Agenda Item No:6

IT AND DIGITAL STRATEGY FOR CAMBRIDGESHIRE COUNTY COUNCIL & PETERBOROUGH CITY COUNCIL

To: **General Purposes Committee**

Meeting Date: **16 July 2019**

From: **Sue Grace: Director of Customer & Digital Services**

Electoral division(s): **All**

Forward Plan ref: **2019/048** *Key decision:* **Yes**

Purpose: **To advise the Committee of:**

- **The proposed IT & Digital Strategy for Cambridgeshire and Peterborough**
- **The cost and resource implications of the IT and Digital Strategy**

Recommendation: **General Purposes Committee is requested to:**

a) Approve the IT and Digital Strategy;

b) Agree the funding for this strategy as set out in Section 5 of this document.

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1. BACKGROUND

1.1 In 2015 Cambridgeshire County Council took the decision to investigate sharing services with Peterborough City Council. This started with the appointment of a shared Chief Executive post October 2015, followed by other shared senior management posts including, as of January 2019, the appointment of Sue Grace as Director of Customer & Digital Services for both authorities.

1.2 Some shared teams and front line services have been in place since 2017 and it is increasingly evident that there is a need for an IT and Digital Strategy to support these shared services and to progress the transformation of both councils.

1.3 With the appointment of Sue Grace, and Sam Smith as the shared Strategic lead for IT for Cambridgeshire County Council and Peterborough City Council, it is possible to create strategy to do that.

1.4 The County Council's IT has been provided through LGSS since 2011 prior to that it was, with the exception of network services, an in-house IT service. Although LGSS is a shared service the majority of staff providing IT to Cambridgeshire County Council are employed by and based in Cambridgeshire. LGSS is governed through the LGSS Management Board and Joint Committee. LGSS, including IT, is currently undergoing a Chartered Institute of Public Finance and Accountancy (CIPFA) review, the results of which are expected to be presented and then approved by the Joint Committee by early Autumn 2019.

1.5 On 28th May General Purposes Committee approved a report regarding the move of IT systems from Shire Hall, some of the content in this IT and Digital Strategy was contained in that paper. The 'Move of IT systems from Shire Hall' is a key aspect of the IT and Digital Strategy. This strategy provides a robust strategic context for this and other critical decisions regarding the future of our IT and Digital estate.

2.0 SUMMARY OF THE IT AND DIGITAL STRATEGY

2.1 The existing and planned convergence of services across Cambridgeshire and Peterborough requires a step change in delivery of IT for both councils. The current arrangements have been ad-hoc and localised and are therefore, not as effective as they could be and in some cases are more expensive than they need to be.

2.2 This vision for future IT that has been articulated is for staff in shared services to be able to work effectively with colleagues across both organisations and be able to deliver more effective services to our citizens. Staff should have access to IT that supports this and enables secure, easy and robust sharing with collaboration tools delivered on a cost effective basis, with the minimum level of duplicate costs for equipment and licences.

2.3 In short converged IT systems supporting converged teams that can work seamlessly across the two organisations.

2.4 To deliver the vision articulated above a clear IT and Digital Strategy for Cambridgeshire and Peterborough is proposed. This is summarised below:

- 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.

2.5 The full strategy is available as a separate document.

2.6 To ensure that the areas of work that provide the biggest benefit are implemented first certain activity has been prioritised and grouped into phase one of the strategy, these are listed below:

- Adult Services social care system, completing the implementation of Mosaic finance and implementing a mobile working solution that links to Mosaic;
- The implementation of the new, cross-organisational Children's social care system, LiquidLogic;
- Office 365'
- Shared web and digital platform, including a shared Customer Relationship Management system;
- Software to support business intelligence (Power BI)

It is anticipated that this activity will take 18 months to complete. During that time work will begin to look at what areas will be part of further phases.

3.0 STRATEGIC PRINCIPLES

In formulating the IT Strategy the following principles have been applied.

3.1 Convergence

Strategically the principle is to *converge the IT systems and the supporting infrastructure* that is used by both authorities to reduce costs and to support the wider sharing of services across both.

3.2 People

Supporting the converging of systems is the *ambition* of staff working together to support a single connected infrastructure and converged systems. This *ambition* is already informing the ways of working across the two authorities, with cross council teams allocated to key projects delivering to a clear set of objectives.

3.3 Technical

In line with the strategic advice from LGSS, Serco and central government guidance, the IT and Digital Strategy for Cambridgeshire and Peterborough is based on a *'Cloud First'* approach.

3.4 Financial

At all points the IT and Digital Strategy will be focused on achieving *best value for money* for each and both councils. Business cases for each element of the strategy will be produced to support the draw-down of capital budget.

3.5 Data

The *data to enable strategic and operational decision making* should be accurate, available to decision makers as required and not duplicated.

4.0 CONSIDERATIONS/INTERDEPENDANCIES

4.1 The proposed IT and Digital Strategy is a wide ranging, cross cutting programme of work. What also needs to be acknowledged is that this programme does not exist in a vacuum and there are multiple interfaces and interdependencies. Where there are inter-dependencies this will be our approach.

4.2 Peterborough City Council Cabinet approval

4.2.1 The IT and Digital Strategy is one that supports the convergence and sharing of services with Peterborough City Council and proposes a shared and convergence set of IT Services. As such it needs to be approved by both councils and this is being co-ordinated. Peterborough City Council will consider the IT and Digital Strategy at its Cabinet meeting on 15th July 2019. The funding and staffing implications of the strategy will considered in the early autumn.

4.3 LGSS

4.3.1 Concerning IT staff and proposed organisational change the LGSS Joint Committee will be considering options, and making a recommendation, on the future of the Cambridgeshire LGSS IT team at its Joint Committee meetings between July and September 2019.

4.4 ERP Gold

4.4.1 This system is primarily hosted in Northamptonshire (with resilience/back up in Cambridgeshire). The suggested approach is for this to be retained whilst recognising that the review of LGSS and the move to two unitary authorities in Northamptonshire does represent a risk. This requires further consideration, in particular to see if this could be hosted in the cloud.

4.5 Eastnet

4.5.1 The current network contract in Cambridgeshire (CPSN) will cease at the end of 2019 and will be replaced by Eastnet. In addition to being a significant programme of work on its own, there is a supplementary impact as CPSN is the primary source of networking skills for Cambridgeshire (supplemented by LGSS staff based in Northampton). These skills will need to be replaced (or staff TUPED) irrespective of the approach taken to overall IT staff provision in Cambridgeshire.

4.6 Disposal of Shire Hall (Cambs 2020 Project)

4.6.1 As part of Cambs 2020 staff currently based in Shire Hall will move to work from other locations and the Cambridgeshire Data Centre will also be disposed of. The former will have an impact on the delivery of the strategy set out in this paper as the current LGSS Service is one of those located in Shire Hall. There needs to be careful consideration of where and how this team will work. Alongside this there is also a significant amount of work required from IT to support the overall change programme in the County Council.

4.6.2 The move of the Data Centre formed a separate bid for funding, approved by General Purposes Committee on 28th May 2019. The project planning for this significant 18 month programme of work is now underway.

5.0 COSTS

5.1 The strategic approach outlined in IT and Digital Strategy cannot be delivered without a significant programme of structured work across both councils. It is envisioned that this will be a 3-5 year programme. This programme will be part of the overall emerging project and programme governance structure across Cambridgeshire and Peterborough.

5.2 As mentioned in 2.7 a set of projects that make up the initial phase of the strategy have been identified. Some of these are already partially or completely funded, others will require additional funding as will the programme resource to ensure the IT Strategy is delivered. The areas that require additional funding are shown below.

- Office 365 for Cambridgeshire – the initial phase of this project (configuration, setup and migration of email and calendar) has been funded through a previous capital bid. Ongoing revenue costs and capital costs for further phases are included in this investment bid;
- Shared web and digital platform, including a shared Customer Relationship Management system for Cambridgeshire and Peterborough;
- Software to support business intelligence (Power BI) for Cambridgeshire and Peterborough

5.3 The indicative costs of this phase of work are summarised in the table below. It should be noted that these will be refined through the next stages of work. Costs that need to be shared across the two authorities will be done so in accordance with the Financial Protocol which is part of the Joint Working Agreement between Cambridgeshire and Peterborough approved by General Purposes Committee on 20 September 2018 and subsequently by Full Council on 16 October 2018. The draw-down of each tranche of funding will be accompanied by a business case for each project to ensure that suitable rigour has been applied in accordance with the agreed Financial Protocol.

Capital expenditure	2019-2020	2020-21	Total
Costs shared with Peterborough (Cambridgeshire share)	985,867	949,333	1,935,200
Costs specific to Cambridgeshire	352,607	414,425	777,639
Total budget	1,338,474	1,363,758	2,712,839

Revenue impact	Ongoing from 2021-2022
Costs shared with Peterborough (Cambridgeshire share)	20,000
Costs specific to Cambridgeshire	180,607
Net revenue cost	200,607

5.4 Phase one will also include investigation into how IT can be used in front line and back office services to provide further savings.

5.5 Some case studies have been identified illustrating areas where the IT & Digital Strategy will provide a return on investment, these are listed below and included as **Appendix 2**.

- Liquid Logic, shared Children's system
- Business Intelligence for Peterborough and Cambridgeshire
- Mobile working for Adults, Cambridgeshire case study

6.0 ALIGNMENT WITH CORPORATE PRIORITIES

6.1 A good quality of life for everyone

The following bullet points set out details of implications identified by officers:

- IT underpins almost all the services that the council provides to the citizens of Cambridgeshire and the IT and Digital Strategy is fundamental to the transformation of those services.
- Services will be designed with the citizens needs first & foremost.

6.2 Thriving places for people to live

The following bullet points set out details of implications identified by officers:

- IT underpins almost all the services that the council provides to the citizens of Cambridgeshire and the IT Strategy is fundamental to the transformation of those services.
- Services will be designed with the citizens needs first & foremost.

6.3 The best start for Cambridgeshire's children

The following bullet points set out details of implications identified by officers:

The IT and Digital Strategy will incorporate and underpin critical services and projects such as:

- The implementation of the new, cross-organisational Children's social care system, LiquidLogic.

7. SIGNIFICANT IMPLICATIONS

7.1 Resource Implications

- The IT and Digital Strategy responds to the increasing sharing of services between Cambridgeshire and Peterborough as well as the transformational activity required by the County Council.

- The costs detailed in Section 5 include the staff resource implications of the proposal for which additional funding is being requested.

7.2 Procurement/Contractual/Council Contract Procedure Rules Implications

The suggested approach will require the procurement of a number of items including software, hardware and professional services. The Council Contract Procedure Rules and Public Contract Regulations 2014 will be adhered to in all instances.

7.3 Statutory, Legal and Risk Implications

There are no significant implications within this category.

7.4 Equality and Diversity Implications

There are no significant implications within this category.

7.5 Engagement and Communications Implications

There are no significant implications within this category.

7.6 Localism and Local Member Involvement

There are no significant implications within this category.

7.7 Public Health Implications

There are no significant implications within this category.

Implications	Officer Clearance
Have the resource implications been cleared by Finance?	Yes Name of Financial Officer: Chris Malyon
Have the procurement/contractual/ Council Contract Procedure Rules implications been cleared by the LGSS Head of Procurement?	Yes Name of Procurement Officer: Gus de Silva
Has the impact on statutory, legal and risk implications been cleared by the Council's Monitoring Officer or LGSS Law?	N/A
Have the equality and diversity implications been cleared by your Service Contact?	N/A
Have any engagement and communication implications been cleared by Communications?	Yes Name of Officer: Christine Birchall
Have any localism and Local Member involvement issues been cleared by your Service Contact?	N/A
Have any Public Health implications been cleared by Public Health	N/A

Source Documents	Location
General Purposes Committee – 28 May 2019	https://cambridgeshire.cmis.uk.com/ccc_live/Meetings/tabid/70/ctl/ViewMeetingPublic/mid/397/Meeting/917/Committee/2/Default.aspx

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

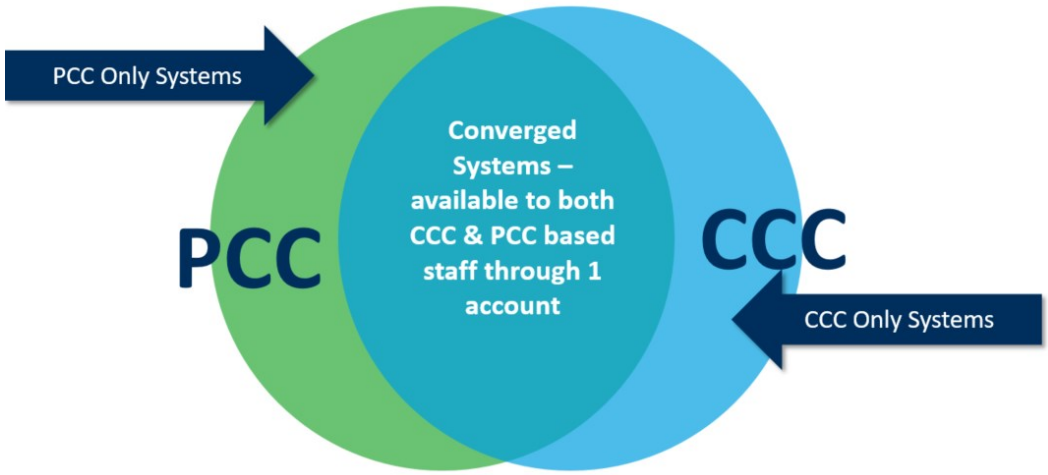
2.1 The Vision for shared IT services for PCC & CCC has been defined as the below.

"**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 Gartner[1] 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:

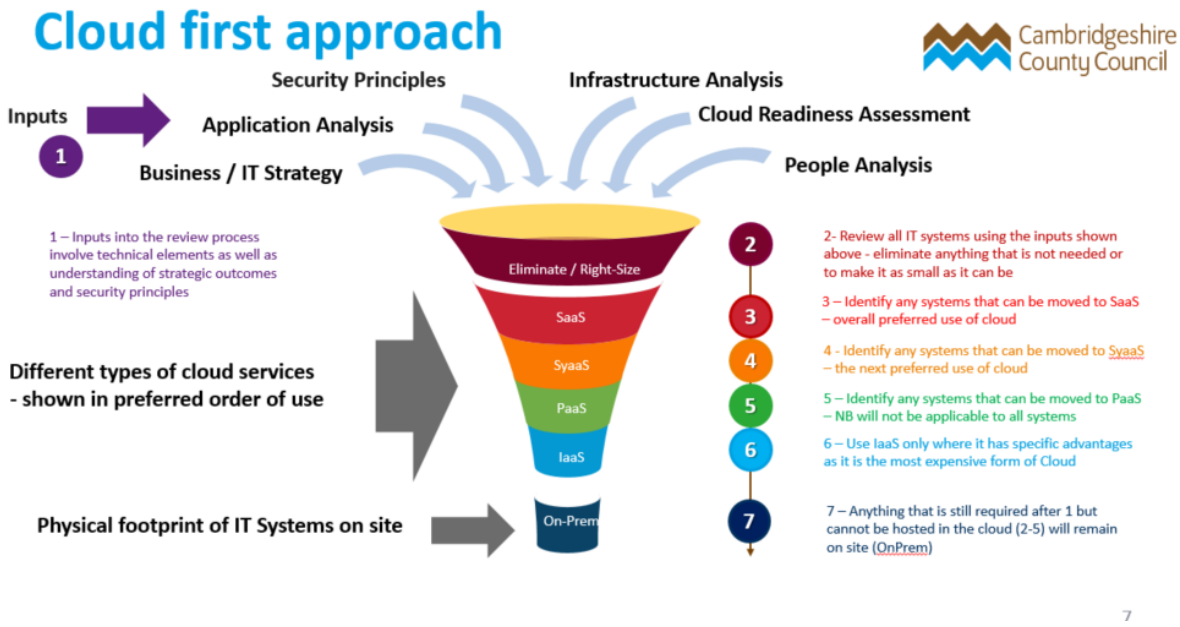
"As local government authorities seek to do more with less, hybrid clouds seem like a natural fit. They allow IT to shift workloads between internal datacentres and a public cloud provider during peak periods. Cloud computing can reduce costs while boosting project flexibility. Digital transformation 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 3

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 Terms and concepts:

1. Inputs include:
   - Application Analysis - review of applications in use across the Council
   - Infrastructure Analysis - review of infrastructure in use across the Council
   - People Analysis – profile of staff to understand requirements for systems
   - Business Strategy – strategic objectives of the Council
2. 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.
3. Software as a Service (SaaS) - we 'consume' products that have been developed by the cloud providers (e.g. Microsoft Office).
4. 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.
5. 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.
6. 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.
7. On Premise (On Prem) – Physical servers, storage (SAN), networking located on a site such as the Octagon data centre providing IT systems and services.
8. Infrastructure/Application Analyst

3.9 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 that 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 (Frameworki). 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, following 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 is 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.

9.10 *Strategic approach*

9.11 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 that each project is supported by a robust business case
- 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 2 – 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

Appendix 3 – IT & Digital Strategy: Case studies

Case Study1 - Liquid Logic, shared Children's system

Introduction

The Business Systems workstream in the IT and Digital Strategy is centred around the principle of bringing together systems across Cambridgeshire and Peterborough wherever we have shared teams delivering a service across the two councils.

For these services to work effectively we need to take out the inefficiency of shared teams having to record and look up information in two completely different systems, a different one for each Council. Working in this way inevitably slows down the whole process, which could pose a risk to those we are supporting.

Given the critical nature of the work we do in Children's Services this is one of the areas we prioritised for streamlining business systems across the two Councils.

Children's Services' Systems change

A system called Liquid Logic was already in use in Peterborough and in 2018 the decision was taken for this system to be procured and rolled out in Cambridgeshire as well. A project is now well underway upgrading and carrying out improvements to the system in Peterborough so that this system can then be mirrored across into Cambridgeshire. The go-live date for Liquid Logic in Cambridgeshire is October 2019.

The effectiveness of Children's Services is intrinsically linked to the effectiveness of the business system that supports the service. In this case study we identify two key areas where having Liquid Logic operating across both Councils will represent a significant improvement on the current way of working. We also summarise some of the other benefits of working in this way.

Multi-Agency Safeguarding Hub

Cambridgeshire and Peterborough have developed a joint Multi-Agency Safeguarding Hub [MASH]. This is a critical element of safeguarding children and young people and is always a key focus of any OFSTED inspection. Liquid Logic offers a MASH Module which is tried and tested. It supports robust inter-agency decision making about children and young people and because it shares the same database between Social Care and Early Help services this enables the MASH to step children down from Social Care to Early Help seamlessly. Having a single, shared system will enable managers to track the journeys of children to see any anomalies that may point to problems with the operation of the overall child protection system.

Family Safeguarding

Family safeguarding is an approach whereby multidisciplinary teams work with families with the most complex needs – those where adults have mental health issues, substance or alcohol misuse issues, or are affected by domestic abuse – and often a combination of two or all of these factors.

Family Safeguarding brings adult mental health, substance misuse and domestic abuse workers into children's teams; these work to a single family plan, supported through group supervision. Developed in Hertfordshire, this model has seen a reduction of 20% in numbers on child protection plans and 7% in numbers in care.

The Department for Education [DfE] has issued guidance to all local authorities that they should adopt this model of intervention. Peterborough has been piloting the model and now

Cambridgeshire has been awarded between £3.5M and £4.0M by the DfE [the amount is yet to be confirmed] to develop this approach across the county.

Liquid Logic has worked closely with Hertfordshire and has developed a family work book that enables all those working with the family to record information in the same case file. Hertfordshire has negotiated with the local judiciary that the workbook replaces the need for separate statements in care proceedings. This means the process is more seamless for the family, and for those professionals supporting the family. Liquid Logic is unique in having this workbook. This demonstrates how a fit for purpose business system can have a direct impact on helping us to improve the lives of those we are here to support.

Summary of Operational Benefits

Other operational benefits of having an aligned IT system for Children's Services across Peterborough and Cambridgeshire are:

- *Improved case management* – a common system and common processes give visibility of case status across Peterborough and Cambridgeshire ensuring that initial contacts are routed correctly reducing the risks involved, for the Police and other agencies, of contacting the wrong authority.
- *Better data quality* – given the complexity and sensitivity of this area of work, combined with the need for prompt action, having a single system means we can have a single dedicated team of staff supporting children's activity in the contact centre and the MASH who are able to process contacts more quickly.
- *Simplified structures* – there will be a number of teams that will need to operate across both local authorities who will need to use the relevant system in each authority. One system makes this so much easier.
- *Background checks* – are required for Children's enquiries, having fewer systems where information needs to be reviewed and then having a common system where subsequently information has to be recorded will improve the accuracy of findings and recordings.
- *Transitions* – i.e. people who move across the Peterborough /Cambridgeshire border, here having one system will support the continuity of record keeping. One record per customer on one system.
- *Shared costs* – future IT development costs can be shared with Peterborough, likewise training costs/ packages and reporting systems/capabilities.
- *Shared expertise and resilience* – having a single team, made possible by having a single system, improves resilience and provides a better basis for expertise to be shared and developed. Induction for new staff into the service is quicker with only one system to learn, leading to a better user experience.
- *Partners* – as the model develops with other agencies, we would want our respective systems to 'talk' to each other. Integration costs increase in accordance with the number of systems used. The complexity of such integrations can have an impact on system reliability. A number of partner agencies operate across the Cambridgeshire / Peterborough boundary in future they will only have to deal with one system not two.
- *Web service and other line of business integrations* – would be more costly with two systems e.g. we will be able to develop a customer online offering which integrates with this one system.

- *Supporting the delivery of savings* – in Cambridgeshire there are significant potential savings and cost avoidance opportunities. These arise from sharing of infrastructure costs across the two authorities and, more significantly, from demand management opportunities. Family Safeguarding is associated with reductions in numbers of children in need, in need of protection and children in care. Hertfordshire achieved reductions of around 7% in demand. Peterborough has significantly fewer children in care per 10,000 than statistical neighbours with Family Safeguarding in place for the last 18 months. Cambridgeshire has a higher number of children in care per 10,000 than statistical neighbours, illustrating the potential for demand management.

Future Developments

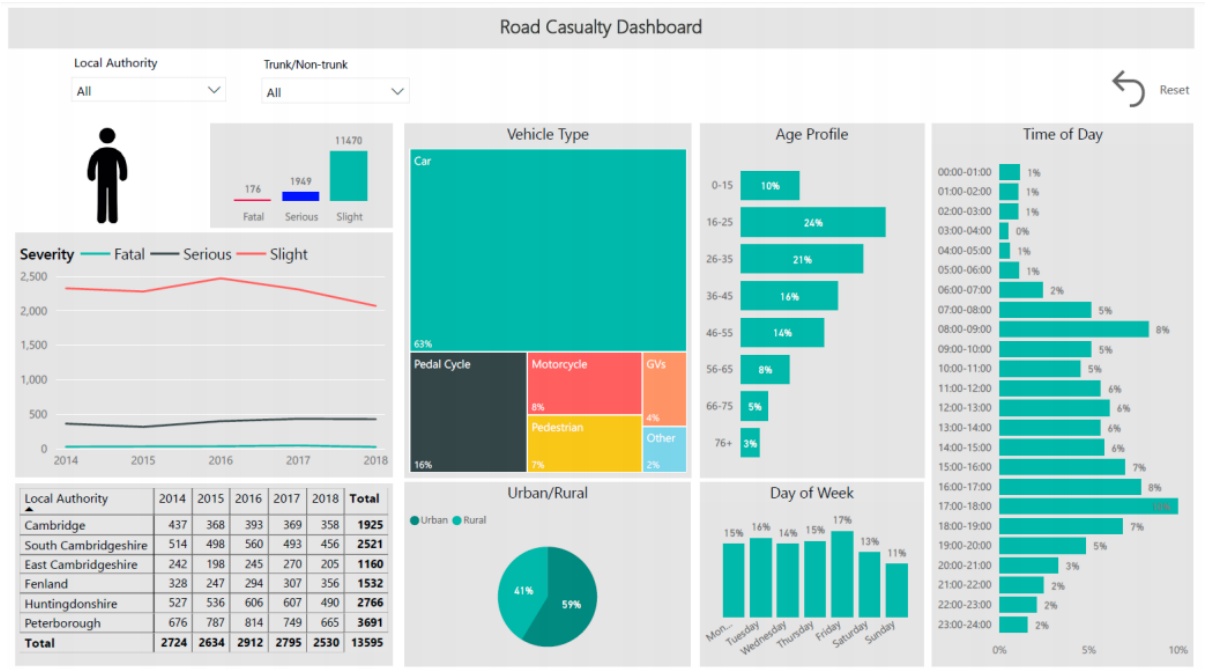
At the moment we are working to align the Liquid Logic systems between the two Councils however, we are looking at whether we should move to a fully converged, single IT system for both Councils. Understanding where this would be beneficial from an operational perspective, how this could be done and whether it would enable us to reduce the costs of the system will all be investigated in the coming months.

Liquid Logic also offers modules supporting SEND [Special Educational Needs] processes, as well as broader education functions. If we could adopt these modules they too would share the same database with Children's Social Care and Early Help. Reducing the number of separate databases that store the details of individual children and young people will improve our ability to support these children and young people. For example, we could monitor children missing education with those who are flagged as at risk to exploitation all within the same system. Such developments would strengthen our ability to support children, young people and their families; again this is something we will be investigating in the coming months.

Case Study2 - Business Intelligence for Peterborough and Cambridgeshire

Power BI dashboards

Power BI provides powerful analytical functions, that allow repeatable analysis of datasets along many dimensions. We are already making use of Power BI Desktop to produce dashboards such as the recently completed Road Casualty Dashboard. This dashboard takes 5 years of road accident data and allows analysis by type of road, vehicle type, severity of accident, location, day of the week, age, time of day. This has two benefits, firstly that staff looking at ways to reduce accidents can immediately see and investigate patterns in the dataset – for example to look at whether accidents involving a particular type of vehicle happen at particular times of the day or week, and who those accidents happen to most often. The second benefit is that this speeds up the production of analysis, as the dataset simply has to be refreshed rather than re-running the whole analysis by hand.



Local Authority	2014	2015	2016	2017	2018	Total
Cambridge	437	368	393	369	358	1925
South Cambridgeshire	514	498	560	493	456	2521
East Cambridgeshire	242	198	245	270	205	1160
Fenland	328	247	294	307	356	1532
Huntingdonshire	527	536	606	607	490	2766
Peterborough	676	787	814	749	665	3691
Total	**2724**	**2634**	**2912**	**2795**	**2530**	**13595**

Power BI Premium increases the publishing and security options available to us. For example, it allows us to publish dashboards so that they can be accessed via a web browser when logged in to the Council network. This means that we do not have to install software on staff laptops (which makes access much more straightforward and reliable), and allows us to integrate access permissions so they are appropriate for each staff member. Individual staff members can interact with their data much more easily – for example, they could set an alert on a measure so if it increases above a certain level they receive a notification.

For more information see
https://cambridgeshire.cmis.uk.com/ccc_live/Meetings/tabid/70/ctl/ViewMeetingPublic/mid/397/Meeting/1142/Committee/7/Default.aspx

Integrated data layers – the Kent Integrated Dataset

Currently, across the health and social care system in Cambridgeshire and Peterborough, providers such as Councils and NHS agencies have access to datasets about service user or patient needs and service activity. We also individually have access to other datasets about place, such as deprivation, the economy, and consumer preferences. Joining these datasets together is done on a one-off basis as we do not have the infrastructure for doing this routinely.

Kent County Council has developed an integrated health and social care dataset called the 'Kent Integrated Dataset'. It combines GP practice, community health, mental health, out of hours, acute hospital, public health, adult social care and hospice data into one dataset. The dataset provides person level administrative activity and cost data, linked through NHS number, but anonymised so individuals cannot be identified (names are removed, dates of birth become age, and address becomes Lower Layer Super Output Area). This allows the pathways people take to be traced through the system so we can understand their needs, what they accessed when and how much it cost, linked to some demographic details about them. By including other datasets (e.g. segmentation data about consumer preferences) we can build up a rich picture of who is accessing which services when and why.

This can be used for

- Estimating the return on investment of commissioning decisions
- Determining the impact of different services, including non-NHS services, on well-being
- Evidence led service design

- Developing new payment models
- Advanced public health intelligence, to support effective targeting of prevention and population budgeting

Doing this requires

- Resourcing a development project
- Substantial computing power to match up records from multiple providers and manage the pseudonymisation process
- Commitment from partners across the system to the project, to manage their data well, and provide technical support to the development and maintenance of the dataset as required
- A full and comprehensive information governance framework which allows all providers to fully satisfy their obligations as data controllers

Doing this 'in the cloud' simplifies the network connections that need to run between partners and the central database, and allows for the deployment of variable amounts of computing power as necessary to do the matching, pseudonymisation and integration of the dataset. It also allows the use of features such as machine learning which rely upon significant computer power which is more easily available from a cloud-computing provider.

For more information see https://www.kpho.org.uk/__data/assets/pdf_file/0004/74146/Kent-Integrated-Dataset-August-2017.pdf

Case Study3: Mobile working for Adults, Cambridgeshire case study

Introduction

Mosaic, the social care management system, was implemented in Cambridgeshire in October 2018, with the finance module being fully deployed across all types of payments by October 2019. Work is now underway to upgrade the current Adult social care management system in Peterborough, called Frameworki, so this system can be converted to Mosaic by March 2020. At this time both councils will be working to the same, fully aligned IT system. This will facilitate the sharing of this service across the two councils.

Mosaic enables social workers, and other Adult services' practitioners, to share best practice and to simplify the recording and monitoring of support pathways to better manage our community's social care needs.

Impact of Mosaic Implementation

Mosaic is already making a difference to our frontline workers. They are inspired and excited by the breadth of its capabilities and the time it's saving them; time that can be re-invested in supporting those who need our help. Examples of recent feedback:

"I feel that the Mosaic System has provided a streamlined system to record information on the people we support, the steps will ensure the same information is being asked of individuals…… It's clear on the history to show who has worked on what piece of work". *Adult Support Worker, Learning Disability Partnership*

"In Customer Services we have a clearer picture of the care pathway and the majority of the time can easily track and progress service users, carers, professionals and members of the public contacts onwards for resolution to relevant teams". *Customer Service Advisor, Customer and Digital Services*

"There are quite a few worksteps where information pulls through from preceding worksteps (eg from the last assessment into the next one) or is pre-populated from core data (eg GP details)

which reduces the need to re-enter the same information each time. The system prompts you as to what you actions you might need to do next (& sometime prevents you from proceeding if you haven't done them or have selected an inappropriate action)". *Social Worker, Hospital Discharge Planning Team*

Implementation of Mosaic Mobile

We want to build on the implementation of this case management system so we can exploit the opportunities of this new system.

Mosaic Mobile, or TotalMobile, is a mobile 'app' which integrates with the Mosaic case management system. This will mean front line workers' appointments, key summary information, progress notes and assessment forms will be available on their mobile device. Any assessment forms or other data entered via the mobile device will be synchronised into Mosaic whenever the device is within range of WiFi or a mobile signal.

Modelling has been carried out that indicates that use of this mobile working system will lead to a 16% increase in efficiency (25 calls per week, up to 31 calls per week). This will be monitored post implementation to ensure the system is delivering the required results.

Assuming Totalmobile delivers the expected16% efficiency, potential savings arising from the increase in efficiency of the service could be realised in three ways:

- Option One – maintaining staffing levels in the service and delivering demand management / cost avoidance savings through increased Reablement activity;
- Option Two – maintaining current Reablement activity, but doing this with fewer staff;
- Option Three – a mix of Options One and Two.

The service will decide how it wants to realise the savings. The potential savings represented by these three options are:

- Option One – demand management = £1.6m per year or,
- Option Two – staffing reduction = £0.8m per year or,
- Option Three – mixed (50% of each) = £1.2m per year

Using the mixed approach as an example, to manage demand and reduce staff, this would represent a return on investment as set out below:

Blended Version	2019/20	2020/21	2021/22	2022/23	Total
Assumes 50:50 on Savings	£000	£000	£000	£000	£000
Implementation cost	368	0	0	0	368
Increase in running costs	70	139	139	139	487
Demand Management	0	-811	-811	-811	-2,433

Establishment Reduction	0	-413	-413	-413	-1,239
Net Total	**438**	**-1,085**	**-1,085**	**-1,085**	**-2,818**

One Mosaic is fully operational in Peterborough we will look to replace the current mobile working 'app' for the Reablement team, which does not link back to the case management system, with TotalMobile so these benefits can be delivered in Peterborough as well as Cambridgeshire.

1. Demand Management = £1.6m per year
2. Staffing reduction = £0.8m per year
3. Mixed (50% of each) = £1.2m per year

Benefits include:

- Improved productivity by providing more services to more people
- Improved morale and social work practice in front line teams
- Use of a dynamic scheduling system to:
    - Allocate resources more effectively to meet current and future demands
    - Improve customer expectations and experience of services
    - Reduce the risks associated with lone working and personal safety
    - Improve the quality of life and wellbeing of workers and customers