Joint technology strategy 2018/19-2023/24

Getting the basics right in a digital world

Document details:
Status: V2.0 Issued for comments
Date: 23/09/2018

1. Executive summary

There can be no doubt the digital revolution has fundamentally changed our expectations and those of our residents and businesses in terms of how we need to deliver services now and in the future. Our technology environment will need to be able to support how we transform to meet those expectations.

Within our councils we will need an IT environment that not only supports deep collaboration but continues to enable our staff to work flexibly but securely, anytime, anywhere and with colleagues from other organisations. Our IT delivery capability will need to support user centred service design from beginning to end in an environment that demands rapid development, implementation and change (Agile) but ensures provision is secure and robust. It also needs to be delivered in collaboration with and led by our business drivers.

We cannot do this in isolation. Many of the services we provide are part of a more holistic experience involving other providers: health; housing; welfare; crime prevention and reduction; transport; education; and environment. Collaboration across the technology and information landscapes will be essential if we are to make the transition from institutionally driven service provision to consumer driven digitally enabled provision. The enablers to support this transition will require deep collaboration across:

- Information sharing and governance
- Connectivity
- Identity management, authentication and security
- Strategic asset utilisation and management
- Interoperability

The councils have laid some excellent foundations on which to build:

- Our longstanding shared service arrangement across the two councils, one of the most successful and sustainable in the UK.
- Our successful partnerships for leisure and economic growth with the public, not for profit and private sectors working together to attract significant inward investment and generate jobs growth.
- The One Public Estate programme, a potential platform to make strategic asset utilisation a reality for all public service providers.
- The core IT platform built on Office 365 and the partial deployment of mobile working capability, setting the scene for moving to the Cloud and multi-agency end user computing.
- A sharp focus on successful service delivery for our residents and businesses as part of the DNA of our organisations, reflected in our continued positive resident feedback going against the decline being seen more widely in local government.

This strategy describes the wider landscape in which we need to evolve and embrace the digital opportunities transforming how we live, work, learn and spend our leisure time. It then sets out where the councils' IT environment is today and lays out core technology principles for the councils to adopt with the roadmap for the next 4 years to enable South Oxfordshire and the Vale of White Horse District Councils to be at the forefront of digitally enabled public service delivery. Lastly, it sets out what we will do to establish a digitally capable workforce for the future.

2. Background

Our councils have weathered a series of significant challenges around the devastating fire in 2015 which destroyed our headquarters, the ongoing financial pressures affecting all local public services and a major change in the commercial environment where we source many of our services.

Our temporary headquarters and the new technology services provision being delivered through the 5 Councils contract mean that much of what we do is contained within our physical estate and focussed on our councils at a time when public services are moving towards multi-agency models, in part driven by the ongoing financial challenges we all face and in part by the demands of digitally driven residents and businesses.

We cannot stand still, we must embrace digital and embed it in our business plans for the future and that requires our technology strategy to be an enabler and not a blocker through legacy, releasing the potential that exists to deliver user centred services better, cheaper and faster than we do today, not constrained by physical assets and open to collaboration with others yet still secure.

We certainly have the ambition, capable workforce and political drive to move in this direction. Our revenues and benefits service is a long standing high performer nationally, our leisure and community facilities continue to grow in popularity and we have increased provision in recognition of the wider benefits they bring in terms of health and wellbeing at a time when others are closing theirs. Our regulatory and enforcement services are embracing mobile working and demanding greater flexibility to drive up performance and productivity and our economy continues to grow strongly through effective strategic planning and partnerships.

3. The IT landscape today and digital disruption

Our technology platforms are mainly made up of contracted out services across all levels of the enterprise environment, in common with most local authorities and a reflection of the markets from which we source our services. These markets are continuing to convert their products to commoditised "virtual" managed services delivered via large scale shared infrastructure commonly called Cloud service provision. This is in line with global IT market changes and the UK Government strategic direction for the future acquisition of technology as a service to support service delivery. Consequently, locally owned and managed datacentres are in decline across the public sector alongside significant change happening across the business applications markets, the latter being driven by a combination of new entrants disrupting the market and established providers redesigning their services to protect their customer base and remain competitive in the digital environment.

More recently we have seen digital disruption change service expectations by residents and businesses towards provision that's accessible all the time, on-line, built around them and not the provider and matching the experience provided by the retail, entertainment and financial sectors.

Matching these expectations will necessitate local government and the wider public sector going through the type of whole systems transformation already experienced by other sectors, driven by:

- A very different workforce strategy approach, much more flexible and digitally competent to meet future service demands.
- Service design and delivery built around the customer (and/or consumer) rather than structured service lines and across traditional public service structures, aligned to marketplaces (home based care, leisure, health, lifelong learning, work, lifestyle).
- Connectivity that provides universal high-speed coverage for all residents and businesses.
- Multi-modal (transport) and multi-environmental services (workplaces and home) designed to maximise space, minimise time and energy waste and simplify access.
- Adoption of recognised best practice benchmarking to provide ongoing assurance of best value.

One reality of the digital age is radical, rapid and ongoing change in crime and exploitation. We need to keep pace with and counter those changes to ensure we continue to support and protect the most vulnerable in society as well as helping to keep our communities safe more generally. Cybercrime has also become much more corporate in terms of targeted attacks at the commercial and government levels, requiring a much more dynamic and proactive approach to IT security.

So, what does this mean for the councils' technology provision going forward? Putting services on-line based on how providers expect them to be used and operating proprietary IT systems are no longer sustainable and at odds with what our customers expect. Equally our staff and public services more generally need to be able to take advantage of what digital solutions can provide to meet those expectations but do it better, faster and cheaper than we do now. The services have not been benchmarked for some time and we need a baseline with peers to set our current state and inform the strategic direction. Membership of a well respected benchmarking service (CIPFA for example) for IT will fulfil this need.

4. The councils' IT environment and latest activity 2018

Our technology platforms today are largely proprietary and physically built around our corporate estate with links to our delivery partners being provided through dedicated network connections. Annex A shows the current enterprise architecture and the state of our technology assets in terms of delivery platform, corporate systems and people and place-oriented systems.

Much of our architecture reflects where we were 3 years ago and plans to date did not look to maximise the potential of technology to support productivity by simplifying the end user computing or network environments around business need. This is now being revisited and will inform the two platforms roadmaps (always connected and end user computing) for our technology needs through to 2023.

Similarly, our line of business systems have evolved independently from wider technology developments and more direct alignment with our strategic business plans. The corporate systems, people and place roadmaps will review our systems alongside those business plans and with that identify the potential that user centred design can bring to future service delivery, unlocking the opportunities that the digital revolution have brought forward.

Together these will inform the establishment of the four delivery programmes needed to realise this strategy.

We also have immediate issues that must be addressed for reasons of service stability and a 12 month action plan has been put in place to addresss, shown at Annex B. This plan is operational and will be integrated into the four year delivery programmes as they are established.

5. Technology principles and roadmap to support our business strategy to 2023/24

Our drive towards resident centric service provision requires a fundamentally different technology approach to the one we have today, underpinned by the following six principles for technology investment, design, delivery and use:

	Principle	Why	Benefits
1	**Cloud first for new and cloud migration for legacy**	The marketplace for the provision of secure, resilient and legally compliant cloud services is mature and gathering pace as the standard platform for IT services as they are renewed across public services. Affordability and value for money over the life of a service is also tipping in favour of cloud thanks to increased competition. Suppliers are also withdrawing legacy on site services and only offering cloud models and newer entrants only offer cloud. As legacy proprietary platforms diminish they become more expensive and there is a point at which it becomes financially viable to accelerate migration to the cloud.	Cost efficiencies will be released through cloud based collaborative systems rather than organisation specific localised systems, especially across multiple agencies. Cloud will avoid the need for future capital investment in on-site technology provision.
2	**Ubiquitous connectivity, superfast as a minimum**	Proprietary network provision remains a significant blocker and cost for individual organisations, yet the technology, infrastructure and security required has evolved to allow ubiquitous connectivity whilst retaining security through role and device based security models. On network speeds and coverage, the investments in superfast broadband for non-commercially viable geographies and the growth in fibre provision and competition means connectivity is much more widely available and we are not so dependent on corporate site provision.	Significant cost efficiencies through economies of scale on provision in terms of coverage and delivery method (voice, video, data, wired, wireless and mobile). More efficient estate use by removing limitations on buildings driven by the ability (or not) to connect to IT systems so staff can work anywhere.
3	**Lightweight devices, always on and work anywhere**	The end user computing (EUC) experience continues to be one of the greatest opportunities for increased productivity by supporting the ability to work anywhere and at any time. Superfast connectivity spans geographies meaning the need for dedicated office locations will diminish.	Speed and ease of access in an "always on" environment where people need to complete tasks drives out lost time through travel, waiting for technology to respond.
4	**Role based security, works with partners and meets UK govt standards**	Multi-agency working is a reality now and is only set to grow in future years. Role based security and federation with corporate environments offer the potential to make this experience seamless, especially as systems become more interoperable and data sharing matures into business intelligence around places and people.	Staff will be able to carry out their work across agency boundaries securely and legally. Information integrity and access will not be compromised when sharing, supporting GDPR compliance.

	Principle	Why	Benefits
		UK government standards are progressing well across these areas and we must adopt them rather than duplicate or compete with them.	
5	**Line of business systems designed around the user, interoperable and compliant with recognised standards**	Housing, transport, health, spatial development and social care integration will drive this agenda aggressively over the next 3 years as NHS digital and Sustainability and Transformation Plans (STPs) move into delivery and the ongoing financial pressures on local government services continue to bite. Again, we must adopt agreed international and national standards and not look to create proprietary solutions. In the economic and environmental arenas Internet of Things based technologies are establishing new standards for interoperability for new data sources to turn the ambitions around smart places into reality. On systems design and build, we will use the Agile project methodology and strengthen our digital skillsets around centres of excellence in IT, business intelligence and communications, following the Government Digital Service principles for service design and digital delivery.	Integrated services for vulnerable people will be developed across agencies, improving quality of provision and safeguarding. Whole systems solutions will be applied to spatial and economic development around geographies, working across delivery partners in all market sectors (private, public, not for profit). User centred design of services will make effective use of the potential that digital offers in delivering services faster, better and cheaper
6	**Information governance across partners through cross agency governance structures**	Information governance through strong partnership will be a powerful enabler for advanced analytics supporting better decision making. We must develop a focal point for multi-agency information sharing and to be the first point for developing joint analytics projects.	Provides a single repository for information sharing protocols across agencies, supporting compliance with legislation. Offers a platform for multi-agency analytics services to support better decision making and more fundamental service design based on places and people.

To turn these principles into practice, we will establish a four year roadmap to be delivered through four programmes with a high level assessment of investment needs (existing and new), priorities, dependencies and risks:

a) Always connected (networks and unified communications) (**2**)
b) End user computing (**1, 3 and 4**)
c) Corporate systems delivery (**5 and 6)**
d) People and place systems delivery (**5 and 6**)

Annex C comprises the four programme plans and Annex D sets out the target enterprise architecture for our technology platforms following completion of the programmes. These will be used as a reference point for programme progress and support the development of collaboration opportunities with our public service delivery partners.

6. A capable and empowered workforce for the digital age

Technology is an integral part of our lives and work, impacting on every employee, resident and business in our districts. It is our responsibility to ensure there is sufficient resources, skills and

knowledge to meet business needs driven by our communities. We expect staff to have a minimum level of competence in using technology, through end user devices, web based and mobile applications and specialist operational equipment to be able to do their jobs effectively and productively. Training for technology is often delivered on-line interactively in the working environment. This expectation reflects the impact of digital on our personal lives and the expectations it sets for business systems to be as easy to use as consumer based services.

Historically corporate technology has lagged consumer provision and usability, often due to the cost of replacing or changing legacy systems and design principles focussed on processing times, closed infrastructure and security and operational models rather than end user experience and interoperability based on open standards. The roadmaps for our IT going forward will tackle the legacy and with it we need to ensure our workforce and our service users take full advantage of the opportunities they'll unlock. They will be part of the transformation from concept right through to live operations: user centred design, build, testing and implementation as a flexible (Agile) delivery model.

Our technology services will not be working in isolation but as part of whole systems project delivery led by our strategic business plans, with digital as an integral part of them. Whilst delivery is mainly outsourced, our strong intelligent client function will ensure our:

a) Core technology platforms are run by effective, well trained and competent technical teams covering connectivity, data storage, security and integrity including "always on".
b) End user computing experience is customer centric, responsive and minimises staff downtime through technology faults.
c) Digital services are designed around the end user and meet the expectations of our residents and businesses, deployed through applications that operate seamlessly across services within and outside our organisation.
d) Analytics capabilities support better decision making and service fulfilment by maximising the potential digital offers to exploit our information assets and those we share with others.

We will unlock the digital capability of the rest of our workforce through:

a) Establishment of super user networks designed to include people in technology projects and digital development.
b) Embedding digital by default into our service and business plans, working with teams to ensure user centred digital design is applied to how services can be delivered better, faster and cheaper.
c) The use of recognised project methodologies as part of whole systems change.
d) Provision of high quality digitally enabled and deployed learning platforms to allow our staff to learn when and where they choose (e-learning).
e) An enhanced and interactive social media environment for staff to engage with each other and develop thinking and opportunities on how we can do things better, faster and cheaper.
f) Active inclusion of staff and professionals who will challenge and validate that what we build and run is a positive force for tackling inequality rather than creating a digital divide.

To bring user centred design and build to life we will engage with our service delivery partners and users from the outset of a project and include them throughout the process.

Digital needs to be an integral part of the way our organisation works in the future. It is not something you do to services nor is just about technology. The reality is that most of our society

is already digitally capable and that continues to grow, it is all too often our organisational structures that hold us back from unlocking its potential.