IT Infrastructure and Stability

Looking forward to the next 18 months.

May 2017

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This paper looks at which components of ICT infrastructure will be addressed over the coming 18 months and comments on how the changes will be accomplished.

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IT Strategic Focus – What are we trying to achieve

For the past two years and continuing, the internal ICT focus has been on moving to a more modern, flexible infrastructure to enable business change.

- Reduce or eliminate CBC reliance on In-House Data Centres

- Reduce or eliminate CBC reliance on Contracted, Permanent Networks

- Remove the complexity and performance constraints of virtualised desktops

- Enable full and flexible mobile working

- Move towards the use of consumer (common) technologies

- Provide a degree of user choice in the selection of their own tools

- Improve Overall Security of Hosted Data and End User Environments

- Update Systems to Current Release Levels

- Refocus ICT service delivery to sharpen application support, end user services and business change.

A simple view that CBC users should be able to work with CBC systems and data in the same, flexible and effortless way in which they work with services in their daily life – shop at Amazon, Ocado, Bank with Barclays, Purchase Music on line, Communicate with Friends.

2018 Overview

By 2018, after extensive previous develop, based on current timelines the following should be in place:

- CBC Hosting and Data Centres will be fully rebuild and either running on slimed down, modern technology in house, or on the same equipment but professionally managed out of house. A tender for such is now being prepared.

- Email and Desktop Software – Work, Excel, PowerPoint – will be fully hosted in the Cloud, supported and continuously upgraded by Microsoft O365.

- The majority of live user file storage will be moved to cloud hosted storage with Box, breaking the dependency on in-house networks and servers and providing on line collaboration and workflow.

- Telephony management and support will be externalised with Vodafone.

- SAP HR, Finance and Procurement will be hosted by SAP in Waldorf, Germany, Amsterdam, NL.

- All user endpoints will have been upgraded from thin clients with an intelligent device compatible with their workstyles – primarily laptops, tablets and smartphones.

- Security will be (is) in place to support fully mobile workstyles and application hosting by 3rd parties..

- There will be no requirement for any CBC worker to be office based.

2018 – Data Centre

The capacity of the existing data centres at Luton and Hoddesdon will be reduced to less than 1/3 its existing capacity.

This will be accomplished through the moves of the three largest capacity services – email, Storage and SAP – to their cloud hosted partners – Microsoft, Box and SAP. Additionally a significant group of existing line of business applications will move to 3rd party hosting – Modern.Gov, BoardPad, Tribal, Adult Social Services and iDox.

The smaller capacity will be consolidated onto *more efficient technology* and either self hosted in house at Priory and Watling House or moved to professional hosting management at external locations pending the outcome of the new tender.

The reconfiguration will allow us to build into the configurations elements missing from the original builds – service redundancy and reliability, business continuity, disaster recovery, simplified management.

2018 - Networks

All new network installations (eg Smarter Working) are moving to secure WiFi, thus eliminating cabling and network component management.

Internet Access for the network is being increased from 1 x 100mb to 2 x 1gb or a 20 fold increase in bandwidth.

A study is underway to move all CBC buildings with the exception of Priory and Watling House off of the commercial leased network and attach them directly to the Internet to reduce costs. This will bring the service users closer to their information and applications in the Cloud.

2018 - Desktops

The existing thin client, Citrix virtualised desktop is being replaced with intelligent user end points and completely revised client support models.

The first of the new series of services were deployed into the Customer Contact Centre and into Revs & Bens last year. This work has informed planning and a revised client is being deployed for the June rollout of Smarter Working.

By the end of June 2017 some 600 persons will have been removed from the Citrix desktop services. Planning for the removal of the residual 1800 persons will take place after analysis of the Smarter Working deployment.

The new environment, primarily laptop based, will allow users to work from anywhere at any time to reach any asset with much less dependency on the CBC infrastructure.

The change will go along way towards removing the bottle neck and point of failure that is in the current Citrix deployment.

2018 - Mobility

The new generation of laptops now being issued are more heavily used than the previous generation. Owing to a new security paradigm for the machines, users can use the machines in a natural way rather than being restricted by a locked down, uncomfortable environment.

Users have a choice of hardware, depending upon their working environment – laptops, tablets, PCs or Smart Phones.

Most applications will be addressable directly over the Internet rather than through the CBC infrastructure. This direct service approach revolves around the use of O365, Box, and SAP in the Cloud. Soon to follow to cloud services will be the new Adult Social Services application and the in house licensing system - iDox (both directorate developments).

2018 - Security

Mobile, open environment security for CBC focuses on three applications.

OKTA will provide both single sign-on and authentication for users for all in house and external applications. It becomes the last check for users accessing CBC materials on 3rd party hosting sites. Okta is in use currently as a single sign on facility.

Mobile Iron checks the profile and use of IOS and MacOS machines to assure PSN compliance.

F5 machines checskthe profile and use of Microsoft Windows 10 machines.

The three systems are interlinked and supported by two factor authentication.