

Meeting: EXECUTIVE

Portfolio Area: Neighbourhoods and Cooperative Working



Date: 9 October 2019

INFORMATION AND COMMUNICATIONS TECHNOLOGY (ICT) JOINT STRATEGY

KEY DECISION

Authors – Simon Russell and Richard Protheroe Ext. 2091 / 2938

Contributors – Anita Thomas Ext. 2430

Lead Officers – Richard Protheroe and Tom Pike Ext. 2938 / 2288

Contact Officer – Richard Protheroe Ext. 2938

1 PURPOSE

- 1.1 To seek Executive approval for Stevenage Borough Council (SBC) and East Herts Council's (EHC) Joint ICT Strategy 2019-2022.
- 1.2 For delegated authority to be granted to a Strategic Director to negotiate and agree a new ICT Shared Service Agreement with East Herts Council.

2 RECOMMENDATIONS

- 2.1 That Executive approves the ICT Partnership's ICT Strategy 2019 – 2022 attached at Appendix A to this report.
- 2.2 That delegated authority be granted to the Strategic Director [RP] having consulted the Portfolio Holder for Neighbourhoods and Co-operative Working, to make any further amendments to the ICT Strategy.
- 2.3 That Executive notes the ICT funding challenges and agrees to prioritise the currently known ICT capital investments as summarised in Table 2 at paragraph 5.1.7 subject to available funds and Council's agreement to their inclusion in the Capital Strategy 2020/21
- 2.4 That Executive agrees to recommend to Council the re-profiling of the ICT Capital Programme over the next five years as summarised in Table two, paragraph 5.1.7 as part of the Capital Strategy for 2020/21.
- 2.5 That Executive notes and agrees to recommend to Council that it prioritise the currently known revenue pressures relating to the ICT Strategy (subject to available funds) through the General Fund and Housing Revenue Account annual budget setting process for 2020/21.

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- 2.6 That delegated authority is given to the Strategic Director (TP), having consulted the Portfolio Holders for Neighbourhoods and Co-operative Working, and Resources, to negotiate and agree a new ICT Shared Service Agreement with East Herts Council.

3 BACKGROUND

(A glossary of ICT Terms can be seen on page 4 of ICT Strategy Document (Appendix A)).

- 3.1 The Council's ICT Strategy was last published in 2015. The majority of recommendations and actions in the strategy have now been completed or superseded.
- 3.2 Following a series of independent reviews an ICT Improvement Plan was approved by the Executive in November 2017 to enable the ICT Partnership to take immediate action to improve the foundations of the ICT service with a primary focus on strengthening the resilience and security of the ICT infrastructure and to enhance ICT governance and service management.
- 3.3 Key outcomes achieved since the adoption of the plan include:
- Decommissioning of legacy business applications and servers to improve the security of the Council's systems
 - Closure of the Hertford Data Centre
 - Improved power resilience through the installation of a new power generator at Daneshill House and new uninterruptible power supply units that contain batteries to maintain power to the Daneshill data centre in the event of a power surge or outage.
 - Completion of the Microsoft Exchange 2013 Migration Project
 - Implementation of mobile device management
 - Public Sector Network Accreditation in May 2019 following over 100 actions being completed over the preceding 9 month period.
 - Award of a packaged software contract to enable direct purchase of 'off the shelf' software products
 - Appointment of an ICT Strategic Partnership Manager with the right level of technical ICT knowledge
 - Establishment of a New Security and Networking Team to look after the security and performance of ICT systems and network
 - Creation of a Programme Management Office (PMO) to drive forward key ICT projects
 - Procurement of Microsoft 365 and Hosted Desktop licences (to be implemented and rolled out during 2019/20)
 - Installation of enhanced telephony technology
- 3.4 Despite this progress being made the adoption of a new ICT Strategy for the ICT Partnership is critical and will ensure that the operational services across SBC and EHC are provided with the appropriate technology, and that the technology is supportable, updated when needed, and that users are assisted in making the best use of it.
- 3.5 The Council's Corporate Plan relies on the efficient and effective operation of some 120 services of a diverse nature. One factor that unites them all is a reliance on information technology. Technology continues to evolve at pace, and that means that user expectations are constantly changing, and so continual investment is

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required. The technology must not only be actively maintained, to keep it secure and fully operational, but regularly updated as older solutions become obsolete and unsupportable. It is important that this is done in a planned and coordinated way.

- 3.6 This approach extends beyond staff and Members to residents, who will need to be provided with the means to obtain many of their services online that is simpler, quicker and easier for them to use and cheaper for both authorities. This aligns closely with the Corporate Plans of SBC and EHC.
- 3.7 It has been necessary in developing the ICT Strategy to take an incisive and realistic view of the current state of ICT across both SBC and EHC. This has helped determine how fit for purpose the existing infrastructure, applications and end user equipment is, how well the ICT Team serves the two organisations currently in terms of its structure, processes and relationships, and what shape the team is in to move things forward. Many ICT strategies focus only on the new and exciting projects to be done to move the organisation forward, but these must be built on a sound base if they are not to fail in the future, and an honest appraisal must be undertaken to understand what must be remedied, to underpin future success.
- 3.8 The relevant key ICT issues and challenges faced by the Council that have helped to inform the development of the new ICT strategy include:
- 3.9 **Changing customer expectations:** The last decade has seen major changes to how customers engage with business, public services and each other, and the pace of change is increasing. It is vital that the Council exploits these channels to provide responsive engagement with its customers.
- 3.10 Digital Technology is now of even greater importance than 'traditional' ICT. Digital is disrupting everything and providing unprecedented opportunities, and we are living in a time of enormous change. It has been said that change is happening 10 times faster and at 300 times the scale of the first Industrial Revolution—and thus is having a major impact.
- 3.11 As Digital becomes ubiquitous, it is rewriting the way local authorities are delivering their corporate priorities and meeting business challenges. As local authorities continue to face austere times, the need for change has never been more important and the need for Digital transformation more relevant. It provides the opportunity to redesign the way in which the Council delivers services, to allow residents to have more control over how and when they access their services, to collaborate efficiently with communities and partners, and to support a culture of innovation.
- 3.12 A Digital Strategy will need to be developed to demonstrate how the Council will effectively use new digital platforms and web based digital technologies to improve service delivery and help drive efficiencies.
- 3.13 **An ageing Infrastructure:** Following the creation of the ICT Shared Service in July 2013 between Stevenage Borough Council and East Herts Council, significant effort in the first couple of years went into the creation of ICT services that met the needs of both councils and delivered savings in the region of £400,000.
- 3.14 To this end the ICT Shared Service delivered a shared network, data centres, corporate Wi-Fi, an ICT Service Desk and hosted desktops and delivered a range of projects from mobile working to customer payments. However over a period of years, primarily due to austerity in the Public Sector, much of the technical infrastructure that supports the Council's ICT has been under-invested in, and become aged,

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unreliable, difficult to support operationally, and hard to maintain in a secure state. A substantial 'catch up' programme of work is now essential and needs to be built around sound strategic and architectural principles.

- 3.15 **Cyber Security:** the changing nature of cyber-attacks means that the ICT Partnership must manage the risk exposure of both councils and ensure that appropriate controls are in place to protect the information and data that is held.
- 3.16 **ICT skills gap:** Similarly to the ICT infrastructure until recently there has been a lack of investment in staff skills which has meant that the service has been lacking key technical capabilities to support the current infrastructure and the adoption of new technology. This has been addressed in part through the ICT Improvement Plan, however, there will be a need to permanently fund the additional capabilities and skills that have been recently recruited into the ICT Service.
- 3.17 **A complex and inefficient business application landscape:** Until recently ICT investments have been based on a bottom-up tactical approach, whereby operational teams within both councils have selected the technology solutions for their local area and presented these to the ICT team to implement. This approach has created a complex variety of systems, a lengthening list of outstanding requirements for new business applications, and a burgeoning need to update the supporting infrastructure technology.
- 3.18 This has resulted in both a complex and inefficient application landscape (143+ applications across the ICT Partnership), a heavy burden on the ICT team to maintain them, heightened security risks (as keeping them all fully patched and updated is a huge challenge), and insufficient free effort to address the ever-growing list of requested projects. Thus, the ICT Service has become a service that is both overloaded and often too busy to help, despite the best efforts of its dedicated staff, leading to reduced user satisfaction of services, the infrastructure receiving insufficient attention, and a significant degree of 'technical debt' accumulating.
- 3.19 The key considerations is that the underlying technical debt must be addressed, applications must be rationalised, the journey to the cloud must accelerate, governance must be further strengthened, and an overall strategic approach (as opposed to a reactive approach), in line with mandated principles of a new enterprise architecture that determines the type and number of business applications and systems, must be adopted.
- 3.20 It is important that this is done in a strategically planned and co-ordinated way, to avoid unwise tactical investments in short term fixes, duplicated solutions, and the procurement of hard to manage systems. In addition the digital revolution is changing both the way that customers want to engage with council services and the consequent efficiencies and increases in productivity with which the council can achieve through the adoption and deployment of ICT and digital solutions.
- 3.21 **The need for a strategic ICT approach:** For the ICT Service to properly support both organisations, the ICT Partnership needs a sound ICT Strategy that matches and supports its strategic aims and enables both councils to keep in step with developing technology.
- 3.22 The Council is facing challenging financial circumstances over the next three financial years and one of the main challenges for the ICT Partnership will be how to harness the potential of ICT to help maintain priority services and enable changes to service

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delivery all within the context of reducing financial and staffing resources. The contribution ICT will make to these endeavours is must be set out in future.

4 REASONS FOR RECOMMENDED COURSE OF ACTION AND OTHER OPTIONS

ICT Partnership Strategy 2019/20-2022/23

- 4.1 As part of the Council's integrated planning activities, a revised ICT Strategy in partnership with East Herts Council (EHC) has been prepared to cover the period 2019 to 2022. The ICT Partnership strategy is contained in Appendix A.
- 4.2 Best practice, as encapsulated in the new ICT Strategy, requires that SBC and EHC jointly take a strategically-planned, top-down, approach to technology, which will represent a change to past practice.
- 4.3 The strategy has been developed in consultation with the ICT Team, Business Transformation teams, service teams and with Members through business interviews, collaborative workshops, technological reviews, IT and service capability assessments, a Portfolio Holder Advisory Group Meeting and through an Informal Executive session.
- 4.4 A series of independent reviews of the ICT service have also been undertaken over the last two financial years to help inform the new strategy, these have included:
- Socitm (Society of IT Practitioners in the Public Sector) Review and Security Assessment - 2018
 - SIAS Disaster Recovery Audit - 2018
 - Annual Public Sector Network Assessment (and associated independent health check)
 - Microsoft Navigator Discovery and Planning Sessions - 2018/19
 - Service Governance Review completed in May 2018
- 4.5 Socitm and Microsoft and other external partners have helped to also validate the strategic approach outlined within the strategy to delivering a resilient and secure ICT offer that meets the future requirements of both SBC and EHC.
- 4.6 An examination of best practice in the sector, based on recently published ICT and digital strategies of other councils, along with advice from Central Government, shows that the Council is strategically aligned with others. The vital importance of a sound ICT infrastructure is universally recognised and the technical approaches (Enterprise Architecture, Digital Strategy, Software as a Service, a focus on cyber security, etc.) have been widely adopted.

Aim and Vision

- 4.7 The ICT Strategy articulates the ICT vision and objectives now and in the future. The Partnership vision is to create a modern and transformational ICT service that drives and supports delivery of joined up services to customers through the effective use of technology.
- 4.8 The strategy comprises the following:

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- An introduction to the ICT Strategy, including reference to how the strategy aims to build on existing technologies and investments, support organisational transformation programmes, accelerate customer digital self-service and increase staff productivity.
 - The ICT Partnership vision and the benefits of the Shared ICT Service
 - The strategic ICT ambitions and strategic technology objectives and outcomes
 - A clear commitment to green ICT and a set of ICT Guiding Principles
 - The impact, benefits and strategic actions/deliverables for each strategic ambition
 - The future profile of the ICT Service, describing the structure, operating model and the governance and monitoring arrangements
 - The appendices to the strategy include further information of the investment priorities and the roadmap for delivery.
- 4.9 The Strategy sets out a framework for technological change and adoption. A series of four ambitions have been identified that capture the underpinning strategies, plans, and actions that will be required in order to deliver the ICT vision.

Ambition 1: Empowered Customers.

- 4.10 The Council will invest and deliver new digital customer facing services through its Connected to Our Customers Programme. In providing this the Council will improve the responsiveness, availability and usability of services. This will accelerate the take up of online services by customers. As a Co-operative Council user experience and customer focus will be at the heart of the design and evolution of council services. The Council as a result will deliver end to end solutions that provide a more responsive and cost effective service offer to its customers.
- 4.11 **Digital by Choice:** It is the ambition of the Council to be 'Digital by Choice', so that customers will choose to interact with services through digital channels, rather than by phone, email, letters or face-to-face, because digital interaction will be compellingly easier, quicker, and more convenient.
- 4.12 Ensuring residents and businesses can access key transactional services and information 24 hours, 7 days a week is a key priority of the Council as outlined within the Future Town, Future Council Connected to our Customer Programme.
- 4.13 **New Corporate Website and Customer Experience Platform:** The Council will be launching a new website during 2019/20 and have recently procured a 'Customer Experience Platform' called Firmstep which will both form a central point of information and will in part enable 24/7 self-service channels for customers. The value of the new customer platform is that it will integrate with back office systems and enable systems to work seamlessly together and processes to be automated to the benefit of customers. The adoption of more responsive and flexible service delivery methods will achieve costs reductions (for example in Customer Services, premises and transport). How the new Customer Experience Platform is to be fully integrated will be captured as part of a future Digital Strategy.
- 4.14 **Digital Strategy:** The Council is committed to develop and published a Digital Strategy during 2020 and to launch a major Digital Programme in future years, aimed primarily at streamlining the way customers interact with the Council, but also seeking to achieve internal efficiency improvements. There is an opportunity to do this in

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partnership with EHC and/or align digital programmes and projects in the future that benefit both councils.

- 4.15 Digital technology is developing at a significant pace. Through a new Digital Strategy the Council will be seeking to be at the leading edge in its adoption, and see its importance in meeting strategic aims such as the delivery of a new Co-operative Neighbourhood Management working model. The ICT Strategy investment plans will fund the necessary improvements to the ICT infrastructure and network, corporate applications and project and change management capacity, but we will need to look at other digital costs and possible savings as part of a new Digital Strategy.
- 4.16 The future Digital Programme will exploit developments in Artificial Intelligence (including 'robotic process automation') and Business Intelligence to improve the efficiency and effectiveness of the council's operations. As Artificial Intelligence develops further, with self-learning systems emerging that can perform more of the work currently done by people (but faster, cheaper and more accurately), the ICT Partnership will look to adopt this technology.
- 4.17 **Digital enablement:** will be important to this and helping and empowering those users (mostly but not exclusively older people) who currently lack digital skills.
- 4.18 There will be support at the local community level, helping people to use information and communications systems, including where appropriate the Council's systems, to connect, communicate and share information, thereby assisting and empowering them in their self-support, and contributing further to the development of strong communities. These and other initiatives will also help the Council to meet the looming challenges of supporting vulnerable customers and an ageing population that is living longer but not always in good health, and sometimes with the added burden of isolation and loneliness.
- 4.19 Other digitally-related technologies will come to the fore over the timescale of this strategy, and it is likely that the 'Internet of Things' will start to figure not only in our work on smarter workplaces but also in relation to smart homes.

Ambition 2: Consolidation, simplification and standardisation of the ICT and digital estate.

- 4.20 The ICT Partnership has a real opportunity to consolidate, standardise and simplify its current technology estate. Through the design and adoption of a new Enterprise Architecture the Council will improve the integration and connectivity between services and more streamlined processes will unlock significant efficiencies and direct funds to frontline service delivery.
- 4.21 **A new Enterprise Architecture:** will lay out the fundamental design of ICT and digital services going forward. The strategy defines the architectural principles that the ICT Partnership will apply.
- 4.22 As previously mentioned the ICT Partnership is currently running a significant number of business software applications. Adopting a new Enterprise Architecture will enable the standardisation, simplification and rationalisation of existing applications to achieve cost savings, simplify support and aid cross organisational working. Where practical the ICT Service in future will seek to work with service teams to standardise similar business processes, simplifying the requirements for supporting information systems.

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- 4.23 SBC in partnership with EHC will develop and execute an application rationalisation roadmap that allows both councils to achieve the desired Enterprise Architecture. It is not thought practical to source one solution that meets the needs of the ICT Partnership therefore the best of breed business solutions will be sourced, interfaced and shared as required.
- 4.24 A new Enterprise Architecture will ensure that the Council has the right corporate and business systems in place to support future partnership wide transformation programmes and initiatives, accelerate self-service digital delivery for customers and increase staff productivity through opportunities for more flexible and mobile working.
- 4.25 It will be important that all service related ICT needs are interpreted in the context of the organisation and the ICT Partnership as a whole, its existing and planned infrastructure, and the architectural principles it has adopted. Under the proposed strategy the ICT Service will actively engage with services to understand departmental strategies and priorities, and translate them into ICT solutions in an organisational wide context. This will help to minimise the proliferation of spot solutions, helps avoid investment in technology that is incompatible with other council systems or dead end technologies and will help leverage the use of solutions that already exist across the ICT Partnership.
- 4.26 The current estate of 143+ applications is extreme and best practice elsewhere indicates that an estate across SBC and EHC of 100 or so applications is a realistic goal to aim for. This may require some compromises, but will be overall far more efficient and cost effective for the ICT Partnership as a whole, will allow applications to be properly supported, and will assist in the provision of training and recruitment of local super users. Any future investments in business applications must be based on full business cases, approved through the ICT governance structure, and incorporating planned benefits realisation, metrics and the recouping of planned financial savings.
- 4.27 **A resilient and secure infrastructure:** A key element of the strategy is how the ICT Partnership will continue to maintain, support and develop resilient infrastructure and systems to meet the changing environment within which the Council operates. Actions in this area reflect the Council's desire to invest in ICT where it is appropriate to do so.
- 4.28 An up to date infrastructure is at the heart of any good ICT Strategy providing a secure, stable and reliable platform for both virtual and physical systems that provide storage, data flow, analysis and processing of data.
- 4.29 The ICT Strategy aims to build on existing technologies and investments and will deliver a high performing, resilient and secure infrastructure that will give both councils the confidence to take forward their digital delivery ambitions to the benefit of local residents.
- 4.30 The strategy and supporting roadmaps details the essential improvements to the underpinning infrastructure (servers, Wi-Fi and cabling, databases and information storage and explains how security improvements (of which many are in hand) must continue. The need to better address disaster recovery is also outlined including the current procurement of a microwave solution that will remove the single point of failure between Daneshill House and Cavendish Road sites.

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- 4.31 **Network devices:** the current network devices are ageing in most areas, with some elements such as switches being 13 years old (8 years beyond its expected life span). This is unsustainable and is seriously affecting the performance of core systems. The benefits of constructing a new network will be an improvement in the speed of business applications, improve availability of systems and the reduced chance of security breaches.
- 4.32 Dependent upon the Enterprise Architecture that is adopted there may be a future requirement to put in place web acceleration technology that allows the prioritisation of data flow to cloud based services.
- 4.33 **Technology lifecycles:** The introduction of technology lifecycles and rolling change programmes will ensure every component of the ICT infrastructure has a defined usable lifespan, which will be determined by a range of factors, the speed at which it runs, supportability, reliability and compatibility with new systems.
- 4.34 Financial forecasting must take into account these life cycles to ensure systems are and continue to be 'fit for purpose' and the ICT Partnership in future avoids a future technology debt. An infrastructure replacement programme will be established by the ICT Programme Management Office to enable good financial planning.
- 4.35 **Cloud Strategy:** The Council will look at cloud based solutions when applications and systems need to be replaced or during the implementation of new solutions. If a cloud solution is the only available solution, is cost neutral or brings considerable other benefits then it should be considered. However where there are also self-hosted solutions these will also be appraised in light of the restricted finances of the Council and the significant increase in revenue costs that most clouds solutions bring.
- 4.36 **Microsoft Office 365:** A key deliverable of the strategy will be the provisioning of Microsoft Office 365 which will move email, word, excel and unstructured data into the cloud during 2019-20. The benefit of Microsoft Office 365 is that it provides a wide range of additional Microsoft services such as Intune, Teams and many others. Being a cloud hosted solution it will bring improved system resilience and performance. As an evergreen product the ICT Partnership will benefit from timely upgrades and patching as this will be automatically delivered by Microsoft.
- 4.37 **New Virtual Desktop Infrastructure (VDI):** The ICT Partnership is at present using end of life VMWare software to host business applications. New VDI technology has been procured and through rolling out the proposed strategy the ICT Service will implement new hosted (VMWare) desktops during 2019/20. New Virtual Desktop Infrastructure will be a core component of the ICT Service with the benefits of increased flexible working, reduced process and file sharing, improved security, centralised backups and reduced costs as it is much easier to support and maintain.

Ambition 3: Working Smarter.

- 4.38 The ICT Partnership will build a culture of innovation where SBC and EHC make the best use of the creative talents of staff, Members, partners and customers to improve working practices and processes. The ICT Partnership will provide mobile ICT and digital services and tools that allow staff and Members to work anywhere at any time.
- 4.39 **Service Transformation and Modern Working Practices:** The ICT Partnership will use ICT to allow each council to embrace modern working practice, rationalising office accommodation requirements, eliminating unnecessary bureaucracy and

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administration, and supporting community based service delivery. Change is difficult to achieve and requires input, direction and support from the leadership team to deliver the ICT vision and ambitions set out in the ICT Strategy. Both SBC and EHC have aspirations to deliver service transformation through ICT and digital solution enablement.

- 4.40 The Council will develop new digital transformation strategies that set out how the organisation will use digital platforms, hosted desktops, Office 365, business applications and innovative technology to redesign service delivery models and supporting processes.
- 4.41 **Innovation Board and Forum:** The Partnership will create an Innovation Board where staff can present ideas on how existing and new technology could be used to improve service delivery and remove inefficiencies in the way that they work.
- 4.42 An Innovation Forum to discuss emerging industry trends and technology will promote idea generation across the Partnership. This will help embed a change culture across the Partnership, limiting duplication of effort and investment and increasing knowledge sharing.
- 4.43 **Digital enablement of council staff and Members:** An internal culture change and training programme will need to be a significant part of the future Digital Programme. This is an area that has had insufficient attention in the past, when it has been apparent that simply introducing a technology into the business has not always led to its successful adoption, or the realisation of anticipated benefits.
- 4.44 **Technology Advisory Partner(s):** Given the potential volume and complexity of transformation required, the ICT Partnership through the ICT Strategy will appoint a Technology Advisory Partner(s) to help fully adopt and deploy Microsoft Office 365 applications and fully exploit their benefits. They will also support the development of a Digital Strategy(ies) and provide a realistic roadmap to aid delivery. Finally they will enable both SBC and EHC to drive and accelerate the adoption of change by engaging end users and ICT Professionals to understand new ways of working and the impact and benefits of those changes. New approaches to adoption and change management and modern service management will enable managers and employees to maximise the benefit from new digital services and tool, facilitating their tasks and increasing their productivity. Ultimately it will allow the ICT Partnership to realise business value from its technology investment.
- 4.45 **Hardware Devices:** The ICT Strategy makes specific proposals in terms of end-user devices, service desk support, and the need to rationalise the number and type of devices (2000+ devices) and the number of operating systems (20+) that need supporting across the ICT Partnership.
- 4.46 The move to a more flexible and digital workforce where staff are empowered to work in the community, at home and via hot desking will be facilitated through the effective provisioning of hardware such as laptops, tablets and smart phones.
- 4.47 Currently there are no budgets in place for device replacement for Officers or Members. In future it is proposed that the Council will correct this by allocating an annual capital budget to ensure the timely provisioning of new devices for staff and Members. Members should receive new devices during 2020/21 as part of the programme.

Ambition 4: Improved ICT Governance and Security .

- 4.48 The ICT strategy sets out the actions that will be taken to ensure the effective and efficient management and delivery of ICT services. These actions reflect the need to improve ICT governance and the need to ensure that the appropriate ICT skills, training and associated project and performance management processes are in place. Action has and will continue to be taken to ensure the most effective and sustainable operating model is adopted that meets the changing needs of the ICT Partnership.
- 4.49 **Good Governance:** The importance of good governance is outlined in the strategy, covering both the business as usual operations, but also projects for new ICT systems. Strong governance through the ICT Partnership Board, ICT Steering Group and a new Member ICT Group will allow progression from the current era of order-taking, with a long list of projects to be done, into a new era of strategic planning, robust business cases with future savings factored into budgets, and a strong focus on benefit realisation.
- 4.50 A standardised policy framework will ensure a high level of security is met across the entire ICT Partnership's network. To continue to have differing ICT policies applied across SBC and EHC is not only technically difficult but will cause problems when it comes to enforcement, so in future where applicable all policies will be universal to the two councils.
- 4.51 **Information Security:** is a critical focus within the strategy given the increase in the amount of cyber threats faced by the ICT Partnership and the diverse ways that information can now be shared. The strategy places a great emphasis on protecting ICT systems against threats and maintaining constant vigilance to protect both councils against any new threat.
- 4.52 Creation of the new Security and Networking team has already focused work on new security arrangements. Projects have been identified and are captured in the ICT roadmap which are high on the security radar such as a new firewall and switch replacements.
- 4.53 The ICT Partnership is committed to deploying the latest anti-virus, malware, and email filtering and encryption software to protect both councils' systems and data across the ICT network. The achievement of the Public Services Network (PSN) Code of Compliance will continue to be an annual objective along with Cyber Essentials Plus accreditation.
- 4.54 Cyber security risk assessments will be carried out when selecting new systems, online services or implementing digital processes.
- 4.55 The strategy highlights the continued requirement for staff and Members to be trained on data protection requirements relating to their positions.
- 4.56 **ICT Team:** The functions of the ICT Service are described within the strategy, and it is proposed that a future permanent structure be formed along these functional lines. These include the permanent funding of a new Security and Networking, ICT

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Programme Management Office and strengthening the Service Desk and Business Information Systems Team.

- 4.57 A proposal is being developed on how a new joint Information Governance Team could be established for SBC and EHC to cover the ICT Partnership's data protections statutory requirements.
- 4.58 **Sourcing Strategy:** The adoption of a single ICT Strategy for SBC and EHC and an associated ICT roadmap will enable the Council to make better strategic investment decisions, based on agreed objectives and outcomes as opposed to short term tactical business priorities. In future technology purchases will need to conform to the new Enterprise Architecture and the associated ICT design and guiding principles within the strategy. Making technology purchases in line with the strategy will be an important discipline. Failure to do so could impact the business and affect the ICT Services ability to execute the ICT Implementation Plan.
- 4.59 **ICT Implementation Plan:** The gap between ICT as it is, and ICT as determined by the vision, forms the basis of the plan of action. The ICT Implementation Plan (as it currently stands) that captures the key deliverables across the four strategic ambitions can be seen in Appendix B. The implementation plan has been stress tested and will continue to be done so quarterly by the ICT Partnership Board to ensure delivery focus is maintained and realistic.
- 4.60 A strong project management approach is to be taken to ensure the delivery of the plan. The intention of the ICT Partnership Board is for iterations of work programmes to be developed, each of which will be published with a corresponding implementation plan or roadmap. The plans will be submitted for approval in line with the ICT Partnership governance arrangements, culminating in an evolving ICT Strategy. These plans in future will include, a new Enterprise Architecture that incorporates the consolidation, simplification and standardisation of business systems, the Digital Strategy and finally business priority led delivery projects such as the replacement of Geographical Information Systems.
- 4.61 **Performance Monitoring and Progress Reporting:** The ICT Partnership Board will receive a monthly performance report that will monitor progress against the ICT roadmap and ICT management KPIs.
- 4.62 A Members ICT Group led by the Portfolio Holder for Neighbourhoods and Co-operative Working is also to be established and will receive quarterly ICT reports to provide full transparency over the state of all ICT projects and programmes. Regular progress updates will also be provided to the Council's Executive and Audit Committee.
- 4.63 **ICT Shared Service Agreement:** The Council entered into an ICT Shared Service Agreement for an initial five years with East Herts Council in 2013. The recommendation is that the Council should enter into a further 3 year partnership agreement to coincide with the lifespan of the proposed ICT Partnership Strategy. Both council's through the delivery of the strategy will continually look to achieve maximum value for money from their ICT investments.
- 4.64 The success of the shared ICT Strategy depends on close working between SBC and EHC. This includes exploiting and promoting common software and hardware solutions across organisations.

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- 4.65 It is therefore recommended that delegated authority should be given to the Strategic Director (TP) who is the appointed representative on the ICT Partnership Board to negotiate and agree a new 3 year Partnership Agreement and funding model having consulted the Portfolio Holder for Communities and Neighbourhoods and the Portfolio Holder for Resources.

All Options Considered

- 4.66 **Do Nothing:** Failure to adopt the ICT Strategy will result in increasingly poor levels of service, and the risk that the Council will not be able to deliver its services effectively.
- 4.67 **Propose spot fixes and short term extra resource:** Spending additional funds by increasing the size of the ICT team short term, and adopting solutions that have been proposed to meet limited local needs would be an expensive way of propping up a fundamentally flawed ICT landscape, and would lead to spiralling costs and further declines in service quality. Such an approach would not be sustainable and would likely lead to the growth of 'shadow IT', with departments seeking their own solutions from external providers without the involvement of the ICT team, thereby risking overall security, achieving poor value for money for the Council, and limiting the Council's ability to make best use of its data.
- 4.68 **Adopt a strategic approach: recommended.** ICT exists only to support the needs and successful operation of organisation, and an ICT Strategy must operate top down if it is to achieve this. The approach recommended provides a logical flow from corporate to operational needs, examines relevant technology trends and best practice, examines where the ICT Partnership's current provision is and where it falls short, paints a vision of a desirable and achievable future state, and proposes how to get there, in the context of improved organisational governance. It is recommended that this approach is adopted. The ICT strategy and to follow a Digital Strategy will be significant enablers for the Council to meet its strategic needs, both will ensure that the present 'log jam' of poor service, frustrated users and a difficult to maintain ICT landscape is resolved.
- 4.69 The draft ICT Strategy will be presented and considered by Members at East Herts Council in December 2019.
- 4.70 Upon approval of the ICT Strategy a public facing digital document summarising the key ambitions and ICT projects will be produced and placed onto the Council's website. The ICT Strategy has also been captured as a 'plan on a page' as an easy reference document for staff and Members and can be seen in Appendix D.

5 IMPLICATIONS

5.1 Financial Implications

ICT Strategy Revenue Pressures

- 5.1.1 Members will be aware that at budget setting for 2019/20 there was identification of some potential future years' pressures and consequently an ICT Revenue Reserve was established.
- 5.1.2 During 2019/20 this has helped to fund additional staffing costs pending the adoption of the ICT Strategy and then a further £70k of ICT pressures in year. This has left an in year pressure of £65k (reported in the Q1 revenue report, General Fund Medium

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Term Financial Strategy and now incorporated in the 2019/20 working budget). In addition there are future costs (2020/21 to 2022/23) estimated at £926,578k as shown in the table below. These costs relate to the Technical Advisory Partner for Office 365, storage, a microwave solution and one off consultancy for digital innovation. A breakdown of these pressures can be seen below

Table One: ICT Revenue Pressures (indicative)	2019/20	2020/21	2021/22	2022/23
	£	£	£	£
VM Ware Licences – (Hosted desktop)	45,000	45,000	45,000	45,000
Additional ICT Posts		137,926	137,926	137,926
Storage Support	9,600	9,600	9,600	9,600
Cyber Security Incident Management Procedure and Disaster Recovery		5,000		
Microwave Solution Support	3,500	5,000	5,000	5,000
Enterprise Architecture	43,000			
Technology Advisory Partner(s)	100,000	334,000		
General Fund ICT Pressure	64,920	356,253	131,157	131,157
HRA ICT Pressure	66,500	180,273	66,369	66,369
ICT Revenue Funding:	2019/20	2020/21	2021/22	2022/23
	£	£	£	£
General Fund:				
General Fund Medium Term Financial Strategy ICT Funding Assumption	64,920	353,440	129,960	129,960
Total funded	64,920	353,440	129,960	129,960
(Unfunded)/over funded growth	0	(£2,813)	(£1,197)	(£1,197)
HRA:				
HRA Business Plan Funding Assumption	66,500	174,090	63,870	63,870
Total funded	66,500	174,090	63,870	63,870
(Unfunded)/over funded growth	0	(£6,183)	(£2,499)	(£2,499)
Total under funded	0	(£8,996)	(£3,696)	(£3,696)

*the total pressure figure takes into account the use of the ICT Reserve Budget during 2019/20

- 5.1.3 The majority of the increased ICT revenue costs have been assumed for General Fund and HRA MTFS modelling purposes and 2019/20 pressures were outlined within the Quarter 1 Revenue Monitoring Report for the General Fund and Housing Revenue Account.
- 5.1.4 It is recommended that the Executive note and support the funding of future years known pressures (subject to available funds). Council will be asked to approve the additional resourcing requirements through the General Fund and Housing Revenue Account annual budget setting process for 2020/21.
- 5.1.5 As the ICT Strategy progresses, the ICT Partnership will increasingly reduce its estate of business applications and will purchase more software as a service (cloud based applications) where there is a clear business case to do so. This will replace what were capital costs in the past with revenue costs. It has not yet been possible to map these out in detail, in part because the Enterprise Architecture needs to be

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designed and approved and in part because the application rationalisation project (a planned project within the strategy) will potentially cull the number of existing business applications, and remove their annual maintenance charges. There should also be other savings associated with the reduction in effort to support a large estate of business applications. These specific revenue implications of the strategy cannot therefore be detailed at this time, but will become apparent by the end of the first of its three years.

- 5.1.6 The core annual revenue budgets of the ICT Service have recently been reviewed in conjunction with East Herts and the new financing model will be incorporated into the new ICT Partnership Agreement. Council will be asked to approve any increase in core ICT revenue costs through the General Fund and HRA budget setting process for 2020/21.

ICT Strategy Capital Requirements

- 5.1.7 The ICT capital requirements and timing of investment has been updated based on the currently known programme. Over the next five years the programme has been brought forward requiring budgets to be re-profiled to match the revised plans as shown in the table below.

Table Two: ICT Capital Requirements	2018/19 actual	2019/20	2020/21	2021/22	2022/23	2023/24	Total
	£	£	£	£	£	£	£
ICT General Fund Capital Requirement	218,149	554,733	449,886	218,392	60,892	tbc	1,502,052
ICT General Fund Capital TA	0	38,333	38,333	38,333	38,333	0	153,332
Total General Fund ICT Capital Requirement	218,149	593,066	488,219	256,725	99,225	tbc	1,655,384
ICT Capital Budget based on Feb 2019 Capital Strategy	282,690	421,100	300,000	300,000	300,000	300,000	1,903,790
Profile of General Fund ICT budget as per Q1 2019/20 Capital Monitoring Report	282,690	579,890	87,100	50,250	300,000	600,000	1,899,930
ICT General Fund Capital re-profile required		13,176	401,119	206,475	(200,775)	(600,000)	
ICT General Fund cumulative (surplus)/shortfall							(180,005)
ICT HRA Capital Requirement	105,772	329,142	267,564	131,606	39,105	tbc	873,188
ICT HRA Capital TA	0	19,167	19,168	19,169	19,170	0	76,674
Total HRA ICT Capital Requirement	105,772	348,309	286,732	150,775	58,275	tbc	949,862
ICT HRA Capital Budget based on Feb 2019 Capital Strategy	262,920	191,970	151,890	156,890	156,980	306,980	1,227,630
Profile of HRA ICT budget as per Q1 2019/20 Capital Monitoring Report	105,772	301,350	42,900	24,750	156,980	306,980	938,732
ICT HRA Capital re-profile required		46,959	243,832	126,025	(98,705)	(306,980)	
ICT HRA cumulative (surplus)/shortfall							11,130
Total Capital Requirement	323,921	941,375	774,950	407,500	157,500	tbc	2,605,246
Total ICT Capital Budget as per Q1 Capital Strategy Report (Sept 2019)		881,240	130,000	75,000	456,980	906,980	2,754,890

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Table Two: ICT Capital Requirements	2018/19 actual	2019/20	2020/21	2021/22	2022/23	2023/24	Total
ICT Capital re-profile required		60,135	644,950	332,500	(299,480)	(906,980)	
ICT Shortfall/(Surplus)based on Capital Strategy Report Feb 2019 Figures							(168,875)

5.1.8 Over the five year programme there is a projected saving of £168k from the initial proposals approved in February as part of the capital strategy. However, Members are asked to note that this strategy brings the Council's ICT infrastructure and systems to a level fit for purpose. With the design and adoption of a new Enterprise Architecture, a new Digital Strategy and Supporting Programme there are likely to be significant additional revenue and capital investment requirements that will need to be addressed through future annual budget setting processes and future ICT capital bids will be required to maintain this level. These future bids and the funding requirements for 2023/24 which are currently unknown have not been included within this strategy document.

5.1.9 An itemised breakdown of the capital requirements can be seen in Appendix C.

5.1.10 It is recommended that the Executive note and prioritise the currently known ICT capital funding requirements. The re-profiling of future years ICT Capital Programme allocations will be reported to the Council through the General Fund and Housing Revenue Account Capital Programme budget setting process for 2020/21.

5.1.11 As already highlighted East Herts Council Members will be considering the draft strategy in December and will be equally asked to match fund the ICT capital and revenue investment programme.

5.2 Legal Implications

5.2.1 There are no direct legal implications relating to the ICT Strategy.

5.2.2 The ICT Shared Service is currently governed by a partnership agreement with East Herts Council. The original 5 year agreement between the two councils ended in August 2018 and has been extended temporarily whilst the ICT Strategy is being developed.

5.2.3 There is now a need for a new agreement to be drafted and entered into and delegated authority is sought for the Strategic Director (TP) to negotiate and approve a new partnership agreement with EHC.

5.2.4 The General Data Protection Regulations and Data Protection Act 2018 came into effect in May 2018. This legislation has repercussions for the access to, and use, of personal and sensitive information. Whilst this is not directly technology legislation, the ICT Service has an important role to ensure that all electronically stored data and information is managed effectively and stored securely. The implementation of new firewalls and security components and software will help the Council to meet its data protection legal obligations.

5.3 Equalities and Diversity Implications

5.3.1 Officers have considered the proposals set out in the report and the ICT Strategy in light of the various Public Sector equalities duties imposed on the Council. An

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Equalities Impact Assessment has been completed and is a background document to this report – BD1.

- 5.3.2 At this stage the proposals impact on staff and customers is either neutral (in that there are no discernible equalities impacts) or positive. In the main the proposals make an indirect, but positive contribution to equality and diversity as the proposals will help enable the delivery of new digital channels that may be easier for people with certain kinds of disability to use than existing channels. The proposed new business tools for staff and Members will also improve people's ability to work remotely and more effectively out in the community to the benefit of residents.

5.4 Risk Implications

- 5.4.1 The key risk, if the Council does not approve the approach recommended in the strategy, is that the quality of ICT services provided will continue to decline, as the technical debt grows, and the increasingly overloaded ICT team have progressively less time to modernise the ICT estate or attend to service requests.

- 5.4.2 A summary of the main risks relating to failure to adopt the ICT Strategy can be seen below:

- **Technical Debt not addressed:** If the existing infrastructure is not updated, the effort and cost to maintain the existing infrastructure will continue to grow, and the security risks will rise.
- **Bottom up approach to business unit/service needs continues:** If a strategic approach to service needs is not adopted, the Balkanisation of the estate will grow and the overall value for money achieved will diminish. Interoperability will also suffer, and the ICT Partnership's ability to make best use of its data assets will diminish.
- **Failure to attend to service and customer needs:** If the current approach continues of having services determine their technical solutions, then adding their proposed implementation projects to the ICT team's backlog, then not only their frustration grow but they will be increasingly tempted to adopt a 'shadow IT' approach, commissioning solutions without going via ICT, this will have multiple disadvantages, in terms of potential security risks, poor value for money, interoperability challenges, and reduced ability to coalesce and analyse data at a strategic level.
- **Failure to deliver a secure and resilient 'hybrid' (on premise and cloud based) infrastructure:** The current infrastructure is ageing and most components need replacing. Failure to replace hardware and software will mean that the ICT Partnership will continue to experience poor systems performance and will be greater exposed to security risks and significant technical failures including potential loss of business data.
- **Overall if the ICT Strategy is not adopted the existing service will continue to decline, and there will be almost irresistible pressures to increase the ICT Service further than proposed in the strategy, simply to 'keep the infrastructure lights on', and avoid what could be increasingly common system outages. This will then represent poor value for money for a poor service.**

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5.5 Asset Management Implications

- 5.5.1 An audit of all software and hardware is currently underway which will help to inform a new ICT applications and hardware asset register. This will ensure that there is improved management and disposal of ICT assets across the Council.

5.6 A Commitment to Green ICT

- 5.6.1 The progressive move to smarter technology and cloud based solutions will reduce energy costs for the Council and will be a more environmentally appropriate way of delivering ICT.

- 5.6.2 The ICT Partnership is committed to ensuring where possible it reduces its carbon footprint. As stated within the ICT Strategy this will be achieved through:

- Continuing to optimise the ICT Partnership's application portfolio. Only those applications that are essential to the running of the organisation will be maintained. We will apply application lifecycle management to ensure that for all systems there are reviews in place to identify future development, replacement or cessation requirements.
- Maximising the use of existing applications and hardware including the reuse of devices where possible and equipment disposal will meet WEEE requirements. Where possible, third sector organisations will be used for recycling of legacy equipment.
- We will take into account the total cost of ownership, including energy and disposal costs, over the lifecycle of a device or system, not just the procurement costs.
- Environmental criteria will be specified for all new devices including energy consumption and robust energy management facilities.
- Developing and promote 'paper-light' environments in which documents are stored and shared electronically.
- The introduction of new Hosted Desktops and software such as Office 365 we will deliver targeted benefits include a reduction in travel costs and other environmental benefits including reductions in CO2 emissions.
- Improving the efficiency of servers to ensure resilience and performance, deploying desktop and server virtualisation which can extend the life of devices.
- The development of print strategies that gradually reduce the need for print through the adoption of electronic only media and the use of multi-function networked devices.
- Integrating the cost of technology into the design of new public buildings to minimise energy consumption and other running costs.

5.7 Staffing Implications

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- 5.7.1 During 2019/20 the Council temporarily funded with EHC the creation of an ICT Programme Management Office, a Security and Networking Team and also allocated resources to strengthen the ICT Information Systems Team and Service Desk. Under the new ICT Service proposals these additional staffing resources will be incorporated permanent within the service and will be captured through the 2020/21 budget setting process.

BACKGROUND PAPERS

- BD1 Equalities Impact Assessment

APPENDICES

- Appendix A: ICT Partnership ICT Strategy 2019-2022
- Appendix B: ICT Strategy Implementation Plan
- Appendix C: ICT Strategy Plan on a Page
- Appendix D: ICT Investment Projects and Funding Requirements