Wiltshire Council

Cabinet

Date of meeting: 30 April 2019

Subject: **ICT & Digital Strategy**

Cabinet member: **Philip Whitehead – Cabinet member for Finance, Procurement, ICT and Operational Assets**

Key Decision: **Key**

Executive Summary

Wiltshire Council, like all local authorities, relies completely on its information and communications technology (ICT) to operate successfully. ICT in a local authority is complex, and requires constant maintenance, support and updating. This should be undertaken in a strategically planned fashion, rather than reactively and in response to requests that emerge from within the business. In addition, technology continues to develop at pace, and this is changing both the 'art of the possible' and the expectations of our customers.

The last council ICT strategy was written in 2011 to cover the period to 2015, although a high-level Digital Strategy was created in 2017, which led to the innovative Microsoft Digital Programme currently under way. Nevertheless the infrastructure on which the Microsoft deliverables will sit is now old, expensive to maintain, and increasingly unfit for purpose. Much of the effort of the ICT team is now dedicated to keeping it operational and secure, meaning they have insufficient time to implement the improvements required by an increasingly frustrated user base within the council. This situation will get worse if not addressed.

The remedy is not to assign additional resource to the ICT team, to help them maintain a failing infrastructure, and develop the spot-fixes suggested by the business; indeed, that would simply compound the problem. The solution is a properly thought-through ICT & Digital Strategy, which starts with the strategic aims of the organisation, looks at how departments seek to fulfil those aims, and the technology they will need to do so. The strategy must do this in the context of Best Practice within the sector, taking account of predictable changes in technology over the next few years. The strategy has now been crafted, and makes recommendations in terms of a 'get well' programme for the council's ICT, further developments in the Digital area, enhanced governance around technology investments, and changes to the ICT team to enable them to support the technology into the future.

Proposal

That Cabinet approve the ICT & Digital Strategy, which covers the period April

2019 to April 2022.

Reason for Proposal

The council has not had an ICT strategy since 2015, and it is vital that it has one to allow:

- Proper planning of ICT investments to meet the council's strategic and operational needs
- An understanding of key trends in technology of relevance to the council
- An understanding of best practice in the sector
- A clear view of current ICT provision, and its shortcomings
- A definition of appropriate governance in the ICT & Digital area
- The creation of an achievable vision for future ICT and Digital capabilities
- A 'roadmap' of improvement activities to realise the vision
- Quantification of the investments that will be required in the coming years to realise the strategy.

Paul Day – Interim Director, Digital Transformation & IT

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Finance,   **Procurement, ICT and Operational Assets**

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Purpose of Report

To seek approval for the Wiltshire Council ICT & Digital Strategy to cover the period April 2019 to April 2022.

Relevance to the Council's Business Plan

The Council's Business Plan relies on the efficient and effective operation of some 360 services of a diverse nature. One thing that unites them all is a reliance on information technology. Technology continues to evolve at pace, and that means that user expectations (and service provision norms within the sector) are constantly changing, and so continual investment in information technology is needed. 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, to avoid unwise investments in short-term fixes, duplicated solutions, and the procurement of hard-to-maintain systems. In addition, the Digital Revolution is changing both the way the council's customers want to engage with it, and the consequent efficiency with which the council can provide services – a clear win-win.

Thus the adoption of a coherent ICT & Digital strategy will ensure that the operational services in the council are undertaken efficiently, through being 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. This approach extends beyond council staff and Members to the community, who will be provided with the means to obtain many of their services on-line, in a fashion that is simpler, quicker and easier for them, and cheaper for the council. This aligns closely with the council's business plan.

Main Considerations for the Council

Best practice, as encapsulated in the ICT & Digital strategy, requires that the council take a strategically-planned, top-down, approach to technology, which will represent a change to recent practice. For some years, IT investments have been based on a bottom-up approach, whereby operational teams within the

council have selected the technology solutions for their local area and presented these to the central ICT team to implement. This has resulted in both a complex application landscape (1200+ applications), 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, ICT has become a department that is both overloaded and often too busy to help, despite the best efforts of its dedicated staff, leading to reduced user satisfaction in the council, the infrastructure receiving insufficient attention, and a significant degree of 'technical debt' accumulating. Note that the situation is not all bad, some success has been achieved in the journey to the cloud – Wiltshire was an early adopter of the excellent Office 365 system – and the Digital Programme is leading-edge. The key considerations, though, are that the underlying technical debt must be addressed, applications must be rationalised, the journey to the cloud must accelerate, governance must be strengthened, and an overall strategic approach (as opposed to a reactive approach), in line with mandated principles of enterprise architecture, must be adopted.

This strategy outlines the logical arguments that lead to the above conclusions, and recommends the way ahead in terms of future activities and investment.

Background

After the creation of Wiltshire Council as a unitary in 2009, significant effort and investment went into the creation of ICT that would meet the needs of the unified organisation. This was a successful exercise. In the years that followed, however, developments in ICT have been led primarily by the requirements of the separate business areas. 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 technology. For the ICT Department to properly support the organisation, the council needs a sound ICT & Digital Strategy that matches and supports its strategic aims and enables it to keep in step with developing technology.

The council's high-level strategic aims have been well-articulated, with the key priorities being:

- Growing the Economy;
- Building Stronger Communities;
- Protecting the Vulnerable;
- and in all this, being Innovative and Effective.

It is vital that all technology provision supports these core aims, and so corporate plan alignment is a fundamental principle of this strategy.

As a unitary authority Wiltshire covers all local government responsibilities, through the provision of some 360 individual services within 15 Directorates, grouped under 3 Executive Directors. These rely on the daily use of ICT including the provision of laptops, email and other productivity tools, internet access, file storage, telephony, video conferencing, instant messaging, printing, and so forth, plus specialist cross-business applications such as SAP for finance and HR. Also, most functions have their own line-of-business software

applications, sometimes supplemented by home-grown databases and spreadsheets. Ensuring the provision of the best possible corporate systems, and that they are used to best effect, while rationalising and updating specialist line-of-business systems, is a key part of this strategy.

Thus the council is wholly reliant on ICT, and much of the ICT team's work involves keeping services operational. This is visible to end-users through such functions as the Service Desk, where they report incidents and make service requests, but most of this essential work remains unseen, being undertaken by a range of staff with specialist technical skills. 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, unreliable, difficult to support operationally, and hard to maintain in a secure state. Similarly, there has been a lack of investment in staff skills. A substantial 'catch-up' programme of work is now essential, built around sound architectural principles including Cloud First and Software-as-a-Service, and is proposed in this strategy.

Meanwhile, technology develops apace, and as an innovative council Wiltshire seeks to be at the leading edge in its adoption, and sees its importance in meeting its strategic aims. Of even greater importance than 'traditional' ICT is Digital technology. Digital is disrupting everything and providing unprecedented opportunities, and we are living in a time of enormous change. As Digital becomes ubiquitous, it is rewriting the way local authorities are delivering their corporate priorities and meeting business challenges. As Wiltshire Council continues 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 our service delivery, to allow our 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. The council therefore published a high-level Digital Strategy in 2017 and launched a major Digital Programme in 2018 with Microsoft, aimed primarily at streamlining the way customers deal with the council, but also seeking to achieve internal efficiency improvements. It is the ambition of the council to be 'Digital by Choice', so that customers will choose to interact with us through digital channels, rather than by phone, email, letters or face-to-face, because digital interaction will be compellingly easy, quick, and convenient. Digital enablement will be important to this, achieved by ensuring high quality broadband coverage throughout the county, and helping and empowering those users (mostly but not exclusively older people) who currently lack digital skills. Digital enablement of the council's own staff is also a strategic need, and in addition internal culture change is a significant part of the current Digital Programme.

The current Digital Programme exploits developments in Artificial Intelligence (including 'robotic process automation') and Business Intelligence to improve the efficiency and effectiveness of the council's operations. As AI 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 council will look to adopt this technology. To directly serve the needs of the vulnerable, the council will increasingly use TECS (Technology-Enabled Care Services), including easy-to-use, voice-activated systems, providing support within the home. Predictive analytics, which will involve making better use of the large amounts of data the council already collects, will be developed to enable data-driven decisions, to

help social care and other areas to understand problems earlier, and to allow interventions that are both more effective and avoid greater costs downstream. 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 meet the looming social care challenges of an aging population, living longer but not always in good health, and sometimes with the added burden of isolation and loneliness.

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 'smart cities', but also in smart workplaces and smart homes, and these and other developments will contribute to the growth of the county's economy.

An examination of best practice in the sector, based on the recently-published ICT & Digital strategies of other councils, along with advice from central government, shows that in the proposed way ahead we are strategically-aligned with others. The vital importance of a sound ICT infrastructure is universally recognised (hence the proposed 'get-well' programme), and the technical approaches we espouse (Cloud first, Software-as-a-Service, a focus on cyber-security, etc.) have been adopted by all. The power of Digital and AI is driving innovation throughout the sector, and the need for enhanced digital skills within the community, and within the council itself are also recognised. The longer-term impact of AI on employment, and the need to prepare our residents for the jobs that will <u>not</u> be automated, is a consistent theme in both local and central government.

This strategy makes specific proposals in terms of end-user devices, service desk support, and the need to rationalise the 1200+ software applications in use. It defines the architectural principles we will apply, and outlines the future of the council's telephony, including mobile phones. It details essential improvements to the underpinning infrastructure (servers, 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 outlined. Better wi-fi for visitors is proposed, plus renewal of printing/copying facilities - and a move to a low-paper culture. Ways of helping users to make better use of existing technology are described, and the importance is stressed of achieving a 'virtuous circle' of measuring user satisfaction with ICT, acknowledging shortcomings, and acting upon them. This and other proposed means will help to rebuild the relationship of trust between the business and ICT, which is anecdotally reported as being poor, but has not been objectively measured for many years, another issue that will be addressed.

The importance of good governance is outlined, covering both the BAU operations, but also projects for new ICT systems. Strong governance will allow progression from the current era of order-taking, with a long wish-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 benefits realisation.

The functions of different technical specialities within the ICT department are described, and it is proposed that a future departmental structure be formed along these functional lines (subject to consultation).

To bring together the above, a 'Vision for 2022' is proposed, describing a future state for ICT & Digital within the council. This vision is ambitious but achievable, and will bring the council's ICT into a state that will operate reliably, securely and cost-effectively. To achieve the transition from the present state to the 2022 vision, a range of key activities are proposed, along with indicative costs.

Overview & Scrutiny Engagement

The ICT & Digital Strategy was presented to Scrutiny on 12th February 2019.

Safeguarding Implications

There are no specific safeguarding implications. It is of paramount importance that the Council's ICT and Digital provision supports the organisation fully in its safeguarding duties, and this will continue to be a key consideration in all future systems implementations.

Public Health Implications

There are no specific Public Health implications.

Procurement Implications

All procurements that flow out of the ICT and Digital Strategy will comply with all procurement regulations and best practice. There is a significant programme of work required and ICT will work with the Strategic Procurement Hub to ensure that the profile of the procurement plan is agreed and resourced adequately to deliver the required solutions to time and quality.

Equalities Impact of the Proposal

None

Environmental and Climate Change Considerations

The progressive move to the cloud will reduce energy costs for the council and will be a more environmentally appropriate way of delivering ICT; cloud data centres are more efficient in energy usage than traditional on-premise facilities.

Risk Assessment

A summary of the main risks is at Annex A to this report.

Risks that may arise if the proposed decision and related work is not taken

The key risk, if the council does not approve the approach recommended in the strategy, is that the quality of ICT services provided to the council will continue to decline, as the technical debt grows, and the increasingly overloaded ICT team have progressively less time to modernise the estate or attend to departmental requests. This will almost certainly lead to the growth of "shadow IT", whereby

departments in the council will feel obliged to procure their own solutions (including externally hosted solutions), bypassing ICT in doing so, and risking failing to meet good practice in terms of security and data protection, while also causing overall costs to grow, and creating an even more fragmented technology estate.

Risks that may arise if the proposed decision is taken and actions that will be taken to manage these risks

The strategy recommends a major programme of work, and all programmes have risks. In this case a Portfolio Management approach will be adopted, to ensure that a clear view is achieved across the whole organisation in terms of technology activities and proposed investments, balancing change initiatives with business-as-usual while optimising return on investment. The governance process proposed in the strategy (which is already being adopted) will be a key element of this.

Financial Implications

Capital Costs
The ICT & Digital Strategy will require additional capital investment, and this is broken down in the strategy document into several areas:

The 'get-well' programme, running over 3 years, has costs (see Appendix G in the strategy document) of:

2019/20	2020/21	2021/22
£8.38m	£1.44m	£1.34m

The ICT 'business as usual' capital requirement (routine replacement of laptops, routine network upgrades etc.) of:

2019/20	2020/21	2021/22
£2.52m	£0.87m	£0.87m

The ICT & Digital Strategy also captures the costs of the replacement of Line of Business applications, which have historically been the subject of capital bids from within the business. (Note that wherever possible these will be replaced with Software as a Service applications, which will incur lower capital costs, hence these figures should represent a worst case, although full discovery of all applications is continuing):

2019/20	2020/21	2021/22
£5.84m	£1.58m	£1.03m

There are also some costs associated with technology-related systems not normally managed by ICT, for instance the audio-visual equipment in the Council Chamber which allows meetings to be broadcast to the public, the self-service kiosks in the libraries, etc. (See Appendix E in the strategy document).

2019/20	2020/21	2021/22
£1.99m	£0.15m	£0.0m

Totalling these above costs gives:

2019/20	2020/21	2021/22
£18.73m	£4.04m	£3.24m

Revenue Costs

The ICT department has a revenue budget, which covers its staff costs, routine software licence renewals, and the maintenance costs of all applications across the organisation. As the strategy progresses, the organisation will increasingly move to software as a service (that is, cloud-based applications), replacing 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 application rationalisation project (a planned project within the strategy) will cull many of the existing applications, and so remove their annual maintenance charges. There will also be other savings, associated with the reduction in effort to support a large estate of on-premise applications. The 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.

Legal Implications

There are no specific legal implications in the adoption of the ICT & Digital Strategy.

Options Considered

1. Do Nothing

Failure to adopt the ICT & Digital Strategy will result in increasingly poor levels of ICT service, and the risk that the council will not be able to deliver its services effectively.

2. Propose spot fixes & extra resource

Spending additional funds by increasing the size of the ICT team, creating short-term fixes to failing systems, 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 ICT, thereby risking overall security, achieving poor value for money for the council, and limiting the council's ability to make strategic use of its data.

3. Adopt a strategic approach: recommended

ICT exists only to support the needs and successful operation of the organisation, and an ICT & Digital 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 organisation'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.

Conclusions

It is proposed that the ICT & Digital Strategy recommended here be adopted by the council. It will be a significant enabler for the council to meet its strategic needs, it will ensure that the present 'log jam' of poor service, frustrated users and difficult-to-maintain ICT landscape is resolved, and the move to the cloud is accelerated.

Paul Day
Interim Director, Digital Transformation & IT

Report Author: Paul Day, Interim Director, Digital Transformation and IT
paul.day@wiltshire.gov.uk

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Background Papers

The following documents have been relied on in the preparation of this report:

- Wiltshire Council ICT & Digital Strategy: Digital Wiltshire 2022 (v1.2)

Appendices

- Wiltshire Council ICT & Digital Strategy: Digital Wiltshire 2022 (summarised version, v1.0)
- Wiltshire Council ICT & Digital Strategy: Digital Wiltshire 2022 (v1.2)

Appendix A – Risks

The following is a list of risks related to failure to adopt the ICT & Digital Strategy:

- Technical Debt not addressed: If the existing infrastructure is not updated (and note that a cloud-first, software-as-a-service approach is a key part of the strategy), the effort and cost to maintain the existing infrastructure will continue to grow, and the security risks will rise.
- Bottom-up approach to departmental needs continues: If a strategic approach to departmental needs is not adopted, the Balkanisation of the estate will grow rather than diminish, the maintenance burdens will grow, and the overall value for money achieved will diminish. Interoperability will also suffer, and the council's ability to make best use of its overall data assets will diminish.
- Failure to attend to departmental needs: If the current approach continues of having departments determine their technical solutions, then adding their proposed implementation projects to the ICT department backlog, then not only will 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 the strategic level.
- Failure to move to the cloud: The current infrastructure is only partly cloud-based, making it expensive to maintain and licence, and bringing challenges in terms of Disaster Recovery. The key risk to avoid here is a significant refresh of on-premise capability, which will delay the move to the cloud still further.
- Overall, if the strategy is not adopted the existing service will continue to decline, and there will be almost irresistible pressures to increase the size of the ICT team, simply to 'keep the lights on', and avoid what could be increasingly common system outages. This will then represent poor value for money for a poor service.