(CCC) ICT Documents

Thank you for your request for information above, which we have dealt with under the terms of the Freedom of Information Act 2000.

I hope the following will answer your query:

1. ICT/IM&T/IS Strategy- The IT department strategy or plans, highlights their current and future objectives. Please see 3C ICT and Digital Strategy attached.

2. ICT Org Chart- A visual document that present the structure of the IT department, please include name and job titles. If this cannot be sent, please work towards a structure with job titles. Please see attached 3C attached Chart attached.

3. ICT Annual or Business Plan- Like the ICT strategy but is more annually focused. Please see 3C ICT and Digital Strategy attached.

4. ICT Capital Programme/budget- A document that shows financials budget on current and future projects. If some of these documents are not valid, please state when the 2020 ICT documents are planned to be published. Please see attached Capital Programme.

Further queries on this matter should be directed to foi@cambridge.gov.uk

3C ICT & Digital Strategy v3.0

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CONTENTS

ABOUT THIS DOCUMENT

This following two pages give an overview of the 3C ICT strategy and how the strategy has been considered. Two of the three strategies are detailed in this document and are condensed to provide a summary of each along with the principles followed in the construction of this strategy.

For the user, this document has been written to allow the non-technical reader to glean enough from the document by the end of the Partner Principles section. For those involved in applying the strategy Design and Procurement principles are listed after the Partner Principles section. Each strategy section has purposely been kept as brief as possible.

ICT AND DIGITAL STRATEGY OVERVIEW

Digital in the context of this strategy means different things to customers, staff and members across the three partners;

- For some digital means, SMART working, paperless offices and ubiquitous access to internal council systems and data (perhaps big data) about customers and service utilisation.
- Digital can also be thought of as the means of consuming council services via web pages and mobile apps across a variety of different device platforms.
- Finally, to some, digital might mean (a) intelligent bins fitted with sensors that automatically adjust the collection route of the refuse vehicle or perhaps (b) automatic notifications from internal sensors fitted to an empty managed council property when there is a damp or other problem (an early warning might help to prevent unnecessary damage via a visit to turn on the heating by a council officer or perhaps even remotely.

It is seldom that a complete picture is visualised because "digital" means so many different things to individuals and for this reason this strategy document recognises the following distinct strategies. Combined they represent the complete 3C ICT strategy and overlap exists between them in terms of technology and systems. Throughout the remainder of this document the digital strategy can be visualised by the following graphic.
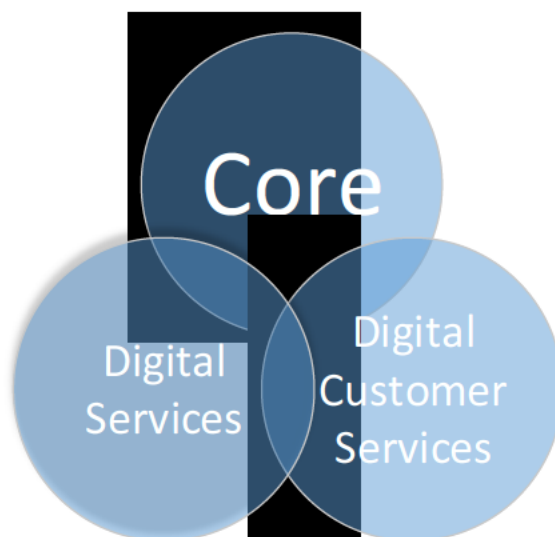
STRATEGY DESCRIPTION: CORE

The core strategy is concerned with the development of the internal infrastructure and represents the direction of travel towards a standard IT platform across the 3 partners. This strategy supports improved efficiency, automation, economies of scale and is a common approach towards completing the partnership (in terms of ICT) through shared back-office systems and functions. A key component

of this strategy will be the **Technology Roadmap** which sets out the future of 3C ICT systems that will support the business moving forward. Standardisation delivered by this approach provides the following tangible benefits:

- Reduced IT support burden resulting in the ability to develop space for further improvement and system automation. By reducing our current support burden it will create opportunities to develop the service offering further improvements for our partners, customers and even potential partners.
- Reduced support issues due to system incompatibility, for the end customer this results in fewer support issues due to incompatible hardware and/or software.
- Improved system reliability resulting in reduced downtime for the end customer.
- Reduced staff/support operative training times and costs.
- Improved and more efficient inter-council, cross-council communication and collaboration.
- Lower support and maintenance costs.
- Simpler budgeting and cost management.
- Improved vendor bargaining power.
- Facilitates a single approach to IT governance, IT Security, Business Continuity support and Disaster Recovery operations.

The core strategy (as represented in the previous graphic) has significant overlap with the other digital customer facing and digital service strategies. The regions of overlap are where the other strategies rely on having common interfaces with back-office line of business systems, shared data sources, secured mechanisms to provision access and so on. The other strategies are underpinned by the core strategy which is therefore a key enabler for the other two. This strategy very much underpins the core desire of the 3C partnership; "Buy once and use three times", 3C ICT will ensure we act as the technology gateway to ensure these benefits are realised.

The core strategy is such an important component of the other two, so in order to be successful, the 3C's partner members need to share an understanding and be agreed on the core principles by which IT solutions will be chosen, procured, developed, utilised, managed, and disposed of. The principles are not exhaustive or detailed but set the style by which the IT function and business departments should operate in its governance of IT. They are as much a guide for the IT, Web and Digital teams as they are for the business departments who together are making technology choices. The principles are detailed in the section following a more detailed description of the Core and Digital Customer Services strategies.

STRATEGY DESCRIPTION: DIGITAL CUSTOMER SERVICES

This strategy is concerned with the delivery of council services direct to the customer via the web or apps that allow customers to interact with traditional council services.

The digital customer services strategy outlines the architectural approach, development and procurement principles by which 3C ICT will support, enhance and deliver the partners customer facing digital strategy. Each of the partners are at a different stage of the journey towards a digital customer service strategy but it should be clear that the ongoing support and development of this strategy can only be achieved if a common delivery approach in terms of technology and architecture is established.

The Digital Teams were not rationalised during the creation of the 3C Shared ICT service. Input from both CCC and SCDC were considered in creating this strategy and are represented as themes in the short/mid-term deliverables. Through 3C ICT the plan is to create a Virtual Digital Team across the 3 partners to ensure alignment, sharing and best practice opportunities are not missed.

STRATEGY DESCRIPTION: DIGITAL SERVICES

This strategy is concerned with traditional council services that may be enhanced or augmented due to digital innovation, for example SMART bins, internet connected council housing, air quality sensors and maybe integration with SMART lighting.

The digital services strategy is concerned with and expands on the architectural approach detailed above but also considers how we will incorporate these types of innovative services, engage with potential partners and the connectivity approach needed to underpin the connection of such technologies.

This area of strategy needs significant development, 3C ICT thinking around this area will develop once the immediate strategic issues with existing customer digital channels are addressed.

CORE STRATEGY

CORE VISION

"The core strategy is concerned with the continuous improvement of the infrastructure and represents the direction of travel towards a standard environment across the 3 partners. This strategy supports improved efficiency, automation, benefits of scale and is a common approach towards completing the partnership (in terms of ICT) through consolidated back-office line of business systems.

The goal is to create an empowered workforce that is able to use ICT to greater effect and work seamlessly with back-office systems and work with business processes wherever and whenever staff might need to. Eradication of the hard links to paper processes that shackle our internal customers to traditional ways and places of work is a given.

The approach is to focus on the benefit that the different end customers will gain through the use of ICT whilst focussing on consolidating the plethora of discrete systems in the business. Reduction of the overheads and economies of scale will free cost and time to allow 3C ICT to maximise the benefit and deliver new services where it was too expensive to do so before.

Ultimately, the goal is to provide a lean, always available, transparent and focussed service that empowers everyone to get the most out of ICT. Finally, the desire is to be in a position where we can endeavour to commercialise 3C ICT and become a 4C, 5C or even nC service provider."

SUPPORTING PARTNER STRATEGIES

- 3C Shared Services ICT Business Plan.
- Cambridge City Council Office and Accommodation Strategy.
- 3C/2C Shared Services (Legal, Planning, Waste).
- Commercialisation of HDC and SCDC office spaces.
- HDC Transformation Project.
- All Partner Digital Strategies (CCC's: "Digital Choice", SCDC's: "Digital by Default" and HDC's: "Mosaic Programme")
- SCDC Business Improvement and Efficiency Project.

SHORT TERM (0-1 years)

- Continue to develop and implement service improvement plans and develop the team to transition towards thinking/acting like a shared service provider with a strong focus on customer service. Incorporate ITIL "Lite" and Lean methodologies to facilitate continuous improvement of the service and provide expected standards of service.
- Complete the partnership – Transition remaining services from NPS so 3C has full ownership of the ICT environment. Eradicate the use of hired resources to allow the team to unlock the staff cost savings detailed in the original business plan.
- 3C ICT financial and resource utilization transparency.
- Develop a joint Business Case for "Council Anywhere"[1] and deliver short term improvements for failing remote access technologies.
- Data center transformation (Unified single data center model).
- Develop a Communications and skills hub.
- Develop a unified network and security architecture (Consolidate core infrastructure offerings across the 3 partners).

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[1] **"Council Anywhere"** is the branded name given to the 3C Desktop Transformation project. This will essentially create an environment to facilitate working anywhere with full access to council systems. Requires a business case as investment will be required to create a common desktop environment across the 3 partners.

- Continuous development of opportunities for system harmonization across the partners through identification of common systems which will also unlock economies of scale.
- Payment Card Industry Data Security Standards (PCIDSS) compliance and opportunities to adopt industry standards (ISO27001).

MID TERM (1-3 years)

- Implementation of the Council Anywhere approach and incorporate a paperless office technologies to create a ubiquitous working environment.
- Desktop automation and support (Creation of a single logical infrastructure to support automation, further consolidation, efficiency and self-service).
- Develop towards a cost-per-user model to enable partners to have greater control of ICT spend and resource.
- Further economies of scale.
- Develop ISO27001 and PCIDSS compliance.

LONG TERM (4+ years)

- Investigate potential for supporting additional partners and prepare the service to act as a commercial entity reducing costs further for the original partners.

DIGITAL CUSTOMER SERVICES STRATEGY

DIGITAL VISION

*"The vision is to develop systems and capabilities around a digital platform with omni-channel[1] subscription, providing a single bi-directional view of the customer for the council and a single transactional view of the council for the customer. To create a technology platform that is a **digital by default**[2] enabler for the partner council digital strategies. The desire is to unlock internal staff capacity by providing automated digital end to end transactions for all service interactions to improve efficiency, customer service levels and responsiveness. To develop our own internal capabilities to allow us to continuously improve and develop our digital offering."*

*"Finally, when all of the above is fully embedded or in flight, opportunities to incorporate **gamification, socialisation and loyalty**[3] should be explored to drive a channel shift towards digital as far as possible. From the partners' perspective, this will allow us to unlock even more internal capacity and help us influence our customers and residents whilst developing better communities."*

"The following link demonstrably conveys the desired direction detailed above. [“Digital End to End Processes.”](#)

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[1] Omni-channel in this sense is used to mean various digital and non-digital ways in which the customer can interact with the council. Via the website, social media, e-mail, Direct or artificial intelligence web chat, self-service, white mail, physical agents (telephone/face to face) and apps across a variety of digital platforms including the highly pervasive mobile devices.

[2] Digital by default. This refers to the approach with regards to technology only. Automation will also allow for improved physical experience via standard channels (white-mail, physical agents etc).

[3] Very successful digital strategies incorporate these three principles. Explanation is outside of the scope of this document.

DIGITAL BACKGROUND

Each of the 3C Partners are at a different stage of their digital journey. It is recognised that each partner has a different agenda and priorities that are currently not aligned. The purpose is to create an environment where **technology** is "Digital by default" so that when each partner is ready to embark on their digital journey the work beforehand will have been done to accommodate their requirements and allow for integration with the main back office systems. This will allow us to bring the services to the customer in a digital offering.

CCC and SCDC are in relatively similar places in terms of the deployed digital technology and have immediate requirements to provide a more joined up customer experience for the Digital Customer Service Web delivery and provide a consolidated platform user interface for customers. The long-term strategy may or may not include a Customer Relationship Management System (CRM) at the heart of the technology stack. It is yet to be determined if this business transformational approach is suitable.

HDC are attacking digital as part of an overarching business transformation project. The likely direction of travel will see the incorporation of a CRM package which will provide tight customer to business integration throughout a variety of processes and service areas. The technology solution will likely incorporate very tight back office integration with key business systems.

All three partners offer some services digitally already but are currently offered in a standalone fashion with little or no integration between the web services. This results in a very disjointed user experience. In all cases integration with back office services is not always achievable or possible in some cases due to legacy technology and closed vendor interfaces.

DIGITAL APPROACH

The purpose is to provide an approach that will;

- Work for the benefit of all partners and end customers.
- Dovetail with the capabilities of the 3C service.
- Work with existing web technology platforms.
- Work at a pace that is not overly disruptive to the business.
- The long-term vision is the Nirvana that any interaction with the council can be offered through both digital and conventional means. (To be based on an assessment of the needs of the customer).

The long-term vision will facilitate closer internal interaction between service verticals and provide a secure, trusted, single bi-directional pane of glass for the customer and council alike (a single view of the customer for the council and a single view of all transactions with the council for the customer). The strategy will provide a platform that will deliver and interact across a variety of digital channels including mobile, app, web and social media. The goal is to deliver both a digital choice but also a channel choice that suits the customers' needs and expectations.

The vision is closely coupled with the core strategy as back office integration will only be possible if the existing or new systems support the interfaces. Within the core strategy the **Technology Roadmap** will drive decisions around replacement of systems from a cost/benefit consolidation perspective and we will use these opportunities to also ensure that newly procured/potential systems give us the capability to turn digital "on" for these services. This is the premise of how we will achieve a digital by default technology platform.

There are of course short term digital opportunities to enhance existing offerings; these are included in the outline plans below. The remainder of this section highlights how we will identify these opportunities, how procurement can be influenced to support the strategy and the approach to system design/delivery.

DIGITAL: IDENTIFICATION OF OPPORTUNITIES

To achieve the strategy a process is needed to identify the opportunities to become technically digital by default and ensure systems are ready.

The technology roadmap will be the key 3C ICT document that will drive digital change. Clearly, it would be too expensive to swap out all of the 3 partner back office systems to provide digital integration so as opportunities are identified within the roadmap the 3 partners will be involved in the process. The goal is to achieve consensus for each platform, and although, not each partner may be in a position to undertake the system migration the system will be ready for when they are. As the roadmap opportunity is identified, if agreed by each partner, procurement will involve making sure that future systems have a digital capability.

This of course is not the only route that we must capitalise on;

(1) The application opportunity roadmap "**Technology Roadmap**" maintained by 3C.
(2) 3C/2C future business partnerships where business changes may necessitate a common platform (2C Planning, 2C Waste etc).
(3) Strategic Partnerships with suppliers.
(4) Any internal business transformation program of work.
(5) Enhancements in technology offerings (payment gateway providers, other software platforms etc).
(6) Other local government and central government partnerships and collaborative projects.
(7) Open data strategies and opportunities.

The following section details high levels projects that have been considered on this journey towards digital.

DIGITAL: SHORT TERM (0-1 years)

- **ALL:** Create a Virtual Digital Development Team capability (a community of sharing and practice) across the 3 partners to ensure alignment and create opportunities for a combined approach to all development and procurement.
- **HDC:** Development of proof of concept mobile council app (cross platform) to prevent proliferation of apps. Bin collections calendar planned.
- **HDC:** Improve Digital Development Team incorporation of Agile methodologies.
- **HDC:** Develop CRM development/configuration/support capability within 3C so that we can support partners through transformation programmes.
- **HDC:** Transformation Programme, delivery of the first technology and integration options with line of business systems later in 2017/18.
- **CCC/SCDC:** Opportunities to utilise IEGForms and hosting under a single procurement.
- **CCC/SCDC:** Create single user portal approach for existing services to provide a single joined up platform for the customer.
- **CCC/SCDC:** Overhaul website content to better reflect information needed by residents.
- **CCC:** User interface overhaul (opportunities for SCDC given similar hosting technologies in use).
- **CCC:** Delivery and agreement of Cambridge City digital strategy.
- **CCC:** Initial implementation of online forms, Explore 2C options for benefits of shared approach to online forms procurement.
- **CCC/SCDC:** Website single re-procurement opportunity.
- **CCC/SCDC:** On-board shared service SDS for digital user testing and research (initially user testing at Cambridge City but opportunities for SCDC given technology synergies).
- **SCDC/CCC:** Definition of a CRM roadmap and opportunities to reuse HDC transformation approach in digital strategy.

DIGITAL: MID TERM (1-3 years)

- **HDC:** Delivery of a number of services via the integrated CRM solution as part of the Transformation Programme (possible examples include robotics, Artificial Intelligence, Live customer chat, Business Intelligence tools and so on).
- **All:** Operational incorporation of a broader understanding of cyber security via digital services. Consideration for Open Web Application Security Project (OWASP) training for digital teams.
- **CCC/SCDC:** Procure and implement customer portal (IEGForms Portal).
- **CCC/SCDC:** Procure and implement website and joint hosting.
- **CCC/SCDC:** Implement integrated payment gateway (consideration of alternative technologies to Capita).
- **CCC:** Migrate legacy forms onto strategic forms solution, integrate or decommission legacy customer portals.
- **HDC:** development of customer portal integrated with CRM (or just further transformation activities as required by the Programme).
- **HDC:** Continued development of mobile app to incorporate further services and make available to partners for reuse.
- **CCC or CCC/SCDC:** CRM and customer services system implementation where required.
- **CCC/SCDC:** Evaluation of the opportunities to adopt HDC CRM approach and opportunities to reuse development

- **CCC/SCDC:** Incorporation of customer access for newly implemented 2C LOB application into broader customer portal: waste, planning and housing.
- **ALL:** Systems swap (x) number of systems out as per ICT roadmap to digitally enable back office services.
- **ALL:** Develop internal CRM Integration, Business Analyst and Workflow Development and Integration skills.
- **CCC/SCDC:** Reuse development from HDC Transformation Programme to offer CRM integrated services.

The short and mid-term strategy reflects the different starting places of the three councils. There are some immediate activities that can improve the current digital offering and these have been considered above. These are centred on reviewing existing digital content for CCC/SCDC, creating a better user interface and grouping the available services under a single account logon for the customer/resident. HDC in the meantime will be travelling towards a CRM integrated platform. The goal is to deliver immediate improvement for CCC/SCDC whilst keeping the door open to adopt the CRM integrated approach "The Vision" and reuse the technical development that HDC will have unlocked through the ongoing Transformation Programme. 3C will be identifying roadmap opportunities to ensure all systems moving forward are procured in such a way to unlock digital for each service vertical.

STRATEGY PRINCIPLES FOR PARTNERS

In order to be successful, the 3C's partnership members need to share an understanding and be agreed on the core principles by which IT solutions will be chosen, procured, developed, utilised, managed, and disposed of. The principles are not exhaustive or detailed but set the style by which the IT function and business departments should operate in its governance of IT. They are as much a guide for the IT, Web and Digital teams as they are for the business departments who together are making technology choices. "Buy once and use three times" is the golden thread running through all of these principles. By accepting this strategy partners are committing to a common approach for ICT and one which 3C ICT will use to support the business requirements of all three partners.

PRIMACY OF PRINCIPLES	
Principle: These principles apply to all organisations within the partnership	
Rationale: The only way we can provide a consistent and measurable level of quality information technology is if all organisations abide by the principles.	**Implications:** Without this principle, exclusions, favouritism, and inconsistency would rapidly undermine the management of information technology. Initiatives will not begin until they are examined for compliance with the principles.

MAXIMISING BENEFIT TO THE PARTNERS	
Principle: Information technology management decisions are made to provide maximum cost benefit to each party within the partnership.	
Rationale: Decisions made from a partnership-wide perspective have greater long-term value but within the core principles, organisations need to be free to pursue their own corporate strategies and operate within their own style so long as this is not detrimental to the partnership.	**Implications:** Achieving maximum partnership-wide benefit will require changes in the way we plan and manage information. Technology alone will not bring about this change. As needs arise, priorities must be adjusted. A forum with comprehensive partnership representation should make these decisions.

COMMON USE APPLICATIONS	
Principle: Development of common technology solutions used across the partnership is preferred over duplicative applications although this should not prevent any party from achieving their corporate aims.	
Rationale: Duplicative capability is potentially expensive to own, support, develop and this proliferates conflicting data. In recognition of the fact that the rate of progress of each party may be slightly different, organisations should be free to pursue their own development strategy.	**Implications:** Expenditures of scarce resources to develop essentially the same capability in marginally different ways should where possible be reduced and avoided.

COMPLIANCE WITH LAW & GOVERNMENT BEST PRACTICE

Principle: Partnership information technology management processes comply with all relevant laws, policies, and regulations.

Rationale: Partnership policy is to abide by laws, policies, and regulations. This will not preclude business process improvements that lead to changes in policies and regulations.	**Implications:** The partnership must be mindful to comply with laws, regulations, and external policies regarding the collection, retention, and management of data. Efficiency, need, and common sense are not the only drivers. Changes in the law and changes in regulations may drive changes in our processes or applications.

ADDRESSING CUSTOMER NEEDS NOT TECHNOLOGY FADS

Principle: There must be a sound business reason for technology investment, articulated in a formal business case.

Rationale: Often businesses believe that buying a piece of software will fix the ills in their business. We are often drawn towards technology for emotional reasons and the business case comes as an after-thought. This principle is in place to ensure that there is a sound business case for technology investment and to ensure investment is not technology for technology sake.	**Implications:** The partnership will select appropriate technology solutions to meet particular business process requirements. The business need and investment profile will be considered ahead of picking individual products. It's important to the public that Councils make sound technology choices and that resources are well distributed.

COMPROMISE (BUT NOT THE PATH OF LEAST RESISTANCE)

Principle: Compromise is inevitable in a Partnership and should be embraced.

Rationale: Individual technology solutions may not exactly fit every time. A technology solution possesses many quality factors including cost and supportability. It may be that a compromise must be made in certain quality factors for the wider greater good of the partners.	**Implications:** Individual departments may not be able to go their own way and buy individual technology solutions that don't fit into the wider requirements of the individual businesses. However, this should never be detrimental to any one business pursuing its corporate aims.

CLOUD FIRST

Principle: In any business case for technology investment, a public cloud based solution should be considered ahead of alternatives.

Rationale: Public-Cloud providers can offer unrivalled resilience, scale, ease of use, security, and flexibility. Therefore, a cloud based solution should be considered ahead of alternatives, subject to an overall business case.	**Implications:** This principle will encourage a longer term move to cloud based computing. Cloud solutions mostly work on a revenue or subscription model, removing the spikes of capital investment from the roadmap. A business case may show that there is a clear reason not to implement in the cloud. This is 'cloud first' not 'only cloud' policy.

TECHNICALLY DIGITAL BY DEFAULT

Principle: Services will be capable to be offered on Digital Platforms wherever possible.

Rationale: It is widely acknowledged that service costs can be reduced by automating them through technology solutions. This principle is supported by government policy. We may not want to offer a service digitally but we should have the ability to do so by design.	**Implications:** All services will be where possible, digitally enabled and aligned to the respective corporate strategies. This will allow greater self-service opportunities to be unlocked for partners.

APPROPRIATE SECURITY

Principle: Security controls will be applied commensurate with the appropriate business risks. Flexibility and openness are key qualities of security in the public sector.

Rationale: Data and application security is essential for any modern business offering digital services. However, overly risk-averse approaches to IT security can be a blocker to progress and innovative methods of providing controls need to be established.	**Implications:** Risk assessments should be implemented routinely and appropriate security controls should be implemented in line with 3C's asset classification and control policies. Solution providers need to be innovative in their approach to providing risk vs functionality. IT security will be an enabler not a disabler to the core business functions. A heavily locked down, inflexible infrastructure is not the right approach in the modern business world.

MEASUREMENT AND MANAGEMENT

Principle: Monitoring and measuring is a key part of any service.

Rationale: Monitoring and measuring shall be a key part of any solution design to ensure that there is pro-active support, the solution is being used (and therefore delivering value), and that it copes with the load.	**Implications:** There may be additional implementation costs in initial implementation but that additional investment can be recouped through efficient use of the solution. A clear service level agreement should be known for every solution to ensure it meets documented expectations.

DIGITAL INNOVATION

Principle: Organisations should be encouraged to innovate through the use of IT, whilst sharing their successful use cases with the other partners.

Rationale: Digital innovation will be key to delivering effective public services in the next decade. Organisations should be free to challenge the status quo and push the boundaries to make improvements to public services.	**Implications:** Organisations will be free to trail blaze innovative new methods of working in the digital space, providing the other partners to benefit from the learned experiences.

MANAGED FAILURE

Principle: Failure is inevitable in a small number of projects. Failure should be minimised and should happen early in the project lifecycle.

Rationale: Government projects have a reputation for large failures. Failure is inevitable in a small number of cases. The trick with failure is to fail early in the project to ensure minimal losses and before committing to large scale procurement.	**Implications:** Proof-of-concept projects should be common place and project trials are not a step to be skipped. Regular and timely gateway review points in a project to mitigate risk regardless of the project delivery methodology. 'Agile' project methodology may be a more appropriate delivery method for specific projects.

MOBILE AND FLEXIBLE WORKING

Principle: Mobile and flexible working, enabled by IT is a core aim of all Councils within the partnership and should be key to technology choices.

Rationale: As all organisations seek to reduce costs, the ability for staff, and partners to operate from any location at any time is key to delivering the services that residents, the public and visitors to the region. Therefore, this flexibility should be a default part of any future solution.	**Implications:** New and more innovative technology methods may be chosen above traditional methods of operating in order to provide the required flexibility of operations.

FINANCIAL VISIBILITY AND TRANSPARENCY

Principle: Financial visibility and transparency is a fundamental requirement in any shared service.

Rationale: As all organisations seek to reduce costs, the ability for ICT to demonstrably provide value for money is key.	**Implications:** Full transactional visibility of partner contributions is needed both from a resource and cost perspective.

DIGITAL PROCUREMENT STANDARDS

The key blockers to becoming fully digital are the myriad of incumbent systems in use within the 3 partners. They largely prevent end to end integration between the digital customer channels and the back-office systems. There are currently very few standard back office systems, this makes development and maintenance of interfaces cumbersome and often impossible. As systems are identified for review we must include and "weight" appropriately to select systems that support our digital strategy. The following standards will be incorporated into our procurements activities.

3C ICT will invariably be involved in this decision-making process and it is our duty to ensure these standards are maintained to support the strategy. The methodology for digitally enabling new Line of Business (LOB) services and applications will be determined on a case-by-case basis. We will favour API and web service access to enable digital transactions, where this is not appropriate; we will consider integration for customer SSO for individual customer portals which have close integration with an LOB application. Prospective systems should however;

FAVOUR COMMON API, WEB SERVICES AND OPEN API VENDORS	
Principle: Open integration standards only, no propriety standards.	
Rationale: Open integration options allow for simpler, more cost-effective integration between systems. They allow for a single view of a customer record, greater automation, reduced cost of rekeying data. Suppliers often charge inflated costs for API's so important to mitigate their use as far as practical.	**Implications:** Without this standard the risk of being locked in with a specific vendor is increased. We need the flexibility to choose our digital systems partnerships. This principle also ensures that we can develop the skills within the organisation to maintain and develop our own in-house digital capabilities.

BUY ONCE AND USE THREE TIMES	
Principle: Partners will be involved in the procurement of all systems.	
Rationale: Rate of adoption may vary due to Council specific strategic needs but the process of identifying new line of business systems must incorporate all parties with a mandate that digitally enabling the service is a key driver in vendor selection. Procurement should include the option to bring all partners on to the same platform where the crucial business requirements have been fully agreed.	**Implications:** Without this a digital standard approach is not possible. We must cater for inclusion otherwise a common digital approach becomes difficult and cumbersome to maintain. Unlocking cost consolidation opportunities rely on this approach.

SUPPORT FOR MINIMUM VIABLE DATA INTEGRATION

Principle: Systems should support Customer Master data and case data integration as a minimum.

Rationale: Practically all internal line of business (LOB) systems have duplication of features (usually CRM centric features) including customer data and some form of case management. If prospective systems support these levels of integration by default, maintaining a consolidated master data is possible.	**Implications:** Without this principle complicated or manual data synchronisation is needed. Web and digital integration is much more complicated when dealing with real time access to online data. Maintaining a consolidated customer data set is crucial to supporting cross council services. This should be weighted heavily in all systems procurement.

SCALABILITY

Principle: It should be possible to scale the system to meet the additional demands of customer and population.

Rationale: Partners are evolving at different rates with regards to digital. Any and all solutions must be able to scale to meet the future demands of all partners and be tied with a 10 year view of the environment and population growth.	**Implications:** Performance issues due to scalability can damage reputation and reduce the effectiveness of a digital solution. Scalability issues are often difficult to circumvent involving costly additional technologies and/or software to mitigate the effect of a solution that does not scale well.

SUSTAINABLE

Principle: We need to rely on our own capabilities to support our digital systems.

Rationale: We need to plan for sustainability from the start, including planning for long-term financial health and assess the total cost of ownership. We must invest in our application support and development teams to facilitate the ongoing development and maintenance of our digital systems. Doing so this will help to catalyse and help to develop our home grown potential.	**Implications:** Without this principal, we are unable to utilise and invest in local development capabilities by default. We become beholden to external support for system enhancement and we are no longer masters of our own digital destiny.

DESIGN FOR PRIVACY AND SECURITY

Principle: Security should be a demonstrable feature of any system.

Rationale: We need to consider the context and needs for privacy of personally identifiable information when designing solutions and mitigate accordingly.	**Implications:** Without a proportionate approach to security we put the reputation of our digital systems and the partners at risk.

DIGITAL DESIGN PRINCIPLES

These following design principles seek to serve as a set of living guidelines that are meant to inform, but not dictate, the design of technology-enabled digital development programs within the 3 partners.

ACT LIKE SYSTEM INTEGRATORS NOT DEVELOPERS	
Principle: Our approach will be to define ways of incorporating existing technology, not to build it.	
Rationale: We configure by default and only customise where absolutely necessary i.e. where a specific requirement is not addressed by the market place or is not cost effective.	**Implications:** We are not equipped to support heavy software development internally. Building everything internally is not a cost-effective approach.

DESIGN FOR THE CUSTOMER	
Principle: Service design starts with identifying customer needs.	
Rationale: Develop context-appropriate solutions informed by user needs. Include all user groups in planning, development, implementation, and assessment. Develop projects in an incremental and iterative manner. Design solutions that learn from and enhance existing workflows, and plan for organizational adaptation. Ensure solutions are sensitive to, and useful for, the most marginalized populations: women, children, those with disabilities, and the disassociated.	**Implications:** Without this principle, we run the risk of alienating the population and risk criticism of our digital approach which may damage the reputation of the council and digital initiatives.

BE DATA DRIVEN	
Principle: Customer User Experience (UX) design and services should be driven from data.	
Rationale: In most cases, we can learn from real world behaviour by looking at how existing services are used. Let data drive decision-making, not hunches or guesswork. Keep doing that after taking services live, prototyping and testing with users then iterating in response. Analytics should be built-in to developed services, always on and easy to read. Being data driven and using data analytics are essential.	**Implications:** With quantitative analysis, we are guessing what to build which is dangerous and costly. A lack of this approach encourages decisions to be made without gathering the knowledge correctly to build the service or system.

FAVOUR LOOSELY COUPLED SERVICES

Principle: It should be possible to swap services out without considerable effort.

Rationale: We will adopt the benefits of service orientated architectural design approach (SOA) when implementing digital solutions where possible. The basic principles of SOA are independent of vendors, products and technologies and a service is a discrete unit of functionality that can be accessed remotely and acted upon and updated independently, such as retrieving customer account information.	**Implications:** Without such an approach, we are unable to respond quickly and cost-effectively to changing market conditions. Vendor lock-in can occur if this principle is not adhered to wherever possible.

BE COLLABORATIVE

Principle: Look for solutions in the local government eco-system.

Rationale: We will identify solutions within the local government market place and identify opportunities to learn from our peers.	**Implications:** Without this principle, we will re-develop the digital wheel and miss opportunities to stand on the shoulders of giants.

USE OPEN DATA, OPEN SOURCE, OPEN STANDARDS & OPEN INNOVATION

Principle: Reuse open standards to accelerate further integration.

Rationale: Open source software is generally free software that you can use in your business. Open source developers choose to make the source code of their software publicly available for the good of the community and to publish their software with an open source license – meaning that other developers and integrators can see how it works and add to it.	**Implications:** Again, this refers to reinventing the digital wheel. An open-minded approach is needed to the use of free tools otherwise we waste time, effort and money creating something that already exists and miss the opportunity to use and adapt to leverage a quicker implementation.

DEVELOP RAPIDLY, FAIL FAST AND WORK ITERATIVELY

Principle: Where possible use a development model which favours rapid and agile iterative delivery.

Rationale: Agile development accelerates the delivery of initial business value, and through a process of continuous planning and feedback, is able to ensure that value is continuing to be maximized throughout the development process and system lifecycle.	**Implications:** Waterfall approaches to software development and integration are cited as one of the largest contributors to project failure. Waterfall is risky and an expensive way to build successful software systems.

ACTIVELY MANAGE USER INTERFACE AND SEAMLESS CUSTOMER EXPERIENCE

Principle: Understand the importance of a seamless user interface and cohesive customer experience.	
Rationale: Systems we offer to our customer base will often incorporate many discrete back end business services. Good user interfaces will hide this separation from the user to provide a standard, understandable user interface. A seamless user interface is a common objective of any methodology for application or systems integration. If our digital systems are not seamless our residents and customers will favour more traditional channels. Vendors must support the ability to seamlessly integrate from a user interface perspective as well as support standard architectural approaches to support tight integration (Single Sign On (SSO), Token passing etc).	**Implications:** A mixture of disjointed systems presented via digital channels is very confusing for the end user. This resulting in poor adoption and continued use of the service. The experience for the user should be consistent and pleasurable across all channels of access.

OPERATIONALISE, DESIGN AND MANAGE RIGHT-SIZED SECURITY MODEL FOR DIGITAL SERVICES

Principle: Design and enforce appropriate security standards for our digital services.	
Rationale: Security should be incorporated into the design of all of our digital services at the outset. Often security is considered as a bolt on to the delivery of digital services. Standards such as those encouraged by OWASP should be part of everyday development and integration approaches.	**Implications:** Omitting security can be incredibly damaging to our reputation, compliance and obligations to protect the personal data of our residents/customers.

DESIGN AND USE SYSTEMS THAT SUPPORT EQUALITY

Principle: Services should be designed to support universal access.	
Rationale: Access to services within this strategy will be designed for the entire community where practical. We will design for access to services for the elderly, disabled, BAME, economically disadvantaged who have limited or no access to technology.	**Implications:** Failure to meet equality obligations towards providing services for the community.

Head of ICT
Shared Service
Grade SM
IT001

Deputy Head of ICT
(Operations)

Information Governance Manager (Interim)
Grade H
IT002

Digital Manager
Grade H
IT018

Technical Architect
Grade I
IT003

Contract & Finance Officer
Grade F
IT082

Service Delivery Manager
Grade I
IT076

Strategic Portfolio Manager
Grade I
IT004
Vacant

Application Support Manager
Grade I
IT006

Network/ Infrastructure Manager
Grade H
IT007

Information Management Officer
X3
Grade G
IT008 + IT009 + IT062

Information Governance Officer
Job Share
Grade E IT063
(20 hrs)
(20 hrs)

Digital Development Team Leader
Grade H
IT019

Digital Development Team Leader
Grade H
IT020

Web Content Author
Grade E
IT023 – Job Share
(22 hrs X2)

IT Analyst X2
Grade G
IT012 + IT013

Information & Finance Support Officer X2
Grade C
IT010 + IT011

Service Desk Manager
Grade G
IT005

Senior Project Manager
Grade H
IT088

SMO Admin
Grade D
IT064

Senior Project Manager
Grade H
IT089

iTIL Implementation Lead Officer
Grade G
N/A

Application Support Team Leader X2
Grade G
IT040 + IT042

Senior Network/ Infrastructure Team Leader
Grade G
IT079

Senior Network/ Infrastructure Team Leader
Grade G
IT080

Senior Digital Developer
Grade G
IT021

Digital Developer
Grade E
IT084

Web Content Administrator
Grade C
IT087
(29 hrs)

Project/Client Manager X2
Grade G
IT015 + IT083

Project/Client Manager
Grade G
IT017

Database Analyst
Grade G X2
IT029 +IT030

Senior Application Support Officer X7
Grade F
IT043 + IT044 +IT049 + IT048 + IT046 + IT047 + IT050

Senior Network/ Infrastructure Officer
Grade G
IT055

Senior Network/ Infrastructure Officer X2
Grade G
IT056 + IT058

Intermediate Digital Developer
Grade F
IT085 + IT090

Junior Digital Developer
Grade E
IT022

Service Desk Team Leader
Grade F
IT067

Desktop Analyst Team Leader X2
Grade F
IT078 + IT077

Spatial Team leader
Grade G
IT031

Senior Network/ Infrastructure Officer (Apps)
Grade G
IT075

Senior Network/ Infrastructure Officer (Desktops)
Grade G
IT074

Application Support Officer X3
Grade D
IT052 + IT054 + IT051

Product Owner
Grade #
N/A
Contractor

Service Desk Officer
X 5
Grade C
IT065 + IT066 + IT027 + IT028 + TM418

Desktop Analyst
Grade E X6
IT024 + IT025 +IT026 + IT072 + IT070 + IT071

GIS Officer X2
Grade D +E
IT038 +IT037

Network/ Infrastructure Officer
Grade F
IT060

Network/ Infrastructure Officer
Grade F
IT059

Senior Application Support Officer
(CA Backfill)

Deployment officer
Grade C
TM

GIS Analyst
Grade D
IT039
VACANT

Deployment officer
Grade C
TM

Address Management Officer
Grade C X5
IT032 + IT033 + IT034 +IT036 + IT061

Senior Network/ Infrastructure Officer
Grade G
IT057

(6 month contract)

Desktop Analyst
Grade E
TM
(CA Backfill for deployment team)

Capital Project Budget

where Project Type is one of C,H and Project Manager like % and Ledger Name is one of 21PJBC,21PJ

Project	2020/21
100025 - Procurement of IT System to Manage Community Infrastructure	20,000
100146 - Mobile working (Office Accommodation Strategy)	15,000
100170 - Replacement Telecommunications & Local Area Network	14,000
100193 - Cambridge City CCTV infrastructure	12,000
100194 - My Cambridge City online customer portal	46,000
100195 - Council Anywhere - desktop transformation	204,000
100197 - Shared Planning Service software implementation	32,000
100220 - Shared ICT waste management software - Alloy/Yotta	297,000
100238 - CCTV equipment upgrade	3,000
100243 - Property Management software	96,000
100252 - Environmental Health software	40,000
100253 - Income management software	15,000
100254 - Secure phone payments	24,000
100255 - Human Resources Information System	149,000
100278 - Guildhall PA system	0
100283 - Replacement telephony system with call centre	150,000
100285 - Data centre capacity growth 2020-2024	34,000
100286 - Cyber security improvements	10,000
100288 - Call management for 3C ICT service desk	7,000
300030 - Orchard Upgrade (Housing software)	422,000
Grand Total	**1,590,000**