



Essential Reference Paper 'B'

EAST HERTS ICT STRATEGY

2015-2018

1 Executive Summary and Introduction

1.1 Executive Summary

- 1.1.1 This strategy sets out a road map for ICT Services in East Herts Council to take ICT from its current position to one where ICT is fully able to support the way our future services will be delivered, described through our corporate plans.
- 1.1.2 To be fully able to utilise technology in a transformational way, the Council must put in place strong foundations upon which to build. These foundations relate to ICT systems themselves, but also to the organisation's knowledge of IT, skills and aligned structures and governance systems.
- 1.1.3 This strategy provides an assessment of the Council's current position in relation to these issues and charts a challenging way forward which will lead to the Council delivering transformational ICT services within the lifetime of the strategy. The Strategy is an East Herts only strategy, delivered by a Shared IT Service.
- 1.1.4 Section 2 of this strategy concludes that ICT should play an important role in the delivery of a range of different Council objectives. Most notably these are the delivery of digitally driven customer services, more efficient and flexible service delivery and improved communication. The section concludes that in order to deliver these objectives the Council requires both strong ICT systems (including infrastructure and business applications) and strong ICT knowledge and skills in the ICT Service and in key roles across the Council.
- 1.1.5 Section 3 of the strategy explains the significant amount of work that has now been done to deliver improved ICT infrastructure and also highlights the remaining priorities to implement networking and telephony solutions and wireless technology.
- 1.1.6 Section 3 also sets out the Line of Business Applications that require replacement and the list of those that need to be reviewed by the business in collaboration with the ICT Service to determine whether these systems are likely to remain fit for purpose throughout the lifetime of the ICT Strategy.
- 1.1.7 Section 4 of the strategy concludes that the ICT Service have made great progress in restructuring the service and implementing new roles but notes that progress is still required to develop staff into these roles. It is proposed that the future development of staff be prioritised.
- 1.1.8 Areas that have been developed and are now fit for purpose are identified in Section 4 of the report as being:
- Governance and performance management arrangements
 - Improved Support for Members
- 1.1.9 Areas where it is recommended that more work be prioritised include:

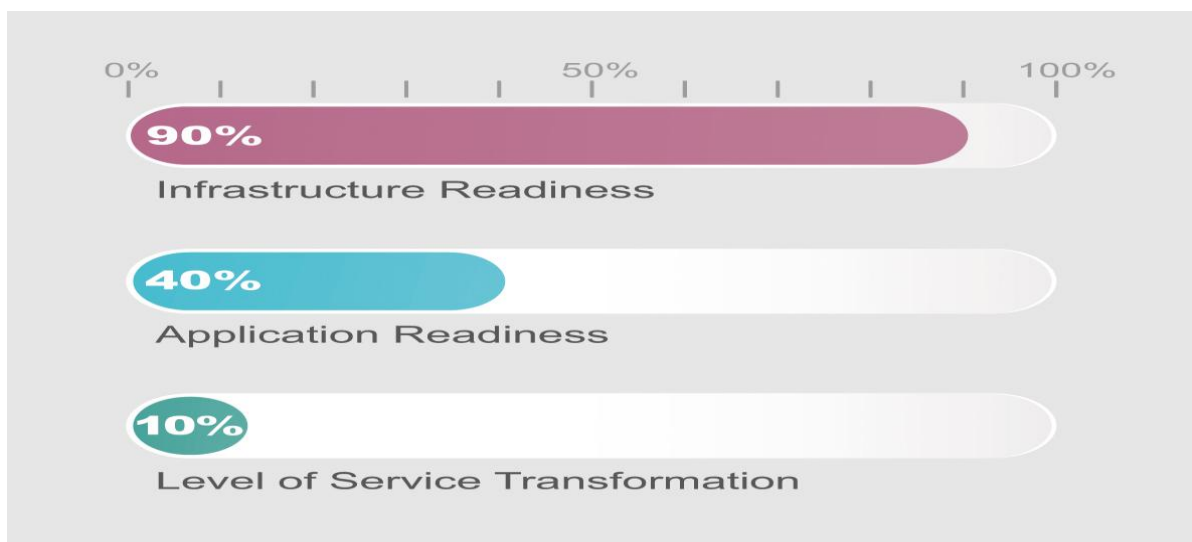
- Delivering more resilience in ICT applications support
- Delivering improved key user and system administration arrangements across the organisation
- Improving ICT literacy in the Council
- Improving the accessibility of the ICT Service by introducing a service catalogue and customer self-service through the new service desk system
- Improvements in the way that ICT projects are managed

1.1.10 Specific areas that also need to be reviewed in the longer term to inform the future strategic direction of the way that ICT service are delivered are:

- The options for future partnership growth
- The opportunities presented by “cloud” technology

1.1.11 A key conclusion in this strategy is that if the Council wishes to use ICT to transform service delivery, then it must first ensure that there are strong foundations from which to build. The chart below sets out an overview of East Herts Council’s current systems and their state of readiness to support service transformation.

ICT Systems: State of Readiness



1.1.12 The chart demonstrates that the core foundations of the ICT service are now strong, with relatively little work required to bring them to full maturity. This is the area that has been focused upon during the first year of the shared service. However, there remains a significant amount of work to do to replace and review key business applications. Once applications have been replaced with more modern, open systems that enable data and information to be extracted and published on the web, to mobile devices and in other ways, then the opportunities to work with the business to transform services through ICT will really begin.

1.1.13 An implementation plan for the recommendations set out in this strategy is set out in Section 5 of this report. It is summarised in the diagram below and reflects the strategic approach set out above.

Strategy Implementation: Overview

Year	Focus
Year 1	Complete Infrastructure work Replace Priority Business Applications Review Remaining Applications Pathfinder Transformation projects
Year 2	Complete Replacement of Applications Priority Transformation Projects
Years 3/4	Whole Focus on Service Transformation

1.2 Introduction

The Strategy

- 1.2.1 This is a four year strategy and will cover the remainder of the minimum period that East Herts Council and Stevenage Borough Council agreed to share ICT services. This timeframe also aligns well with the likely timeframe for further significant investment in ICT infrastructure. One of the key outcomes that will be delivered towards the end of the four year period is a decision about whether to continue with a shared service, or whether other models of service delivery, via the cloud or through other arrangements should be pursued. It is important that this decision is made before any further significant and necessary investment in a shared infrastructure is made.
- 1.2.2 The strategy is divided into four key sections plus an introduction as follows:
- Supporting the Council
 - Improving ICT: - Systems
 - Improving ICT: People, Structures and Governance
 - Implementation Plans

The Shared Service

- 1.2.3 East Herts Council agreed to implement a shared service with Stevenage Borough Council covering ICT and other services in August 2013. The service has now been operating for little over a year and has already delivered a considerable amount of change. The changes affecting systems, people and governance are set out within the appropriate parts of this report. In summary, they form a strong foundation from which to build and enable the key proposals set out in this strategy to be implemented.
- 1.2.4 The business case for Shared Services, including Print & Graphic Design as well as ICT, identified savings of £420,000 per annum (£210,000 per authority) to be delivered from 2014/15 onwards. This target has been achieved.

Development of the Strategy

- 1.2.5 The strategy has been developed following discussions with the Portfolio Holder for Economic Development and Members of the East Herts Council Strategic

Management Team. Services have been consulted individually on the sections of the strategy that impact directly upon them.

- 1.2.6 The Strategy also references best practice in the IT field and the approaches to delivering specific projects referred to in the strategy have been developed with the assistance of external consultants and suppliers where appropriate.
- 1.2.7 The delivery of the milestones set out in this strategy, referred to in the final section of the document, will be the subject of a specific performance measure that will be reported to the Corporate Business Scrutiny Committee alongside the other IT measures already in existence.

2 Supporting the Council

Future Use of ICT in East Herts Council

- 2.1 The Council wishes to use ICT to deliver services more flexibly than at present and in new and innovative ways. Faced with a more challenging financial future and with customers who rightly expect services to be delivered in more accessible ways, ICT should be a key tool used by managers to deliver improvements.

Digitally Driven Customer Facing Services

- 2.2 The recently agreed Customer Service Strategy refers to “Digitally Driven and More Efficient Services”. This is an excellent example of how technology can be used to deliver services in ways that are much more flexible. Services delivered on-line can be accessed by customers:

- wherever they have access to the internet
- on a twenty four seven basis
- from a variety of different IT devices including tablets, PCs, phones and laptops

More Efficient Services

- 2.3 ICT can be used to deliver services in more efficient ways to help deliver improved services or to drive financial savings. Some examples include:

- **use of mobile technology: - if Council officers are able to access IT systems when out of the office then they can work more efficiently and spend more time in the field where they add most value**
- **automating administrative tasks – by automating manual processes less time can be spent filling out forms and reducing the time spent on administrative tasks. This type of work also reduces the staff frustration that often arises when carrying out work of this type. Reducing bureaucracy is one of the aims set out in the Council’s Here to Help Programme**
- **the availability of workflow systems provides opportunities to the business to review their processes and re-engineer them to operate more efficiently and effectively**
- **utilising improved document and records management systems will enable the Council to rationalise the number of physical and electronic records held and to reduce duplication of data**

Improved Communication

- 2.4 External communication is increasingly driven by non-traditional media such as Twitter and Facebook. The challenge for the Council is to utilise these mechanisms which customers prefer to access when delivering services. Technology will play a role in making this happen.
- 2.5 Improved internal communication is also an objective of the Council's Here to Help programme, and one which following recent discussions may be enabled by an improved Council intranet. A first class intranet would become the key system that all staff use to access information and to carry out transactions, such as making an annual leave request or completing an expenses claim.

2.6 A corporate review of the way that the business wants to use telephony services is underway currently, again as part of the Here to Help programme. ICT will support the implementation of the findings from the review.

How ICT Can Support The Delivery of Council Objectives

2.7 Key factors from an IT perspective to delivering these Council objectives are:

- **a strong core ICT infrastructure that is resilient and performs well**
- **excellent line of business applications. These need to be hold information in a way that is open and transparent so that data can be extracted easily and presented on other systems such as the Council's web-site or its intranet**
- **an organisation with strong ICT knowledge and skills, structures and governance mechanisms that allow the council to make the most of the ICT systems that are available**

The remaining sections of this strategy set out what needs to be done to deliver the objectives set out above.

3 Improved ICT Systems

3.1 ICT Infrastructure

Replacement of Out-of-Date Infrastructure

3.1.1 Over the course of the past year the core ICT infrastructure has been completely rebuilt in both East Herts and Stevenage. In the old infrastructure:

- servers and applications were maintained in four separate sites across East Herts
- there was a variable approach to delivering technology to staff and Members. In particular some systems were deployed to users using thin client (Citrix) technology, while others relied upon technology being deployed locally to desk tops
- as a result of the above, staff and members were restricted in their ability to access systems flexibly, for example when working from home or out of the office
- the lack of standardisation made IT support arrangements very difficult to fulfil
- the majority of infrastructure components including servers, storage, network switches and firewalls were at the end of their productive lives
- no reliable and quick IT business continuity solution was in place to support the business
- underlying levels of infrastructure resilience were very low

The new Solution

3.1.2 ICT Services are now delivered from two separate datacentres based in Stevenage. There is full continuity of service to ensure that in the event of a catastrophe at either site (for example fire or flood), full services can be delivered to the two partner Councils within 4 hours from the remaining site.

3.1.3 The new services are also much more resilient. Services have been designed so that if key infrastructure components such as servers and storage systems and key services, such as the internet, fail, then back-up components and services automatically take over to provide a seamless service.

3.1.4 The underlying technology that supports the new infrastructure is modern and up to date. East Herts can be confident that the infrastructure technology and architecture that has been adopted will serve the Council well for up to another 10 years, before a further fundamental change to the technology will be required.

3.1.5 In the meantime the datacentre architecture has been introduced in a way that is easily scalable. If the service expands to incorporate new partners or new services, no fundamental redesign of the infrastructure will be required. More of the standard storage and server solutions would be procured and added to the existing estate to so that sufficient capacity exists to take on the additional users and services that would be supported.

3.1.6 The new technology allows services to be accessed from any device, provided that staff or Members have access to the internet, safely and securely. In this respect, IT is able to support the Council should it wish to pursue further policies promoting flexible working or flexible use of its operational buildings.

- 3.1.7 Because the technology has been standardised, the process of supporting it and resolving issues as they arise is more straightforward. Many more issues can now be dealt with straightaway by contacting the IT help desk in a matter of minutes. Previously IT staff would have had to visit a member of staff to resolve problems.

The new infrastructure technology has now been operating in some areas for almost a year. While it is generally functioning well, it is proposed that a review of its operation and the various assumptions made about the scale of the infrastructure components, such as levels of storage and numbers of servers, should now be undertaken. The review should be completed by November 2015 so that any budgetary issues can be accounted for in 2016/17.

Networking and Telephony

- 3.1.8 East Herts Council's legacy network and telephony solutions have been problematic for a number of years, exhibiting both reliability and performance issues. The process of replacing these legacy systems with more robust technology that offers better value for money is now well underway. Under the new proposals being implemented:
- each East Herts building will be provided with two higher performance network links than those available previously. Each of these links will be operating continuously so that if either fails, the other will automatically and seamlessly take over the traffic from the failed link. This will be achieved by implementing load balancing solutions alongside the networking improvements
 - each link will be procured from different suppliers using infrastructure owned by different companies, normally Virgin Media and British Telecom. By doing this the service will be protected if there are external issues which result in either provider's network going down, which although it happens rarely can have major implications for service delivery
 - the new better performing networking solutions will be delivered for approximately the same annual revenue cost as the current solutions
 - the new telephony solutions will be similar technology to that currently used but upgraded to a more reliable and proven version. Telephony services will be provided from two links into the data centres in Stevenage and in turn delivered to East Herts Council across the networking solutions that are being implemented. Again, resilience is delivered through the provision of two links
 - the new telephony solutions, which are being implemented for both partners, will result in much reduced call costs and savings of approximately £40,000 between the two Councils
- 3.1.9 Delivery of new networking and telephony solutions is a major priority for East Herts and the plan is that the project will be complete by the end of the first quarter of 2015/16.

It is recommended that work on implementing the new networking and telephony proposals is prioritised as proposed for completion by June 2015

Wireless Technology

- 3.1.10 East Herts customers, like public and private sector customers everywhere, will expect to be able to access IT services wirelessly if visiting Council buildings. Members, who are increasingly using tablets and other devices that connect wirelessly, and other visitors to the Council such as consultants, engineers, auditors and trainers also expect to be able to access the Council's or their own IT networks over the internet. For security reasons the Council is precluded from allowing such users to access the Council network directly using their own equipment. For all concerned effective wireless services offer the best way to deliver IT services flexibly and safely. Effective wireless services also offer the opportunity for staff who wish to use their own devices at work the opportunity to do so, if that is a policy that the Council wishes to explore further.
- 3.1.11 Wireless services at East Herts Council are currently very limited. The service at Wallfields was largely implemented as a by-product of the video streaming service used to publish committee meetings. The service is not fit for purpose and is only available in a limited part of the building. The other wireless service is available at Hertford Theatre and its adequacy also requires review. No wireless is available in Bishops Stortford although the main Customer Service Centre delivery is focused there.
- 3.1.12 A project is now underway to deliver improved wireless services. In the first instance a business case is being drawn up which will be based upon:
- surveys of the various buildings to understand any physical limitations or issues that need to be overcome
 - discussions with officers and Members to understand the demand for wireless services so that what is delivered is fit for purpose now and will continue to be for the foreseeable future
 - in particular an assessment will be made of the type of services that will be accessed through the wireless service. For example if trainers wish to access high bandwidth video content, which is likely, then the systems need to be sufficiently robust and offer sufficient bandwidth to enable this to be delivered effectively. As the Council increasingly accesses streamed video content via the internet, the wireless services (and the main council network) need to be sufficiently robust to support this. Wireless services may need to be flexible and configurable to allow certain types of access to be prioritised at certain times to avoid high bandwidth use on the part of individual users to paralyse the overall network.
- 3.1.13 The delivery of wireless, particularly in the building at Wallfields has, like the delivery of improved networking and telephony solutions referred to above, been prioritised. It is anticipated that the business case will be available by March 2015 and that work to deliver wireless to support Members will be delivered well before the election and the introduction of the new Members' ICT policy.

It is recommended that proposals to deliver improved wireless services, including improved services for the office in Wallfields as part of the first phase, be prioritised as proposed. The overall project should be complete by September 2015.

IT Security

- 3.1.14 ICT systems have been designed to account for the differing levels of security required to safeguard data across different parts of the partner Councils. This complies with current best practice and Public Services Network (PSN) rules around data security. Two separate networks have been established, the general network that is used by the majority of staff, and a second network used to manage particularly sensitive data or services, which is referred to as the Impact Level 3 (IL3) network in line with the classification system adopted by central government.
- 3.1.15 Different security rules apply to the two networks which reflect the sensitivity of the data that is being protected. Data within the IL3 network is subject to the rules set out by the Public Services Network team in the Cabinet Office. These involve strict restrictions on how data within this network can be accessed, particularly if accessing systems remotely from home, and on the type of device used to access data. For example, staff can't use their own equipment to access data or services within the IL3 network. The system is designed so that data held within the IL3 network can't leak into the general network. The Cabinet Office, have accepted that a reduced level of security can apply to data on the general network because the two networks have been properly separated and reflects the different nature of security levels required. This means that staff or Members are able to access systems and data from the general network from home using their own equipment if they wish.
- 3.1.16 The level of security applied to the general network is in line with the best practice recommended by the Information Commissioner. ICT security received a substantial level of assurance from the most recent Internal Audit review of the service during 2013/14. ICT Security policies have all been reviewed over the course of the last 12 months. Policies are now being redrafted for consultation with staff in both Councils and formal adoption.

It is recommended that work to draft new ICT security policies be prioritised for completion by the end of June 2015.

3.2 Business Applications

- 3.2.1 For the purposes of this strategy document, the various IT systems that are deployed to support Council staff doing their jobs, are referred to as Business Applications. Business applications are normally built for a particular purpose, for example to manage Housing Benefit and Council Tax Services or Parking Services. However, business applications can also be corporate, such as document management or geographic information systems. These systems are designed to fulfil particular functions across a wide range of different service areas.
- 3.2.2 A key priority for most Council services is to ensure that the business applications that they use meet business needs and will continue to do so in the future. From a strategic perspective it is very important to understand the extent to which the business applications within the two Councils meet business needs overall and , consequently, the level of future investment that will be required.

Assessment of Business Applications

3.2.3 A baseline assessment of Business Applications has been undertaken by the ICT Team in discussion with service managers.

Table: Baseline Assessment of Key Business Applications

System/System Status	Comments
<p>Key Systems that should remain in place Revenues and Benefits System Financial Management System</p>	<p>Market Leading Solution Solution recently implemented. Additional modules are under consideration.</p>
<p>Key Systems Being Replaced The Planning Management System The Building Control Management System The Environmental Health Management System The Licensing Management System The Human Resources System</p>	<p>Project to implement a new solution at an advanced stage Being replaced by the same system to be used by Planning To be replaced in early 2015/16 by the same system to be used by Planning To be replaced in early 2015/16 by the same system to be used by Planning Work to specify, evaluate and procure a new system to be scheduled</p>
<p>Key Systems for Priority Review The Elections Management System The cash receipting and income management system The corporate document management system</p>	<p>There have been significant software issues associated with the implementation of Individual Elector Registration which have been very time consuming to resolve Although recently upgraded, the system is expensive to support and difficult to use New document management solutions are being introduced to support Planning, Building Control and Environmental Health as part of the new system implementation above. T Revenues and Benefits are interested in pursuing a solution better suited to their services' specific needs</p>
<p>Geographic Information Systems Housing/Choice Based Lettings System</p>	<p>The current solutions are old and are difficult to use when trying to deploy spatial information on-line A review of the system is currently being undertaken</p>
<p>Other Systems for Review Environmental Services Management System Parking System Content Management System/Web site and Intranet systems</p>	<p>System meets business needs. The ease of extracting data, presenting data spatially and on-line and integration requires assessment. The parking system will be reviewed as part of the process for reviewing the parking contract in 2017/18 Review during 2016/17 following Intranet and Members' Extranet review</p>

3.2.4 The assessment establishes a mixed picture as far as business applications are concerned. The following conclusions can be drawn:

- A number of the large systems that support major service areas such as Revenues and Benefits are strong systems which should remain in place beyond the lifetime of the ICT Strategy
- In other areas such as Planning, work is already underway to replace older systems with better performing more resilient solutions for the future
- There are a small number of systems such as the HR system, which do not meet business needs now and will not do so in the future where a replacement needs to be sought
- There are a large number of systems which require a more detailed review before a decision to continue with the current system or whether to replace can be made.

System Replacement

3.2.5 A finalised replacement programme can't be established until the review programme has been completed. Therefore, in 2015/16 the replacement programme will be focused upon those applications set out in the table above which it has already been determined will need to be replaced.

3.2.6 Of the systems set out in the table for replacement, the systems for Planning, Building Control, Environmental Health and Licensing will be shared with Stevenage Borough Council who already use the market leading solution. This will result in more resilient system support. Supporting applications in this way is one of the ways that the shared service has been able to deliver the £420,000 of annual revenue savings set out in the Shared Services Business Case.

System Review

3.2.7 In determining whether to replace a system there are a number of different factors that need to be taken into account. These are summarised at **Appendix A**. It is proposed that the priority service reviews be undertaken during 2015/16 in collaboration with the service managers concerned. Once complete, these reviews will then serve to establish a complete programme for the replacement of Business Applications over the lifetime of this IT Strategy. Resources for this programme have been sought through the budget, with a rolling programme of £400K per annum included in the capital programme.

It is proposed that the systems identified above as requiring replacement be replaced during 2015/16 in the first year of the new strategy.

It is proposed that reviews of the applications identified above as "priorities for review" be carried out during 2015/16 to establish a full replacement programme for the remainder of the IT Strategy.

4 Improving ICT Services: People, Structure and Governance

- 4.1.1 This section is not about the individual systems and technologies that are delivered to East Herts Council, but about how they are delivered. This section sets out plans to improve the way that the Shared ICT Service functions, priorities for improving engagement between the business and the ICT Service and, finally, work that needs to be done to review the future strategic options for delivering ICT services so that an informed decision can be made by Members about the future of the Shared ICT service in four years' time.
- 4.1.2 Section 3 of this strategy set out proposals to review and replace a number of the ICT systems deployed in East Herts Council. Some of the reviews are likely to establish that there is no need to purchase more technology, but instead a need to rationalise technology where we have multiple systems which fulfil similar business needs and to improve the way that we use technology that has already been purchased.
- 4.1.3 Moving forward into the future it is vital that the Council uses limited resources well and makes good procurement decisions around ICT. It is also imperative that having procured the right system, the Council maximises the benefit of that technology. To make this happen there need to be strong governance arrangements around the purchase of IT and there need to be staff in positions to influence the use of ICT across the business.
- 4.1.4 As discussed in the section on reviewing business applications, business decisions about ICT systems should be made collaboratively between ICT and service managers. This section sets out proposals to ensure that ICT and the business work together for the mutual benefit of the Council as a whole.

4.2 The ICT Service

- 4.2.1 Effective ICT Services require well trained, motivated and appropriately structured ICT managers and staff. The staff group in the ICT Team have borne an unprecedented level of change over the past 12 months. Key events for staff over the past year are as follows:
- TUPE transfer of ex East Herts staff to Stevenage Borough Council in September 2013
 - A management restructure reducing posts by 2 full time equivalent staff was undertaken in October and November 2013
 - All staff moved into new accommodation in Stevenage in December 2013. All staff now work flexibly across both Councils from a range of Council buildings as business needs dictate
 - Stevenage staff were given notice of changes to pay and grade under new single status arrangements in June 2014
 - A restructuring of all shared services staff (including ICT) was undertaken in September and October 2014 reducing ICT posts by four full time equivalent staff
 - Ex East Herts staff transferred to Stevenage Borough Council terms and conditions of service in October 2014

4.2.2 Staff have also begun the change towards harmonising business practices across the two authorities and staff now support systems across both Councils.

4.2.3 The overall IT structure to take the service forward for the foreseeable future is now in place. New posts and job descriptions reflect the significant challenges facing the service and in particular the need for:

- The skill sets required to support the cutting edge infrastructure technology that has been introduced
- a more strategic approach to procuring and developing new applications technology
- strong supplier management skills
- collaboration skills and the ability to share and transfer knowledge more widely in teams and across teams to deliver greater service resilience
- more agility and responsiveness to emerging business needs so that technology can be harnessed to deliver savings and better performance in front line services
- more customer focus

New ICT Roles - Transition Plans and Staff Development

4.2.4 Following the recent staff restructuring exercise and recruitment to new ICT roles the service is drawing up transition plans to ensure that staff have a broader knowledge of systems and technologies. This will allow more flexibility in the way that staff are deployed and much greater levels of resilience in service delivery than was previously the case prior to the shared service being put in place.

4.2.5 The emphasis of the transition plans is different in the three ICT Teams, the Infrastructure Team, the Information Systems Team and the Service Desk Team.

Infrastructure Team

4.2.6 In the infrastructure team there are three key areas of service as follows:

- client delivery – including underlying windows software, the technology used to deploy the new hosted desk top solution and methods of deploying customer devices such as laptops, tablets and smart phones
- networks and telephony – knowledge of the core networking and telephony infrastructure, firewalls and network security
- core infrastructure – the underlying components of the infrastructure including servers and storage systems

4.2.7 The service has four Senior Support Engineers who all specialise in one of the above areas of service. The transition plans will establish a development process to ensure that all four have achieved a high level of knowledge across all three service areas. The service also employs three support engineers who have historically focused upon elements of the service outlined above, but have not had the opportunity to gain broader knowledge across all three.

4.2.8 Skills matrices have already been drawn up which identify that all seven staff have areas of considerable strength, but that as yet do not have the breadth of knowledge that the service requires. The transition plans will deliver this breadth of knowledge through a mix of formal external training, shadowing of colleagues and other activities. The transition plans are ambitious and expectations of staff are high. The transition plans will be completed in early 2015/16 and will start to deliver

improvements straight away. However, the staff development process will be lengthy and a fully resilient staff team will take approximately nine months to deliver, particularly given the other priorities that the service will be managing concurrently during this period. Once complete this same process will then be adapted on an on-going basis to ensure that staff development, based upon skills matrices, is embedded and that staff keep abreast of new systems and technology going forward. This is a necessity given the high speed of obsolescence of knowledge in the IT field.

Information Systems Team

- 4.2.9 The Information Systems Team need to have knowledge of different technologies and software tools used for developing applications as well as a knowledge of the different systems used to support the business. As there are over a hundred different business applications in East Herts ranging from very large applications such as the Revenues and Benefits system to small applications such as Photoshop, it is not feasible that each one of the seven staff in the team have a knowledge of each one. Instead, in order to deliver resilience in system support to the business, a benchmark has been set requiring that each key system be supported by at least two Information Systems Team staff. Historically, this has not been achievable in either East Herts or Stevenage because of the small size of the Information Systems Teams.
- 4.2.10 An assessment of the current levels of ICT support to the East Herts key applications has been set out in the table below. This demonstrates that the benchmark level of support is in place for a number of key systems such as the Revenues and Benefits system. Where new systems are being implemented, there are also plans to deliver resilient levels of support. There remain, however, a number of systems where progress is still required. The table below sets out these systems and the timetable for achieving full levels of resilience going forward. Where there is a high likelihood that the system will be replaced, the plan is to deliver the resilience for the new system rather than utilise scarce capacity on work that will be abortive on systems due for replacement.

Table: Resilience of ICT Applications Support

System	RAG Status	Comments	Target Date for Improvement
Revenues and Benefits System	Green	Two staff plus the IS Manager fully conversant with system	N/A
Financial Management System	Amber	ICT had little input into recent implementation	Sept 2015
The Planning Management System	Amber	1 Analyst fully conversant with solution and another being trained as part of systems implementation	April 2015
The Building Control Management System	Amber	As above	April 2015
The Environmental Health Management System	Amber	As above	April 2015
The Licensing Management System	Amber		
The Human Resources & Payroll System	Green	2 staff fully support system	N/A
The Elections Management System	Amber	System is constantly changing, but a very experienced systems analyst is supporting it	March 2016 unless system replaced
The cash receipting and income management system	Red	1 Systems analyst fully conversant with system. However, it is complex to support	Dec 2015 unless system replaced
The corporate document management system	Amber	1 analyst able to support	March 2016 unless system replaced
Geographic Information Systems	Amber	1 analyst able to support	March 2016 unless decision made to replace
Housing/Choice Based Lettings System	N/A	System is hosted	
Environmental Services Management System	Amber	System has been transferred to the IS Team to support.	June 2015
Parking System	N/A	System is hosted	
Content Management System/Web site and Intranet systems	N/A	Systems are hosted	

4.2.11 While the work above will deliver resilience in the team with regard to applications support, it does not deliver full flexibility throughout the team from an IT Development perspective. To be resilient and flexible and, therefore, able to support key Council priorities, the service must have sufficient staff well versed in the use of modern development technologies so that ICT can be responsive to emerging business needs. A priority for the team in the coming months will be to identify the key technologies that need to be understood and to make an assessment of the team's skills and knowledge against them. Formal skills matrices will be drawn up and a development programme established for staff in the same way as set out above for the Infrastructure Team.

Service Desk Team

4.2.12 The ICT Service Desk Team is very new with all 3 ½ staff newly employed since December 2014. As is the case above, skills matrices and development plans are being drawn up for all staff. While there are technical elements to service desk staffs' training needs, the major emphasis is upon customer focus training and support from Customer Services professionals in both councils is being sought to assist. Customer Services Managers from Stevenage were actively involved in recruiting the new team and ensuring that their customer services skills were strong.

It is recommended that plans to draw up and implement staff development plans across the three ICT Teams by December 2015 be agreed.

It is recommended that a review of the key technologies required to support development in East Herts Council be undertaken by June 2015 to be incorporated into the development plans for Information Systems Team staff.

It is recommended that the priorities and timeframes for developing resilience in applications support noted in the table above be agreed.

4.3 How ICT Engages with the Organisation

Key Users and Systems Administrators

4.3.1 ICT Systems Administrators and Key Users have a vital role to play in ensuring that technology is well utilised by services. ICT staff concentrate on making technology work and developing technology to provide additional functionality for users. The responsibility for assessing how best to use the technology in different service areas lies with system administrators/key users. Key users also fulfil an important liaison role with ICT and take responsibility for training staff in the use of systems. In some parts of the Council, where ICT plays a major role in the way that services work, these roles may be full time. In others, the role may be part of a larger job. Key users may be managers or alternatively more junior staff. What is most important is that they are strong communicators, because they have to manage three types of

relationship, with ICT, with their own service's managers and with service staff in order to make the role work well. A summary of the role that a Key User or System Administrator would be expected to fulfil is set out in Appendix B.

- 4.3.2 Some service areas have particularly strong key user arrangements while in others arrangements are comparatively weak but there are plans to improve the way that key users work. Nonetheless, in some areas more work is required to establish the need for key user roles and to implement them where appropriate. In other areas there is a need to formalise arrangements and make sure they are sustainable and can support services in the future. An initial assessment of the strength of the systems administration and key user roles in key areas of the Council is set out in the table below.

Service Area	Status of Systems Admin/Key User Roles
Revenues and Benefits	Very strong
Web Site and Intranet	Very Strong
Environmental Health	Very Strong
Environmental Services	Very Strong
Planning	Arrangements being improved
Building Control	Arrangement being improved
Financial Management System	Good skills but capacity issues arise
Payroll and Human Resources	Capacity issues and need to improve
Elections and Democratic Services	Capacity issues and some need to improve
Cash Receipting and Income	No key user role
Communications	No key user role
Customer Services	Role under discussion. New management has strengthened arrangements

Note that the above table is draft subject to discussion with services

It is recommended that the Head of Business & Technology Services work with all services yet to implement very strong key user arrangements to establish an improvement programme. The initial review is to be completed by December 2015.

Procurement of New Systems

- 4.3.3 Appendix A of this report sets out the various criteria that should be considered when reviewing Business Applications and determining whether any need to be replaced. The same criteria apply when determining which business applications to procure. Making a decision requires significant input from the ICT Service and from Service Managers. Failure to involve service management risks procuring a system that doesn't deliver what the business needs. Failure to involve ICT can result in purchasing a system which is difficult to support, hard to integrate and which duplicates functionality available elsewhere in the Council, thus providing poor value for money.

It is recommended that with immediate effect all business applications are provided with a named service owner within the organisation and that the procurement of all new ICT systems is signed off by the business owner and the Head of Business & Technology Services without exception. This same principle should be extended across all relevant governance systems and include processes for submitting business cases and initiating projects where ICT is involved.

ICT Performance and Governance Arrangements

4.3.4 A range of performance measures and new governance arrangements have been put in place since the shared service was set up to ensure that both Partner Councils are able to prioritise the work of the IT Service and to receive feedback on performance.

Shared Services Partnership Board

4.3.5 The Board meets on a monthly basis. The board, which comprises the Director of Finance and Support Services in East Herts Council, the Director of Resources in Stevenage and the Head of Business & Technology Services takes an overview of all issues relating to IT (and the other services within the shared service) ensuring that the service is delivering in the business interests of both partners. Matters that can't be dealt with through the partnership board are escalated to the Corporate Management Team in East Herts and the equivalent body in Stevenage.

Information Technology Steering Group(ITSG)

4.3.6 The ITSG was in place before the shared service was set up, but the substance of what is dealt with through the group has been comprehensively revamped. The group which comprises members of the Senior Management Team plus key IT users meets every other month and considers the following:

- feedback on any major ICT incidents that have occurred for which formal incident reports are produced
- plans to deal with any key operational IT problems impacting upon system performance
- performance achieved against agreed measures over the period in question
- customer satisfaction reports
- the prioritisation of IT project work and use of the available IT development resource
- progress on key IT projects
- feedback on key service improvement initiatives such as the plans to introduce an Out of Hours Service , the IT service catalogue and this IT Strategy

4.3.7 The key purpose of the group is to provide transparency about the IT Service and feedback which can be considered by the Shared Services Partnership Board and/or the Corporate Management Team.

IT Security Group

4.3.8 A group has very recently been set up comprising officers from both Councils with responsibility for information, data protection and HR together with IT service representatives to consider:

- new ICT policies
- implications arising from any Data Protection incidents involving ICT (to date there have been no serious incidents)
- feedback from auditors and other regulators such as the Cabinet Office Public Services Network Team on ICT Security

4.3.9 As both Councils now operate from within one large network, a range of common policies need to be agreed relating to the security of the network. The group

provides the opportunity to do so and also to discuss other issues relating to the security of the IT environment.

Performance Measures

- 4.3.10 Performance measures and targets are listed in Appendix C to this report. The measures in place provide the opportunity to assess ICT operational performance, progress in delivering strategic improvements to ICT and to consider customer satisfaction through the quarterly surveys that are undertaken.
- 4.3.11 It is difficult to assess whether there has been an overall improvement in operational performance in ICT as no measures existed before the shared service was in place. In the first year of the shared service, ICT have successfully delivered against some targets, notably call abandonments levels are very low and the overall number of incidents is low. On the other hand there is room to make progress against a number of the other measures, particularly the speed of resolving ICT incidents and the overall satisfaction levels with the service. In part the performance issues can be explained by the inevitable glitches when delivering so much change, the need to restructure the staff team and to harmonise business processes, all of which are temporary issues now largely overcome. However, there is also a need to implement the improvements set out elsewhere in this report before the service is fully delivering the challenging expectations of both Councils.

Significant work has been completed to implement improved governance and performance management arrangements. It is proposed that these are now fit for purpose and no further major changes are required.

Delivering ICT Projects

- 4.3.12 Successfully delivering ICT projects requires excellent collaboration between the ICT Service and the business. Typically the business will be responsible for providing project management support and business resource to the project, while the ICT service is responsible for technical support.

Project Management

- 4.3.13 Effective project sponsorship and management needs to be provided. The project sponsor will normally be the named business owner for the system in question. The project manager may be resourced from within the business or may be a third party. The project manager should not normally be supplied by the ICT Service. Although a manager from IT may be involved in the project to coordinate the IT resource, he or she should not be managing the overall project.
- 4.3.14 There is a need to build project management and sponsorship capacity and skills in East Herts Council, an issue that will be taken on by the newly appointed Head of Business Development.

It is recommended that the Head of Business & Technology Services work with the Head of Business Development to review the approach to managing IT projects in East Herts. A timetable to achieve this during 2015-16 will be agreed once the new Head of Service has had the opportunity to confirm his priority work programme.

Resourcing IT Projects

- 4.3.15 IT projects are also reliant upon sufficient skilled IT resource being available to support the projects in question. The IT Service has developed a development programme for ICT which has identified the available in-house resources that can be called upon to support project work. The available in-house resource can then be prioritised by the Council and brought to bear on those projects which add greatest value.
- 4.3.16 The section above on ICT training also explains how staff are being developed to acquire a greater range of skills and knowledge across multiple technologies and systems so that the existing resource can be deployed more flexibly in line with business need.
- 4.3.17 The model for delivering ICT Services, however, is not wholly reliant upon in-house resource. Where there are opportunities to do so, projects will be taken forward using external ICT resource if there is a business case to do so. Typically external resource will be much more expensive than in-house resource so normally it will be deployed in the following circumstances:
- the nature of the work is highly specialised and the in-house team don't have these skills. These skills are unlikely to be called upon regularly in the future. An example is that the ICT Service employed a systems architect to support the design and implementation of the new infrastructure. This role is not required on a day to day basis and these skills will not be needed until the next major refresh of the infrastructure
 - the work involves working with a new technology or system that the in-house team are currently unfamiliar with. The technology or system will play a major role in the future. In this case the in-house team need to be involved in the work as they need to develop knowledge about the technology so it can properly supported in the future. However, typically the team will work with a specialist external resource from a supplier or support company in the first instance. Formal transfer of knowledge to the in-house team will often be specified as a specific outcome sought from the consultancy work
 - the work is a priority and skills and knowledge are available in-house, but the in-house team is already deployed on other priority work. In this case external resource is relatively straightforward to organise as no knowledge transfer or involvement in the work is required from the in-house staff beyond the supervision of the contractor or consultant involved
- 4.3.18 The current approach involving the use of in-house and external resource is considered to be a well balanced approach which provides flexibility to enable priority business work to proceed. The only significant limitation is that the in-house team needs to be involved to some extent in implementing new core technology as otherwise the risk that the technology will not be properly supported in the future is too high.
- 4.3.19 Over the past year and looking forward to the next couple of years there has and will be a considerable level of change involving ICT. During this period much of the change implemented to systems and technology has been and will be fundamental. Because these are core changes to systems, the in-house team must be involved and this may limit the pace of change to an extent. Nonetheless the degree of change already delivered and expected in the years to come is

nonetheless very large. Furthermore, once core changes have been made and once planned training for in-house staff has come into effect the capacity to deliver rapid change through the use of ICT will be greatly enhanced.

It is recommended that the current model for resourcing ICT work is fit for purpose and be endorsed.

Agile and Flexible Ways of Developing ICT Solutions

- 4.3.20 While it is still the case that sometimes when procuring major ICT systems the best way forward is to adopt the traditional approach to specifying, tendering, evaluating and implementing solutions, this approach is necessarily time consuming. Furthermore, if, despite the best efforts of all involved the system ultimately delivered is not exactly what the business requires, opportunities to take remedial action are sometimes limited and often a considerable resource will have been expended.
- 4.3.21 Many current technologies, particularly related to web-service delivery, offer the opportunity to do things differently. Web service and other technologies often provide the opportunity to build small applications using a range of different software tools that are typically cost-effective to acquire and straightforward to use. In these circumstances, rather than embarking upon a time consuming procurement exercise, it is easier to build an application in stages. For example the first stage may be a proof of concept, which aims to demonstrate whether it is technically possible to deliver the key needs of the business. If the proof of concept is successful, the next stage may be to deploy a basic application which may then be built upon in an iterative way as the business establishes whether it is useful and identifies further business needs. The advantages of such an approach are:
- the work can be stopped easily following the proof of concept if the project is not going to work at a point that only low levels of resource have been expended
 - applications can be deployed much more quickly. The business does not need to spend so much time considering detailed specifications of what is required, but focuses upon core business need. ICT are able to build the application in manageable pieces
 - further iterations of the application can be taken forward once business benefits of the core application have been established. For example in the context of a web service to external customers, if there is strong take up of the service then further work on the application will be warranted to introduce additional functionality. Alternatively if there is low take-up then no further resource need be expended.

In summary an agile approach can offer a more flexible, cost-effective and business oriented approach to delivering ICT projects.

It is recommended that the agile approach is piloted and evaluated during 2015/16 once an appropriate project that would benefit from this approach has been identified.

ICT Literacy

4.3.22 East Herts Council spends significant sums on procuring new ICT systems and on licensing systems year on year. A crucial factor, if the Council is to realise the benefit from the investment that has taken place, is to ensure that staff are ICT literate and get the most from the technology that is available to them.

4.3.23 Delivering ICT literacy is not straightforward. Firstly an accurate baseline of literacy for the organisation needs to be established. Secondly this baseline needs to account for the varying levels of literacy required in different roles. Finally the extent to which there is a mismatch between ICT skills and the established need should be identified and reassessed regularly as different forms of staff development are taken forward to reduce the identified gaps.

4.3.24 Different officers have a role to play in delivering improved ICT literacy:

- Managers have a responsibility for helping to identify the ICT skills required to fulfil the roles within their service areas and in assessing and supporting their staff to acquire the required skills
- HR have a role as they are responsible for staff development overall in the organisation and recognise the strategic importance that ICT literacy plays increasingly in delivering excellent services. They may be involved in commissioning or delivering training or other forms of staff development
- ICT need to ensure that the systems made available to staff are robust, resilient and user friendly. They can also help assess the literacy of staff as they will often be in contact with staff who struggle in their use of ICT. They may also be involved in training staff in the use of particular ICT systems
- Key Users have a major role in supporting managers to assess the potential for using ICT in different service areas and the skill sets required of staff as a result. They will also be responsible for supporting managers by assessing the skill sets of staff within their area and may also be involved in the provision of training to staff in specific business applications
- Staff themselves have possibly the most important role of all; to take responsibility for their own development and to be committed to improving their skills

4.3.25 Having invested in new infrastructure and committed to a process to renew business applications, the time is now right to thoroughly review the approach to delivering ICT literacy in the Council. The delivery of a review of the kind proposed above will also require an effective HR system that will enable baseline ICT skills to be captured and progress in acquiring skills and knowledge to be monitored. This system will be delivered once the current HR system has been replaced during year one of this strategy. On this basis, it is proposed that the bulk of the work to carry out and implement the ICT literacy review take place in year 2 of the strategy.

It is recommended that a review of ICT literacy be led by the head of HR and Organisational Development, supported by ICT to establish how literacy can be assessed, improved and managed within the Council. The review should incorporate a review of the facilities available for ICT training in the Council and be carried out during 2016/17 following the implementation of a new HR system.

4.4 Accessibility of the ICT Service

4.4.1 The implementation of a shared service for ICT and consequent changes to the way that the service is structured and located has placed a new emphasis upon ensuring that the service is accessible. There are a number of different elements to improving service accessibility as set out below.

Development of a Service Catalogue

4.4.2 Work to develop a service catalogue for ICT is underway and should be completed in draft by March 2015. The service catalogue provides a list of the services offered by the Shared Service together with an explanation of how to access the services, escalation processes, hours that the service is available and performance targets. The catalogue will also:

- Sign post staff to other areas for those services which are managed elsewhere that are often mistakenly believed to be ICT services
- Link to other information that customers may want to know, for example to lists of supported software
- Provide an explanation of ICT roles and contact information

4.4.3 The service catalogue has a number of functions. It offers a description of the service, but also provides a way of introducing ICT self- service (see the section on Customer Self Service), helps to market ICT services (see section on options for growing the ICT Service) and to benchmark ICT services as it provides a way of ensuring that like with like comparisons of services can be made.

It is recommended that the ICT Service publish a service catalogue by September 2015 covering all ICT services.

A New ICT Service Desk and Customer Self Service

4.4.4 While the ICT Service expends much of its capacity working with services to improve their Business Applications, relatively little time has been spared historically to improve ICT Service Desk systems in either partner Council. The formation of the ICT shared service provided the opportunity to invest in a new, more modern ICT Service Desk and the first phase of the project to implement new system went live successfully in November 2014. Once implemented in full, the Service Desk system will be used to manage all aspects of the ICT service. The system will also be used as a service desk system by the Shared Print & Graphic Design Service and both Facilities Management Services in both Councils.

4.4.5 The completed phase I service desk project allows customer contacts from East Herts and Stevenage Borough Council to be recorded in the same place and for service performance to be automatically monitored and reported upon. The Service Desk also includes workflow functionality that allows incidents and service requests raised by customers to be managed more effectively. In particular:

- Incidents that are not resolved within the targeted timeframe of four hours are escalated to senior staff for action before the four hour timeframe has elapsed

- Different types of incident can be categorised more coherently allowing the service to analyse trends and target improvements to reduce incident numbers
- The system allows the status of service requests to be tracked so that progress can be fed back automatically to customers

4.4.6 The second phase of the service desk project is dependent upon the Service Catalogue being completed. The key elements that this phase will introduce are:

- Customer self service
- Improved asset management capability
- Integration with Active Directory

4.4.7 Customer self-service will allow some tasks to be automated that currently require intervention from ICT staff, such as password resets. It will also allow customers to request a full range of ICT services and to report incidents on-line. Finally it will provide on-line access to information about the status of each service request and statistics about ICT performance in general.

4.4.8 The asset management functionality within the service desk will allow ICT to capture information about all relevant assets or ICT components in one place where this information can be more easily maintained and kept up-to-date. This will include information about physical assets, such as servers and other ICT equipment as well as a comprehensive inventory of all software licensed for both Councils, contracts, key contacts and other information crucial to a well- run service. This information is maintained now, but in a variety of formats in different locations. Some of the things that will be much easier to do once asset management has been implemented include:

- More straightforward estimates of future capital investment and the generation of planned replacement programmes
- More straightforward and tighter control over software licensing
- More effective change control processes
- Finally integration with Active Directory, the ICT system that is used to manage access to the ICT network, will allow the service to implement single sign on for a wide range of different applications on the network. Where single sign on is in place customers will not need to enter a separate password or other credentials to access applications once they have been successfully authenticated on to the overall network.

It is recommended that the ICT Service prioritise the delivery of the second phase of the ICT Service Desk project with the aim of delivering the service desk solution in full by September 2016.

Improved Support for Members

- 4.4.9 Following the May 2015 election, the Business & Technology Services Team will be supporting Members in both Stevenage Borough Council and East Herts Council using the same approach. From this date, all Members will be using their own ICT equipment and software to access Council systems. This allows Members to access systems flexibly, using the equipment that suits them best. This policy has been in effect in Stevenage Borough Council for some time and was agreed by Executive in East Herts in August 2014.
- 4.4.10 When considering how best to support Members ICT need to take account of significant differences between the way that Council officers and Members work. In particular:
- Officers mainly access ICT systems during the working day while Members typically do so in the evenings and the week ends
 - Members will typically want to access systems from home or when mobile. Although officers use systems flexibly, they more often access systems from Council offices
- 4.4.11 A similarity between Members and Officers, however, is that while some Members are very self-reliant in their use of ICT, others require more support.
- 4.4.12 Following the restructuring of the Shared Services ICT Team in September 2014, three ICT staff have been specifically designated to support Members in both Councils. These staff are being provided in addition to the existing support arrangements in place through the ICT Service Desk and which will be delivered in the future through customer self-service. The team comprises the ICT Services, Security and Standards Manager plus two ICT Technical Support Engineers. While Member support comprises only part of these officers' roles it is hoped that:
- With a team of three staff there will always be someone on hand to support Members if issues are urgent and can't be resolved in the normal way through the Service Desk
 - That these staff will provide continuity for those Members who require additional support and that by developing closer working relationships staff will be able to support Members better and Members will develop more confidence with ICT systems
- 4.4.13 Furthermore it is anticipated that the new infrastructure technology that has been implemented will provide Members with a much improved experience when using ICT. The systems are designed to be available twenty-four-seven and are highly resilient. Therefore, while there are no immediate plans to extend ICT service desk support beyond the current hours of 8am-6pm during the week, it is hoped that because systems rarely fail then the requirement to contact ICT staff urgently will be minimal.

It is recommended that the ICT support arrangements for Members be reviewed in November 2015. At this point the new approach to Members ICT will have been running for 6 months and the new infrastructure implemented for the partnership will be mature.

- 4.4.14 Currently there are no formal out of hours support arrangements for ICT systems. In practice, when there have been problems with systems failing, staff have invariably worked at weekends and late into the evening to try and remedy issues before the start of the next working day.
- 4.4.15 Feedback from senior officers in both partner Councils suggests that it is no longer appropriate to rely upon the goodwill of IT staff in this way. Both Councils are highly reliant upon the availability of ICT systems. Notwithstanding the high levels of resilience associated with the new systems that have been implemented, formal arrangements now need to be put in place in the best interests of both partner Councils and the IT staff concerned.
- 4.4.16 It is proposed that an Out of Hours ICT Service be designed and implemented that will fulfil the following set of business requirements:
- To allow essential upgrade work to be carried out outside normal business hours where the work would otherwise cause significant disruption to the business
 - To ensure that key staff are available to recover core systems outside working hours so they are available for use at the beginning of the next working day
 - To ensure that work can begin to recover specific systems immediately where these systems are routinely required out of hours or at particular times of the year
- 4.4.17 The ICT service currently delivers most of the above on a best endeavours basis. Systems that might be required at particular times of the year might include the Revenues and Benefits system during year end, the elections system at election time. Some services, such as Hertford Theatre, work outside normal Council working hours as a matter of course and require systems to be available in the evenings and the weekends throughout the year.
- 4.4.18 An effective Out of Hours service for ICT will also support staff who wish to work more flexible hours, a practice that will be focused upon in the new People Strategy being drafted by the Head of Human Resources and Organisational Development.
- 4.4.19 Systems referred to as "Core" include all the components of the infrastructure which need to be in place before other systems can run, such as the Hosted Desk Top, network and telephony systems, servers and storage.
- 4.4.20 It is not intended that ICT operate the Service Desk outside the currently supported hours of 8am to 6pm on working days. The emphasis for the Out of Hours service is to ensure the availability of critical systems. The Head of Business and Technology Services has run a pilot Out of Hours arrangement for Hertford Theatre during the Pantomime season in December 2014. The aim will be to set up a new formal service, following consultation with staff, in the first quarter of 2015/16 and with the results and analysis from the pilot.

It is recommended that an ICT Out of Hours Service be launched by the end of June 2015 to deliver the service summarised in the section above.

4.5 Future Options for Delivering ICT

Further Partnership Growth

4.5.1 When setting up the Shared ICT Service both Councils envisaged a relationship that would endure. While provision has been made to review the future of the partnership in four years' time, (prior to further significant investment being made to replace equipment at the end of its life), there is also a desire to establish whether the Shared Services arrangement can grow further by taking on additional partners or by selling services to other organisations. It is anticipated that this growth will take place once work to improve ICT services to the originating partners has been substantially completed.

4.5.2 A number of factors will make the process of taking on additional partners more straightforward than the project to implement the Shared Service so far:

- The same technology would be used to support a new partner as has now been implemented for East Herts and Stevenage. By the time that a new partner comes on board the ICT Team will also have a mature understanding of the new technology and will be able to support it in full. Technological risks will, therefore, be low. The difference will only be in the scale of the technology required
- Service catalogues, customer self-service and other planned improvements to IT such as an Out of Hours Service will also be in place and should help to both clarify the service offered to prospective partners as well as offer improvements to the solutions currently in place

4.5.3 On the other hand, there are other factors, mainly cultural ones, which will need to be overcome if successful service growth is to be achieved. Experience of working with other organisations to set up partnerships emphasises how important it is to select the right kind of partner and the importance of building strong working relationships between decision makers in the prospective partner organisations. For this reason further service growth will depend upon the BATS Management Team and staff forging strong working relationships with prospective partners but also upon strong links being built at a strategic level, amongst Members as well as senior managers.

It is recommended that the Head of BATS, the Director of Finance & Support Services at East Herts and the Director of Resources at Stevenage Borough Council set out an approach for further growth of the partnership by September 2015.

Technology in the Cloud

4.5.4 There has recently been significant interest from Government and in the media regarding the potential of "Cloud Computing" to transform the way that organisations deliver ICT. The term cloud computing is used in a variety of (sometimes conflicting) ways but for the purposes of this document should be considered as follows:

- Delivering Business Applications from outside the local ICT environment
- Delivering infrastructure from outside the local ICT environment

4.5.5 Currently infrastructure and the large majority of business applications are delivered to East Herts and Stevenage Councils from the two new data centres at Daneshill House and Cavendish Road in Stevenage. If delivered from the cloud, these services would be delivered from data centres located elsewhere. Depending upon the model for delivering cloud technology this might be achieved by commissioning all services from one provider of cloud computing solutions or by commissioning services from a variety of different providers. If the Council were to introduce a cloud based solution in this way then ICT services would still need to be delivered locally, to support the deployment of local equipment, to manage the network and telephony links to the remotely managed servers and business applications and to manage the contracts with the cloud based supplier/s.

The Current Situation

4.5.6 Both Councils have recently invested significant sums in new infrastructure technology which has been used to create the two new data centres from which all partner ICT services are now delivered. These two data centres are in effect, a private cloud, for the two Councils and other partners should the service expand further. All infrastructure is delivered through the new data centres.

4.5.7 Almost all Business Applications are currently delivered through the local data centre in Stevenage and the majority of business applications in East Herts are delivered in this way.

4.5.8 Having made a major investment in data centres there is little sense in pursuing an option to transfer to large scale delivery of services through the cloud in the short term. Other reasons why a short term decision to pursue cloud based services would not be recommended include:

- The maturity of the market. Comprehensive, infrastructure as a service solutions are not yet available for local authorities. The costs of delivering cloud based services are difficult to assess in the medium term as the market is not mature
- When procuring solutions in the cloud, services are referenced in very different ways. For example, when procuring infrastructure services commissioners must be able to quantify needs for example in terms of amounts of data and memory in a way that ICT services would not have needed to do historically. The new data centre environment that the Councils now use are allowing ICT to identify performance requirements for different sets of users to the level of granular detail that would be required for the first time. This data will in due course allow the Councils to become mature commissioners of cloud services if this is the agreed way forward. At present, insufficient data exists to accurately quantify the services that would be required

- Both Councils have now completed work to implement new infrastructure. Moving to a cloud based solution in the short term would involve further prolonged service disruption while new solutions bedded in. The opportunity to pursue the reviews of business applications and the other key programmes of work set out in Section 2 of this strategy would be disrupted and delayed
- There are a number of significant statutory questions about the management of data in a cloud environment that have not been fully answered. For the time being this imposes restrictions on the services that can be delivered in this way
- There are also a number of other complications that arise when delivering services through the cloud such as the difficulties in integrating systems and extracting data from systems which may be physically located in different ICT environments in different part of “the cloud”.

It is recommended that the option to deliver infrastructure as a service through the cloud or to transfer existing major line of business applications into the cloud be assessed during 2017/18. This will allow time for the market to mature and will fit in with the likely timetable for making further large scale investment in ICT infrastructure.

4.5.9 In the short term, there are a small number of East Herts Line of Business Applications currently being delivered through the cloud and increasingly options to choose cloud based options when making procurement decisions. These systems are typically managed by the services in question with little input from the ICT Service, arrangements that normally work well. However, there is a need to agree a clearer framework for managing hosted systems and for some criteria that will help to determine whether cloud based or internally supported solutions should be chosen when procuring new systems. Issues that need to be considered from a day to day management perspective include:

- Liaison arrangements between the system supplier and ICT to ensure that the solution can be deployed effectively in the East Herts ICT environment
- Support required by services from ICT to assist them when managing the supplier
- ICT staff's (lack of) knowledge about the systems when called upon to support services

4.5.10 From a procurement perspective issues include:

- The additional costs being paid to system suppliers to host the solutions
- Whether it is more straightforward to support the system in a hosted environment or to implement the solution
- The interdependence between the hosted solution and other existing non-hosted applications
- The nature of the data held remotely and confidence relating to its security
- The ease of data retrieval should the contractual arrangement with the hosted supplier come to an end

It is recommended that a short review take place to establish a framework for the effective management of hosted applications and the procurement of new hosted systems by October 2015.

5 Implementation

5.1 Implementation Plan

5.1.1 A chronological implementation plan for taking forward the recommendations set out in this strategy is set out in the table below.

Table: Implementation Plan

Year	Action	Target Date	Ref
1	Implement named owners for all IT Systems	April 2015	4.3.3
1	Implementation of Improved Networking & Telephony Infrastructure	June 2015	3.1.9
1	Launch ICT Out of Hours Service	June 2015	4.4.20
1	Review of key development technologies	June 2015	4.2.12
1	Draft of new ICT Security Policies	June 2015	3.1.16
1	Implementation of Corporate Wireless Solution	Sept 2015	3.1.13
1	Publish an ICT Service Catalogue	Sept 2015	4.4.3
1	Agree approach for further growth of partnership	Sept 2015	4.5.3
1	Establish a framework for the management of hosted applications and the procurement of new hosted systems	Oct 2015	4.5.10
1	Review Members' ICT Support Arrangements	Nov 2015	4.4.13
1	Post Implementation Review of Infrastructure	Nov 2015	3.1.7
1	Complete Implementation of staff development plans	Dec 2015	4.2.12
1	Review of Key User Arrangements	Dec 2015	4.3.2
1	Business applications replacement programme	March 2016	3.2.7
1	Review of priority business applications	March 2016	3.2.7
1	Pilot and Evaluate the agile approach to developing solutions	March 2016	4.3.20
1	Application Resilience Programme	March 2016	4.2.12
2	Deliver the second phase of the ICT Service Desk project	Sept 2016	4.4.8
2	Review ICT Literacy in the Council and implement improved solutions	March 2017	4.3.25
2	Business Applications Replacement programme arising from year 1 applications review	March 2017	3.2.7
3	Review opportunities for transferring major ICT services into the cloud	Mar 2018	4.5.8
TBI	Review approach to identifying and managing IT projects	TBI	4.3.12

5.1.2 The implementation programme for the strategy is very ambitious and much of the work is front loaded in year one. The advantage of this approach is that as much capacity as possible will be made available to support service transformation during the later years of the strategy, once the remaining work to put strong foundations in place has been completed and the business' transformation priorities have been established.

5.2 Financing the Strategy

5.2.1 East Herts Council has set aside a rolling capital programme of £400,000 per annum to invest in ICT. The detailed IT programme in future years will depend upon a number of factors including the outcome of the Business Applications review programme that is proposed, specific projects agreed to take forward the Customer Services strategy and the shape of the business transformation programme being supported by ICT in general. While costs can't be understood in detail until these programmes are defined by the business, the proposed level of funding will be sufficient to make a substantial difference. If additional funding is required over and above that already proposed, business cases will be drawn up setting out the benefits that will result from additional investment so that effective decisions can be made.

5.3 Monitoring Implementation of the Strategy

5.3.1 The implementation of this strategy will be monitored using existing governance arrangements, in particular the Shared Services Partnership Board and the IT Steering Group. There is an action set out in the IT Service plan to deliver the strategy which will be monitored and reported to Corporate Business Scrutiny as part of the normal quarterly monitoring process. The strategy will also be discussed with the portfolio holder for Economic Development in the regular one to one meetings that take place with the Head of Business and Technology Services.

5.3.2 In addition to the above it is proposed that a performance measure, "Percentage Delivery of milestones in the IT Strategy" be agreed and reported alongside other IT performance measures and targets. There are twenty two separate actions to be implemented in the strategy set out in the implementation plan above, eighteen of which are deliverable during 2015/16. If each action equates to one milestone then the cumulative milestone targets deliverable by each quarter during 2015/16 are set out in the table below.

Percentage Delivery of ICT Strategy Targets, by Quarter 2015/16

Quarter 1		Quarter 2		Quarter 3		Quarter 4	
5	27%	8	44%	13	72%	5	100%

CRITERIA FOR REVIEWING BUSINESS APPLICATIONS

There are a wide range of factors that need to be considered when determining whether to replace an application as follows:

FUNCTIONAL FACTORS

Does the Application Deliver the Key Functionality that the Business Needs?

This is the most important criterion of all as if the functionality that is lacking is business critical then the system will need to be replaced. This is a factor that can only be properly assessed by the business itself, rather than the ICT Service.

Does the Application Deliver the Key Functionality that the Business Needs for the Future or Will this Functionality be Developed?

All services change and ICT Systems need to be a help rather than a hindrance to that process. The business should work with ICT to understand how service changes may impact upon the need for investment in ICT in the future.

OPERATIONAL FACTORS

How Robust is the System

Does the system function well on a day to day basis or does the system fail regularly? There will be an incident history for each system that will help to answer this question.

How Well Supported is the System?

Is the system supplier responsive and able to fix issues quickly if incidents do occur?

How Easy is the System to Use?

Is the system intuitive and straightforward for a user with reasonable IT skills to operate?

CAPACITY/RESOURCE FACTORS

Cost of the System

Is the system expensive to license and support? Is the system expensive to develop further?

IT Resource

If the system is not robust, does it use up significant ICT resources to support it as a result?

Flexibility of Support/Development

Can the system only be supported or developed by the System Supplier, or are other companies accredited to support the system?

SUSTAINABILITY FACTORS

Market Share

Does the system have a strong or a weak market share. Systems with poor market share are rarely well supported in the longer term. There are also risks that such systems become de-supported, sometimes at short notice.

TECHNOLOGICAL FACTORS

Open Standards

Systems that are developed with open standards are straightforward to integrate with other applications. This factor is important if the applications holds data that needs to be shared on-line, made available spatially or otherwise passed on to other systems.

STRATEGIC FACTORS

Breadth of Functionality/Design

Does the system deliver business needs across multiple services? Local Authorities have large numbers of services and large numbers of business applications as a result. Systems that meet the business needs for multiple services are welcome as they help us to reduce the overall number of applications that are supported, to focus ICT support in a more efficient way and to reduce cost.

Potential to Harmonise Systems between Partner Councils

Do both Councils need to change systems or has one Council a system that could be used to support both Councils going forward? Sharing services provides the opportunity to harmonise business applications between East Herts and Stevenage Borough Councils.

KEY USER/SYSTEM ADMINISTRATOR ROLE

A Key User or System Administrator is expected to work across three areas to be effective in the role.

Relationship with ICT

The key user will act as the main point of contact with the ICT Team:

- To support the management of ICT incidents. The key user is able to provide feedback to ICT on the way that the incident is impacting upon services. They also help to coordinate communication of the incident to service staff
- To sign off new ICT services on behalf of service management and to lead for the service when testing new systems
- To provide informed feedback on ICT performance
- To liaise with ICT Management and senior staff to develop options for procuring or developing new technology

Relationship with Service Management

- To advise service management on opportunities to deploy existing technology more widely across the service
- To advise management of staff training needs
- To advise management on technological issues that are impacting upon service performance

Relationship with Service Staff

- To work with service management and staff to understand ICT training needs
- To liaise with HR to coordinate the provision of external IT training for staff
- To train staff directly in the use of business applications
- To identify common ICT issues or themes arising with staff and coordinate their resolution with ICT