# IS Strategy
## 2013 - 2018

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City of London

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Appendix 1 – Technology Roadmap
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## Foreword by the Chamberlain

The past decade has seen a revolution in the use of technology. In particular, the use of the internet has become so transformative so quickly that officers and members cannot undertake their jobs and roles without an excellent understanding of what modern technologies can and cannot do.

The single and most complex issue – to me at least – is working out how we should be using computers and technologies to improve the services we provide. This IS Strategy explains how we intend to do that.

It sets out the work required in order to make best use of the technology we already have and the roadmap for delivering new and emerging technologies.

The strategy provides a current view of the direction of travel over the next five years. However, I expect that over the next five years we will see further changes in technology to influence the direction of our strategy. We have accommodated this likelihood in our new IS Division structure with research and innovation capability. Using this insight we will refresh our strategy regularly so we remain ahead of the game.

Of course we will be transitioning to our new service supplier as we begin the implementation of this strategy and will work in partnership with them to deliver the IS Strategy and any new technologies that may emerge over time.

## Executive Summary

The City of London Corporation IS Strategy sets out the priorities and direction of travel for the IS Service and technology over the next 5 years (2013 – 2018).

The strategy is set in the context of a changing financial landscape for both public and private sector. For the City of London, this means increasing pressure to make savings, alongside the desire to keep up with innovation in the fast paced technology industry.

How we use innovative and new technology to deliver services and meet our customer expectations is driven by the changing way technology is used socially. Our strategy takes on board an increasing demand for 'self-service' and a more 'mobile workforce' by aligning with the Corporate Transformation objectives and enabling delivery of this through our transformation projects and programmes. This helps meet the need for more efficiencies in our business. Being efficient impacts not just on our day to day activities, but also on our investment decisions – accordingly this strategy also sets out our portfolio of projects and activities within four core themes: the themes focus on supporting the Corporation to deliver services effectively.

Visitors to the City, Businesses, Customers, Workers and our own staff expect to use a variety of technologies (website, mobile devices, social media and developing technology) and receive the same level of service provided by any commercial and professional City based organisation. This strategy will help meet peoples' expectations that they are dealing with a modern and accessible organisation.

An important role of the IS Division is to enable the organisation to improve business processes, obtain business intelligence and management information as well as supporting departments to make the best use of the technology they have. The Strategy supports this by focusing on the research and delivery of new and innovative technology solutions as well as maintaining an efficient and reliable network and infrastructure, protected from cyber-attack as best we can.

To ensure we can deliver these new technologies and support our customers to make improvements we must first get the basics right. Our programme of work includes getting the underpinning technology and infrastructure in place and supported. This programme of 'getting the basics right' will ensure that there is a consistent level of service across the Corporation. Over the last 12 months, we have uncovered or experienced a series of problems that have led to unsatisfactory service. We have addressed these through some immediate actions ahead of longer-term fundamental changes to how we provide services to ensure we are on a better footing for the future.

To address these issues and to shape our services for the future we have embarked on major changes to our operating model. The Sourcing review will result in us having a new partner to help us deliver more robust network and infrastructure to bring about the stable and reliable services to build on. We have also redesigned our in-house services to improve our working practices and to give a greater focus to our engagement with services.

Both of these changes are due to be in place towards the end of the summer 2013. As we transition to this new model our customers will start to see improvements and feel the benefits from these.

As we implement these changes alongside the IS Strategy, Members will experience a dedicated service that supports their needs and requirements. We will meet these needs using our knowledge of the organisation and the particular role that Members have. Understanding the challenges Members face with balancing their work within the City of London and their other professional and personal commitments.

Departments will see the barriers they currently face with using technology removed and more stable and consistent levels of service. Staff out in the 'field' delivering services directly or working remotely will have greater access to information and systems. The devices and technology available will help staff deliver services in real time and reduce the need to repeat work back in the office. This in turn has potential to contribute to the Accommodation and Flexible working ambitions of the organisation.

With the basics fixed departments will see more effective management and delivery of projects. Using best practice standards for the way we work across projects and application development. Our engagement function will work closely services to paint a clear picture of requirements and work with them to turn these into efficient and effective ways of working. This proactive and responsive approach will support departments in making improvements and savings.

Working in partnership with services and departments will mean that we are able to support them to deliver services to their customers. Corporately we can make information available that gives the Corporation insight into its customers, our performance and how we shape and deliver services in the future.

The IS Strategy supports a 'One organisation' approach that allows staff across the Corporation to work more closely with our Institutional Departments and partner organisations. This provides access to the same information and facilitates closer collaboration and cooperation.

Included in this document is the technology road map. This sets out our planned 'architecture' and the drive to reduce the number of bespoke applications we have as an organisation. The current architecture is overly complex and prevents us from achieving a more 'joined up' approach to our information management and workflow. By consolidating and rationalising our applications we can improve collaborate across departmental boundaries and reduce the cost of duplication.

The roadmap sets out our intention to work closely with Microsoft and Oracle technologies. It also sets out the requirements to be mindful and work hard to protect our information with a Cyber Security Policy. As new technologies emerge we will make informed evidence based decisions on how these are built into our architecture and the technology roadmap.

With customers at the heart of what we do in our IS Division, this document sets out clear service standards and performance measures. These emphasise our desire to improve customer satisfaction by providing excellent services for "A connected World City with accessible services for City of London customers, businesses and visitors and an agile and flexible workforce supported by technology".

## Context

The City of London Corporation provides not only local government services for the financial and commercial heart of Britain, the 'Square Mile' but many other services for the benefit of London. One of our key commitments is to support and promote 'The City' as the world leader in international finance and business services. This IS Strategy and our portfolio of change reflects this priority.

The City of London Corporation combines a mix of ancient traditions and ceremonial functions with the role of a modern and efficient local authority. The City looks after the needs of residents, businesses and over 320,000 people who come to work in the 'Square Mile' every day.

In addition to the usual services provided by a local authority we run our own Police Force and run the nation's criminal court the Old Bailey. We maintain five of the Thames Bridges, run the quarantine station at Heathrow Airport and we are the Port Health Authority for the whole of the Thames tidal estuary. Through our food markets Billingsgate, Spitalfields and Smithfield we supply London and the South East with fresh produce. Our Open Spaces department owns and manages almost 11,000 acres of Open Space in and around London including Hampstead Heath, Epping Forest and Burnham Beeches.

This broad range of responsibilities sets out a series of challenges and opportunities for this IS strategy; to lead the way in Information Systems that meet the needs of all our customers across the diverse range of responsibilities and services offered by the Corporation.

## Corporate plan

The City of London Corporate plan (2012 – 2014) sets out three strategic aims:

- To support and promote ‘The City’ as the world leader in international finance and business services.
- To provide modern, efficient and high quality local services and policing within the square mile for workers, residents and visitors with a view to delivering sustainable outcomes.
- To provide valued services to London and the nation.

These aims are supported by a set of key policy priorities:

- Supporting and promoting the international and domestic financial and business sector
- Seeking to maintain the quality of our public services whilst reducing our expenditure and improving our efficiency
- Engaging with London and national government on key issues of concern to our communities including police reform, economic crime and changes to the NHS
- Maximising the opportunities and benefits afforded by our role in supporting London communities
- Increasing the impact of the City’s cultural and heritage offer on the life of London and the nation

## Drivers and aims

- **Customer Focus and Business driven** – a customer centric approach with high standards of customer service.

  We will improve our current performance and customer satisfaction and better align our technology investments with key business needs.. This will be facilitated by improved engagement and decision making, understanding the customer needs and focusing on outcomes. Jointly with the business, we will make informed decisions about what is best for the organisation as a whole and achieve a balance between cost, benefit and risk.

- **Fit for purpose and better working practices** – getting the basics right, having a robust infrastructure and accessible, easy to use and reliable systems.

  We will apply best practice standards, improving our management of risk, prioritisation, planning and deployment of resources. Adopting this approach will also allow us to prioritise our technology investment and better manage our suppliers and contracts to achieve the best value for money and outcomes for the Corporation.

- **Transformation and Innovation** – making best use of the technology we have while also looking forward by investing in innovation and research.

  We will advocating how technology can improve efficiency and deliver positive customer focused outcomes – thinking 'outside the box' to create innovative, leading edge and practical solutions. We will support and drive transformation, becoming a fleet of foot organisation, able to set direction, design outcomes and deliver the benefits of change across the Corporation.

- **Value for money** – across everything we do.

  We will support departments to make savings and achieve greater efficiencies through best use of our investments. By re-organising, rationalising, simplifying and standardising our systems we will ensure sustainability and maximise our existing investment. Working with the business, we will seek to achieve eefficient and effective business process, supported and enabled by technology.

## Strategy themes

In order to support the Corporation in delivering the Corporate plan, the IS programme of work and our transformation portfolio has been aligned around the following four themes:

- Promoting the City
- Customer access and services
- Building an effective corporation
- Better working practices

### Promoting the City

Promoting the City of London as a leader in finance and business as well as a destination for visitors is another of the diverse functions of the Corporation. Information is critical to ensuring that we have the right insights into the CoL's wide range of customers. Reliable access and communications for offices around the world is essential to allow them to promote the City. Our presence on the Web via our internet pages and the visibility of the CoL through other channels such as Social Media, Mobile Devices and Apps enable us to promote the City to our businesses, visitors, residents and staff.

Smart Cities is a developing area, where we will continue to monitor activities in the market and other global cities, taking advantage of these developments as the benefits become clearer.

### Customer access and services

The Corporation's unique mix of customers requires information, analysis and reporting to help us understand them and help shape the way we provide services to meet their needs, whether they are businesses, residents, visitors or staff. Adopting this approach can enable departments to provide an enhanced customer experience, making sure services are targeted through the appropriate channels with a focus on 'digital by default' and self-service. While encouraging digital interaction we will continue to provide customers with a choice, maintaining telephone and face to face contact where required.

### Building an effective corporation

The IS function has a critical part to play making the Corporation more effective and efficient. From the areas of our service that are invisible to, but underpin, the organisation, through to building systems which join the organisation together and support improved business process and clear reporting.

We must 'keep the lights on', ensuring that systems are robust, resilient and reliable. We must also have appropriate support and disaster recovery, to ensure the effective operation of the Corporation is maintained in the event of a major incident

We will pursue a 'one organisation' approach to the provision of systems, allowing staff in Schools, The Barbican and other Institutional Departments to access information and communications as required. Working with the business areas this will be the glue which will help and encourage closer working in a collaborative and mutually supportive way.

Finally, we will seek to join up our data in different systems and through this provide management information and customer insight. Following the principles of 'one version of

the truth' and 'Everything Anywhere' we will seek to provide a comprehensive set of self service management reports.

## Better working practices

There are a range of existing technologies and planned upgrades that will enable better ways of working. The fundamental principles for delivering the outcomes of this Theme are to ensure that business processes are fit for purpose and that the culture of the organisation is one that will embrace the improvements to working practices..

Ways of working is a business driven change project underpinned by corporate principles and facilitated by technology. This technology will be delivered through areas set out in the technical road map, as well as wider use of some of the existing technologies already available. SharePoint will be a critical enabler to this work, supporting Oracle to delive 'Business Intelligence', management information and dashboards. This will facilitate workflow within business processes, as well as collaboration around the customer or projects rather than the traditional organisation structure (as we have with Shared Drives at the moment).

Unified communications and social media will offer additional ways to engage, collaborate, share and communicate. The integration and consolidation of systems will also enable 'real time' access to information and provision of services to those using mobile and remote working practices. The intranet will be a key hub around which these systems are placed, providing a personalised home screen, which pushes management information to staff and allows easy access to all systems and information. 'Single sign on' across all appropriate and capable applications will be a key enabler.

## IS Division - Core business

As technology and customer demands change, so does the role of the IS function. As we move forward with the Sourcing Review our role will change from a provider to a commissioner of services, allowing us to devote more time and effort to delivering change to the organisation. Our chosen service provider will be better resourced and set up to provide specialist skills and develop detailed knowledge of emerging technologies, which are essential to fulfil the traditional role of support and infrastructure. We will work with this supplier to provide these services in a more sustainable way, ensuring high quality, cost effective services for the organisation.

### Our chosen supplier

The IS Phase 3 Sourcing Review completed a market testing exercise in Aug 2012, launching a tender in Dec 2012 and evaluating the three submitted bids through April and May 2013. A recommendation for the winning bidder will be put to the IS Sub Committee in June 2013, followed by the Court of the Common Council in July 2013 and contract commencement currently planned for Aug 2013.

The appointment of this supplier will be a key enabler for the IS Strategy, throughout the tender process we have sought a supplier who would be able to 'keep the lights on' and improve our services, however we have also sought one which would be able to become a strategic partner in the delivery of change for the Corporation.

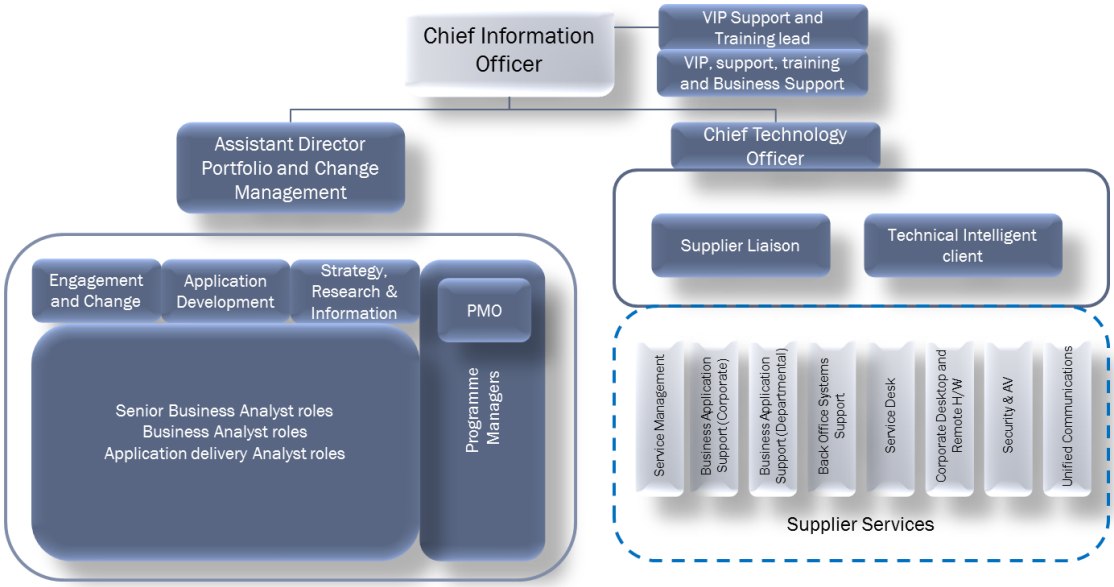
As we move into the implementation phase of the Sourcing Review we will be reviewing the IS Strategy and its delivery mechanisms, including, defining the key priorities, budget, resourcing and plans to completion.

### How we are organised

The partnership with our chosen supplier and the approach to delivering services changes the core business of the IS division. Going forward the role will be:

- Manage the delivery of services provided by our suppliers.
- Adding value through understanding our customers and the City of London, ensuring requirements are delivered.
- Exploring new technology and innovation to maintain a leading edge in technology on behalf of the City of London.
- Work with the key stakeholders to drive and enable transformational change within the Corporation.

In order to support this approach the IS Division has undertaken a re-organisation of the 'in-house' elements of the structure to reflect IS Core Business.




**Programme and Project Delivery**
The IS structure is a flexible set of resources with a wide range of skills. We aim for best practice processes in each of the professional areas (Change Management, Application Development, Research, Information and Strategy).

The Business Analysts resources have a variety of skills and will support services to redesign and improve their ways of working, support the business in working up technology solutions, project manage your projects and research and test innovative new technologies on behalf of the City of London Corporation.

To lead on the themes and programmes within this strategy we will have a highly skilled programme management function, accountable for delivering a growing number of transformational programmes.

Our application development function works with the business as we implement a rationalisation programme to phase out any out-dated systems and reduce duplication with a view to supporting the reduction of costs and to simplify the organisation of our information.

**Customer Engagement**
Connecting all of these together will be the *Engagement* function, this will be the role of Senior Business Analysts who, working with our Supplier Liaison and VIP Support & Training teams, will ensure that business needs and those of our customers are built into our programmes of work.

**Vendor Management**
This will be a new function consists of Supplier Liaison and Technical Intelligent Client roles. These will address the growing need to build strong relationships with our strategic suppliers, as well as ensuring that we retain professional technology leads to work with our engagement team and the departments to form our 'intelligent client' for our suppliers.

**VIP Support and Training**
This is a more strategic function than our current desktop training and will ensure appropriate provision of training based on our customer needs. A VIP service will support our service

desk and our supplier to ensure that there is a good understanding of customer expectations and that high standards of service are delivered.

## Current service issues - 2013

Through our engagement and consultation, we have listened to your concerns and a summary of these are given below:

- Wide Area Network (WAN) connectivity is a source of frustration and has caused problems. with slow links and poor response times at a number of remote sites. Even sites located within the City can be effected, such as 1-5 London Wall.
- Remote sites outside the Guildhall Complex feel that they receive a slower service and response to problems compared to the central departments.
- Remote access is not as effective as our customers would like. Citrix is perceived as cumbersome and not user friendly. We have many reports of it being unreliable, with customers taking several attempts to log on and experiencing significant time lag as they try to work.
- Customers are frustrated that SharePoint tools are available but have not been rolled out more broadly and they are keen to get on and start using these.
- There is an expectation for provision of wifi at all corporate sites for all staff to assist in the adoption of more flexible and mobile working and effective use of existing devices, ie iPads.
- Responsiveness has been raised as a key issue, with sometimes even simple tasks taking too long to be completed.
- There is a perception that information security policies are prohibitive. Customers would like more consultation on policies and a better understanding of how corporate policies are joined up.
  - Institutional Departments are on separate networks and this is a barrier to sharing information, including corporate information such as finance and when collaborating on projects.

## Getting the basics right

The first part of our strategy focuses on getting the basics right. This is our first priority and is being progressed by work already underway and will be accelerated by working in partnership with our Sourcing Review supplier. We understand that without the right foundations further improvement and innovation will be limited.

**Tackling the current network & performance issues**

The City's existing Wide Area Network (WAN) was designed & commissioned over 5 years ago and is end of life. With the end of the existing supplier contracts approaching, combined with increasing demands of audio/visual, voice, web streaming and collaboration, we need to replace and upgrade this network. This replacement will provide greater bandwidth and resilience, to provide acceptable performance and handle the increasing use of technology; this new service will be phased in from March 2013.

Some key parts of our data storage infrastructure have been working at or close to their capacity, which this has been a contributing factor to some of the service issues encountered during 2012. We are putting in place an interim solution to bolster the capacity of this infrastructure, pending changes that will come through the sourcing review. This equipment is now up and running and we continue to monitor performance.

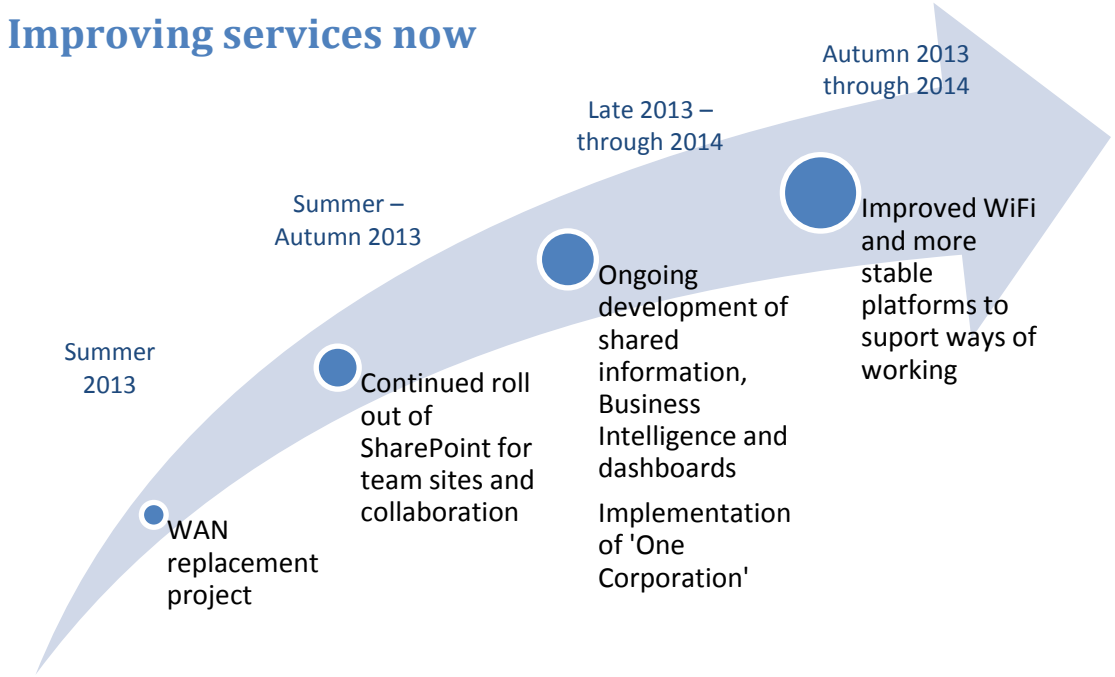
**Enabling remote and flexible working**
For internal users of Citrix the higher capacity WAN will remove the need to use Citrix and from the second quarter of 2013, we will be implementing direct access to services from most City office's. This will greatly improve the user experience in these offices.

For remote access users with Laptops we will be providing a new Virtual Private Network (VPN) service, which will allow easy access to staff working remotely. This will be bolstered by Outlook Anywhere, which allows users with Corporation Laptops to access emails without the need for a further sign on other than the laptop log in.

For occasional users who only need email we will look to make Outlook Web Access available. Some users are likely to continue using Citrix or an equivalent product and we will work with them to improve their experience.

**SharePoint**
In the short-term the planned upgrade to our storage infrastructure will provide the initial capacity to enable SharePoint to be more widely used. We are currently working with the organisation to detail how we can use the functionality most effectively to improve ways of working and facilitate projects and collaboration.

**WiFi**
The WiFi servicing Guildhall complex is planned for replacement, subject to funding. This will support the increased use of and reliance upon WiFi. Where possible, this service will also be provisioned at selected remote sites. To achieve the best value for money we are reviewing service requirements and security. The use of 3G or 4G may be an alternative cost effective and reliable solution for some remote sites.



## Future requirements by department

The second part of our strategy focuses on future technology to enable the Corporation to achieve its longer term goals. We have been working with departments as they develop their business plans to identify specific future needs. This builds on 'getting the basics right'.

The departmental requirements are set out below.

| *Department of the Built Environment* |
|---|
| ○ Mobile technology for undertaking surveys in the City and operating in the field with third parties. |
| ○ Greater use of social media to respond more quickly to events as they happen. |
| ○ Improved use of CRM, to join up services and ensure greater sharing of data. |
| ○ Improved graphics and software to assist in dealing with drawings and maps. |
| ○ Greater use of GIS for mapping data, integrating with business systems and sharing with customers. |
| ○ Broader use of document management, to improve information management, collaboration and consultation with customers through the planning process. |

| *Community and Children's Services* |
|---|
| ○ Improve self-service for customers, to allow staff to focus on more needy customers. |
| ○ Sharing of data between multi agencies and provision of integrated services. |
| ○ Improved mobile working to reduce duplication of effort and offer services to customers while out in the field. |
| ○ Provide more of a 360 degree view of customers to integrate and improve services. |

| *Open Spaces* |
|---|
| ○ Improve connectivity and speed of service to remote sites. . |
| ○ Use of an appropriate GIS solution to improve ways of working and customer information. |
| ○ Make more transactions available through the web, such as sports booking. |
| ○ Improved out of hours services. |

| *Culture, Heritage and Libraries Department* |
|---|
| ○ Increasing use of e-resources, self-service and library management system. Reliable services to staff and public, covering public terminals, wired and WiFi connectivity. |
| ○ Extended out of hours support to enable continuity of services to customers |
| ○ Social media for communication, engagement and appropriate business use |
| ○ Improving and broadening customer access channels, for example by Web and Mobile Apps for transactions. |

| *Department of Markets and Consumer Protection* |
|---|
| ○ Increased mobile and remote working with operatives able to access and update information while out in the field. |
| ○ Improve access to information out of hours for their own staff and staff who they contract work to. |
| ○ Ports, Markets and Heathrow Reception Centre want technology to enable mobile |

| |
|---|
| working and improvements to network connectivity for remote sites. |
| ○ Markets would like to investigate how appropriate technology can be used to improve collaboration and communication with their tenants. |
| ○ Improved use of information to create business intelligence and the sharing of information and intelligence acorss other departments. |
| ○ Markets would like to make use of CRM to support customer services, including integration with existing systems. |
| ○ Support from IS to re-engineer processes and ways of working to maximise the use of current systems and enable departmental efficiencies |

| ***City Surveyors*** |
|---|
| ○ Replacement of the property management system, through Oracle. |
| ○ Reliable remote working. |
| ○ QMS (Quality Management system) |
| ○ Development of other SharePoint based solutions such as Team Sites and document management |

| ***Mansion House*** |
|---|
| ○ Mansion House are keen to make use of the CRM, |
| ○ They are also looking at remote and flexible working options, including devices for overseas visits. |

| ***Comptroller and City Solicitor*** |
|---|
| ○ Increased flexible and home working |
| ○ Improved Case management and pursuing the adoption of the Corporate Document Management solution. |

| ***Chamberlain's*** |
|---|
| ○ Improving provision for flexible and home working. |
| ○ Volunteering for and early adoption of new technology / ways of working. tailoring devices and solutions to suit roles. |
| ○ Process and reporting improvements, with integration of systems to realise both operational efficiencies within the Chamberlains department but also the wider organisdation. |

| ***Town Clerk's*** |
|---|
| ○ Leading department for new ways of working, including working practices, new technology, mobile and home working. |
| ○ Town Clerk's Dept. are driving the strategy and adoption of social media for internal and external communications. |
| ○ The Economic Development Office and Public Relations Office would wish to see improved communications for overseas visits and offices. |
| ○ Both EDO and PRO would wish to make better use of customer information and insight through CRM.. |
| ○ HR are looking at document management and other uses for SharePoint to improve ways of working and collaboration. |

| ***Remembrancer's*** |
| --- |
| ○ Make greater use of social media |
| ○ Develop the use of their event management system |
| ○ Opportunities for CRM. |

| ***Institutional Departments*** |
| --- |
| ○ All departments would benefit for a 'one organisation' approach, federating our systems such that users have broader access to the Corporations systems. |
| ○ The Barbican - to be complete by BRM's |
| ○ The schools |
| ○ The Police |

## Delivering the strategy

### Work programme

Common areas of development have emerged across departments, including improved mobile working, further use of social media and broader use of CRM. Alongside the 'getting the basics right' activities such as improvements to the reliability of services and network enhancements, these will form the key focus areas of the IS work programme.

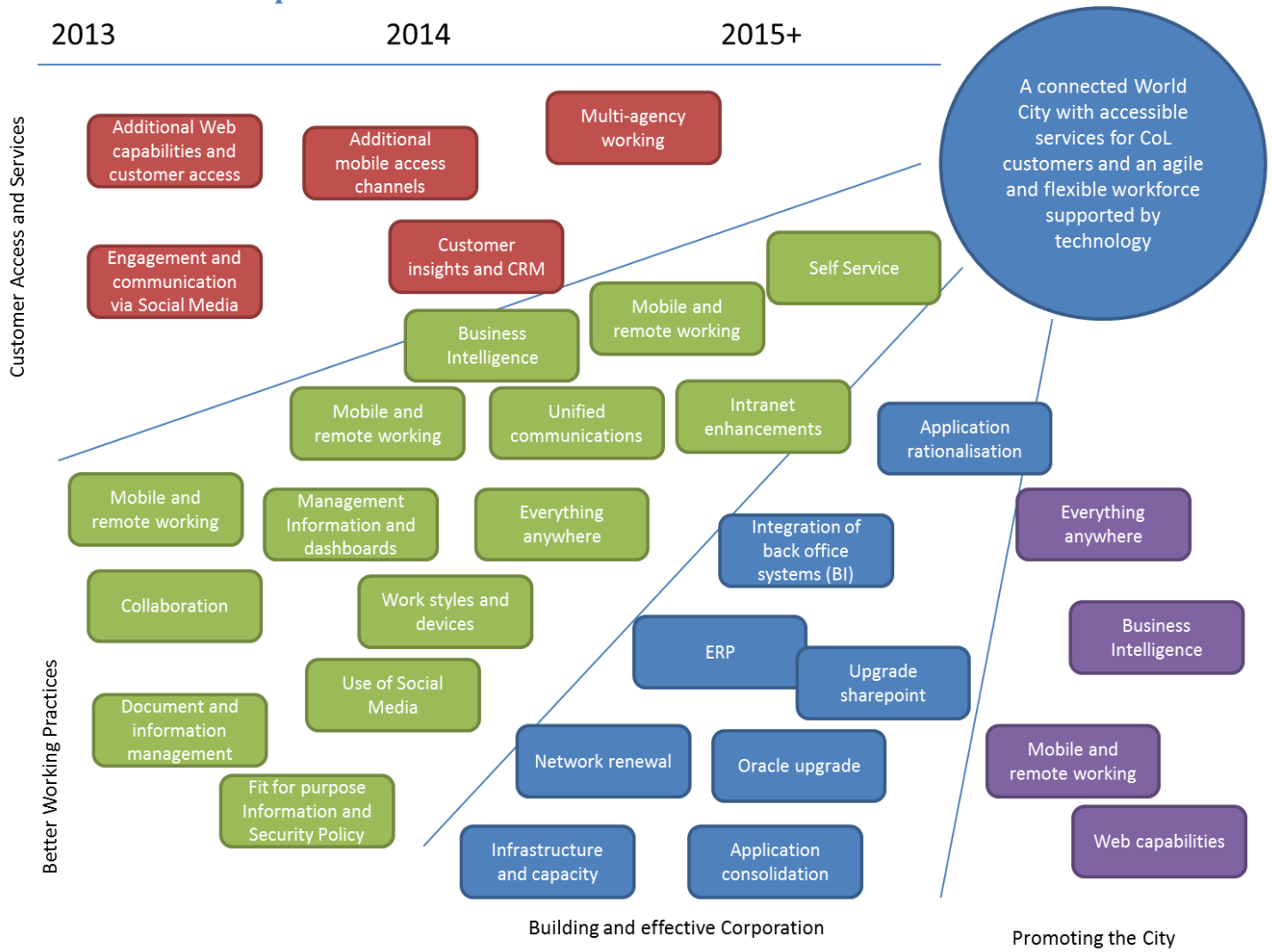
The IS Division cannot deliver this work programme alone and in many cases other 'corporate' departments have a role to play in aligning policies and procedures. Equally, time, resource and investment commitments will be required by Services. This partnership will involve developing a full understanding of business requirements and ensuring that the solutions developed comply with the clients 'signed off' requirements, our policies and the overall technology road map. Each initiative will require a business case with an evaluation of options where appropriate.

The list below highlights the main development areas and some of the considerations given to each:

- New Wide Area Network
  - New contract awarded to Virgin Media.
  - Site surveys underway.
  - Detailed transition plan is in development.
  - Significant increase in capacity will be delivered, allowing most remote offices to move off Citrix and receive a similar service to staff in Guildhall.
- Service Reliability & User Support
  - Additional infrastructure has been commissioned to increase capacity and through this improve the reliability of systems. Having made this change we continue to monitor the situation.
  - Significant effort has gone into improving the response of our service desk and although the number of calls outstanding is still higher than we would want, this is an improving situation.
  - Both these areas will be key improvement areas for the Sourcing Review Supplier.
- Mobile and remote working
  - Understand the common and service specific requirements of mobile and remote working
  - Identify best use of what we have
  - Resolve connectivity issues
  - Ensure robust information management policies that enable remote and mobile working are implemented
- Social Media
  - Fully test the current investments and potential benefits of Social Media such as Yammer
  - Identify the business requirements and access needs
  - Implement training and development
- Customer Service
  - Understanding CoL customers and our future strategy for service delivery
  - Identifying services to build into CRM and appropriate channels for delivery
  - The use of CRM to achieve customer insight and intelligence

        - The use of customer insight to shape customer service
            - Channel Strategy
            - Appropriate migration to online services
            - Use of Mobile Apps
- Self Service
    - For external customers – see Customer Strategy and channels above
    - For internal customers:
        - Working with Corporate Service areas to identify self-service opportunities
        - Continue to roll out IS Services online and through self-service channels
- Ways of working
    - Identify service requirements to re-engineer processes and review supporting technology
    - Understand how current utilisation of existing technology can be expanded
    - Provide self-service, training and support to services to maximise the use of their current technology and corporate technology to improve the way they work
    - Implementation of new technologies to improve current flexible and mobile working
    - Align with Accommodation strategy to identify ways that technology and ways of working can enable this strategy
- Document and Records Management
    - Work with Departments to understand the policy and subsequent requirements of document and records management for City of London
    - For document management continue to roll out SharePoint where appropriate
    - Develop a records management project and full business case to deliver the corporate policy
    - Prioritise implementation
- Sharing of data and information
    - Continue to roll out SharePoint team sites that enable collaboration around a work area, topic or project
    - Understand how we can ensure all parts of the Corporation and where appropriate our partners can access and share information
    - Ensure that our security and access policies support information sharing and collaboration but keep our sensitive data secure
    - Understand the next stage of requirements for ‘dashboard’ information – the hierarchy of these requirements within the organisation and primary data sources
    - Map out a project business case to support the business requirements of this

## Transformation map



## IS Portfolio

Using the development areas identified by departments and the themes in our strategy the following table lists key projects for each theme with the outcomes and capabilities that these will deliver:

| Strategy Theme | Key projects | Outcome |
|---|---|---|
| Customer Access and services | CRM development | A single view of the customer.<br>Increase volume of transactions and appropriate access to services that support customer choice<br>Continuity of services available to customers<br>Joining up service delivery through circles of need, making access intuitive and accessible |
| | Web development | A single website infrastructure and platform that can be accessed by others – enabling partnership working and value for money |
| | Business Portal | New business (small to medium size enterprises) have access to information and advice to make it easier for them to establish new businesses in the city |
| Building an effective corporation | Consolidation and rationalisation of systems | Reduction in cost of support and delivery, enabling a single view of the customer Improving processes and streamlining services |
| | Enterprise Resource Planning | Integrated systems that provide accessible real time business intelligence across our core corporate service areas |
| | 'One Corporation' | Removing technical, procedure and organisational barriers to closer cooperation and collaboration between the Corporation and the Institutional Departments. Recognising the diverse needs of these departments and providing them with connectivity to access systems and information as required. |
| Better working practices | Ways of working transformation programme | Agile working, flexibility to work in the field directly with customers<br>Empowered staff working across department boundaries<br>The right devices to meet the work style needs of the individual<br>Flexible and accessible systems and information that enables effective and efficient working anywhere |
| | Unified communications | Video conferencing, telephone conferencing and access to work colleagues and customers through a unified communication system and accessible through a single number |
| | SharePoint | Collaboration around the customer or project<br>Accessible information and business intelligence<br>Single sign on<br>Personal portals |
| | Social Media | Real time access to feedback and connection to our customers 'instant information'<br>Outward communication and broadcasting as well as transactions<br>Collaboration with local groups, engagement and consultation<br>Generation of ideas locally and within communities |

## Technology Roadmap

The technology roadmap (Appendix 1) will ensure that we have firm foundations to deliver the IS Strategy and the transformation portfolio, while adhering to the standards adopted as part of our Enterprise Architecture.

We will seek to rationalise applications across the organisation, simplifying our data structure and enhancing our ability to connect systems and through this supply one version of the truth across multiple systems. This will not limit the ability of departments to deliver their services. Specific requirements such as those in Libraries and Social care will be supported.

Our core strategic solutions will be structured around the following technology:

- Microsoft Active Directory
  - This will provide us with a single user authentication database. All future systems will be expected to interface with this technology. This will enable the implementation of a single sign on solution reducing support and maintenance costs and improving system security for systems that currently have their own less secure solution.
  - We will seek to federate our Active Directory with institutional departments (for example City of London Police and the Barbican Centre). This will enable staff from these departments to access those applications to which they have authorised access, using their individual username and password from their own AD database.

- Microsoft Dynamics
  - Provides a system which will allow us to track interaction with our customers and clients, in addition the information it holds can be used to give these customers a 360' view of their interaction with the corporation.

- Microsoft SharePoint
  - This is a key tool to help us manage and publish information internally and externally. It forms a basis for our external internet site and our internal intranet. Going forward this use will be expanded to provide a personalised intranet site, which will provide a home for business reporting. Use will also be expanded around document management and the support of efficient and streamlined business processes, team site and collaboration

- Oracle r12
  - This system provides the core of our Financial systems and going forward it use will be expanded as appropriate across other Enterprise Resource Planning (ERP) Functions, potentially bringing together Finance, HR and Property information and self-service. Interfaces between the modules is guaranteed by Oracle and Master Data Management (MDM) is achieved (a single version of the truth).

- Departmental Applications
    - The Corporation is likely to continue to require a diverse set of applications to satisfy business needs, however we will seek to wherever possible reduce the number of separate applications, ensuring that we keep these requirements simple and use customisable off the shelf packages, avoiding bespoke developed applications.

- Windows Operating System
    - As our primary desktop operating system we will retain Windows 7, but make use of the functionality of Windows 8 for touch screen devices.

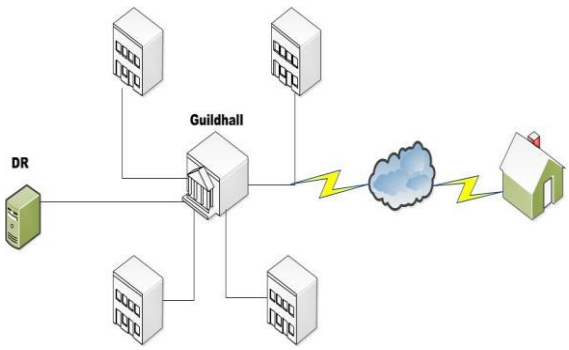
- ArcGIS
    - This will be our main solution for Geographical and Spatial Information.

- Remote access solution
    - We will use a combination of Microsoft Remote Desktop services, Vitrual Private Network access and Microsoft Outlook Web Access (OWA) to support the delivery of mobile and remote working to provide access to systems and information when staff are away from the office.

- Unified Communications and Telephony
    - We will consolidate our telephony and unified communications solutions around Microsoft Lync 2013. This technology provides telephony services via the PC infrastructure; using low cost USB connected headsets and offers additional video conferencing, desktop sharing and collaboration services wherever a user can gain access via the internet. Federation with other organisations and partners using this technology will also be enabled.

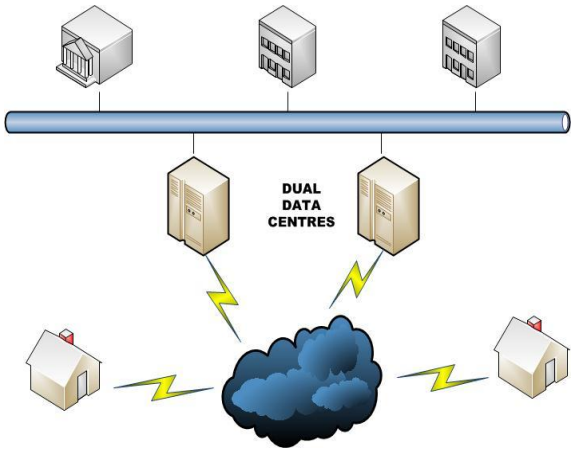
Updating to the newest versions of systems will be dependent on its maturity and the benefits that its adoption could provide. In the main we will not be looking to run the latest versions of all operating systems and solutions. Upgrades will be assessed against business benefits and risks prior to being implemented on a case by case basis.

## Architecture




Our current technology architecture is based around a hub and spoke model, with the Guildhall complex acting as the hub and all other offices connected to this. The weakness with this design is that it is based around a single central location, this introduces a single point of failure. A significant incident in or around this location could disrupt the whole of the City of London Infrastructure. The internal data centre also restricts flexibility in our accommodation estate and limits both our disaster recovery and capacity to provide remote access to systems.

In conjunction with the sourcing review we are replacing our network provider and together these activities provide us with an opportunity to move to a more robust and resilient architecture. This will enable us to disconnect our technology infrastructure from our accommodation, increasing the flexibility in our accommodation estate and potentially freeing up valuable accommodation for alternate use or redevelopment.




This new model uses the network provider's resilient infrastructure to deliver a backbone to which all our offices connect. Following the sourcing review, our contractor will deliver disaster recovery through multiple data centres, this will provide increased capacity and resilience. As such, the loss of any single office will not affect other offices or those working remotely and the loss of a datacentre would not prevent the continuation of service.

Additionally, the enhanced systems and connectivity will support improved remote access for greater number of staff and provide a platform for broader use of remote and flexible working.

**Enterprise Architecture**

Enterprise architecture is the logical organisation of business processes and IT infrastructure that reflects the simplification of process, integration of information and standardisation of systems required in order to achieve our target operating model. The operating model is the desired state of business process integration and business process standardisation for delivering services to our customers.

Our current architecture (Appendix 2) has multiple systems and solutions with data held in silos. Multiple bespoke and sometimes customised systems run on multiple hardware and software platforms. Although we have some integration a complete integrated solution to achieve the strategic outcomes would require development of bespoke interfaces, which would be unaffordable with data held across so many systems. This also causes issues for working in partnership; sharing data with our partners is problematic and they have little access to our systems.

Our Enterprise architecture (Appendix 3) will be based upon common system and common platforms. Access to information will be improved and in turn will provide us with the capability to obtain the data and information to make evidence based decisions on real time information. We can work more effectively with partner organisations, sharing information as appropriate via a shared underlying infrastructure platform. Through this reduction in complexity and unified platform, risks are reduced and business continuity and disaster recovery options are improved.

The benefits achieved from adopting an Enterprise Architecture approach include:

- Lower software development, support and maintenance costs achieved by being able to add new modules into the architecture and therefore reuse existing authentication and reporting routines
- Increased interoperability and easier system and network management
- Improved ability to implement a security framework protecting systems and information
- Reduced complexity of IT Infrastructure
- Maximise the return on investment
- Introduce the flexibility to move from in-house to out-sourced or cloud based (on-demand) solutions
- Simplified procurement because the standards of interoperability are readily available and understood
- Store data only once

## Cyber-security

As part of building an effective corporation, our architecture design and the systems infrastructure will address how we minimize the risks from connectivity. We will focus on online security as a top priority and we will invest in appropriate cyber-security measures that protect our interests and, where appropriate, we will collaborate with other agencies accepting the fact that the information we have is sometimes skewed. Vendors of online security products have an interest in talking up the threats of cybercrime, while victims of cybercrime often have an interest in remaining silent. It is important therefore that we have a clear picture of the true levels of the risk and needs for investment.

## Funding the strategy

The funding model for the strategy separates the areas of spend into three main categories;

1. **Business As Usual**

This are will mainly consist of services to be provided by our suppliers. Through careful and controlled strategy vendor management we aim to maximise the benefit of each £ spent in this area to ensure that 'getting the basics' right areas of the strategy are delivered most efficiently. Through working in partnership with our suppliers we will also look to see how we can make best use of the resources to support the delivery of the transformation and change agenda set out in the remainder of the strategy.

2. **Change**

This area will reflect the Corporation'ss appetite to invest in transformation, innovation and change. It will be shaped by the resource required to deliver change projects either corporately through Transformation or by individual departments.

This pillar will represent the investment required to deliver projects and programmes. This will most likely be a mixed economy model with resources supplied either through IS or department budgets (using existing staff or funding specialist resources as required) or investment made corporately to achieve transformation. The new IS operating model and structure will support this through a core set of skills provided in-house to work on business improvement and requirements definition. Business cases for each project or change programme will be essential to controlling spend in this area and ensuring benefits are achieved through the investments made.

3. **On demand**

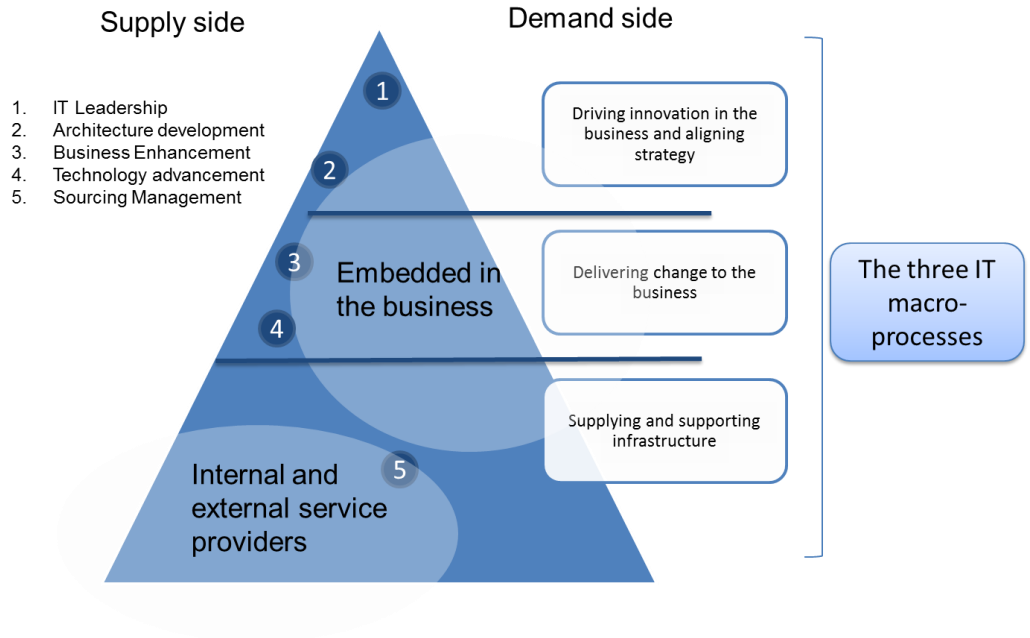
The on demand costs will be driven by what the organisation consumes. This strand is built on the principle that the standard set of equipment, infrastructure and software is provided through the business as usual strand. This is defined as a standard offering which will be refreshed and upgraded or improved through the business as usual budget or through a change project. So anything required that is over and above the standard offering will come at an additional cost. In the main this relates to non-standard equipment or services commissioned by departments, but it also includes those variable costs such as on demand printing. This approach ensures that departments only pay for what they are using.

## Governance of the Strategy

Governance should not feel overly bureaucratic and should sit well among the existing governance arrangements within the organisation. An effective governance structure will enable us to make timely, evidence based decisions with robust business cases to support technology proposals.

As proposals go through the IS governance and gateway process they will become more refined so that by the time it comes to final sign off all of the key questions have been answered. The structure of our division will provide foundations on which to take forward and achieve strong governance for this strategy.

This model is based on best practice, recommended by Gartner for determining governance as well as sourcing decisions.




The table below sets out the roles and responsibilities of each of the governance groups in this context.

| Name of Board | Chaired By | Frequency | Purpose | Reports to | Authority |
|---|---|---|---|---|---|
| **Projects Sub** | Chairman of Projects Sub | | Scrutiny, oversight and challenge for the management of major projects and programmes on behalf of the Policy committee | Policy Committee | Approve capital and supplementary revenue projects over £50k and routine revenue projects over £250k at each stage of the project procedure |
| **IS Sub** | Chairman of IS Sub | | Reviews the objectives and needs for provision of Information systems services in the City of London | Finance Committee | Approve capital and supplementary revenue projects over £50k and routine revenue projects over £250k at gateways 3-7 of the project procedure. |
| **Summit Group** | Town Clerk | Monthly | Focus on key items of strategic importance to the organisation<br>Corporate plans and strategies<br>HR Policies and procedures<br>Strategic reviews<br>Corporate service and financial performance<br>External reviews and assessments | n/a | Authority to approve business cases up to the value of £? |
| **Transformation Board** | Deputy Town Clerk | Monthly | Focus on change management and oversee current programme of | Summit group | Authority to approve business cases up to the value of £50k |

| | | | | | |
|---|---|---|---|---|---|
| | | | strategic reviews | | |
| **Efficiency Board** | Chamberlain | | Delivery of savings and efficiencies from strategic reviews and budget reduction measures | Efficiency and Performance Sub Committee and Finance Committee | Authority to approve business cases up to the value of £50k |
| **IS Strategy Board** | Chamberlain | | Provide vision, leadership and direction in the development and realisation of the IS strategy, its plans and operational priorities<br>Provide assurance to Summit group that these are aligned to the City's overall objectives and priorities | Summit group<br><br>IS Sub committee | Authority to approve business cases up to the value of £50k |
| **IS Management Board** | CIO | Monthly | Provide leadership and management in the development of the IS strategy<br>To oversee the development and successful delivery of the Corporation's IS Strategy | IS Strategy Board<br><br>Transformation Board<br><br>Efficiency Board | Delegated authority within approved corporate project budgets<br>Delegated responsibility within allocated IS budgets |
| **Project Boards** | Project Sponsor | Monthly or at each major project decision stage | To oversee the successful delivery of the project business case benefits | IS Management Board | Delegated authority within approved project budgets |
| **Project Teams** | Project Manager | Weekly or fortnightly as required by each project | To successfully deliver the projects to the agreed time, budget, scope and quality standards | Project Boards | Delegated authority within approved project budgets |
| **Technical Design Authority** | CTO | Monthly | TO lead and develop the technical strategy, policies and standards<br>TO provide advice on technical and design matters to other governance groups | IS Management Board | |

## Managing suppliers

Strategic vendor management is the discipline that ensures that as an organisation which is buying products and services, we are actively managing our relationships with strategic suppliers. This is about enhancing and strengthening the overall relationship with our suppliers, through a coordinated relationship which delivers an agreed product or service collaboratively and which is consistent with the IS strategy and the priorities of the City of London.

Industry specialists, such as Gartner, advocate that IT organisations should develop proactive Strategic Vendor Management to improve efficiency, effectiveness and control and exert stronger influence on IT suppliers wherever possible.

Constructive engagement with suppliers/vendors in a structured, management approach will deliver numerous benefits to the business, for example:

- Opportunity to aggregate global demand within the Corporation, in order to lower unit costs, and deliver increased value through appropriate commercial agreements.
- Improved communication channels with vendors.
- Elimination of duplication of effort and operations throughout the Corporation.
- Better responsiveness by vendors to the demands of the Corporation.
- Resources of the vendor can be used to inform issues in the Corporation, and joint product strategies developed that correspond to the City's business strategy

The introduction of a Strategic Vendor Management approach will require development of processes, systems, and a structure, with roles specifically designed to undertake the function.

## Measuring and managing performance

### Service levels and standards

The service levels and standards we use to monitor our day to day performance will reflect the role of the IS division and how we manage our suppliers. Departments will be actively involved in this process through the provision of feedback and through on-going engagement activity.

Through our supplier management we will have a clearly defined service level matrix, against which performance will be monitored and managed. This has been developed in conjunction with our customers and will broadly cover the following:

- **Working day** – this will address the out of hours requirements and Monday to Friday support across a range of operational services, informed by customer needs.
- **Incident resolution** – covering response and resolution of incidents.
- **End to end availability** – the availability of critical and non-critical services.
- **Service desk** – measuring customer satisfaction as well as responsiveness and effectiveness of the services provided.
- **Infrastructure** – the performance and effectiveness across disaster recovery, storage and backup processes and procedures.
- **End user services** – Time taken to undertake and deliver across a range of user services.
- **Telecoms and Networks** – Availability capacity and performance relating to these areas.
- **Applications** – Time cost and quality of delivery.
- **Managed operations** – Day to day maintenance and monitoring tasks.
- **Service management** – Measures across incidents and service requests.
- **KPIs** – Key performance indicators for areas of infrastructure and governance.

Each of the functions in our operating model will have a clear set of standards and will use best practice process and procedures:

- Project and programme management
- Change and transformation
- ITIL
- People Management
- Asset Management
- Financial Management
- Governance

The value we add through understanding our customers, innovation and enabling transformational change within the Corporation will be measured using a set of KPI's in a balanced scorecard – we have used your feedback from consultation on this strategy to develop these.

- Our customer
- Our resources
- Our processes and standards
- Growth and innovation

## Balanced Scorecard

### Innovation and Growth

Having up to date systems aligned to trends in technology development and use
Working with our internal customers on technology innovation
IS resources to support departments design, improve and innovate for new ways of working
Increasing access to systems and information to support remote and flexible working

### Processes and Service Standards

Accessible systems and information
Improved business case development and alignment of proposals to Organisation and IS strategies
Improved business analysis and options development in partnership with customers
More stable platform – less non-operational time
Faster network response time
Improved WiFi access (including access for CoL guests)
Service response standards are delivered
Regular routine maintenance and upgrades have minimal impact on customers

### Customer

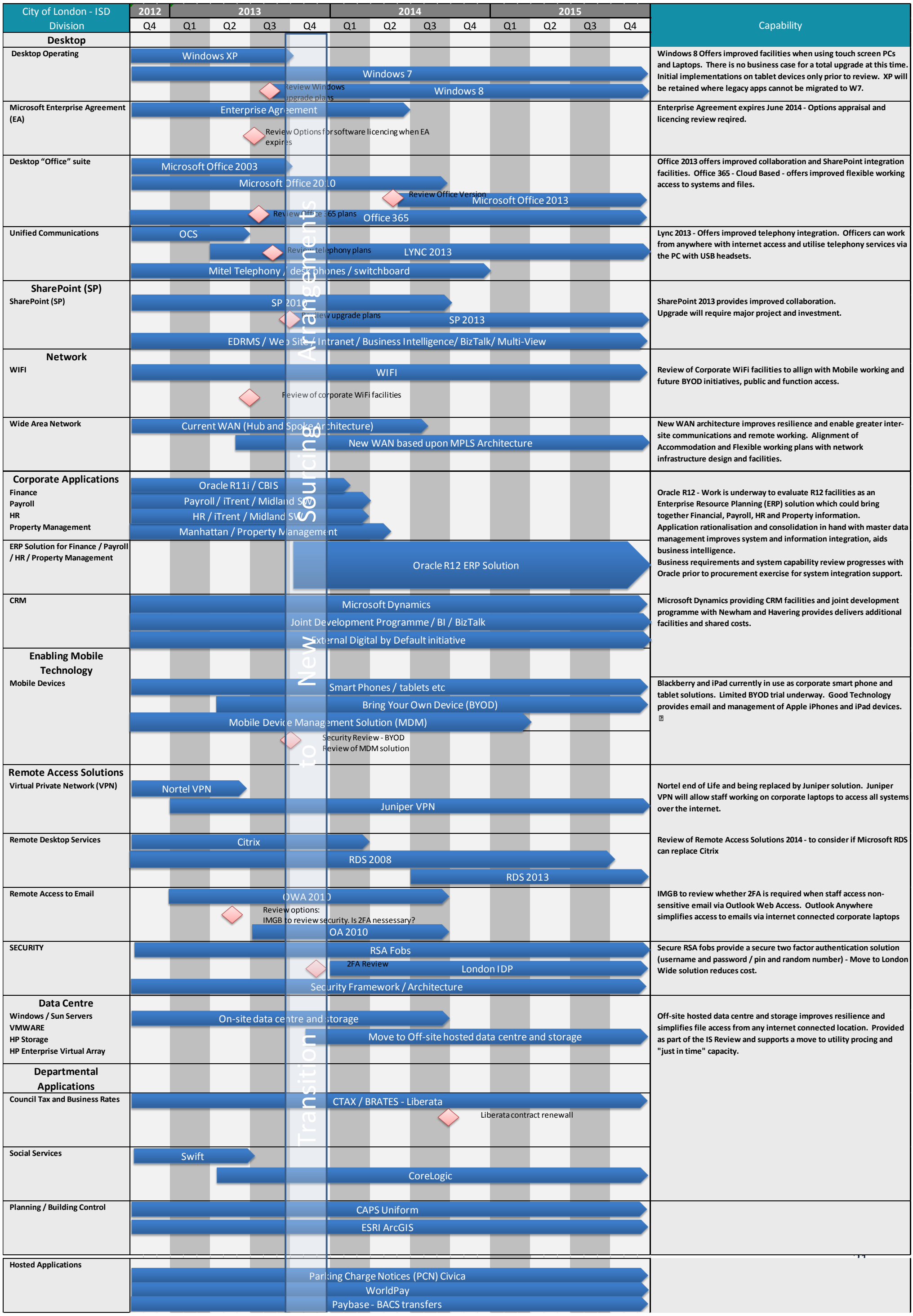
Working with our internal customers to achieve corporate priorities
User experience is consistent and of a good standard
Focus on our customers' customer
Consistent high standards of customer care provided to departments
Appropriate (value for money) out of hours services are available

### Resources

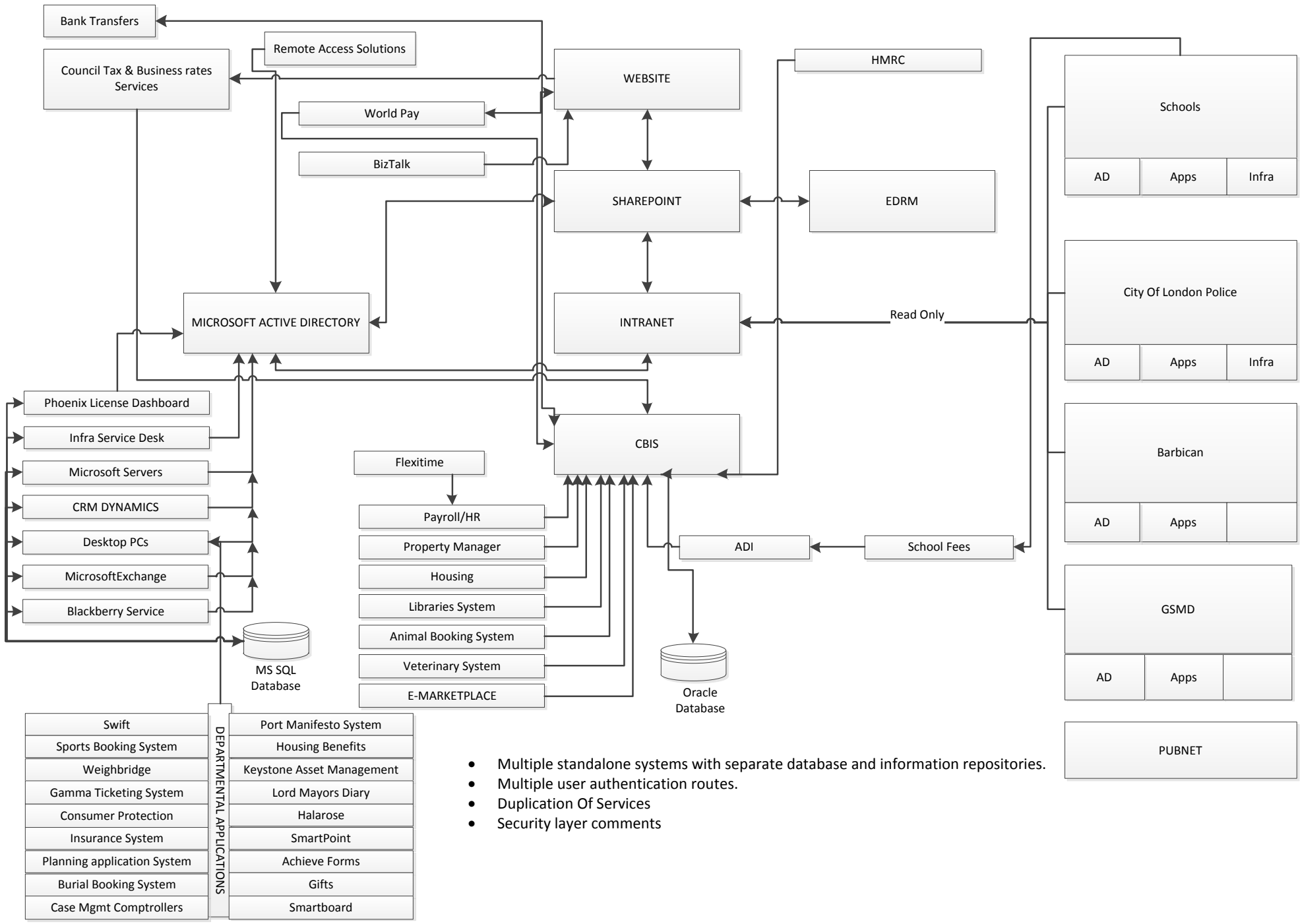
Working with our internal customers to achieve savings and value for money services
Vendor Management – maximising investments with suppliers and supporting our customers to achieve their outcomes in partnership with technology suppliers
Value for money – quality and standard of services received from suppliers

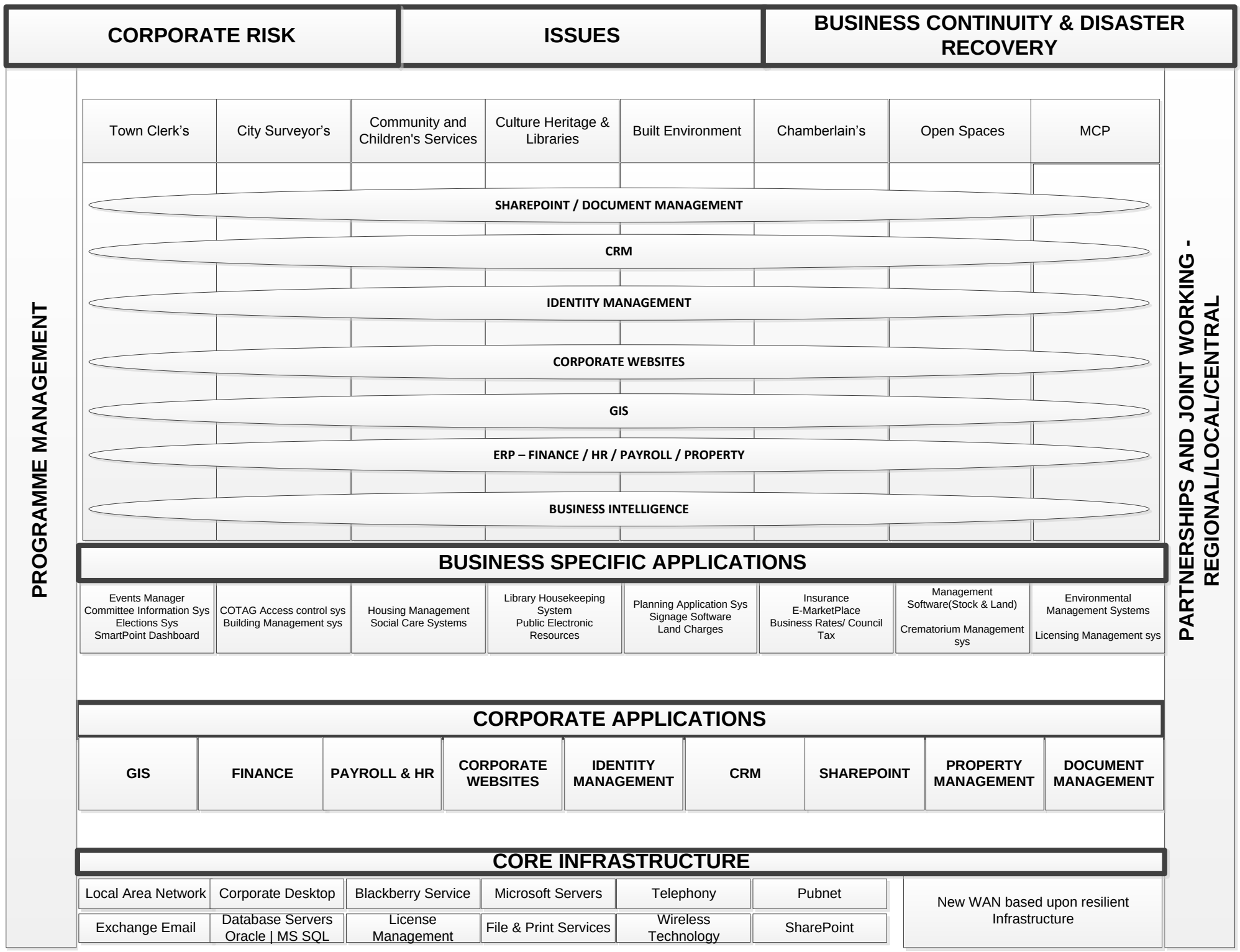
Monthly monitoring of performance against our key performance indicators will be the responsibility of the IS Management Board. Our engagement function will work with the senior team to ensure monitoring of outcomes, service levels and the on-going development of services.

# Appendix 1 – Technology Roadmap



## Appendix 2 – Current technology architecture




- Multiple standalone systems with separate database and information repositories.
- Multiple user authentication routes.
- Duplication Of Services
- Security layer comments

## Appendix 3 – New technology architecture