CABINET – 5 FEBRUARY 2020 **PORTFOLIO: FINANCE, INVESTMENT & CORPORATE SERVICES**

ICT INFRASTRUCTURE RENEWAL PROJECT UPDATE

1. RECOMMENDATIONS

1.1 That the Cabinet note the significant deliverables achieved as a result of the large and complex infrastructure renewal project, and approve an additional £120,000 in order to complete the project.

2. PURPOSE

2.1 The purpose of this report is to provide members with an update on the major project of replacing virtually all components of NFDC's ICT infrastructure.

2.2 The report consists of a narrative timeline of the project, a summary of the major deliverables, and a financial commentary.

3. BACKGROUND

3.1 This project was started in 2017 to replace the old, unstable and 'out of support' ICT infrastructure that was posing a severe risk to the council of being unable to conduct its business.

3.2 The project has successfully designed, provisioned and installed all new central computing equipment (i.e. data centre, servers, storage) as well as increasing and replacing the network connections to our various sites and remote working locations.

3.3 This new ICT infrastructure enables all council staff to work on site or remotely using their personal computing devices (i.e. hybrids, smartphones) in a fast, secure and efficient way.

3.4 This has been a large and complex project taking the best part of 3 years and involving the ICT team, expert partners, and contract personnel.

4. TIMELINE

4.1 2017: We commenced the project in 2017 with a wide remit to replace the existing aged and unstable ICT infrastructure with a modern solution. The scope was broad with much detail to be filled in as we proceeded. For this reason, we deliberately selected a supplier (European Electronique or EE) and a contract that could be flexed as requirements were defined in detail.

4.2 2018: By early 2018 we had designed the initial solution at a high level. It was soon after this that NFDC's smarter working vision was defined and it became clear that more agile, mobile ICT would be required. For example, smarter working meant enabling remote connectivity for all (800) staff so the existing Checkpoint solution would not have adequate capacity. The office rebuilds also meant new network cabling, connections and cabinets were required. In order to future proof the secure data centre storage needs of the Council, Gosport was selected as a suitable site for

this off-premise requirement. By the end of the year we had a new design and the solution procured moving towards implementation based on the new requirements.

4.3 2019: Early in 2019 we installed the new servers and storage at Gosport. We then experienced two items that delayed the project. Firstly, we had a four-month delay from Virgin Media for the installation of the 10 GB connection from ATC to Gosport. Secondly, we had two major outages affecting access to systems and customer payments. By this stage the detailed planning of Office 365 / Skype rollout had taken place. This led to a reconsideration of the way the 800 hybrid devices had been built and deployed, and eventually to the recall, reconfiguration and rebuild of every hybrid device. At the same time, we had started the process of migration of the sixty-odd applications from our old servers in ATC and LTH to Gosport, while at the same time upgrading them all from Server 2008 to Server 2016 to meet Microsoft's deadline for this task. This has gone very smoothly and, with the exception of a small number of applications, all our systems were made live in Gosport. We also got the new Always On VPN live for all staff in November 2019 meaning staff can work from any location with Wifi connectivity.

4.4 2020: We have commenced the year with the successful 'repointing' of all network connections to fit in with the new infrastructure, improving connectivity for all staff. We have the final tasks now to bring live the monitoring of all NFDC servers using modern management dashboards and various other 'clean up' tasks such as decommissioning of old equipment. By end March 2020, this large and challenging project will have dealt with a multitude of legacy ICT issues. We are now in a very different place from the old ICT infrastructure. We have now put in place modern, robust, secure ICT infrastructure which is enabling NFDC to move forward with its corporate ambitions and should last for the next 5 years with self-sufficient in-house support.

5. MAJOR DELIVERABLES

5.1 New Professional Data Centre

NFDC has partnered with IOMart, a leading provider of secure data centre facilities, to set up a new NFDC primary data centre in their 'state of the art' site in Gosport. This holds our live production servers and storage and is a highly secure site with ISO27000 accreditation, dual power supplies, and back-up power through UPS and generators. As extra resilience, we have a secondary data centre at ATC, meaning that in the unlikely event that IOMart had problems, we still have access to all our data within the district.

5.2 All New Servers and Storage

We have purchased all new HP servers to replace the 'out of support' old servers, and an up to date storage solution called Nimble which is solid state rather than the Hitachi SAN 'spinning disks'. This not only provides faster system access for users but is less prone to mechanical failure as there are no moving parts to fail.

5.3 Virtualisation for Resilience

We have purchased new VMWare software that means that failure of individual servers will not take out any end users services because systems can be swapped to other virtual servers across our estate.

5.4 **State of the Art Back Up Solution**

We have moved from old fashioned tape backup on Commvault to modern virtualised back up using a product called Veeam.

5.5 **Dynamic System Monitoring and Service Management**

We have purchased and are configuring, as a final phase of the project, a product called Fortisiem which will enable us to monitor all ICT services and fix problems before they become critical and impact end users.

5.6 **Network Renewal**

We have increased the capacity of all network connections, both those to the outside world beyond NFDC and across our sites. This means that response times have markedly improved. We have also replaced all network equipment at ATC and MLD, again to improve speed and resilience. We have installed a 10 gigabyte connection to Gosport to ensure that we have excellent connectivity for users to our primary data centre.

5.7 **Remote Access to all NFDC systems for all staff**

We have implemented a new means of connection called 'Always On VPN' to replace Checkpoint/Cryptocards for all staff. This enables staff to connect from any Wifi service (e.g. home, partner sites, libraries, coffee shops) to all NFDC systems. This makes real NFDC's aim of an agile workforce able to work smartly at anytime from anywhere. It helps staff productivity, speed of turnaround of work, and also has the potential to reduce the council's carbon footprint by reducing staff travel.

5.8 **Expertise is now in-house**

Finally, we have worked with EE to ensure our in-house ICT team have picked up all the knowledge of our new systems they need to be able to support them independently. We have also used contract expertise to build up our capability as part of the project. This means that NFDC ICT is no longer dependent upon Status Ltd as it was for so long.

6. FINANCIAL IMPLICATIONS

6.1 The Council set aside £1.5M in it's Medium Term Financial Plan in 2017 as an indicative sum required to complete the necessary upgrades to its aged ICT infrastructure and unsupported application software. A significant element of that budget was set aside for the Infrastructure Renewal project.

6.2 As illustrated above the specification and scope of this project has needed to change over the course of the last three years. Consequently, the original high level budget estimates were not entirely known and have developed over time. However, unusually

for such a large ICT project, this one has delivered with minimal disruption to daily business activity and within tolerable levels of budget variation.

6.3 Overall the project will exceed the budget at the end of this financial year by £120,000. This consists of £50,000 on additional expertise and £70,000 of additional equipment and software.

7. CONCLUSION

7.1 The Council has taken some very big strides to transform its ICT since 2017, moving from an ICT environment more reminiscent of the late 1990s to an up to date one that is delivering improvements today. The Infrastructure Renewal project is at the heart of this. In doing so, the Council has also positioned itself for tomorrow and beyond and will not need to make substantial investments in its core ICT infrastructure for another 5 years.

8. CORPORATE OVERVIEW AND SCRUTINY PANEL COMMENTS

8.1 The Panel supported the report and acknowledged the significant progress achieved in upgrading the Council's ICT infrastructure, a transformational project over the past few years, enabling smarter working, future development of digital services for customers, and enhanced resilience.

9. PORTFOLIO HOLDER COMMENTS

9.1 The Council's ICT has undergone significant modernisation since 2017. These changes have delivered stability across the platforms and enabled greater flexibility in both the way that we work and how we deliver services.

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