Summary:
The Council is just completing a major IT Transformation programme which supports the Smarter Working and Financial Savings programmes. As part of the IT Transformation programme Google Chromebook and Chromebox devices have been replaced by Windows 10 laptops.

This report summarises the path and some of the key decision points over the last four years that gave rise to the IT Transformation programme and outlines some of the key achievements and benefits that have been delivered by it.

Recommendation(s)

PAASC are asked to:
(i) Note the significant benefits and achievements of the IT Transformation programme and;
(ii) Note the rationale for moving from Google Chromebooks to Windows 10 laptops

Reason(s)

To recognise the significant gains in productivity, the reduction in operational risk and cost savings to the Council as a result of the ICT transformation programme.

1 Background

1.1 The 2013 Windows XP replacement programme

In 2013, the Council recognised that its ageing IT estate was beginning to cause operational performance issues and that the Microsoft Windows XP operating system that ran on most of the authority’s PCs would no longer be supported by the supplier from 8th April 2014. Once unsupported, Microsoft would no longer provide updates or security patches which would then have caused the authority to fail its Public Sector Network (PSN) Certification which is required to allow data to be shared electronically with other Public Sector organisations most importantly the
DWP, without which the Council would not be able to calculate benefits.

In November 2013, the Council approved a Windows XP replacement programme to address these issues. The Authority decided that a strategy of utilising and upgrading existing desktop PCs, where possible, to run Microsoft Windows 7 and replacing older desktop equipment with 2000 Google Chromebooks running the Chrome Browser would both keep investment costs low, assisting with budget challenges and allow more flexible working using lightweight mobile Chromebooks.

The project successfully delivered the new Windows 7 / Chromebook roll out together with a range of infrastructure improvements such as the expansion of Wi-Fi to support mobile working and an upgrade to the Council’s Citrix environment needed to support the use of Chromebooks. Chromebooks were low cost devices and are often described as ‘a browser in a box’ because no end user software is held on the device and all the processing power is provided by a centralised Virtual Desktop Infrastructure such as Citrix.

1.2 The 2015 IT Transformation programme

Whilst this Windows 7 / Chromebook strategy addressed the immediate issues around the ageing desktop estate, it did not address the problem of the Council’s ageing server estate which had over 800 servers in the Civic Data Centre running the significant number of Council software applications. Further the Council were required to make additional savings because of significant funding cuts coming from the Government Spending Review.

In Summer 2014, the Council requested that Elevate bring forward proposals to increase the savings that could be achieved from its Services. This resulted in several savings proposals which were approved by Cabinet in December 2014 and offered a reduction in Elevate IT expenditure of £2.1m p.a. through a range of measures. These included:

a) Migrating off Microsoft Office & Exchange 2007 and moving to Office 365 in the Cloud
b) Migration of traditional ISDN telephone lines to SIP trunks enabling call savings
c) A move to utility computing that allows for cost to follow consumption on a subscription basis.
d) Closure of the Dagenham Data Centre to facilitate the handover of the Civic Centre to Coventry University
e) Moving most Council servers, software and data to the Cloud
f) Rationalisation of the software estate that is reducing the number of applications
g) Standardisation of the technical estate to reduce complexity and cost
h) Upgrade the desktop operating system to Windows 10
i) Managed desktop model with all applications delivered from a central source
j) Implementation of Revised Elevate IT Target Operating Model delivering IT staffing reductions of approximately 30%, with a commensurate cost saving to the Council
k) Network revisions providing Improved Business Continuity and resilience
Based on planning underway at the time of the proposal to re-structure the Council, the Transformation proposal used an agreed planning and cost assumption of 2500 users to achieve the required savings. It must be noted that this was an assumption and that we are not at this staffing level.

The original proposal was to replace the Council Chrome devices with new Windows 10 PCs and for existing PCs to be upgraded in situ to give a managed Windows 10 environment.

Work was approved to start in October 2015 at which point Elevate and Agilisys resources commenced designing and building the new infrastructure.

In parallel, during 2015, the Council had commenced a property and workforce focussed Smarter Working initiative which would seek to implement new ways of working requiring a modernised office working environment. One of the key objectives of Smarter Working Programme was to achieve efficiencies in utilisation of office accommodation with a target ratio of 10 staff per 6 desks.

Initially, these two programmes, did not work well in supporting each other’s objectives.
  - IT Transformation was Supplier Led and very focussed on cost savings and getting to a saving at the earliest possible stage,
  - Smarter Working was more transformative, requiring workforce engagement and cultural change to achieve its objectives
  - To succeed in its objectives, Smarter Working, needed the output of both programmes to be aligned.

The IT solution as envisaged in 2015 and early 2016 would not support the level of flexibility required to achieve the Smarter Working objectives. The target of a ratio of 6 desks per 10 staff required staff to be able to work offsite and flexibly in other locations, this could not be done with the proposed predominantly desktop based estate.

After some consideration and given the decisions already in place about Windows 10 and Microsoft Office, it was decided that the only way to achieve the required flexibility to support the Smarter Working objective was to move to a laptop based deployment with an assumption that c.90% of users would be issued with laptops and that c.10% would be using fixed desk machines.

Chromebooks are not designed to be able to hold data and cannot be used easily in environments where poor mobile or WiFi signals exist. Laptops which have onboard storage and processing power were therefore selected as devices more attuned to this environment.

Further, the Chrome devices whilst being robust and exceeding their 2-year expected life had reached a point where the authority would have needed to start replacing some of the devices and it is unlikely that a sub £200 per device price would have been achieved when purchasing lower quantities. In view of this the authority chose to procure new laptops to support the workforce.
During this period, the Council started to work to understand the HR and other data on hand about users. This was in a very poor state with over 13,000 entries in the first instance. Eventually, after cleaning up the data to remove users that had left the organisation, duplicates, name changes, service accounts, shared mailboxes and various other categories, it was possible to get down to a first approximation of around 4200 registered users that were logging on to Council systems on a rolling 60-day basis.

It was thought likely at the time that around 1000 of these would be occasional users that could share a very small number of machines to access HR and a small number of other functions.

Post migration analysis of the staffing and IT usage figures for a 2 month period shows an establishment headcount of 3225 staff of which 54% used IT systems during a 2 month period. There are a further 1220 resources that used the IT systems during the same period. These additional users are a mixture or Partner and Contract staff with the largest group consisting Elevate Staff (300 appx.) in their various business functions carried out on behalf of the Council.

1.3  **Conclusion**

The IT Transformation programme has now reached its conclusion with final work on Network resilience complete by the end July. The Elevate annual savings have now been achieved and most Council staff now have a modern Windows 10 laptop with Office 365 software available. Whilst there were some initial teething issues with some aspects of the technology these have now largely been resolved and the new solution is now stable and working well. The Data Centre in Dagenham was emptied of all equipment on schedule and the building is now in the process of handover to Coventry University. All systems, software and data have now been moved to new infrastructure hosted in the Agilisys IaaS (Infrastructure as a Service) data centres at Welwyn and Powergate.

The Google Chromebook estate on the Corporate network has now been decommissioned and we have been able to offer the 2/3-year-old devices to schools in the Borough for them to be able to utilise. The Chromebook whilst very useful as an internet browser tool was not ideally suited to maximise the potential of the new modern cloud infrastructure such as Office 365 that the Council has bought into where a laptop will allow greater flexibility and autonomy of operation.

The IT Transformation element of the Smarter Working Programme has delivered clear benefits and an improvement in the rapidly declining confidence in the fitness for purpose of the Council’s IT systems and infrastructure.

The cost of achieving this has been significantly higher than the initial estimates for the IT transformation as envisaged in early 2015. As a result, despite Elevate delivering their commitment for a lower service cost (c.£2.1M Pa reduction) the input cost to achieve this from the Council were higher than anticipated and so the direct cost savings to the business are eroded. The main causes of this are:

- Growth of user numbers from the original assumption to the current figure of 3320 users. More devices, more licences, more work to deploy.
- The change from primarily desktop based hardware to laptops.
- Elements of the required work to move out of Civic Centre that were not included in the original IT Transformation proposition.
- Growth in the IAAS proposal cost to include a greater element of resilience.

There are a number of further pieces of work that need to be carried out to achieve best value from the transformation completed to date. Many of these pieces of work were planned to occur once the main implementation had taken place.

- Licence and implementation model for heavily shared machines / occasional users. It is expected that this will account for C.500 users in the estate.
- Removal of the remaining Windows 7 devices remaining in the estate.
- Packaging and delivering remaining windows applications.
- Minimising the use of Citrix in the estate. The original transformation vision required this to be removed by now. This has not proven possible due to the lack of Windows 10 support for the versions of Capita software being used by the Council.
- Making best use of Office 365 functionality outside of the basic Outlook, Excel, Word, Powerpoint, Skype set of tools.
  - Teams
  - Delve
  - Planner
  - Webmail
  - Web products
- Synchronisation of data to Laptops (laptops are currently not really viable for offline working.)
- Migrating to Cloud storage for personal documents.
- Migrating to Cloud storage for team documents
- External collaboration using Skype for business
- Migration of the HR Document Management system to Share Point online
- Consideration of the Council’s ongoing disaster recovery needs and how they should be met.
- Final cut over from Traditional ISDN trunks to SIP trunks for telephony.
- Remediation of some residual security risks around network and flexible working.

2 Consultation

2.1 Council IT Client and Elevate have informed the approach, data and commentary in this report.

3 Financial Implications

Implications completed by: Kathy Freeman, Divisional Director Finance

3.1 There are no specific financial implications as a result of this report; however, in light of current financial constraints it is imperative that Officers ensure that they follow corporate policy on the return of laptops and associated software when staff or agency workers leave the organisation to maximise cost savings. Also as data storage is now charged based on the level of consumption it is essential that this...
data is more carefully managed to reduce costs and meet the new GDPR (General Data Protection Regulations) due to come into force in May 2018.

4 Legal Implications

Implications completed by: Dr. Paul Feild Senior Corporate Governance Solicitor

4.1 Assembly agreed the vision and priorities in September 2014. The responsibility for implementing them rests with Cabinet. The delivery of these will be achieved through the projects set out in the delivery plan and monitored quarterly. As this report is for noting, there are no legal implications.

5 Other Implications

5.1 Staffing Issues – There are no specific staffing implications.

Background Papers Used in the Preparation of the Report: None

List of appendices: None