

Appendix 1 - IT Strategy to support sharing of services across CCC & PCC

1.0 Summary

1.1 This is the proposed IT Strategy to support the sharing of services between Cambridgeshire County Council (CCC) and Peterborough City Council (PCC). It sets out the following:

- Vision and Strategy for sharing services
- Approach to achieving the strategy and interdependencies with other projects/programmes
- Current & proposed IT structures
- Programme requirements

2.0 Vision

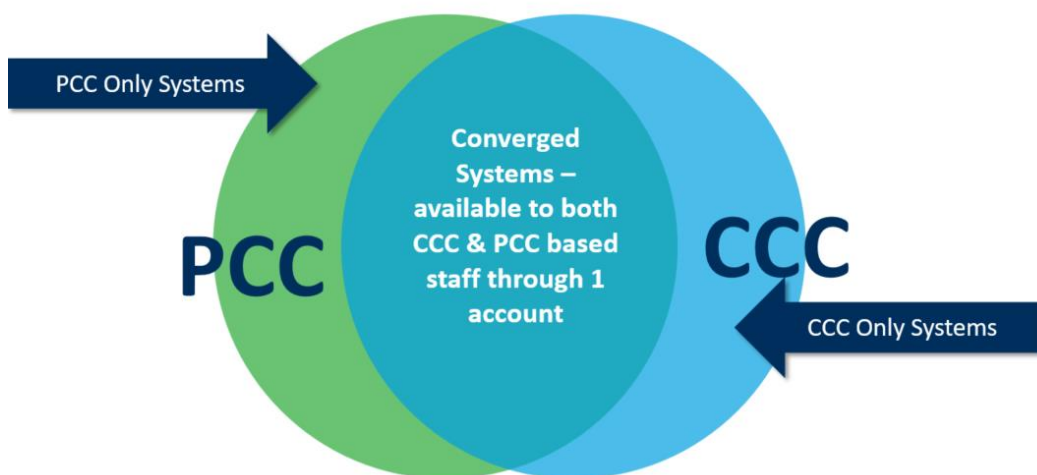
2.1 The Vision for shared IT services for PCC & CCC has been defined as the below.

“Simplify, Standardise and Share”

Shared IT infrastructure delivered by a single provider

Alignment/convergence of key **business systems**

Shared **web and digital platform** between both authorities



2.2 This vision has been articulated in response to the existing and planned convergence of services across both CCC & PCC. For staff in converged services to be able to work effectively with colleagues from both organisations, and therefore to deliver effective services to citizens, it is essential that the IT provision supports and enables secure, easy and robust sharing and collaboration. It is important that this is done on a cost effective basis with the minimum level of duplicate costs for equipment and licences.

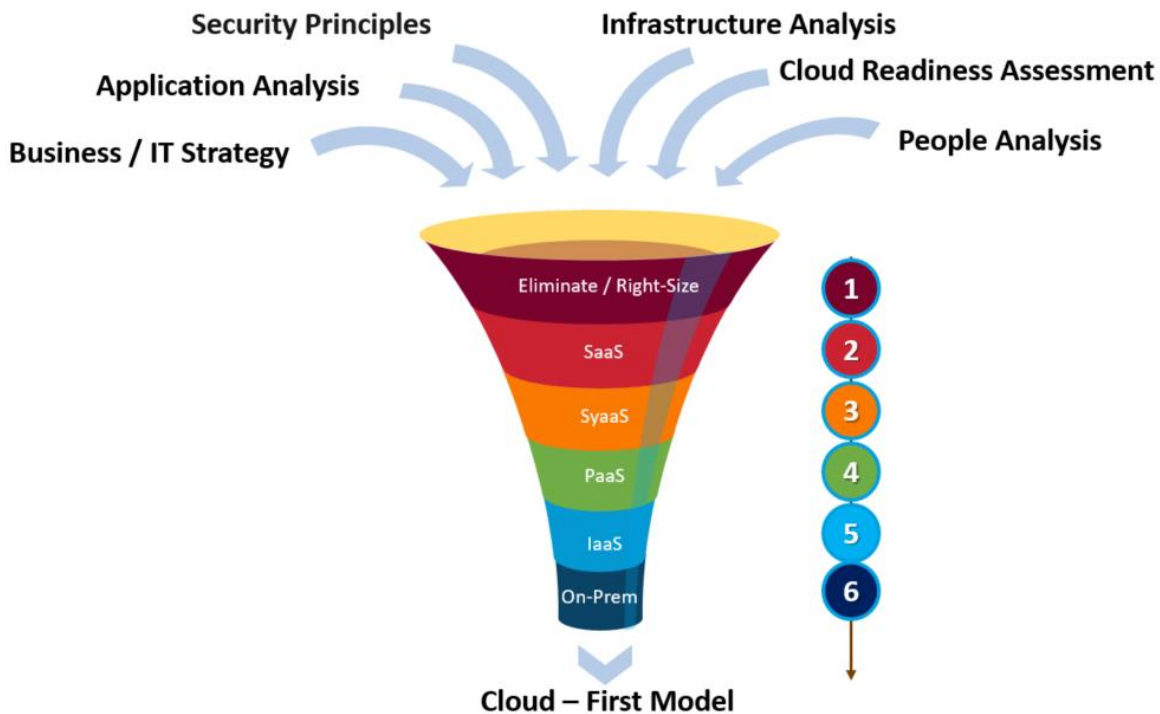
2.3 Currently some tactical arrangements are in place for some services, such as the Multi Agency Safeguarding Hub, but these are localised, require two logins for staff and rekeying of data between systems. As such, although functional, they are far from ideal and have resulted in the requirement for additional licences at additional cost. The shared services programme team are already seeing multiple requests from staff to have both CCC & PCC equipment in order to have access to systems and data across both authorities.

2.4 As more and more people require access to both PCC & CCC systems and data, without a comprehensive and strategic approach these tactical and costly solutions will proliferate.

3.0 IT Strategy – Cloud first

- 3.1 To achieve the vision of converged IT systems supporting converged teams that can work seamlessly across the two organisations a cloud first strategy is proposed. This strategy follows the approach advised by central government and strategic work produced by both LGSS & Serco IT.
- 3.2 LGSS IT has produced a comprehensive strategy which has been reviewed and approved by Gartner¹ and can be applied to CCC & PCC. This strategy sets out a Cloud first converged approach for both traditional IT services and for digital services. But, why choose a Cloud first strategy at all?
- 3.3 One reason is the ‘push and pull’ effect; there is both a technical push from suppliers to host their systems in the Cloud and a pull resulting from the multiple benefits that Cloud hosting realises, such as:
- Innovation
 - Security and governance
 - Citizen self-service
 - Flexible and collaborative working
 - Access to a far greater range of digital services
 - Automation of services where possible
 - Rationalisation of business systems
 - Integration of IT systems
- 3.4 An extract from the LGSS IT strategy states:
“As local government authorities seek to do more with less, hybrid clouds seem like a natural fit. They allow IT to shift workloads between internal datacentres and a public cloud provider during peak periods. Cloud computing can reduce costs while boosting project flexibility. Digital transformation is a key driver for Local Authorities to allow citizens to interact and complete tasks effortlessly. Cloud technologies are more than often enablers of Digital Services”
- 3.5 It goes on to describe how a well-developed, centralised cloud strategy which is informed by business strategy, provides strong foundations for governing the use of cloud services and that there are tangible service and cost benefits if it is carried out correctly.
- 3.6 Conversely, where a centralised cloud/cloud first approach is not adopted, organisations risk a piecemeal cloud migration resulting in issues around compliance and security, and significantly higher costs. More information on Cloud First approach as well as some common terms and concepts is available in Appendix 1
- 3.7 The best practice approach to migrating to cloud based services is shown below.

¹ Global research and advisory firm providing insights, advice and tools for leaders in IT.



3.8 The IT Strategy to support shared services across both organisations breaks down into the following areas.

- Office 365 – more than just email!
- Shared IT Infrastructure
- Converged Business Systems
- Shared Digital approach
- Shared Data to inform decision making
- An organisational Structure for 2020 + beyond

4.0 Office 365 – more than just email!

4.1 *Current situation*

4.2 Currently PCC use Google cloud software for web based email and calendar for almost all staff and Google Docs for many others. Conversely CCC have entirely Microsoft Office products services but these are On-Prem (physically located in the Octagon Data Centre) rather than cloud based. PCC by default use Chromebooks for mobile devices and CCC use Windows laptops. Therefore the starting positions of each authority are technically very different and this compounds the issues experienced by staff in shared teams.

4.3 *Strategic approach*

4.4 From two very different starting points PCC & CCC are both moving to use Office 365 software. The Office 365 suite includes many new features and software tools/options which are part of the overall licence and therefore represent a sunk cost to each council. Most people will be familiar with Office 365 for email and calendar as well as Onedrive but there are many more modules including the following (not definitive list):

- **SharePoint/Teams** for collaboration
- **Flow** for workflow between applications
- **Stream** to share video of presentations, training sessions etc.
- **Forms & Planner** for surveys and planning team work
- **Sway** for interactive reports

- 4.5 In addition to the applications above Office 365 provides additional and constantly evolving functionality that can be utilised to ensure a more secure and compliant organisation, including the following areas:
- **Electronic discovery, (eDiscovery)**, additional tools to identify electronic information that can be used as evidence in legal cases as well as with Subject Access requests from members of the public
 - **Access controls** (the selective restriction of access to information (e.g. documents))
- 4.6 *Considerations*
- 4.7 Office 365 software is more expensive than previous version of Office and is a subscription service, which means it is an annual cost. This additional cost represents good value only if it is used and exploited effectively through changes in how staff interact with their IT and by IT supporting business change through use of the new features. It will also be important to move away from any other systems where functionality is duplicated in order to minimise expenditure. The collaborative capability of O365 means staff can stop using other tools such as Huddle. As each licence has a monthly and annual cost it will be necessary to review starters and leavers processes to ensure that these licences are only provided to those that need them and crucially not duplicated across PCC & CCC for staff working in shared teams.

5.0 Converged Business Systems

- 5.1 *Current situation*
- 5.2 Office 365 provides collaboration and efficiency options for staff and its importance to the IT Strategy can't be overstated, but what it won't do is provide any changes to the line of business systems that are fundamental to service delivery for both PCC & CCC. Currently there are two separate sets of systems for each authority for each area of business and staff in directorates such as People & Communities are already faced with dual keying of information into some of these systems as well as having to use two logins and two devices. As well as being inefficient dual keying of data is notoriously prone to error and in front line services this could be potentially catastrophic. In addition to that reporting against two sets of separate systems has to be duplicated at every level, hindering the production of business insight and preventing sharing of key business intelligence services.
- 5.3 *Strategic approach*
- 5.4 CCC & PCC will align business systems, initially by using the same supplier and versions and then converging to a single version. The functional requirements for systems across the two councils have been mapped into a business systems map (Appendix 2). The majority of areas, Tier 1, have shared functions and therefore can be considered for shared systems. The exception being the Tier 2 Unitary functions of PCC which are not shared by CCC.
- 5.5 *Tier 1 functions and systems*
- 5.6 To address the needs of already converged teams across CCC & PCC the strategic approach is to converge business systems for certain services into a single version. This is an approach that will take some significant time (1-3 years) as these systems have underpinning contracts and dependencies that make any change a long process. Projects in this area include:
- 5.7 *Adults' Social Care*
- 5.8 Both CCC & PCC use products from the same vendor with CCC being on a later version (Mosaic) and PCC on an earlier one (Framework). A project is in flight to upgrade and convert the PCC version so it is aligned with that in use in CCC as an initial stage by the end of March 2020 and then for both organisations to move to a shared, single version of the system.

5.9 *Childrens' Social Care & Early Help*

5.10 Whilst CCC are implementing LiquidLogic, due to go live in October 2019, PCC are already using that system and are making some significant changes to improve its functionality and drive business process change. The changes will be mirrored in CCC's system when it goes live, enabling both authorities to converge in 2020.

5.11 *Education (Capita One & others)*

5.12 Work has commenced looking at what a converged option would be for this area.

5.13 *Highways* – system to be confirmed.

5.14 *Tier 2 functions and systems*

5.15 For Tier 2 functions, that PCC do not share with CCC, the strategic approach is to look at convergence with district councils within the overall CCC/PCC boundary, in particular with the 3 councils that share the 3C ICT service. These councils have a clear strategic roadmap for systems and the Head of IT & Digital for 3C ICT is shared with the Programme Lead for the IT Strategy for CCC & PCC. This represents an opportunity to look at longer term convergence of systems and in the short term a single approach to procurement of these large and expensive systems.

5.16 *Other functions and systems*

5.17 Outside of the Tier 1 & Tier 2 systems there are other functions within PCC & CCC where convergence of business systems presents an opportunity. These include:

- Property Services – system to be confirmed
- ERP - CCC currently use the LGSS provided ERP Gold system for integrated HR, payroll and finance. PCC do not have an integrated system and have separate solutions for each function. More and more staff in the shared services are working in roles that cut across both organisations and also work in or manage teams that do the same. ERP Gold is capable of being configured to support shared services across multiple organisations and is already doing so for LGSS. The knowledge and expertise to implement and support that also exists within LGSS. Consideration should be given to whether CCC & PCC both utilise the ERP Gold system.

6.0 **Shared Infrastructure**

6.1 *Current situation*

6.2 CCC & PCC currently have entirely separate IT infrastructures, housed in separate physical datacentres (Octagon in Cambridge & Sand Martin House in Peterborough). PCC have a large amount of IaaS (Infrastructure as a Service). Because of this complete physical separation there are almost no points of convergence or sharing across these infrastructures. As stated in section 5 CCC & PCC will be converging and sharing business systems and the majority of those systems will require a shared infrastructure to support that convergence.

6.3 *The problems*

6.4 In addition to the physical separation of existing infrastructures, each authority faces a problem with their current IT Infrastructure.

- For PCC this is the ongoing and increasing cost of the Infrastructure as a Service (800k per annum)
- For CCC this is the upcoming disposal of Shire Hall and the DataCentre in 2020.

6.5 *Strategic Approach*

6.6 In order to address the problems above, support converged business systems and to further the strategic aims of the councils this strategy includes a specific workstream to identify and design the optimum and most cost effective shared infrastructure to support convergence of people, teams, systems and data.

6.7 *Options*

6.8 There are several options to be considered to achieve this strategy – summarised below:

1. One organisation hosts all the systems and the other accesses them from their home network using existing or expanded equipment
2. Both organisations purchase new infrastructure in the same physical space and share this between them
3. One organisation hosts all the systems and the other accesses them from a cloud network
4. Both organisations create a shared infrastructure in a cloud network and share this between them

Options 2 & 4 are both being progressed to assess technical feasibility, cost and fit with other work (Office 365 and Converged business systems).

6.9 *Considerations*

6.10 A shared infrastructure is an important part of the overall IT Strategy and a fundamental building block for convergence of systems, data and process. It is important to note that it is not in itself a solution. We need to understand what it will and won't deliver and see it in the context of the overall IT Strategy.

6.11 Shared infrastructure will:

- Support the move to converged systems
- Allow for secure and easy sharing of information across all services
- Support collaborative working across all services
- Allow standard business processes to be implemented quickly and consistently
- Reduce capital costs of system upgrades (upgrading one system not two)
- Enable services to take out cost through process change and integration of teams

6.12 Shared Infrastructure will not:

- Be achieved without investment
- Work without commitment to the shared vision from right across the two councils so the benefits of the systems' change can be realised in services

7.0 Shared Digital approach

7.1 *Current situation*

7.2 As with other areas covered in this document the digital approaches of the two councils have up to this point been quite divergent with different systems and support models.

7.3 *Strategic approach*

7.4 The strategic approach to a shared digital solution has two key elements, shared systems and shared content/usage.

7.5 *Shared Systems*

Opportunities include:

- Re-procuring a web Content Management System

- Re-procuring the Customer Relationship Management system to strengthen links between the web and our contact centres
- Working together on use of other digital tools – Directories, Forms packages, Mobile working

7.6 *Shared Content/Usage*

- Write once use often
- Supported by a shared Communications team delivering standard communications using a shared language and tone

8.0 **Data to inform decision making**

8.1 *Current situation*

8.2 There is a pressing need for improved business intelligence to inform both CCC & PCC in their own strategic and operational decision making, in particular supporting planning to identify where there are areas of potentially avoidable spend. As the management and approaches to shared services align between the two authorities, and the fact that the people we support do not necessarily see the administrative boundary between Cambridgeshire and Peterborough, the need for analysis and intelligence to be consistent is increasing also.

8.3 This intelligence is needed by officers and members to support initiatives such as Think Communities, with its ambition for data and intelligence to be shared between public sector organisations and the public leading to effective and integrated service delivery. This intelligence needs to be informed by and shared with other organisations to gain the full picture of need and spend across the geography.

8.4 There is a single Business Intelligence service across CCC & PCC but the data is stored separately and the tools used for extraction and reporting are different. As a result, although effective at reporting in their individual organisations, the teams are unable to provide joined up intelligence in the way described above. This also impacts our attempts to share and join data with other organisations' business intelligence teams.

8.5 *Strategic approach*

8.6 The strategy in this area is to implement software to enable staff at operational and strategic levels in CCC & PCC to intuitively interrogate and explore data, so as to make data driven decisions, with full integration to Office 365 as well as publication and collaboration options. This would be based on a Power BI platform, which presents data interactively and fully integrates with other features of Office 365 and the user desktop. Power BI can be connected to a variety of existing data sources (such as case management systems in social care), but a cloud based solution providing a data 'lake', an automated multi source data loading, single view of the truth, master data management and advanced analytics is the strategic goal. What this means is summarised below:

- We would have the infrastructure to combine and connect different data sources (such as local authority case management systems, but could also include information from partners too, such as health data)
- We would have the software to help us to visualise the data in an attractive and accessible way
- The software allows managers and staff to explore pathways through their own data, so they can discover the most important factors driving trends
- The integration and collaboration features allow our staff to share what we discover with the right people easily & quickly

- The infrastructure allows us to automatically update dashboards and analytics, so that we have the most up-to-date picture of what is going on as possible without the need for labour intensive manual work to update a report

8.7 Some other local authorities are moving to using this model and others are considering it, which would present an opportunity to share knowledge and expertise in setting up the platform as well as data and intelligence when it is up and running. Local authorities have the scope, scale and expertise to be leaders in partnerships in this area to combine different data sources.

9.0 Organisational Structure for 2020 + beyond

9.1 *Current situation*

9.2 In Peterborough IT is outsourced via a managed service contract to Serco and in Cambridgeshire it is part of the overall LGSS shared service. A recent restructure has resulted in a single IT & Digital Service for Cambridgeshire & Peterborough reporting to Sue Grace as Director. This marks the beginning of a real opportunity to converge not just the IT systems but the IT services and provision to support the wider sharing of services across the front line directorates. This service includes client teams as well as service delivery teams across both authorities.

9.3 *Strategic approach*

9.4 Cross team working is already in place to support discrete projects across both authorities and this will continue. To support the convergence of front line services, business systems and infrastructure the strategic approach is to have a single organisational model of IT staff.

10.0 Implementation Approach

10.1 In order to deliver the significant change that has been outlined above, a structured programme of work is required. The joint ICT strategy programme will operate collectively between PCC and CCC and both councils will adopt a standard operating model that will determine the governance arrangements and controls, with clear lines of roles and responsibilities, to deliver successfully the strategy.

10.2 Central to the approach will be the co-design of change between the ICT service, operational teams that are impacted and service users, as appropriate. This will ensure that any changes required to achieve the strategy will be aligned to business needs.

10.3 A stage gate approach will be followed that will use milestone quality criteria as a means of controlling delivery of activities to time, cost and quality. This will ensure that the Councils are able to balance the need to deliver at pace, whilst introducing change incrementally.

10.4 This approach will:

- Ensure sufficient design is carried out before implementing change
- Ensure third party providers are given comprehensive requirements to hold them to account
- Deliver the change within agreed timescales
- Provide clarity on decision-making during the project lifecycle
- Enable both Councils to plan staff involvement to minimise the impact on daily operations
- Provide rigor around delivery but flexibility to respond to change

11.0 Programme Plan

The programme is expected to run for at least three years and phase one will incorporate current work already underway, such as introducing Office 365 and merging both Adult & Children's Social Care systems.

The projects will be structured across six workstreams:

- Office 365 – more than just email!
- Shared IT Infrastructure
- Converged Business Systems
- Shared Digital approach
- Shared Data to inform decision making
- An organisational Structure for 2020 + beyond

Appendix 1 – Cloud First

Extract from Government Cloud First policy

“Consider cloud solutions before alternatives

When procuring new or existing services, public sector organisations should consider and fully evaluate potential cloud solutions first before considering any other option. This approach is mandatory for central government and strongly recommended to the wider public sector.”

“Public cloud first

By Cloud First, we mean the public cloud rather than a community, hybrid or private deployment model. There are circumstances where the other deployment models are appropriate but the primary benefits for government come when we embrace the public cloud. Departments are encouraged to initially consider Software as a Service models, particularly for their enterprise IT and back office functions.”

Extract from LGSS IT Strategy

Terms and concepts:

1. Eliminate/Right size – Cease using applications that are not required or where functionality is available in other products. Or reduce the ‘footprint’ of others by scaling down capacity.
2. Software as a Service (SaaS) - we ‘consume’ products that have been developed by the cloud providers (e.g. Microsoft Office).
3. System as a Service (SyaaS) – Typically large Line of Business systems (e.g. Liquid Logic) hosted with providers but we are responsible for the system configuration to ensure they conform to and support our business processes. Note this is not an industry standard term but is used to identify large vendor hosted systems which require significant local configuration.
4. Platform as a Service (PaaS) – these are a variety of software ‘tools’ or building blocks used to create other (typically Digital) products used in services such as Blue Badge.
5. Infrastructure as a Service (IaaS) – Servers and other infrastructure that works the same and is configured in the same way as servers in the Octagon but hosted by Microsoft (Azure), Amazon (AWS) or other provider. Best used for services that can be switched off when not needed or need to scale up or down quickly.
6. On Premise (On Prem) – Physical servers, storage (SAN), networking located on a site such as the Octagon data centre providing IT systems and services.