Mid Kent Services

ICT Strategy 2019-2024

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Contents

Executive Summary

This strategy sets out how Mid-Kent ICT can support the Mid Kent Services (MKS) partner authorities to meet their ambitions, goals and objectives. Technology changes increasingly rapidly. It is essential that key systems are resilient, robust and fit for purpose. Within this context it is important that the strategy provides those working across the Partner Authorities with the tools to work effectively and efficiently, supports continuous service delivery improvement and helps reduces the threat of cyber-attack.

Following consultation with the partner organisations a number of requirements were captured which have been grouped into a set of broad themes.

- Enabling and supporting a modern, flexible workforce: more easily connecting people to partnership systems using any device at any time from wherever they choose to be.
- Supporting the delivery of our digital strategies: ICT and Digital teams working together to transform our online and back office services to improve the customer experience and engagement.
- Resilient solutions: Protecting our technical resources from external threats.
- Information management: Big Data and GDPR are changing the way that ICT needs to support the partner authorities to collect, store, manage, protect, share and analyse customer data.
- Innovation: Highlights some of the potential applications new advances in technology will offer.

The annual service planning process will be used to both review the aims set out within the strategy and set out the actions planned for their delivery. An initial programme of work is included as Appendix A.

Introduction

Serving our communities relies on well designed and delivered services and this in turn has become heavily dependent on technology. The public and staff are all more technically aware and demanding of the best technology than ever before. It is important that we recognise that there is a balance between being 'always-on' and the need to maintain the well-being of the organisation. Many of the strategy's themes seek to address this.

In a shared ICT service, a partnership-wide strategy needs to capitalise on the opportunity to share expertise, infrastructure and development costs whilst recognising and respecting the sovereign nature of each partner. The latter is critical given that each partner has its own unique culture, priorities and political mandate. These differences are reconciled through the collaborative nature of Mid Kent Services and strategic direction set through the MKS Board.

Recognising that nine out of ten UK adults are now online, the three Mid Kent partners are each independently developing and resourcing their own digital strategy. Whilst there are subtle differences in emphasis (Digital by Default or Digital by Choice) between the digital strategies there is much common ground.

Objectives and Vision

The Strategy has been developed around 6 broad themes, each of which will deliver several outcomes.

Enabling a modern, flexible workforce

Is about securely connecting to the ICT network and services using any approved device at any time at any location,

- … providing devices that meet the needs of the individual and the way that they work,
- … making remote working easier,
- … making logging in simpler for everyone,
- … improving performance.

THE CASE FOR CHANGE:

We understand that accessing systems, authentication and restrictions limiting access to council-owned equipment can be a source of frustration. This has of course to be balanced by our need to keep data secure.

Collaborative working can be improved. Already screens can be shared in real-time using Skype for Business. However, generally documents are shared via email and multiple copies accumulate with little in the way of version control and ownership. Accessing documents when away from the office is only possible using council-owned equipment.

WHAT SUCCESS LOOKS LIKE:

We will begin to embrace the use of personal devices to safely and securely connect to the council's network, creating choice and flexibility.

Where the device supports it, logging in will be simpler using biometric authentication to remove the need for staff to remember multiple complex passwords. This will be as simple as opening your device and presenting yourself to an infrared camera or applying a finger or palm to a special reader. When away from the office applications will be delivered wherever the internet is available, and a new remote access system will be introduced to support this new way of working.

With growing demand for mobile working and home working systems and processes will be reengineered with a digital focus, enabling information to be captured, shared and processed in a seamless way to provide real time information and decision making. With reduced dependence on paper processes and the re keying of data, services will be able to respond quicker to customer demand, improve efficiency and benefit from greater flexibility.

Supporting the digital strategies

Is about using technology to improve the quality of interaction with the public

- … supporting service improvement and transformation methodologies ranging from intranet and website development to the introduction of new systems capable of meeting the demands of a digital age.
- … supporting the chosen digital platforms that deliver each authority's digital transformation Strategy to provide a secure and convenient way for services to be accessed 24/7.
- … providing the ICT systems development resource and expertise required to link the customer online interface with our back-office applications.

THE CASE FOR CHANGE:

The move to a digitally focused customer service has already begun but there is always more that can be done. The successful Transformation Challenge Award committed partners to developing better online services over the next ten years and this has been reflected in the three digital strategies. To achieve end-to-end integration requires a combination of skills and knowledge provided by both the ICT and Digital teams.

WHAT SUCCESS LOOKS LIKE:

There is a clear programme of work leading to the successful delivery of all three digital strategies.

True end-to-end integration which could for example completely remove the need for any officer intervention often requires technical engineering to integrate customer forms with legacy systems. ICT has the skills to engineer these solutions and has an important role to play in helping the Councils achieve their digital ambitions.

Resilient solutions

Is about ensuring that the risk of interruption to our services is minimised and recovery, when needed, is swift so that the public receive continuity of service

- … reducing the recovery time from total loss, malware or cyber-attack,
- …ensuring we have the best counter measures in place,
- … encouraging and maintaining cyber awareness.

THE CASE FOR CHANGE:

Our shared 'on premise' data centre has become a single-point-of-failure with an external network connection failure in the data centre impacting on all partners simultaneously. It is vital that these are made as resilient as possible.

The global cyber-security threat will not go away. Local authorities cannot hope to match the private sector's funding levels to address this issue and will need external dedicated and highly specialised skills from our partners and the private sector to help.

WHAT SUCCESS LOOKS LIKE:

Cloud based systems are inherently more resilient although the threat still remains albeit that it doesn't result in the total loss scenario. We will be undertaking an evaluation as part of a cloud-readiness assessment due to begin in 2020. If adopted, the systems relied on will reside in a more resilient and accessible place; one that is far less susceptible to physical loss.

We will put in place business continuity arrangements including access to internal and external specialists to implement improved cyber-security on both the local infrastructure and cloud-hosted systems enabling the service to better identify cyber security risks and respond quickly where service is disrupted to limit the impact to staff and service users.

The service will have a rolling programme of work to ensure that staff across MKS Partnership remain aware of the cyber risk and actions they can take to reduce the risk. They will continue to play an active role in supporting the business continuity arrangements across the partnership with regular testing of contingencies both at a corporate and service level.

Improving customer support

Is about an effective ICT service desk whilst providing members and officers with more opportunities to help themselves both in and out of normal working hours,

- … building a Service Desk that can operate from any location whilst still providing local presence wherever it is needed,
- … better understanding the requirements of the business,
- … better understanding the technical problems experienced day-to-day and designing them out of our systems wherever possible – reducing demand on the service desk

With over one hundred line-of-business applications across the partnership, it is not surprising that on occasions engagement between the service areas and suppliers has sometimes been difficult. This tends to occur predominantly in managing the relationship with suppliers once systems have been implemented.

Whilst the Service Desk has provided customers with a very good level of service during office hours assistance is currently not provided outside normal business hours.

WHAT SUCCESS LOOKS LIKE:

We will introduce self-service platforms that provide assistance outside of normal working hours. The Service Desk will continue to provide a local physical presence to support local needs but with a capacity to support anyone from any location.

Customers will be engaging with ICT to identify projects that will need ICT participation through the councils' service planning process and working together to review technology options. ICT will encourage customers to engage with ICT much earlier in their project lifecycles and liaising with procurement, finance and other teams as needed.

The Joint ICT Commissioning Group will support prioritisation of work to enable ICT to produce a programme of projects that reflects the priorities of partner authorities and identifies opportunities for collaboration.

Where it is required, ICT will have taken responsibility for managing the upgrades, patching and product roadmaps for line-of-business applications.

Information management

Is about ICT providing the tools to support effective information governance,

- …. making it easier to share information securely with external parties,
- … balancing the need to secure our data without imposing unnecessary burden on services,
- … encouraging the use of Business Intelligence,

THE CASE FOR CHANGE:

Whilst responsibility for Information Governance rests with individual partner authorities, the ICT Service plays a key role in the storage, sharing and protection of that data.

Documents have historically been stored in an unstructured manner making it difficult to locate and share information.

It is necessary for Councils to share information securely with external parties. This carries a risk with sensitive information being uploaded beyond the scope of our network. We will work with the Information Governance Groups to ensure that risks is minimised.

Business Intelligence (BI) looks for correlations in disparate data sets to provide insights and solutions to a broad range of problems. The full potential of this technology is yet to be realised.

WHAT SUCCESS LOOKS LIKE:

Tools such as Office 365 will enable data classification rules and retention policies to be applied whilst also providing a GDPR-compliant and effective collaborative workspace. The parameters will be agreed in consultation with the information Governance groups.

A file sharing solution will have been introduced that allows the business to safely and securely share data with suppliers and other public sector bodies. With information captured and shared electronically and reduced reliance on paper files there will be greater control over data access and reduced risk of data being lost or shared inappropriately.

We will implement the tools and skills to create a central, corporate view of the data held by each partner. This will equip partners with the information, evidence and analysis skills that they need to gain a deeper understanding of service issues and allow for better use of data in decision making.

We will increase the management resource dedicated to helping the Information Governance Groups improve Information Management.

Innovation

Is about identifying new ideas and solutions to support delivery of continuous service improvement,

- …improving quality of service and responsiveness to customers,
- ...reducing the cost of service delivery
- …enhancing sharing and collaboration between councils and their partners.

WHAT SUCCESS LOOKS LIKE:

The Partnership operates in an era of technological change. ICT will work with the transformation teams to identify and bring forward the opportunities that this provides for continuous service improvement for partner authorities to consider.

WHAT SUCCESS LOOKS LIKE:

Whilst it is almost impossible to predict the technological changes that may occur over the next five years, ICT will work with service departments to bring their knowledge of the changing technological landscape and match it against the service ambition and changing customer demand to optimise service delivery.

Examples of emerging technologies that the business may consider include:

- Robotic Process Automation offers the possibility of reducing repetitive, routine and high-volume tasks, freeing up valuable officer time to respond to more complex cases.

- Virtual and Augmented Reality as a means of public engagement and education within cultural and recreational centres. Real environments will be enhanced by AR to make it easier for people to interpret and understand data in the real world.

- Voice recognition and text-to-speech to capture public service requests using home and mobile digital assistants with AI to collect data and resolve issues automatically.

- Artificial Intelligence and optical character recognition (OCR) to automatically extract information from within electronic and paper-based documents that have been stored historically.

- Virtual desktops using fully immersive 360-degree augmented reality built into glasses and headsets.

In order to take full advantage of the opportunities that technological innovation and transformation provide the MKS Partners will work towards achieving the principles set out within the MHCLG Digital declaration, with a focus on:

Leadership – Recognising that 'digital doesn't belong in the basement, it belongs in the boardroom' with the greatest successes happening where digital transformation and service design principles are led at a senior level, with digital expertise central to decision-making

Procurement – 'Fixing the Plumbing' by changing our approach to technology procurement and aligning procurement guidance to the Technology Code of Practice (TCoP).   Reducing dependence on third party suppliers with a move towards Open source as a way of developing, sharing and maintaining our own technological future

Collaboration - Sharing knowledge about digital projects where there is an opportunity for potential reuse or collaboration within MKS (facilitated through the ICT Joint Commissioning Group) and more widely across the wider public sector network.

Geographical Information System (GIS)

THE CASE FOR CHANGE:

GIS has the power to enhance our customers understanding of their locality/environment and provides a useful and informative means of engaging with public services. Its historical reliance on flat two-dimensional mapping with only limited interaction is in some cases now beginning to show its age.

WHAT SUCCESS LOOKS LIKE

Data creation and management will migrate from traditional desktop GIS to mobile working in the field. This will allow officers to collect, edit and manage data preventing error and duplication through data rekeying. Mobile working has the potential to form the foundation of asset management and contract management.

We will continue to explore the use of 3D technologies in key areas of the business e.g. planning and emergency planning. This will make it easier to interpret and understand data.

Artificial Intelligence/machine learning will also be used for discovering patterns and trends in spatial and non-spatial data.

Conclusion

ICT plays a key role in supporting service delivery and service improvement across the MKS partner authorities.

The first five years of our partnership journey has been one of successful transformation and consolidation of the ICT service. Today we enjoy a wide range of cost-efficient modern council services ranging from fast and timesaving communications technologies such as Skype for Business right through to our shared state-of-the-art data centre. We all share in the benefits and the savings of this collaboration.

Maidstone, Swale and Tunbridge Wells made a commitment to work together by pooling their technical resources for the benefit of their communities. MKS ICT Services will continue to honour that commitment by delivering a full programme of work.

Each partner is firmly committed to supporting the UK government's ongoing transformational agenda and ICT has a fundamental role to play in helping our Digital teams securely join up our many and varied services.

The advent of new and advanced technologies such as Artificial Intelligence and Robotic Process Automation are becoming more prominent. However, the possibilities they offer needs to be carefully balanced against customer preference, organisational culture and priorities of the partner authorities.

Our vision demands smart thinking, great design and a deep understanding of our more data-driven, interconnected world. We're only just beginning to explore the possibilities of the latest innovations in technology but we're also keenly aware of the dangers our new joined up world brings.

The next five years promises to bring more change, more innovation and new types of organisational risk. While no ICT strategy can predict the future, particularly during such unpredictable times, there are many new ways we can help empower ourselves to serve our communities better.

Appendix A – Programme of work

Outcome	Action	Responsible Team	Timescale	Linked theme/cost	Funding method
Increase our security and resilience whilst making it easier for people to connect into our systems	Replace the primary security appliances.	Network	2019	Resilient solutions	Already funded
Faster, more secure desktop clients that support smarter ways of working and improved collaboration.	Upgrade to Windows10 and Office 365.	Service Desk	2019	Enabling a modern, flexible workforce, Innovation.	Already funded
Tunbridge Wells data centre will be removed resulting in reduced hosting cost.	Complete the decommissioning of the TWBC Data Centre and firewall.	Application Support and Development	2019	Resilient solutions	Already funded
Business data will be consolidated into a smaller less costly and more secure set of databases.	Consolidate all SQL Servers with upgrades to more current and secure versions.	Application Support and Development	2019	Resilient solutions	Already funded
Enable compatible applications to be delivered securely to approved managed and unmanaged devices.	Deploy desktops using a combination of EMS and RDS technology.	Application Support and Development	2019/23	Resilient solutions, Enabling a modern, flexible workforce.	Subject to business case being approved.
Improved performance and compliance through the delivery of a modern and secure server platform.	Decommission all Windows 2008 servers.	Application Support and Development	2019/20	Resilient solutions	Mostly funded. Business case may be required for specific applications.

Outcome	Action	Responsible Team	Timescale	Linked theme/cost	Funding method
Additional network capacity and improved resilience will be added to each partner circuit resulting in less downtime and improved service delivery.	Add resilience to all three wide-area network connections at each primary location.	Network	2019/20	Resilient solutions	Funded to main Data Centre. Subject to business case being approved for other sites.
Meet the needs for partnership working with third party organisations in new, modern, multi-tenancy workplace.	Design and implement ICT requirements at new office locations for specific partners.	Network. Service Desk.	2019/22	Enabling a modern, flexible workforce, Innovation.	Subject to business case being approved.
Simpler access to corporate devices using facial recognition, palm vein and fingerprint.	Enable biometric authentication on corporate devices.	Service Desk	2019/24	Enabling a modern, flexible workforce, Innovation.	Subject to business case being approved.
Solid relationship between the business and ICT to gain a better understanding of business needs.	Create an ICT Service Review plan.	Network, Application. Service Desk.	2019/24	Enabling a modern, flexible workforce.	No funding required
Simpler remote access and authentication using Auto-VPN and Microsoft Authenticator.	Replace the remote access system and authentication methods for mobile working.	Network	2019	Enabling a modern, flexible workforce.	Partly funded. Consultancy required to implement the technology.
Staff and Members working more flexibly with tools such as Teams, SharePoint and OneDrive.	Enable enhanced cloud-based Office 365 features for all staff and Councillors	Service Desk	2019/22	Enabling a modern, flexible workforce, Innovation, Information Management.	Already funded
More resilient and accessible Unified Communications and Email systems.	Move Skype and Exchange into the cloud.	Application Support and Development. Network	2019/20	Resilient solutions	Licences funded. Consultancy required to fully implement.

Outcome	Action	Responsible Team	Timescale	Linked theme/cost	Funding method
Staff better able to collaborate and work in ways that suit them using modern equipment.	Define new ways of working.	Service Desk	2020/21	Enabling a modern, flexible workforce.	No funding required
Improved ability to respond to and defend against cyber-security incidents.	Refresh the web filtering, alerting, monitoring and event management systems and implement Data Leakage Prevention and Intrusion Prevention systems.	Network	2019/21	Resilient solutions, Information Management.	Subject to business case being approved.
Reduced dependency on cabled network connections and a shift to the use of high capacity and high-density Wi-Fi and 5G mobile data services.	Review and replace the current Wi-Fi service and cabled network connectivity.	Network	2020/22	Enabling a modern, flexible workforce, Resilient solutions.	Subject to business case being approved.
Improved performance and compliance through the delivery of a modern and secure server platform.	Decommission all Windows 2012 Servers.	Application Support and Development	2020/23	Resilient solutions.	Subject to business case being approved.
Managers better able to support and manage remote workers and address concerns over line-of-sight management.	Research and assess productivity tools to helping managers support their remote teams.	Network. Applications.	2021/22	Enabling a modern, flexible workforce.	Subject to business case being approved.

Outcome	Action	Responsible Team	Timescale	Linked theme/cost	Funding method
Improved Security information and event management (**SIEM**)	Enable semi-automated service monitoring to reduce ICT staff time	Network & Application Support	2020/22	Resilient solutions. Reducing cost.	Partly funded. Enhancements subject to business case approval.

Appendix B – Digital strategies

CUSTOMERS

Customers will be able to use an online account for most of their service requests and information

Communications with the customer will be targeted and personalised

Customers will continue to be assured that the Council can be trusted with their personal information.

WORKFORCE

Staff will spend time with customers who have complex needs because everyday transactions and requests for information will be dealt with digitally

Staff will not be tied to a specific location, allowing them to operate from anywhere

TECHNOLOGY AND SERVICE RE-DESIGN

Technology will support collaboration across the Council and with our partners

We will standardise systems across the partnership

We will promote the most efficient methods of payment and service delivery

SWALE BOROUGH COUNCIL

"Acting as a council that embraces digital technology will mean putting our citizens at the centre of any digital change as well as evolving and maintaining an internal digital culture. We must be aware of those who cannot or choose not to use digital and ensure that there are non-digital channels for those who need them. We must also continuously improve the digital services we provide"

"The better our online services are, the faster our citizens will move away from choosing traditional methods of contact, like the phone, to digital interactions"

"There will be a reduced requirement for staff-supported transactions, offering the potential to reduce the size of our face-to face customer service centres"

"Staff will have technology that meets their role's requirements, which securely connects to our systems and provides the flexibility to operate from anywhere"

"We will use technology only where it improves our citizens' experience and will strive to get service right first time. By improving our services and incorporating digital tools we anticipate that our citizens will choose to move away from traditional methods of contact to digital interactions including how we communicate with our citizens."

Common themes
1. Technology that supports collaboration and flexibility. 2. Putting citizens at the centre of digital change. 3. Improvement of digital services whilst providing a choice where necessary.

Maidstone and Tunbridge Wells *8	Swale *9
Online customer accounts [2]	Putting citizens and the centre of digital change and encouraging a choice to move to digital [2]
Targeted and personalised communications [2]	Evolving and maintaining an internal digital culture [3]
Trust with personal data [2]	Non-digital channels for those that need them [3]
Time for customers with complex needs [2]	Continuous improvement of digital services [3]
Staff not tied to a specific location [1]	Reduce requirement for staff-supported transactions and reduce size of *face-to-face* [3]
Technology to support collaboration across the partnership [1]	Technology that meets the role's requirement [1]
Promote efficient methods of payment and service delivery [3]	Secure and flexible to operate from anywhere [1]

Appendix C – Key statistics

Table 1 illustrates several key statistics that highlight the size of the partnership that MKS ICT supports.

Table 1

	Maidstone	Swale	Tunbridge Wells	Mid Kent	Total
Number of staff & Members	397	344	341	264	1346
Number of servers	13	9	21	255	298
Number of connected sites	8	2	7	n/a	17
Number of Service Desk calls per annum	8883	5537	6072	4153	24645
Network devices	70	63	55	n/a	188