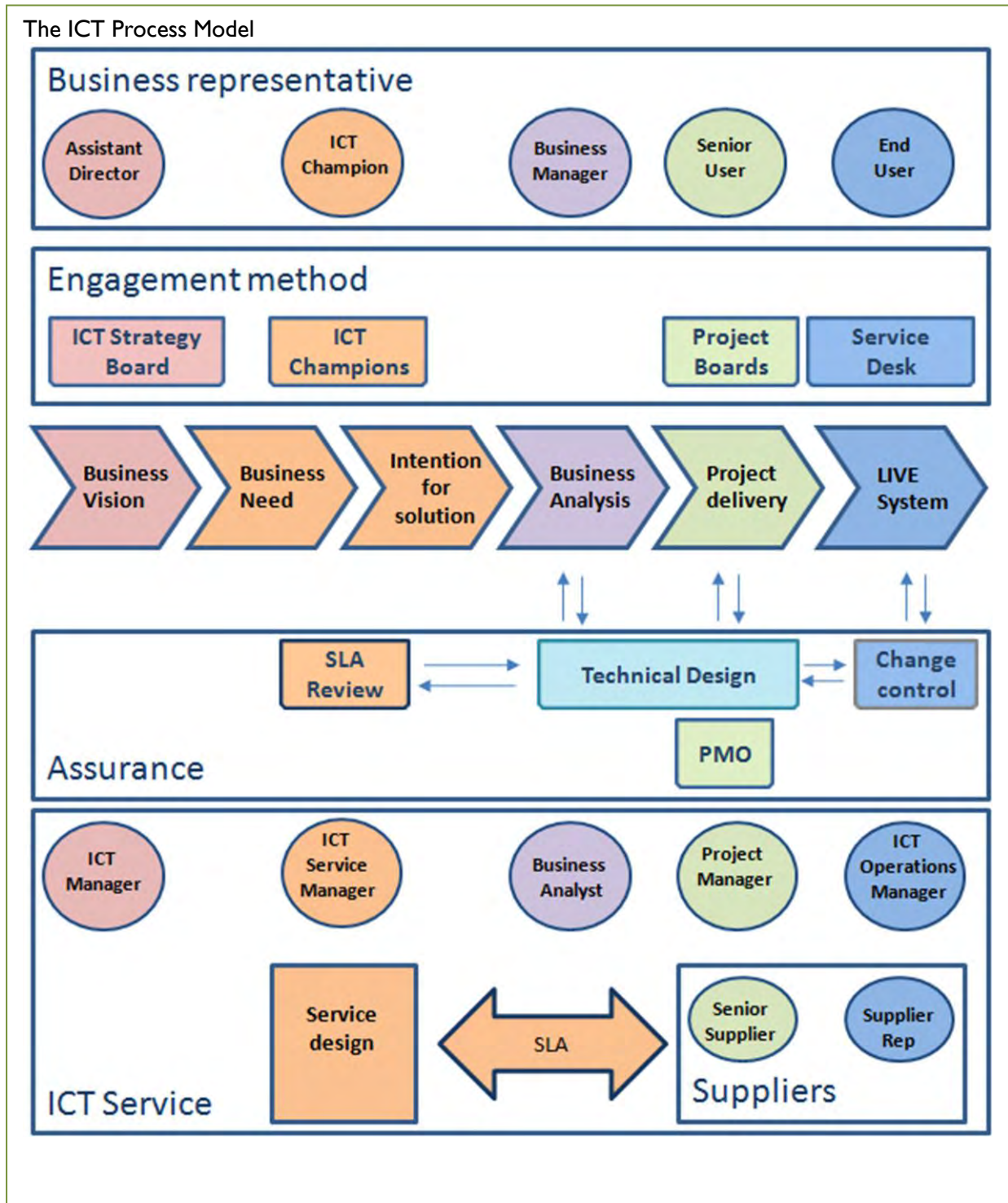
## 2.4  Designing the Operational Service

### 2.4.1  Designing the Business As Usual service to be delivered

Royal Greenwich needs ICT to be stable and for the day-to-day operational service to be managed to a known standard.  For this reason, it is very important to understand what that service is and how it can be measured. In order to do this it is important that the services provided are appropriate to meet the current and future agreed business requirements.  The actual service being delivered, therefore, will evolve over time.

### 2.4.2  Defining roles for ongoing management

Managing an operational service requires skill and knowledge of ICT.  This is important, because it is easy to simply become bogged down with contractual relationships.

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

Royal Greenwich needs to treat the suppliers involved in ICT service delivery as 'in-house' providers and therefore needs to set in place an appropriate council-led ICT Operations Manager who completely understands technology to oversee this delivery.  The ICT Operations manager will coordinate the existing responsibilities and be the council person able to ensure that dependencies are known and, importantly, managed.  The ICT Operations manager will work closely to ensure that the following service provision is coordinated with each Supplier Representative: Bull/Dell, Stone, Northgate and Logicalis.

**Action:**

a)  To define the role of the council's **ICT Operations Manager** and ensure that this person has responsibility for supplier coordination.

### 2.4.4  The role of partners as senior suppliers

In order for any of the supplier / partners to take full responsibility for transformation work, there needs to be a change in the way they interact with the governance bodies that have been established.  The following changes will move these suppliers from being passive (time and materials based) to taking the responsibility of a particular project.

**Action:**

a)  To establish **supplier/partners formally on any project** board that will affect the area they take operational responsibility for – and to procure delivery on an 'on delivery basis'.

### 2.4.5  Re-affirming the Service - Technology as a portfolio of services

Royal Greenwich 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 is able to 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 re-affirm the service being delivered by the production of a **New Design Document** as the basis for a service catalogue.
> b) To develop a detailed **service catalogue** that forms the basis for work to be delivered on the SLA.

### 2.4.6 Managing ICT suppliers outside the corporate ICT service

Royal Greenwich 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 departments engage with ICT suppliers outside of the corporate model. The ICT Operations Manager needs to identify where this is happening and bring this back to the ICT Champion for that area.

> **Actions:**
> a) To define a **process for managing external suppliers**
> b) To provide **clear guidelines** as to how this should happen and to ensure that services are clear about the role of the ICT Operations Manager and the Technical Design Board – and the way these roles can be used to improve their service delivery.

### 2.4.7 Contract and vendor management

Overall the council needs to manage and transform the way in which ICT procurement is aligned professionally within the business of the Council and with other corporate services to deliver a best in class ICT sourcing, commissioning and contracting service which delivers sustainable improvements and value to both customers and stakeholders.

> **Actions:**
> a) To **coordinate ICT sourcing**, vendor insight, negotiation, commissioning and contract management activities.
> b) To **corporately manage and commission all ICT contracts** to ensure they are consistent with corporate policy and sound commercial, ethical and legal practices.
> c) To **cultivate cross-organisational relationships** by the corporate centre who will undertake the analysis and work to consider the merits of contract consolidation.
> d) To **establish an ICT contract management framework** including objectives, standards, procedures, policies, templates and workflow processes.

### 2.4.8 Clear Service Level Agreements

A Service Level Agreement (SLA) documents and defines the parameters of the relationship between ICT (including the suppliers) and the Council. Royal Greenwich must be clear about the level of service it expects from the in-house suppliers and have this met, as well as what the Business As Usual offering is. This should include all the roles that ICT will make available to the wider council.
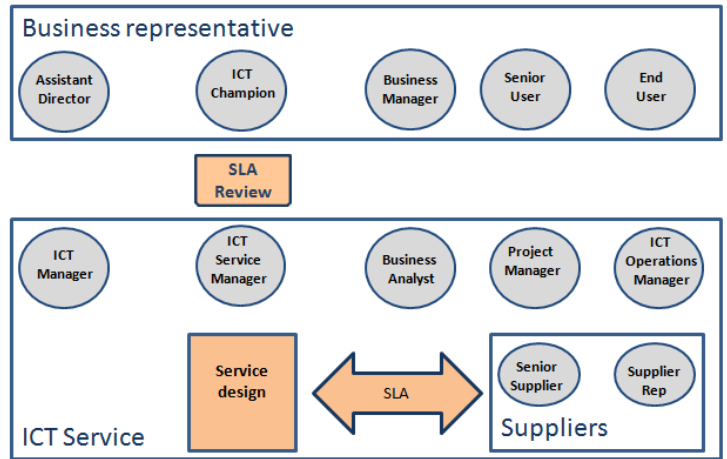
A core part of this is to ensure that there are roles are appropriate roles from each party and clarity about the SLA that exists.

> **Action:**
>
> a) To **restate the SLA** that exits between corporate ICT and the business of the Council, including service expectations, how resources will be made available, and what the actual performance metrics will be for the agreement of a good service.

### 2.4.9 Monitoring service delivery: Measures and reports

Part of the rebasing of the SLA allows additional transparency for the wider Council about what services are provided. It's equally important to ensure that effective monitoring processes are in place both for performance management within the Greenwich ICT team and to provide accountability and transparency to directorates, as well as to ensure that there is proactive activity on system management and maintenance.

The ICT Operations Manager and the Supplier representatives will report monthly via a scorecard of key indicators. This will be provided to the ICT Champions group and should include items such as:

a) Fault & Incident resolution

b) System & Network availability

c) Customer Satisfaction

d) Capacity/Demand usage

> **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 are described.

### 2.4.10 Continuous service improvement

In order to ensure that performance monitoring is used as a vehicle to improve the service, Corporate ICT will need to ensure that will set in place a mechanism to use this performance data – as well as benchmarking data with other authorities to drive continuous improvement against service standards.

> **Actions:**
>
> a) To establish communications and clear indicators of improvement that can be reported to Assistant Director level.

### 2.4.11 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.

### 2.4.12 Customer Excellence

In order to provide efficient services, Royal Greenwich needs to remain committed to customer excellence to  all customers, regardless of the nature of their interaction.  These attributes need to be exhibited by Corporate ICT and the supplier community who work with the Council to delivery its objectives.  To achieve this, it is essential to recruit staff that are highly customer focused who share common attitudes, behaviours and beliefs with regard to customer service.

**Action:**

a) To **embed mechanisms for improved customer intelligence amongst staff** and to baseline and monitor key statistics with a view to setting a routine target that can be monitored through the ICT Champions Group.

# 3   Technology themes

customers

Customer Access

Skilled staff

Business systems

Secure data zones

Infrastructure

## 3.1   Introduction: focus on layered themes

There are many different ways and models for presenting an analysis and future direction for the improvement of technology.  The Royal Greenwich approach examines the various 'themed layers' of technology that are important for the council's service delivery, placing an emphasis on customers from the outset.    This means having a more rounded approach to developing the strategic role of technology at each tier, and not simply focusing on the infrastructure "nuts and bolts" tier alone.
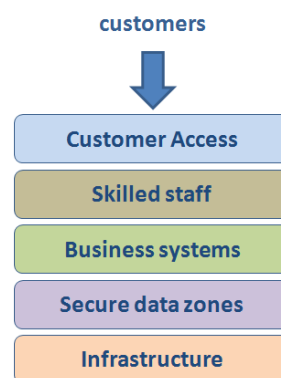
It also means seeing the important of skilled staff as an inherent part of the way technology is delivered and a need for the council to have a joined-up approach to how technology supports and enables the business of the Council by emphasising business systems.

## 3.2   Technology Theme 1: Skilled staff

### 3.2.1   Matching ICT kit with job role (ICT personas)

If council workers are efficient and well supported by technology, they are able to deliver services more effectively, quicker and at a lower cost.   Employees who are free to work "wherever" and "whenever" using preferred and available devices they choose themselves tend to deliver immense value to the organisation and enjoy an effective balance between career and family.

The council needs to develop a catalogue of standard services that are available and match this to job role.  This will require an assessment of where staff are now and where they need to be in terms of skills and support. Part of this is to establish particular 'personas', i.e. types of worker that will typically require similar kit, skills, training, software, and access.

**Actions:**

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

b)   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.

c)   To undertake **a skills and training programme** to raise the standard of skills based on the baseline work done.

### 3.2.2   Embracing consumerisation and the mobility of the workforce

Royal Greenwich needs to respond and embrace the rapid consumerism of technology, with staff familiar and using Twitter, Facebook, Hotmail, and cloud-based consumer data storage tools such as DropBox, Google Drive and Microsoft's SkyDrive – all of which are readily available and highly usable in a member of staff's personal life.

New platforms, devices and technologies provide a huge opportunity for Royal Greenwich to improve the way the workforce leverages this technology.  The council needs to develop a smartphone and tablet strategy, enabling the adoption  of "Bring Your Own Device".  The move towards staff owned equipment requires a change in the way tradition information systems are designed and considered.

There is a drive towards BYOD and Cloud software such as Office 365.  The council needs to ensure

that it has the mechanisms in place to understand the expectations of these new environments and that it has appropriate security policy and measures in place to address the new use, and potential misuse the new cloud solutions.

**Actions:**

a) To **develop a Smartphone and Tablet strategy** policy which embraces new behaviours and technologies and is able to manage the demand, supply and the appropriate use.

b) To develop an impact review of which business applications (particularly those that have a web front end of are going through a considered software upgrade path) for their readiness for smart phone / tablet / device deployment.

c) To prepare new security policy to cater for **data concerns** and issues that might arise from the use (and misuse) of BYOD.

### 3.2.3 Options and data zones when working from home

There are several options to enable staff to work more easily from home, while ensuring that important data held by the council is accessed in a secure way. Dependant on the work the staff are doing, the council needs to provide the right secure access to the things they need rather then treat them as if they are in the office (where we give them everything). There is a direct link, therefore, to the ICT Personas – i.e. getting their ICT kit based on their job role.

This segmentation of role allows options for:

a) The rollout out of Office 365

b) Webmail (likely to be limited – e.g. no import or export of attachments)

c) RSA token environment for staff who access sensitive data (e.g. social workers)

d) Web and phone apps for point solutions (e.g. HR payslips)

A core area for the organisation is the development of an Open Data Zone that will enable the capability of accessing low-risk information through a simple username and password. There is much work to do to enable this capability, but the possibilities for routine work is immense. Royal Greenwich will, therefore, implement strong mechanisms to ensure that such open zones will not hold confidential, sensitive personal data, or "restricted" (see Theme Open Data for more).

**Actions:**

a) To **develop a flexible security architecture** (data zones) that meets user expectations, but still remains auditable and responsible.

b) To undertake further work to **explore the viability and use of handheld and tablet technology** in areas where this is needed most, while being realistic about the way in which workers are comfortable (e.g. social workers on home visits).

c) To consider options for the secure and affordable deployment of such devices by **active benchmarking** and considering security compliance options.

### 3.2.4 ICT Training for all staff

Investing in staff by solid training is important, particularly with standard tools such as Microsoft Office and Microsoft Outlook. Staff who are trained in technology are happier – creating a better organisational ethos and, as a result this improves service delivery. In addition, they are less likely to leave their jobs and are able to use their skills to be more effective.

The Society of Information Technology Managers (SOCITM) determined that training is closely linked with overall user satisfaction. In addition satisfaction surveys have indicated that training provided by

the ICT service tends to lead to higher levels of user satisfaction.

With the investment in new desktop technology (e.g. MS Office 2010) it is essential that Greenwich sets in place a training plan that ensures that staff at all levels are able to exploit the tools that they already have, rather that focusing on the belief that new technology will in itself enhance the way staff work.

**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 basic 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.

### 3.2.5    New Greenwich Intranet with collaboration capability

Currently the intranet is considerably under-utilised and ought to become the single point of access for internal staff for important information and the means by which they access and manage documents. More should be done to bring the 'pilot' HR intranet into a seamless whole and to provide improvements with best practice – in short to design the intranet around a task-based approach.  This should form an integral 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 the purpose of better management awareness and decision-making.

In addition, the current telephone directory should be based on a single source of staff data, based on the HR system as a golden record feeding Active Directory.  Work should be done to bring all contractor staff details into one holistic system.  This should also contain 'presence' information, with tools such as MS Lync for instant messaging – to enable quite staff communication that is easier and more efficient than email. The council has many internal systems that require staff to log on.  There have been vast improvements to the way staff access the council's network and, a result, there are opportunities to consolidate this work by providing staff with direct access to their systems once they have logged onto the network, working with service areas to consider risks and working practices around these systems.

**Actions:**

a)  To **develop an intranet sub-strategy** which has at least HR, the Web Team and Corporate ICT, to agree the direction, approach and possibilities of leveraging current tools (e.g. either SharePoint or the procured Jadu CMS).  It is important not to be led by the technology.

b)  To develop an approach to the use of **instant messaging** for internal communications, using, as a starting point MS Lync.  This should at least be a documented overview of approach.

c)  To develop a **knowledge and information management framework** with an emphasis of providing information for evidence based decision-making in the form of management information, dashboards and reporting.

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

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

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

g) To establish greater **consistency of user-interface**.

### 3.2.6 Single-sign on and access determined by role

There is a need to improve the way staff access their systems by developing an approach to 'single-sign on' to systems. An approach needs to be developed around roles / personas in order to establish usage and access to systems that are connected through an identity management trail, so that roles are known in each system.

**Actions:**

a) To set in place a **plan for the key systems where single sign-on is required** and to develop this around the catalogue of technologies available for the ICT personas / job roles mentioned previously.

b) To set in place a programme of building the **technological capability for single sign-on** once the aforementioned plan is in place.

### 3.2.7 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.

d) To set in place **a structured plan and then implement a data cleansing rollout programme** for the clean-up and rationalisation of data on network drives, based on the policies above.

e) To ensure that the **corporate duties for information management** are specifically part of an established role in the council.

## 3.3  Technology Theme 2: Customer Access

### 3.3.1  Overview: Technology to support customer contact

Technology needs to enable the organisation to deliver services across all access channels, whether directly to citizens, or in a mediated way to those key workers using systems while interacting on a face-to-face basis.

### 3.3.2  The development of a customer-focused ICT architecture

While the council is working well with CRM, the benefits of resolving as many issues at a single point of contact will not be realised without a fully considered and implemented technology architecture to underpin this.  This needs to comprise the following:

a)  The development of the Customer Relationship Management system.

b)  The design and development of a Single Customer Account, which should provide internal staff with a single view of the customer.  This work should be done with a view to subsequent self-serve requirements, i.e. consider the data security and authentication requirements from the outset.

c)  The development of a customer focused mediated intranet environment (internal online tools the provide customer service agents with all the information they require, including information not readily found publically).   This could simply be a well architected SharePoint team site or portal.

d)  Electronic Document Records Management for core data required for mediated access, linked to the mediated intranet environment above.

**Actions:**

a)  To design **an architecture design**, with a **integration roadmap** plan for the development of a Single Customer Account (SCA) and to identify and plan for the "line of business" systems that can be directly integrated into the CRM.

b)  To develop an approach for all system integrations that have address-based information to use the **Local Land and Property Gazetteer** (LLPG)

### 3.3.3  Customer Relationship Management (CRM)

The CRM is relied upon as a core means for customer contact, including the re-design of business processes where these can be brought into the contact centre and a roadmap established to re-engineer those identified processes for system migration. This work should take into account the two dimensions of integration complexity and interaction complexity in order to prioritise the roadmap for further integration into the CRM.  Work must be done to deliver online transactions using the online portal tools of the CRM, with a clear understanding of how much of the mediated transactional capability can realistically be presented online without data security concerns.  This work should dovetail with any further work being done as part of an online or digital strategy.

**Actions:**

a)  To produce **a strategy for the migration of services** into the CRM.

b)  To undertake **CRM Self-service options analysis** describing how the CRM can be developed further to enable online self serve.

c)  To establish a **migration strategy and plan** for the services into the CRM based on the SCA and senior level support to move forward with this vision.

d)  To undertake a **short term options analysis** for work that can be achieved to deliver quick wins on work that is already in place (e.g. integration of the EDRM into CRM which is also required for the BOSS programme).

### 3.3.4 Customer Focus "Mediated Intranet"

Mediated access systems are those tools used by front-facing services to deliver the frontline services to residents.  The systems themselves, however, are not citizen facing.  The Mediated Intranet will complement the CRM and the corporate website.  On a simple level this 'intranet' will be a well structured team site.  The emphasis is that it is updated and managed by Customer Contact agents to store and manage their data on a daily basis.

This development of the Mediated Intranet should follow the development of an 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  take into account 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 (short) **Mediated Intranet Contact Agent Information Needs Review** which sets out what information customer contact agents require that is not readily available on the public website.  This should include an approach to documents needed (i.e. linked to EDRM).

b)  To audit and review the quality of information available to frontline services using mediated access tools and **to deliver an action plan for emphasising the improvement of these systems**.

c)  To **de-duplicate information environments** that could be replaced by the successful rollout of the SharePoint information environment as part of the new website, extranet and document management environment.

### 3.3.5 My Greenwich self-serve portal

The council has developed an online account capability to enable residents to be contacted about the services they are interested in.  The "My Greenwich" self-serve portal will be the council's customer self-serve portal available through the public facing website, allowing residents to check their benefits and change their details, manage and pay their council tax, renew and apply for parking, report street problems and order recycling and refuse services.

This portal will integrate into the council's CRM and be developed through the overall customer focused architecture that delivers the Single Customer Account integration into backend systems.  The portal will have to cater for appropriate data access levels and there needs to be a full design undertaken for the scope of this access.

**Actions:**

a)  To develop a **self-serve portal design** and plan for the development of this portal based on the CRM, the SCA and the Customer Focused technology architecture.

b)  To review, i.e. produce an **options analysis**, of how current technologies (e.g. SharePoint) can be deployed to deliver the required back-end integration and to develop the business case, if appropriate and project to deliver this work.

### 3.3.6 Greenwich public website

The web has changed fundamentally and the council needs to develop a digital strategy that goes beyond the web browser and is based on digital information provision.  The council should, therefore, undertake a full review of how customers might want to contact the council in a digital way – e.g. tablets, smart phones and smart TV.  A web strategy needs to move beyond the limitations of what a

website can deliver. Any new web developments that have a transactional component should be coordinated through the Technical Design Board, where the web manager should also attend, and should check for mechanisms for transactional compatibility with the customer architecture.

The council will need to set out a digital strategy that describes a strategy to responsive web design. This describes the way websites are being accessed on smartphones and tablets with an emphasis on the user experience.   This means ensuring the website works across many different screen resolutions and with an intelligent use of Cascading Style Sheet media queries.  It also means ensuring that the web delivery team are skilled to deliver HTML5, CSS3 and Javascript – or that they have a clear extended capability to do this.

Royal Greenwich will also require the capability for a mobile user experience (UX) designer – which is different to classical web skills. This will require that the user experience is designed from the bottom up and places the emphasis on transactions and information management.

**Actions:**

a)  To deliver the **online digital strategy** that examines how residents interact with the council and which sets out the future direction of web development that complements the transactional aspirations of the customer contact strategy.

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

c)  To develop an approach towards **user experience (UX) design** so that the authority is able to appropriately respond as applications come online and business services demand this work to be done.

d)  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.

### 3.3.7   Customer insight

In order 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 the course of 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.

## 3.4 Technology Theme 3: Business systems

### 3.4.1 Overview

The council has eight departments: (1) Chief Executive's Department, (2) Adults and Older People's Services, (3) Children's Services, (4) Community Safety and Environment, (5) Finance, (6) Housing Services, and (7) Regeneration, Enterprise and Skills (8) Culture, Sport and Media. This section ought to set out the ICT Roadmaps of the council's departments in order to begin to understand where Royal Greenwich is going with technology in key business areas. Work needs to be done to engage with Business areas so that these service technology roadmaps can be developed and coordinated.

This engagement needs to take place at the Business Strategic level – with Assistant Directors feeding their requirements into a Strategic ICT Board – and ICT Champions coordinating their needs at routine ICT Champion meetings.

Business Roadmaps will have the benefit of demonstrating to the ICT Department where the priorities lie, what changes might be coming and what support the service may be looking for during this period.
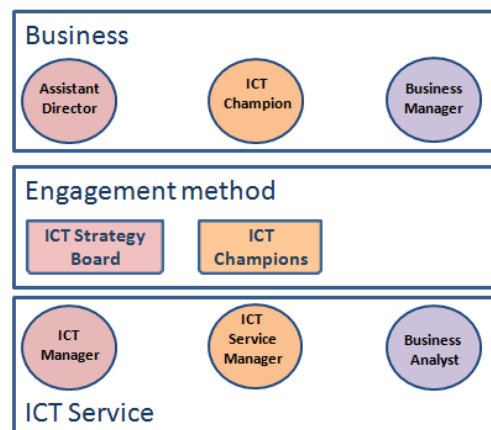
**Actions:**

a) To produce a **plan for Service Business engagement** that can be taken to the ICT Strategy Board and to Assistant Directors.

b) To take the existing mechanism of requesting projects to the ICT Operational group in order 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.

### 3.4.2 Adhering to the ICT processes to support the business of the Council

The process model set out in the section "Supporting business-led technology" describes the steps and their associated assurance measures that need to be in place for each transformation technology project. This needs to be supported by the wider Council and used positively by Corporate ICT (i.e. not simply perceived as bureaucratic policing, but instead as helpful and enabling).

It is easier to understand how these measures should be used new system is being proposed or introduced, but the same rigour needs to apply when there are changes to live systems (e.g. the implementation of a new module). Any 'change' to a technology system (upgrades, patches or new modules) should be supported by the delivery framework – especially the Technical Change Control group for approval. Where any of these changes are unclear or overly complex, they should be supported by formal involvement from the Technical Design Board. For each system it must also be detailed what is not considered a change, e.g. a configuration, which doesn't need to come to either group.

### 3.4.3 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 **strategy for Business Intelligence** and ensure it dovetails into other strategies and groups responsible for performance and information.

b) To **develop a central approach** to ensure that standard Business Intelligence approaches, skills and licensing are in place.

### 3.4.4 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:

a) HRMS (iTrent) – the replacement of the HR/Payroll service
b) Pensions (Heywoods) – the replacement pension service
c) Learning Pool – an online e-learning facility
d) Idox – DRES Planning Document Management System and Public Access Portal
e) Document Archive (TNT)
f) The Revenues and Benefits Self-serve capability
g) Migration of RGB Libraries to GLL
h) BSF
i) The Greenwich Centre
j) The Local Welfare Assistance Service (LWAS)
k) Online Parking Control Notices

### 3.4.5 Known pending or projects in preparation

a) Phase II of the Bulk Print Service Review
b) Online Parking Permits
c) Parking Pay by Mobile project
d) Mobile solutions for Estate Wardens
e) Document Verification Project
f) Replacement BACS solution
g) IKEN upgrade
h) iConnect (staffplan module)

**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 ICT Strategy Board.

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 ICT Strategy Board.

### 3.4.6 The Government Cloud or 'G-Cloud'

Government has an ambitious project to create a secure government cloud infrastructure to reduce public sector spend. Clearly – in theory - there are massive savings possible from delivering applications via the internet rather than building and supporting these applications within the council. Since the intention is to be fully operational by 2013/14, the council needs to maintain a watching brief with the move to have vendors providing services in this way.

**Actions:**

a) To review the G-Cloud and provide the ICT Strategy Board with regular updates about opportunities for adoption.

b) To produce realistic cost options comparing existing service provision with "cloud" alternatives

### 3.4.7 The Public Sector Network Strategy

The Public Service Network aims to be a single, holistic telecommunications infrastructure for the whole of the public sector to replace the current approach where each public body designs, develops, installs and maintains its own network. The programme aims to deliver annual savings worth at least £500 million by 2014. Public sector bodies will be able to use Public Service Network. The intention was that by the end of 2012 that the Government Secure Intranet (GSi) services would migrate to the Public Service Network. This includes the Government Connects Secure Extranet (GCSx) currently utilised by the council for sharing housing benefit data.

**Actions:**

a) To **review adoption and progress towards government's Public Sector Network**

## 3.5  Technology Theme 4: Open data, zones and trust

### 3.5.1  Overview: transparent and trustworthy

There is more focus on the transparency of public data than ever before with the intention that publishing data will strengthen accountability to citizens.  At the same time, central government data losses and the continuing emphasis in the press around breaches of data security required the council to reinvigorate its response to data security.  The ICT strategy therefore has to be very clear about how open data can still assure public trust in the way the council handles sensitive data that the public expect to be protected.

The government has set up a Public Sector Transparency Board and a Local Government Group to set guidelines for the practicalities of publishing data, including developing websites such as data.gov.uk as a single source for government data.  Government's ICT Strategy[3] also makes reference to the establishment of a Public Data Corporation to bring together government bodies and public data in one organisation.  There is a drive to standardise the way public authorities publish the content of data to enable users to share and analyse this data.  Therefore the strategy will ensure the council focuses on these standards to future-proof an approach towards this data, while at the same time mindful that this needs to be practical and embedded in business processes.

**Actions:**

a)  To highlight and set **improvement plans for those line of business systems** where data is hard to 'get at' due to the age or nature of the system and to identify appropriate arrangements for improving this.

b)  To deliver a **revised shared-drive data storage approach** to unstructured data that is sustainable, reliable and supports robust records management standards on retention, access and availability (see also the "Skilled workers" section).

### 3.5.2  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

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.

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[3] See http://www.cabinetoffice.gov.uk/resource-library/uk-government-ict-strategy-resources
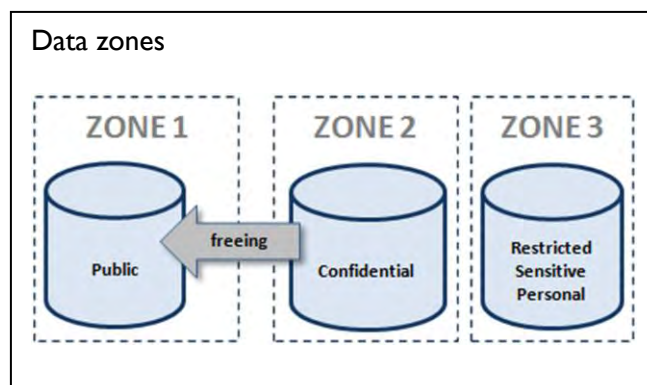
**Actions:**

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.

### 3.5.3 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.

**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.

### 3.5.4 The Top 150: Using BYOD for business interaction

There has been a requirement for an emphasis on the Top 150 senior members of staff (members and Chief Officers) to make use of the new technology, including BYOD, mobile email and the ability to read, write and amend reports (generally using MS Office and PDF). The council needs to ensure that it fully understands the requirement so that it doesn't end up focusing only on the technology and to determine how Cloud-based hybrid solutions using tools such as Office 365 can be deployed. There are ways of achieving secure access to the network, such as 'Sticky MAC addresses' which allow for high level of device identification with the manual requirement to enter unique device IDs.

**Actions:**

a) To prepare a **full requirements document** to ensure that the expectations are clear and can be realised by the Corporate ICT.

b) To prepare new security policy to cater for data concerns and issues that might arise from the use (and misuse) of BYOD including options for secure deployment.

### 3.5.5 Data Security policies, handling and information assurance training

In June 2008 government published a review of information security in government, putting in place a new framework for the future to improve the rules, culture, accountability and scrutiny of data handling. The resultant Data Handling Procedures in Government (June 2008) struck the balance between the need for regular information sharing while retaining public trust. The principles served as a benchmark to review council's existing security policies.

Royal Greenwich will develop a training programme based on what a member of staff can and cannot do with data at all levels. There are software tools that work as part of a member of staff's login profile so that it audits their completion of the test (against Active Directory with full reporting) and requires that they undertake the test within a set period or set number of logins to the network. This allows busy staff to postpone the activity within a set boundary. This will require online training and an ongoing online test which any member of staff will need to pass in order to retain access to the network and work from home.

**Actions:**

a)  To set in place online **data security training** for all council staff in an attempt to develop a culture that properly values, protects and uses information for the public good.

b)  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.

c)  To undertake a **risk assessment** on the effectiveness of the security policies and the associated mitigating actions set in place for ICT Security monitoring.

### 3.5.6    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 in the event that the contractual relationship should end.  The council must ensure to enshrine the council's rights of IPR in contractual arrangements.

**Action:**

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

### 3.5.7    Freedom of Information and Access to information legislation

Royal Greenwich 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), and the Environmental Information Regulations (2004).   However, this council-wide responsibility needs attention.    A recent review of Freedom of Information has highlighted various issues that need to be addressed and which need action, particularly since the finding was that a large proportion (a third) of these requests were not provided within the 20 day compliance period.   There is a need to communicate to all services about the importance and legal obligation that exists around providing information requests within the statutory time limit.

**Actions:**

a)  To review mechanisms to improve the **resourcing of the Access to Information function**, putting in place appropriate staff to support the function

b)  To deliver an up-to-date **Access to Information Policy** which should also set out an approach and delivery mechanism for corporate records management.

c)  To update and improve the way FOI refusals are recorded to ensure there is a solid record of exemptions/ refusals applied including a review of case management arrangements.

d)  To undertake a **council-wide communication and dissemination programme**, including the training of service-based officers role players.

e)  To **update the procedural information on the intranet** and to ensure that this is understood and being followed.

## 3.6   Technology Theme 5: Infrastructure

### 3.6.1   Overview

As discussed in the introduction, the council embarked on a programme called the Greenwich Hosting of Services & Technology (G.HOST) to oversee the council's exit from IBM and the introduction of a new service delivery model called 'Greenwich IT'.  The project's aim was to procure and build a brand new state-of-the-art ICT environment in The Woolwich Centre's Data Centre to which the council's systems would be migrated.

Bringing the service 'in-house' meant, in fact, that it was replaced by several contracts to new suppliers, each focusing on different areas:

(a)   Server Infrastructure Hardware – Bull Information Systems (using Dell technology)

(b)   Desktop and laptop hardware – Stone computers

(c)   Data Centre hosting and managed service, including the service desk, application support and desktop services – Northgate

(d)   Network services, including a hosted virtual estate at Unit 4 that includes the web infrastructure – Logicalis

### 3.6.2   Taking stock – New Design Audit and Management

A huge amount of work was done in a short amount of time.  Royal Greenwich needs to reflect on what is in place and ensure that it has the appropriate design of an ICT delivery service, the correct environment, and the appropriate mechanisms in place to undertake future work.

**Actions:**

a)   To deliver an **ICT New Design Audit** that serves as a comprehensive reference document for what is in place, where there are known issues and what may is missing or not operating the way it ought toThis document should be the reference point for any new services and must be subject to change control.

b)   To produce a robust **baseline of all applications** that is complete, accurate and up-to-date with all information necessary to manage licences, support contracts, business continuity and to provide management information.

### 3.6.3   Enterprise systems architecture

The enterprise systems architecture is the overall depiction of an overall system, structured to depict that 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.

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

### 3.6.4   Outsourced integrated ICT Support Services

ICT Support Services are managed by Northgate, who provide an integrated service including the provision of:

a)   A helpdesk as the first point of contact for all ICT related issues and queries.

b)   The requirement to proactively resolve issues and communicate progress.

c)   Engage with third party contractors, business teams and users to resolve ICT issues.

d)   Proactively manage desktop and application support services.

The G.HOST project has had an unknown impact on the load and latency of the lines and there needs to be a clear picture of the level of service expected.  This will be defined in the ICT New Design Audit document.

**Actions:**

a)   To ensure that all and any concerns held by Northgate are resolved and incorporated into the **New Design Audit document**, so that any impact the delivery of the integrated service are known and managed.

### 3.6.5   Greenwich operational management assurance

There is a requirement on Royal Greenwich to coordinate these suppliers and provide direction and leadership to ensure that all dependencies are clearly understood.  One unavoidable issue, for example, is that the different suppliers have different preferred partners themselves and this creates an inherent tension in the mix.

There is a need to have a strong lead Greenwich ICT Operations Manager coordinating activities, who is technical (i.e. it is not a contractual pressure).  An alternative longer term view would be to examine options around moving the ICT Service Management to the cloud.

Another consideration should be the Total Cost of Ownership of managing the actual infrastructure itself – and to examine options around a Cloud-based Infrastructure as a Service solution, since completely removes the onus on the council to manage an in-house infrastructure environment.

customers

Customer Access

Skilled staff

Business systems

Secure data zones

Infrastructure

Cloud IaaS
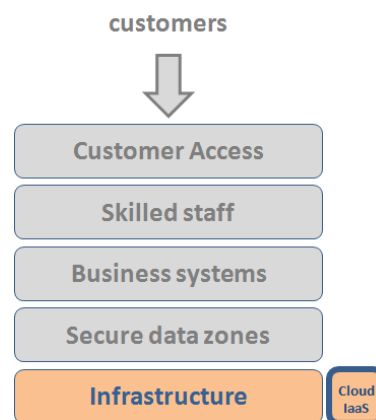
**Action:**

a)   To set in place a clear Greenwich role that is the **ICT Operations Manager** with operational responsibility to coordinate the suppliers and be the reference point for any new service requirements.  This person should also serve on the TDB.

b)   To undertake solid **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.

c)   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.

### 3.6.6   Business Continuity and Disaster Recovery

During 2012 a flood caused considerable delays to the migration of the in-house move from IBM and also raised concerns about how the overall design for the ICT environment has been put together. With the ongoing pressure for the council to continue to migrate services into a single environment from other centres, there is a need to review this overall design and set in place an ICT architecture that is clear to all of those involved in managing it.

Business Continuity Management needs to form the basis of an ICT disaster recovery plan that reflects council business priorities in the event of major unplanned incidents.  Every business system must have a disaster recovery process that fits into a corporate priority matrix and these should also detail any complexities in these systems that could lead to down time.  A general principle must be that any system should be mirrored between two locations or have a back-up process that restores the system at the corporate back-up location within a business day of the failure.  Corporate must validate these local business priorities in order to ensure that appropriate dependent corporate infrastructure has also been prioritised in the corporate Business Continuity Plan.  This prioritisation of Business Continuity plans must be taken to the ICT Strategy Board for agreement and approval.

**Actions:**

a)   To produce a full **ICT Business Continuity Plan** that is up-to-date, subject to change control and directly accompanies the ICT New Design Audit.  This should be in line with BS 25999 (the standard for business continuity).

b)   To deliver **Cloud BC Business Analysis options** that focus on a high availability service, based on the above plan, using the Cloud.

c)   To set in place a **two data centre policy for all systems**, whether hosted locally or through a partner.

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

e)   To develop an ongoing, routinely reviewed **risk log that the ICT Strategy Board can review**, which identifies potential threats and the impacts to operations that those threats might cause, related to business continuity.

f)   To review an option for **joint services with at least one neighbouring local council** to explore and develop mechanisms for improved business continuity that benefit both councils.

### 3.6.7   Network services

Royal Greenwich is supported by Logicalis to manage the network and virtual server estate at Unit 4, including the web infrastructure.  This includes all voice, VOIP/SIPS circuits (i.e. voice and data over a dedicated trunk across the web). Greater resilience is needed for the current environment. Options need to be considered that meet the new general principle that systems should be mirrored between two locations.

Consideration needs to be given to whether the network is being used in the way it should be, ensuring that issues like remote access meets the council's requirements.

**Actions:**

a)   To produce a plan for the migration of services into a **new 'two data centre focused'** environment, based on the new ICT New Design Document.

### 3.6.8    Servers and the Data Centre

The primary data centre in The Woolwich Centre 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.

**Actions:**

a)    Undertake a **Cloud IaaS Options Analysis** based on TCO to assess the viability of either wholesale or hybrid approaches to data centre management.

### 3.6.9    Desktop and application environment

As technology advances, there are many improvements that can be considered to the way staff experience with the desktop.  Options such as Virtual desktop Infrastructure (VDI) - the practice of hosting a desktop operating system within a virtual machine (VM) running on a centralised server – is in short variation on the client/server computing model.

There needs to be analysis and understanding of the impact of Cloud options on the desktop, with suppliers providing services that give users a consistent experience – and also allow for the experience to be available on 'any device anywhere'.

Platform as a service (PaaS) and Software as a Service (SaaS) provide opportunities to deliver consistency without an overly concern for the client system.  Cloud based deployment allows for controlled software deployment and configuration, without the cost and complexity.

PaaS offerings may also include facilities for application design, application development, testing and deployment.  They attempt to support use of the application by many concurrent users, by providing concurrency management, scalability, fail-over and security.
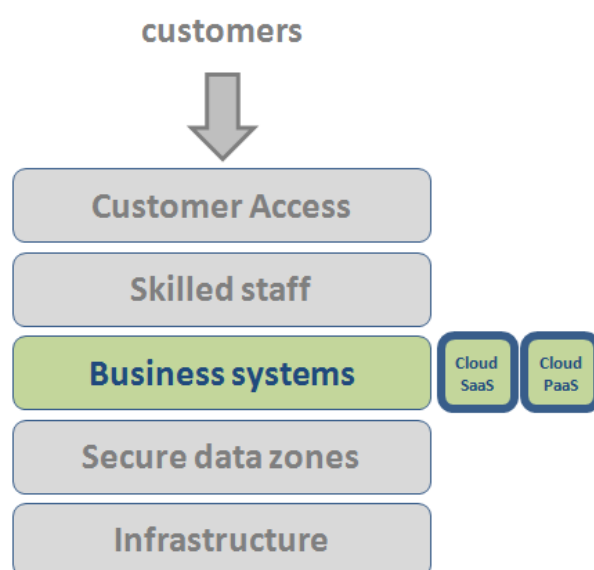


**Actions:**

b)    Undertake a **Cloud PaaS/SaaS Options Analysis** on the potential for staff to use PaaS and SaaS against a general backdrop of how existing applications (i.e. line of business systems) could be deployed on a Cloud Desktop basis.

### 3.6.10  Email and Office 365

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. A corporate view on this will streamline practices and ensure better data security.

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.

**Action:**

a)  To undertake a **full options analysis on how Office 365 and can be deployed** in a way that is consistent with data security requirements, protective marking, secure attachments and data zones.

b)  To set in place a **viable cloud-based email solution** for key staff, that complements the existing environment.

### 3.6.11  Greening ICT Policy

Green ICT aims to achieve being environmentally sustainable and carbon neutral.

**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

# 4  Timeline

## 4.1  Overview of key ICT contracts and expiry dates

The diagram represents the key ICT contracts in Greenwich, grouped into Business applications, corporate applications and corporate infrastructure. With key corporate infrastructure contracts expiring in August 2015 the council has the opportunity to change the way ICT is managed and the way these external suppliers are managed, either directly or with a new emphasis, e.g. partnership, or not at all.  With the emergence of Cloud options of Platform as a Service (PaaS) and Infrastructure as a Service (IaaS), there is a real opportunity to evaluate options.

| Category | Contract | Supplier | Expiry milestone |
|---|---|---|---|
| Business application | Frameworki | | |
| Business application | Symology managed | | 31 Mar (2013) |
| Business application | SIMS | | May (2013) |
| Business application | Symology DB | | May (2013) |
| Business application | Impulse & YOIS | | 31 Mar (2015) |
| Business application | Waste | | May (2015) |
| Business application | Highways | | 31 Mar (2018) |
| Business application | Telecare | | June (2015) |
| Business application | Revenues and Benefits | | 1 Feb (2014) |
| Business application | Tranman | | |
| Business application | Housing rents | | Mar (2013) |
| Corporate application | HR & Payroll | | 31 Mar (2015) |
| Corporate application | Document management | | 1 Apr (2015) |
| Corporate application | HR & Payroll | | Dec (2015) |
| Corporate application | HR & Payroll hosting | | July (2017) |
| Corporate application | Pensions admin and payroll | | |
| Corporate application | Financial systems | | Sep (2014) |
| Corporate Infrastructure | Mobile Telecomms | Orange | Aug (2013) |
| Corporate Infrastructure | IT Support Services | Northgate | Aug (2015) |
| Corporate Infrastructure | Desktop IT | Stone | Aug (2015) |
| Corporate Infrastructure | Data centre Hosting | Northgate | Aug (2015) |
| Corporate Infrastructure | IT infrastructure | Bull | Aug (2015) |
| Corporate Infrastructure | Network | Logicalis | Aug (2015) |
| Corporate Infrastructure | Desktop Leasing | De Lage Landen | Dec (2015) |

Timeline header (quarters): 2013 [Q4 Jan-Mar | Q1 Apr-Jun | Q2 Jul-Sep | Q3 Oct-Dec], 2014 [Q4 Jan-Mar | Q1 Apr-Jun | Q2 Jul-Sep | Q3 Oct-Dec], 2015 [Q4 Jan-Mar | Q1 Apr-Jun | Q2 Jul-Sep | Q3 Oct-Dec], 2016 [Q4 Jan-Mar | Q1 Apr-Jun | Q2 Jul-Sep | Q3 Oct-Dec], 2017 [Q4 Jan-Mar | Q1 Apr-Jun | Q2 Jul-Sep | Q3 Oct-Dec], 2018 [Q4 Jan-Mar | Q1 Apr-Jun]

## 4.2 Lead times and work to be done

Any new contracts will take approximately 9-12 months to procure and possibly as much time to implement, depending on the nature of the work to be achieved.

This period, therefore, should examine these options through solid Business Analysis, feasibility studies, Proof of Concepts, and Benchmarking comparisons in order to assess possible models moving forward. It is also a period whereby the council can align itself to different and/or appropriate organisational structure and consider the roles it needs to manage any new approach to these services.

## 4.3 General approach

The principle moving forward towards reviewing contracts will be based broadly on the following:

### 4.3.1 Timeline and contract Approach principle 1

a) If the service to be delivered is clearly defined and known, then it should be outsourced.

b) Where the service to be delivered is inherently complex, e.g. a specific business system with bespoke elements to Greenwich, then the work should be done 'in-house'.

The general approach is to establish full control of the environment and the delivery of ICT general.

### 4.3.2 Timeline and contract Approach principle 2

A general approach to development and support will be to emphasis that both activities cannot be undertaken by the same supplier. If a supplier develops a solution, this should be handed to a third party for operational support. This separation of responsibility forces a rigour of quality assurance on all three parties (a) person commissioning the work, (b) the developer, and (c) the support supplier, since all are then forced to operate within a quality framework. This approach will assure that the council achieves value for money and mitigates risk at each part of the development cycle for new work.

## 4.4 Detailed plan and timeline

The strategy sets a framework for work to be achieved, but requires that work is done on pieces of work where an assessment must be made about timeline.

Please see Appendix A: Full list of actions collated for a listing of the actions within this strategy.

# 5  Risks

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

## 5.1  Governance Risks

| Ref | Section | Risk | RAG | Mitigation |
|-----|---------|------|-----|------------|
| 1 | 1.5 | Strategy not understood / misunderstood | R | 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. |
| 2 | 1.7 | Core principles are not adopted during routine ICT procurement, implementation and engagements. | A | Ensure that these are understood by the ICT Strategy Board and revised appropriately to ensure they remain usable. |
| 3 | 2.1.3 | The route to implementing ICT is constantly short circuited. | A | Ensure that both the business of the Council and ICT are brought together through solid business analysis and early 'wins', i.e. demonstrations that this is a viable ongoing model for all parties. |
| 4 | 2.2.2 | The ICT Board is not set up with AD level representation and not seen as important within the organisation. | R | Ensure that an AD with ICT duties leads on a full communications programme. Work is done on making sure the meetings are engaging and business focused – i.e. not operational |
| 5 | 2.2.3 | The ICT Champions Board is not set up and perceived as unnecessary. | A | Place emphasis on the ICT Operations Manager role and ensure that meetings are regular and seen as core meetings for disseminating vital, yet operational changes, to the business (e.g. down time). |
| 6 | 2.3.2 | The Technical Design Board is seen as an bureaucratic burden and not set up leading to no change to the current situation | R | The TDB meetings should be set in the diary, mandated and should only focus on vital architectural and technical requests – i..e. not standard change control matters. These should be minuted and the actions provided to the ICT operational board. |
| 7 | 2.3.3 | The Change Control process is not changed to introduce a 'technical' review | R | Separate contractual impact form |

| | | panel that looks at changes. | | technical change reviews.<br><br>Remove the current Technical Design Authority role from attending to emphasis that operational staff should attend and to affirm the TDB process. |
|---|---|---|---|---|
| 8 | 2.4.3,<br><br>3.6.5 | The role of the ICT Operations Manager is not actively filled | R | The responsibility is formally given to an existing member of staff.<br><br>This role becomes an essential aspect to any future design of the organisational structure of the ICT service. |

## 5.2  Technology Theme risks

| Ref | Section | Risk | RAG | Mitigation |
|---|---|---|---|---|
| 9 | 3.2.1,<br><br>3.2.4 | No skills and training programme is undertaken and not in-house course is produced. | A | The AD responsible for ICT ensures that HR are engaged with at an early part of the implementation of the strategy. |
| 10 | 3.2.3 | A flexible data zone architecture is not developed | A | This becomes a core project to specifically deliver zones, based on supplier support and ratified by the TDB. |
| 11 | 3.2.5 | No work is done to develop the intranet, leaving the organisation without the capability to easily and quicky access information and therefore improve the way it responds and makes decisions. | R | The intranet  becomes a project in itself and is governed (sponsorship) by a business AD that understands the value of good knowledge management. |
| 12 | 3.3.2,<br><br>3.3.3,<br><br>3.3.7 | An customer-focused technology architecture is not developed leaving the council to join up service delivery and thereby risk reputation. | R | Work is done to fund and run this as a specific project and a simple outset CRM Strategy is presented to managers based on the benefits realisation work achieved at other authorities. |
| 13 | 3.4.1 | Business engagement and roadmaps fail to be developed, leaving service areas to seek their own solutions and leaving the corporate ICT service as seen as only the delivery means for infrastructure. | R | Business engagement becomes a core priority of the ICT Service and the delivery of a council-wide roadmap of ICT delivery a priority. |
| 14 | 3.5.2 | 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 TDB. |

| 15 | 3.5.4 | BYOD approaches are implemented without firstly establishing requirements and as a means to by-pass security requirements. | A | The full requirement is documented prior to any procurement and the full data flow process and access mechanism fully understood. |
|----|-------|----|---|----|
| 16 | 3.5.7 | Access to information is not given the resources in requires, leading to avoidable data breaches | R | Review how this is being delivered and ensure that this becomes part of the ICT Strategy Board's programme of consideration. |
| 17 | 3.6.2, 3.6.4 | A new ICT Design Audit is not undertaken and considered unnecessary or considered something that can be postponed, leading to miscommunication between the council and its core suppliers. | R | This becomes a key work package as the foundation for ongoing work and as such is subject to configuration management.<br><br>All suppliers sign it off as a statement of fact. |
| 18 | 3.6.5, 3.6.6, 3.6.8 | Cloud options around Infrastructure as a Service are not considered out of lack of a full understanding of the available options. | R | IaaS is prioritised as a piece of Business Analysis work undertaken. |
| 19 | 3.6.6 | A Business Continuity Plan is not produced leaving the council at risk for unknown future incidents. | R | Business Continuity is prioritised on a work programme for the ICT Strategy Board and the BC risk log reviewed at each meeting. |
| 20 | 3.6.9 | Cloud options around Software and Platform as a Service are not considered out of lack of a full understanding of the available options. | A | SaaS and Paas are prioritised as Business Analysis work packages. |

## 5.3 Timeline Risks

### 5.3.1 General risk

The main risk related to timeline is the need to assign specific and realistic timelines to the action plan attached to this strategy, and listed in full in the appendices.

### 5.3.2 Governance risks

The Governance timelines will be determined by the appetite the organization has to implement this deeply and quickly.

### 5.3.3 Theme risks

The themed technology layers will be determined by having good ownership of each of the issues, and this will affect how quickly and when they are delivered.

### 5.3.4 Need for a detailed timeline and allocation of ownership

There timeline risk therefore is inherent – each task needs a due date and an owner. Not having these elements means the strategy remains an aspirational set of ideas and not something implemented.

# 6 Appendices

## 6.1 Appendix A: Full list of actions collated

### 6.1.1 Governance Actions : Core processes

| Business process | 2.1.3 | a | To document the existing business aspirations that exist to assess current technology projects and ICT activities that need review. |
|---|---|---|---|
| | 2.1.3 | b | To review the Business Analysis process to ensure the focus is always on delivering an output in a form that describes 'options' for a decision to proceed (or not) to project delivery. |
| ICT Strategy Board | 2.2.2 | a | To refresh the ICT Strategy Board and keep the board managed, focused and interesting. |
| | 2.2.2 | b | To establish and review the terms of reference of the ICT Strategy Board and review the membership of the board. |
| | 2.2.2 | c | To develop the architectural roadmap needed to help drive this work through the ICT Strategy Board. |
| ICT Champions Group | 2.2.3 | a | To plan a full ICT Champions engagement plan that sets the meeting up, establishes membership and is set for routine delivery. |
| | 2.2.3 | b | To established and review the terms of reference of the ICT Champions Group/ Board and review the membership of the board. |
| | 2.2.3 | c | To plan for this meeting to focus on operational reporting, e.g. performance metrics that relate to the Service Level Agreements and holding all ICT teams to account for incident, problem, requests and change management. |
| | 2.2.3 | d | To develop and present an operational forward plan that includes all issues such as agreed downtime and any other corporate projects that will affect all users. |
| Technical Design Board | 2.3.2 | a | To set up TDB terms of reference including membership and to have these approved at the ICT Strategy Board. |
| | 2.3.2 | b | To take responsibility for the development of an enterprise systems architectural vision and technology roadmap and to review all work against this roadmap. |
| | 2.3.2 | c | To regularly review a calendar of significant events and to coordinate this with the Change Control Group when appropriate (the group should define what is considered 'significant'). |
| Technical Change Control Group | 2.3.3 | a | To establish a Technical Change Control Group with clear roles and a mechanism to review change requests. |
| | 2.3.3 | b | To set in place the process for escalating issues to the TDB. |
| | 2.3.3 | c | To set in place the process for emergency measures that need a rapid response. |

| | | | |
|---|---|---|---|
| | 2.3.3 | d | To manage an initial and ongoing review of the four environments for systems |
| Project boards and assurance | 2.3.4 | a | To establish communications to all sponsors that all projects will have as a mandatory requirement to have senior user engagement from the business of the Council. |
| | 2.3.4 | b | To provide all projects with clarity about the governance arrangements described in this strategy, including that all ICT projects need to be channelled through the PMO. |
| | 2.3.4 | c | To have on all boards the actual suppliers of the service that will be responsible for operational support for that work – this is a step change from the current process. |
| PMO | 2.3.5 | a | To develop an independent PMO based on the good practice that exists. |
| | 2.3.5 | b | To establish routine meetings and to invite sponsors to join these meetings on an ad hoc basis, with an emphasis |

### 6.1.2  Operational ICT Management and service delivery

| | | | |
|---|---|---|---|
| Routine Business / ICT meetings | 2.3.6 | a | To identify the ICT leads that can serve as engagement managers with the business of the Council. |
| | 2.3.6 | b | To hold service meetings to understand requirements and identify how ICT can support as an enabler for business change/transformation. |
| | 2.3.6 | c | To develop solid, robust, open relationships built upon mutual respect and transparency with both internal and external customers. |
| ICT Operations Manager | 2.4.3 | a | To define the role of the council's ICT Operations Manager and ensure that this person has responsibility for supplier coordination. |
| Senior suppliers | 2.4.4 | a | To establish supplier/partners formally on any project board that will affect the area they take operational responsibility for – and to procure delivery on an 'on delivery basis' . |
| ICT Portfolio | 2.4.5 | a | To re-affirm the service being delivered by the production of a New Design Document as the basis for a service catalogue. |
| | 2.4.5 | b | To develop a detailed service catalogue that forms the basis for work to be delivered on the SLA. |
| Managing suppliers outside ICT | 2.4.6 | a | To define a process for managing external suppliers |
| | 2.4.6 | b | To provide clear guidelines as to how this should happen and to ensure that services are clear about the role of the ICT Operations Manager and the Technical Design Board – and the way these roles can be used to improve their service delivery. |
| Contract and vendor management | 2.4.7 | a | To coordinate ICT sourcing, vendor insight, negotiation, commissioning and contract management activities. |
| | 2.4.7 | b | To corporately manage and commission all ICT contracts to ensure they are consistent with corporate policy and sound commercial, ethical and legal practices. |
| | 2.4.7 | c | To cultivate cross-organisational relationships by the corporate centre who will undertake the analysis and work to consider the merits of contract consolidation. |
| | 2.4.7 | d | To establish an ICT contract management framework including objectives, standards, procedures, policies, templates and workflow processes. |
| SLAs | 2.4.8 | a | To restate the SLA that exits between corporate ICT and the business, including service expectations, how resources will be made available, and what the actual performance metrics will be for the agreement of a good service. |
| Monitoring service delivery | 2.4.9 | a | To agree the indicators to be routinely presented, working with the ICT Champions. |
| | 2.4.9 | b | To set in place a standard dashboard at the ICT Champions meetings where monthly progress of these metrics are described. |

| Continuous service improvement | 2.4.10 | a | To establish communications and clear indicators of improvement that can be reported to Assistant Director level. |
|---|---|---|---|
| Capacity and demand management | 2.4.11 | a | To establish a robust demand baseline of the current use of technology services |
| | 2.4.11 | b | To deliver better Business Capacity Management: Translating business needs and plans into requirements for ICT services and infrastructure |
| | 2.4.11 | c | To improve Service Capacity Management: Predicting, managing and controlling the end to end performance of the operational ICT services and their workloads |
| | 2.4.11 | d | To monitor service take up and adjust accordingly enabling better use of available capacity |
| | 2.4.11 | e | To manage and controlling thresholds – monitoring workload, patterns, changes in utilisation |
| | 2.4.11 | f | To model and review trend utilisation – including base-lining, trend analysis, analytical modelling and simulation modelling. |
| | 2.4.11 | 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. |
| Customer excellence | 2.4.12 | a | To embed mechanisms for improved customer intelligence amongst staff and to baseline and monitor key statistics with a view to setting a routine target that can be monitored through the ICT Champions Group. |

### 6.1.3  Theme: Skilled staff

| 3.2.1 | a | To establish a catalogue of technologies available for types of ICT personas / job roles and to make this part of an ICT service catalogue. |
|---|---|---|
| 3.2.1 | b | 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. |
| 3.2.1 | c | To undertake a skills and training programme to raise the standard of skills based on the baseline work done. |
| 3.2.2 | a | To develop a Smartphone and Tablet strategy policy which embraces new behaviours and technologies and is able to manage the demand, supply and the appropriate use. |
| 3.2.2 | b | To develop an impact review of which business applications (particularly those that have a web front end of are going through a considered software upgrade path) for their readiness for smart phone / tablet / device deployment. |
| 3.2.2 | c | To prepare new security policy to cater for data concerns and issues that might arise from the use (and misuse) of BYOD. |
| 3.2.3 | a | To develop a flexible security architecture (data zones) that meets user expectations, but still remains auditable and responsible. |
| 3.2.3 | b | To undertake further work to explore the viability and use of handheld and tablet technology in areas where this is needed most, while being realistic about the way in which workers are comfortable (e.g. social workers on home visits). |
| 3.2.3 | c | To consider options for the secure and affordable deployment of such devices by active benchmarking and considering security compliance options. |
| 3.2.4 | 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. |
| 3.2.4 | b | To develop an in-house training course for basic 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. |
| 3.2.4 | 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. |
| 3.2.5 | a | To develop an intranet sub-strategy which has at least HR, the Web Team and Corporate ICT, to agree the direction, approach and possibilities of leveraging current tools (e.g. either SharePoint or the procured Jadu CMS).  It is important not to be led by the technology. |
| 3.2.5 | b | To develop an approach to the use of instant messaging for internal communications, using, as a starting point MS Lync.  This should at least be a documented overview of approach. |
| 3.2.5 | c | To develop a knowledge and information management framework with an emphasis of providing information for evidence based decision-making in the form of management information, dashboards and reporting. |
| 3.2.5 | d | To roll out SharePoint Team Sites with  clear mechanisms and disciplines for deploying these provided to staff. |
| 3.2.5 | e | To embed document management processes into the way users interact with the intranet. |
| 3.2.5 | f | To deliver clear mechanisms for updating staff information and accessing their details on the telephony directory using the HR staff record as the 'staff master record'. |
| 3.2.5 | g | To establish greater consistency of user-interface. |
| 3.2.6 | a | To set in place a plan for the key systems where single sign-on is required and to develop this around the catalogue of technologies available for the ICT personas / job |

| | | roles mentioned previously. |
|---|---|---|
| 3.2.6 | b | To set in place a programme of building the technological capability for single sign-on once the aforementioned plan is in place. |
| 3.2.7 | 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. |
| 3.2.7 | b | To detail the policy on the use of Shared Drives and Personal Drives as part on a new information based desktop strategy. |
| 3.2.7 | c | To produce clear policy guidelines for the storage and access of 'sensitive' data currently stored on personal drives. |
| 3.2.7 | d | To set in place a structured plan and then implement a data cleansing rollout programme for the clean-up and rationalisation of data on network drives, based on the policies above. |
| 3.2.7 | e | To ensure that the corporate duties for  information management are specifically part of an established role in the council. |

### 6.1.4   Theme: Customer access

| 3.3.2 | a | To design an architecture design, with a integration roadmap plan for the development of a Single Customer Account (SCA) and to identify and plan for the "line of business" systems that can be directly integrated into the CRM. |
|-------|---|---|
| 3.3.2 | b | To develop an approach for all system integrations that have address-based information to use the Local Land and Property Gazetteer (LLPG) |
| 3.3.3 | a | To produce a strategy for the migration of services into the CRM. |
| 3.3.3 | b | To undertake CRM Self-service options analysis describing how the CRM can be developed further to enable online self serve. |
| 3.3.3 | c | To establish a migration strategy and plan for the services into the CRM based on the SCA and senior level support to move forward with this vision. |
| 3.3.3 | d | To undertake a short term options analysis for work that can be achieved to deliver quick wins on work that is already in place (e.g. integration of the EDRM into CRM which is also required for the BOSS programme). |
| 3.3.4 | a | To develop a (short) Mediated Intranet Contact Agent Information Needs Review which sets out what information customer contact agents require that is not readily available on the public website.  This should include an approach to documents needed (i.e. linked to EDRM). |
| 3.3.4 | b | To audit and review the quality of information available to frontline services using mediated access tools and to deliver an action plan for emphasising the improvement of these systems. |
| 3.3.4 | c | To de-duplicate information environments that could be replaced by the successful rollout of the SharePoint information environment as part of the new website, extranet and document management environment. |
| 3.3.5 | a | To develop a self-serve portal design and plan for the development of this portal based on the CRM, the SCA and the Customer Focused technology architecture. |
| 3.3.5 | b | To review, i.e. produce an options analysis, of how current technologies (e.g. SharePoint) can be deployed to deliver the required back-end integration and to develop the business case, if appropriate and project to deliver this work. |
| 3.3.6 | a | To deliver the online digital strategy that examines how residents interact with the council and which sets out the future direction of web development that complements the transactional aspirations of the customer contact strategy. |
| 3.3.6 | b | To set out Greenwich's approach and policy to Responsive Web Design so that business area have a clear corporate direction when considering this work. |
| 3.3.6 | c | To develop an approach towards user experience (UX) design so that the authority is able to appropriately respond as applications come online and business services demand this work to be done. |
| 3.3.6 | d | 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. |
| 3.3.7 | a | To develop a customer insight project that reviews the existing sources of data for customer analysis and proposes improvements to this evidence data. |
| 3.3.7 | 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. |

### 6.1.5   Theme: Business systems

| 3.4.1 | a | To produce a plan for Service Business engagement that can be taken to the ICT Strategy Board and to Assistant Directors. |
|-------|---|-------------------------------------------------------------------------------------------------------------------------|
| 3.4.1 | b | To take the existing mechanism of requesting projects to the ICT Operational group in order to populate a council-wide roadmap of ICT delivery. |
| 3.4.1 | c | To deliver service area roadmaps for all service areas as the basis for future project prioritisation. |
| 3.4.2 | a | To develop a documented strategy for Business Intelligence and ensure it dovetails into other strategies and groups responsible for performance and information. |
| 3.4.2 | b | To develop a central approach to ensure that standard Business Intelligence approaches, skills and licensing are in place. |
| 3.4.4 | 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 ICT Strategy Board. |
| 3.4.4 | 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). |
| 3.4.4 | c | To develop a Business Roadmap risk plan which should be reviewed at the ICT Strategy Board. |
| 3.4.5 | a | To review the G-Cloud and provide the ICT Strategy Board with regular updates about opportunities for adoption. |
| 3.4.5 | b | To produce realistic cost options comparing existing service provision with "cloud" alternatives |
| 3.4.6 | a | To review adoption and progress towards government's Public Sector Network |

### 6.1.6   Theme: Open data zones and trust

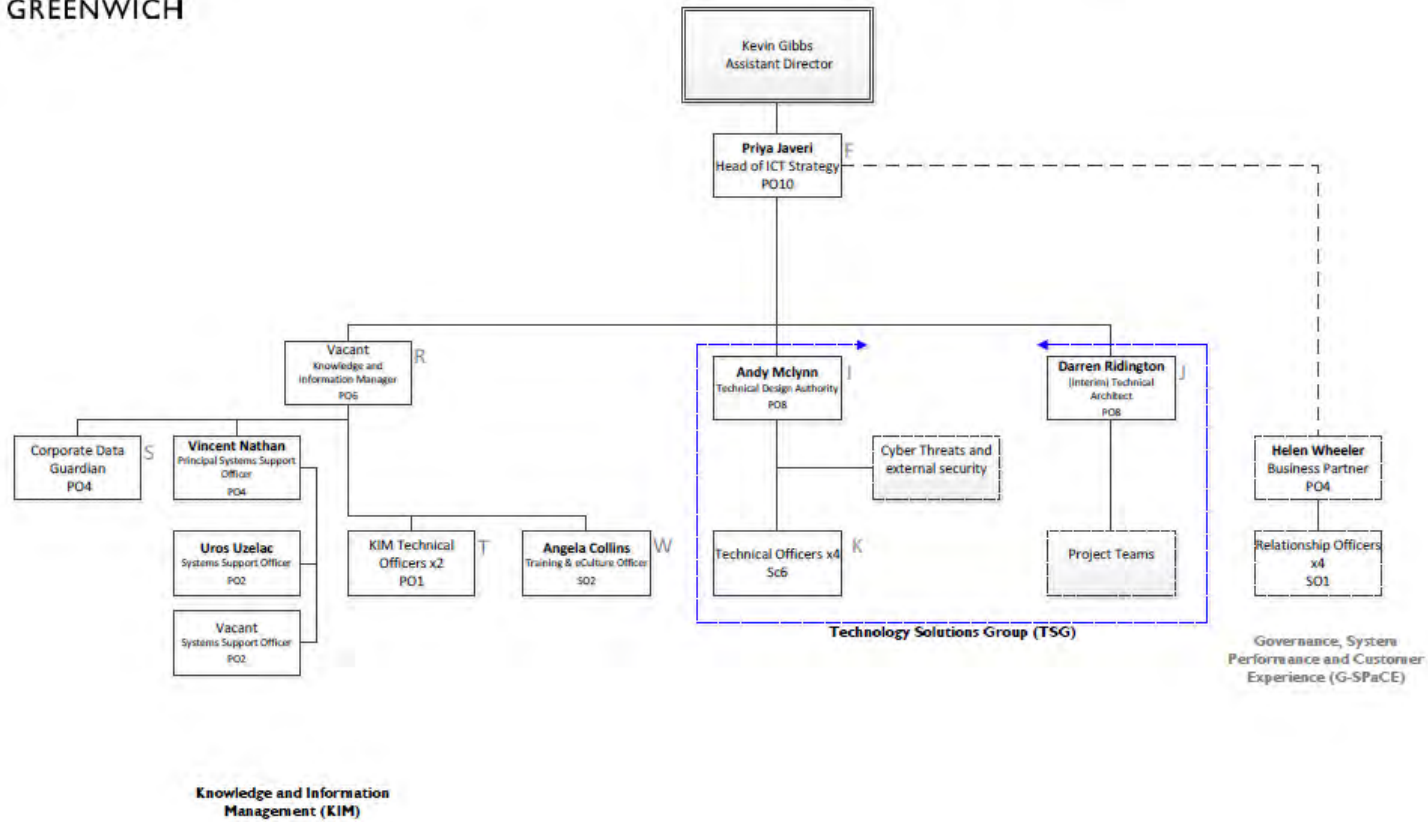| | | |
|---|---|---|
| 3.5.1 | a | To highlight and set improvement plans for those line of business systems where data is hard to 'get at' due to the age or nature of the system and to identify appropriate arrangements for improving this. |
| 3.5.1 | b | To deliver a revised shared-drive data storage approach to unstructured data that is sustainable, reliable and supports robust records management standards on retention, access and availability (see also the "Skilled workers" section). |
| 3.5.2 | 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. |
| 3.5.2 | b | To develop a protective marking scheme that reflects this zoning. |
| 3.5.3 | 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. |
| 3.5.4 | a | To prepare a full requirements document to ensure that the expectations are clear and can be realised by Corporate ICT. |
| 3.5.4 | b | To prepare new security policy to cater for data concerns and issues that might arise from the use (and misuse) of BYOD including options for secure deployment. |
| 3.5.5 | a | To set in place online data security training for all council staff in an attempt to develop a culture that properly values, protects and uses information for the public good. |
| 3.5.5 | b | 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. |
| 3.5.5 | c | To undertake a risk assessment on the effectiveness of the security policies and the associated mitigating actions set in place for ICT Security monitoring. |
| 3.5.6 | a | To produce data ownership and data holding policy that becomes part of any contractual arrangements with third party suppliers |
| 3.5.7 | a | To review mechanisms to improve the resourcing of the Access to Information function, putting in place appropriate staff to support the function |
| 3.5.7 | b | To deliver an up-to-date Access to Information Policy |
| 3.5.7 | c | To update and improve the way FOI refusals are recorded to ensure there is a solid record of exemptions/ refusals applied including a review of  case management arrangements. |
| 3.5.7 | d | To undertake a council-wide communication and dissemination programme, including the training of service-based officers role players. |
| 3.5.7 | e | To update the procedural information on the intranet and to ensure that this is understood and being followed. |

### 6.1.7 Theme: Infrastructure

| 3.6.10 | a | To undertake a full options analysis on how Office 365 and can be deployed in a way that is consistent with data security requirements, protective marking, secure attachments and data zones. |
|---|---|---|
| 3.6.10 | b | To set in place a viable cloud-based email solution for key staff, that complements the existing environment. |
| 3.6.11 | 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. |
| 3.6.11 | b | To reduce environmental impact through robust, challenging procurement activities and supply chain management. |
| 3.6.11 | c | To deliver good asset management – by keeping assets for longer. |
| 3.6.11 | d | To undertake responsible recycling of all ICT assets in line with statutory responsibilities |
| 3.6.2 | a | To deliver an ICT New Design Audit that serves as a comprehensive reference document for what is in place, where there are known issues and what may is missing or not operating the way it ought toThis document should be the reference point for any new services and must be subject to change control. |
| 3.6.2 | b | To produce a robust baseline of all applications that is complete, accurate and up-to-date with all information necessary to manage licences, support contracts, business continuity and to provide management information. |
| 3.6.3 | 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. |
| 3.6.3 | b | To coordinate all technology development through a single Technical Design Board (TDB), based upon the enterprise architecture. |
| 3.6.4 | a | To ensure that all and any concerns held by Northgate are resolved and incorporated into the New Design Audit document, so that any impact the delivery of the integrated service are known and managed. |
| 3.6.5 | a | To set in place a clear Greenwich role that is the ICT Operations Manager with operational responsibility to coordinate the suppliers and be the reference point for any new service requirements. This person should also serve on the TDB. |
| 3.6.5 | b | To undertake solid 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. |
| 3.6.5 | c | To review options that look at the trend of moving IT Service Management to the cloud and to produce a cost-benefit analysis – looking over the longer term. |
| 3.6.6 | a | To produce a full ICT Business Continuity Plan that is up-to-date, subject to change control and directly accompanies the ICT New Design Audit. This should be in line with BS 25999 (the standard for business continuity). |
| 3.6.6 | b | To deliver Cloud BC Business Analysis options that focus on a high availability service, based on the above plan, using the Cloud. |
| 3.6.6 | c | To set in place a two data centre policy for all systems, whether hosted locally or through a partner. |
| 3.6.6 | d | To produce plans to ensure that rehearsed ICT business continuity exercises are undertaken as part of the ICT Business Continuity Plan. |
| 3.6.6 | e | To develop an ongoing, routinely reviewed risk log that the ICT Strategy Board can review, which identifies potential threats and the impacts to operations that those threats might cause, related to business continuity. |

| 3.6.6 | f | To review an option for joint services with at least one neighbouring local council to explore and develop mechanisms for improved business continuity that benefit both councils. |
|-------|---|---|
| 3.6.7 | a | To produce a plan for the migration of services into a new 'two data centre focused' environment, based on the new ICT New Design Document. |
| 3.6.8 | a | Undertake a Cloud IaaS Options Analysis based on TCO to assess the viability of either wholesale or hybrid approaches to data centre management. |
| 3.6.9 | a | Undertake a Cloud PaaS/SaaS Options Analysis on the potential for staff to use PaaS and SaaS against a general backdrop of how existing applications (i.e. line of business systems) could be deployed on a Cloud Desktop basis. |

## 6.2 Appendix B: Greenwich ICT Strategy Team



**Customer Services and ICT Strategy Division**

ROYAL *borough of*
GREENWICH

Kevin Gibbs
Assistant Director

**Priya Javeri**
Head of ICT Strategy
PO10

Vacant
Knowledge and
Information Manager
PO6

**Andy Mclynn**
Technical Design Authority
PO8

**Darren Ridington**
(Interim) Technical
Architect
PO8

Helen Wheeler
Business Partner
PO4

Corporate Data
Guardian
PO4

**Vincent Nathan**
Principal Systems Support
Officer
PO4

Cyber Threats and
external security

**Uros Uzelac**
Systems Support Officer
PO2

KIM Technical
Officers x2
PO1

**Angela Collins**
Training & eCulture Officer
SO2

Technical Officers x4
Sc6

Project Teams

Relationship Officers
x4
SO1

Vacant
Systems Support Officer
PO2

**Technology Solutions Group (TSG)**

Governance, System
Performance and Customer
Experience (G-SPaCE)

**Knowledge and Information
Management (KIM)**

Agreed August 2013

## 6.3 Appendix C: Greenwich ICT Governance, Systems Performance and Customer Experience



ROYAL *borough of* GREENWICH

**Customer Services and ICT Strategy Division**

Kevin Gibbs
Assistant Director

Jules Spain
Head of G-SPaCE
PO9

G

Andy Mclynn
Technical Design Authority
PO8

Cyber Threats and
external security

Helen Wheeler
Business Partner
PO4

M

Eoin Joyce
Resource Planning and
Performance
PO3

Project
Management Office
PO2

Q

Jackie Fairweather
Customer Relations
Manager
PO2

O

Matthew Szostak
Performance Officer
Sc6

P

Jamie Grant
Relationship Officers
SO1

N

John Annand
Management Information
Analyst
SO1

Susan Wright
Relationship Officers
SO1

Gary Hamilton
Relationship Officers
SO1

Mohammed Ali
Relationship Officers
SO1

**Governance, System
Performance and Customer
Experience (G-SPaCE)**

Agreed August 2013