



# Guildford Borough Council

## *ICT Technology Refresh Project*

### Review Report

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The Society for Innovation, Technology and Modernisation.....

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## About Socitm Advisory

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Socitm Advisory are pleased to respond to Guildford Borough Council's request for a detailed review of the ICT Refresh Project. Owing to our current contract with the council to provide Interim and Project based services, coupled with our independent and agnostic position on technology, we are uniquely positioned to provide independent and qualified critique on the ICT Refresh Project.

We are the specialist consultancy and advisory business of Socitm Ltd, the Membership body for IT professionals and Digital Leaders in Local Government and, as such, we are frequently selected to support our clients in the implementation of major Projects and ICT Transformation Programmes, to conduct independent review of ICT operations and to support public sector organisations in the development, implementation, and modernisation of their IT and Digital Strategies and services.

### Approvals

Role/position	Approved by	Date
Interim Lead Specialist for ICT	Sean Hale	Jan 2020

### Distribution list

To	Date	Role/Contact details
Claire Morris	Feb 2020	Director of Resources
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Matt Gascoigne	Feb 2020	Chief Operating Officer
		Socitm Advisory

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## Executive Summary

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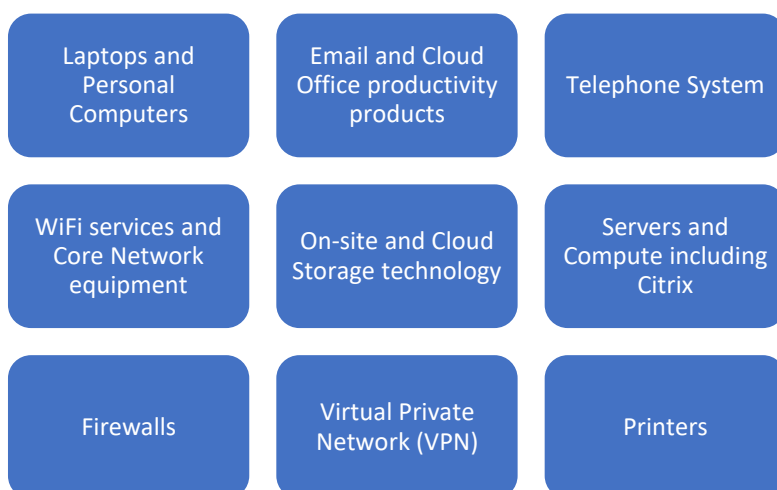
In November 2017 the council approved the decision for the ICT Manager in consultation with the Lead Councillor for Infrastructure and Governance, to release funds of up to £1.25 million from the ICT Renewals Reserve to deliver the ICT infrastructure improvements described in the report submitted to the Executive.

The submitted report and associated business case report included the implementation of Microsoft Windows 10 and other sundry end user computing technologies. The improvement scope set out in the reports required the project to deliver several aims and objectives which were roughly defined as benefits of migration to newer platforms. The benefits included;

- An improvement to IT security as older operating systems are more vulnerable to attack.
- An improvement to staff collaboration where using the new platform will enable the use of collaboration tools across the council, helping drive up productivity and meet growing customer and user expectations.
- An improvement to service levels ensuring the council benefits from higher levels of service availability, a stable operating system and supported software. With an estimated 20% reduction in outages.
- Greater integration with Cloud technologies enabling the council to adopt Cloud-first principles
- A reduction in risk where the project seeks to eliminate and mitigate many legacy risks to the network and applications in addition to those directly linked to out of date operating systems.

This review has found that all the proposed benefits have been approached and most have been met. However, over time the project has increased in scope but has not been sufficiently redefined in order to manage organisational expectations or to align ICT staff capacity or capabilities.

This increase in project scope comprises the renewal of various technical hardware and software components that enable the council to operate its technology services. The increase has been deemed as unavoidable as unexpected dependencies surfaced through the term of the project, which has led to a delay of some parts, and some parts not receiving full attention. The various components reviewed by Socitm Advisory include renewals of the following;



There are project successes and areas for improvement. The key project successes are;

- The project has met most of the key aims and objectives set out in the original business case
- Staff moving through the various stages of the Future Guildford programme now have greater mobility with new devices and new software, a marked improvement from the previous position
- Ubiquitous WIFI services are now available in council sites, enabling staff, members and the public to connect devices freely, and fully promoting the anytime, anyplace, anywhere approach to operating a modern workplace culture
- A modern, efficient telephone system with cost saving infrastructure technology built in
- Modernisation of the ICT service toward the use of Cloud based technologies reducing the reliance for on premise technology, and improving technical resilience for the council

The areas for improvement have been detailed throughout this review report and summarised in section 4.

Whilst this review report discusses the status of each component of the project and provides recommendations, the project as presented today, is without doubt the largest that the council ICT Team have ever undertaken at any one time. This was and still is a highly ambitious, specialised and complex mix of improvements.

Whilst the project continues at pace there has not been a full consultation with staff to seek feedback on these improvements, but this is planned to commence post project. Views have however been canvassed from senior management and have resulted in positive thoughts and opinions, but also recognising that there is more work to do.

To compliment this review and as part of the Socitm Advisory contract, a comprehensive Project and Programme Management Governance framework and toolkit for ICT projects has been developed and provided to the council outside of this report.

## 1. Introduction

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The Council's ICT Department set out its approach to refresh the technology estate and specifically a range of ICT hardware and software that supports the council's technology operation. Whilst this report is laid out uniformly the content of the report is highly technical in parts. The core part of this report details the findings from a deep review of the key project components to include; scope, current status, and recommendations. This is followed by a summary of recommendations and associated appendices.

In completing this report Socitm Advisory staff interviewed council ICT staff and undertook a Programme and Project Management review of ICT Projects and Project Management processes. This insight has been coupled with knowledge learnt undertaking the Interim Lead Specialist ICT role and delivery of other project work by Socitm Advisory consultants.

## 2. Project Components

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### 2.1 Governance



The Governance of this project falls within two main areas; Programme and Project Management, and Technology Architecture. Whilst the project was and continues to be delivered to the best of abilities and with good intention there are several shortcomings identified as part of this review.

Socitm Advisory were commissioned to review current Programme Management Office (PMO) practices within the ICT Department and to recommend a best practice approach to ICT PMO support. The key observations from the PMO review were;

- 2.1.1 There is a wide range of activities and the team has a high commitment to delivering effectively. At the time of this review the required skills and experience to deliver successfully were in place but they are no longer present due to the ICT restructure removing the business analysis and project management resources and skills.
- 2.1.2 The ICT team are fully committed in terms of resource capacity but there is limited capacity to manage additional activities as and when they come about. There is no detailed resource reporting across the Portfolio of activities
- 2.1.3 The ICT Team are not provided with enough scope, requirements or delivery timescales before they are asked to support programmes and projects across the Council. Often the involvement of the team is a reactive event as the programmes and projects have been commissioned by other departments without their visibility, this has several impacts on both the team and on delivery:
  - Resource management is difficult across the activities as resources are scheduled in a reactive manner and this means forward planning of resources is not done effectively having an impact on other projects and programmes delivery requirements
  - Activities are not commissioned with input from the ICT team which means that the projects and programmes themselves may have risks, dependencies or delivery requirements not considered by those initiating the project and programmes
  - The lack of visibility of pipeline activities means that ICT are unable to take a strategic view of project and programme delivery and map out effectively the overall direction of the Portfolio
  - Projects are not commissioned on a prioritised bases, leading to issues such as, existing contracts renewed without the ability to review alternatives, unable to carryout adequate assessment of new technology within a timeframe etc
- 2.1.4 There is currently no central log or a project dossier of projects within the ICT Department, despite the team managing a wide range of activities. Previous Project Managers maintained a log at a team level, but this is not a definitive or departmental wide document
- 2.1.5 Ownership of activities needs to be clarified effectively as often ICT are being asked to support programmes across the Council they are not managing, and clearer stakeholder scoping is required
- 2.1.6 Gateway management is not used effectively to ensure quality of delivery and to provide lessons learned on the project and programmes being delivered. This is especially important



- to align with Information Security requirements and other Subject Matter Experts' activities. In addition, lesson learned are not implemented on a consistent basis across the programme
- 2.1.7 There is a lack of consistent status reporting on activities across the current Portfolio of work within the ICT Department. This includes consistent Status Highlight Reporting, RAID Management and Planning updates.
  - 2.1.8 Currently there is a lack of a formal department architecture on the development and then release of projects and programmes into the live environment. There is no Enterprise Architecture or Business Analyst/ Solution Architect support to work as a design authority within the Council
  - 2.1.9 The ICT team are seen within the Council as supporting Council operations but not necessarily as a Technology enabler to provide innovation and to future proof the Council. This impacts on the nature and scale of activities the IT team are involved in
  - 2.1.10 Key strategic programmes from the Future Guildford Programme requires greater clarity around dependencies

For completeness the PMO Review Report including recommendations has been included in Appendix-1

A comprehensive Project and Programme Management governance framework and toolkit for ICT projects has been developed and has been provided to the council outside of this report. The parts to the toolkit include the following components;

	PMO Product	Description
<b>Governance</b>	Recommendations & Actions List	The recommendations from the PMO report are included here with an action log of proposed actions
	Portfolio & Project Phases & Gateways Diagram	For use in any documentation. From Idea through Conception to project close with the aim of being helpful for the start of development of a process for the PMO; taking on projects into the portfolio which can be tweaked to meet requirements
	Governance Framework	Basic governance framework for customisation
	Change Request Form	A form to set out the details of a change, and record the decision and subsequent actions
	Highlight Report	Highlight report template with schedule, RAG, and return to green sections

Key project documents	Project Concept Template	For proposers use to flesh out an initial idea into a Concept and help PMO have a document that can help control the demand and flow of projects
	Cost Benefit Analysis (CBA)	Spreadsheet where figures can be entered to complete options appraisal costings, for use in other key documents e.g. Outline Business Case
	Outline Business Case	A sample Business case that considers other templates
	Excel Project Plan Template	Excel template with a date picker and progress/behind schedule indicators. This can be further developed into a Microsoft Project Plan.
	Project Initiation (PID) Template	A comprehensive PID template
	RAID Log	Full RAID Log
	Lessons Learned Master Log	Excel log to create a full record of all lessons learned that could be built into a LL knowledge base and where to enter LL when conducting LL workshops
	Lessons Learned Report	Report to use as part of the Close phase of the project
	Project Close Report	Accompanies the LL Report as part of the project Close phase

### 2.1.11 Recommendations

- PGR1: Commission an Enterprise Architect on a short-term basis to review the Technology Landscape, make recommendations for sustainable ICT architecture, and provide the council with a costed Technology Roadmap spanning 5 years.
- PGR2: Commission or introduce on a permanent basis Solutions Architects that straddle the gap covering technical architecture, business analysis and project management. Delivering solutions to council customers working alongside Digital and other corporate teams.
- PGR3: Consider and review the actions listed within the PMO report included in Appendix 1 with a view to agreeing how technology-based projects are delivered in future
- PGR4: Introduce a gated project governance framework and project management templates. These will be delivered as part of the Socitm Advisory PMO work.
- PGR5: Consider launching a Phase 2 Refresh Project that focuses on cleaning up and decommissioning various technology items

## 2.2 Laptops and Personal Computers (PCs) for all staff

### 2.2.1 Scope & Description



This part of the project is receiving the most focus to ensure that all staff have new laptops and are migrated to the Microsoft 365 email and productivity suite in line with the phasing of the Future Guildford Programme. Prior to December 2019 a review was conducted by Socitm Advisory into the effectiveness and pace of the rollout of laptops and the migration. At this point the council had achieved around 50% of the rollout which had been running for over a year. Following agreement to provide more resource Socitm Advisory drafted in additional support for this part of the project with a view to completing this rollout by the end of February 2020.

There are other dependencies to overcome as part of this rollout of devices and migration, as it is not simply a case of placing a device on the desk. A key dependency is Application packaging. There are approx. 200+ applications that have been discovered in use by council staff. Each application needs to be packaged before the laptop device can be provided to staff. Each application can take between 30 minutes – 5 days to package. Applications that cannot be packaged (because they do not work with windows 10) are then transferred to Citrix on an old legacy platform for compatibility and continuity of service. This platform for legacy applications is not ideal and further perpetuates the problem of retaining old unsupported and non-compliant software and increasing security risks, these issues have however been captured and reported within the ICT Risk Register.

A further dependency is scheduling general staff in to receive the devices and spend time with ICT staff to undertake the migration, this is a logistical challenge especially when the end of year approaches when leave and other service-related tasks begin to take hold.

### 2.2.2 Current Status

The laptop rollout and migration project is currently moving at pace with a target completion date for end of February 2020 and is currently on target, having moved from a position of being stalled due to application packaging moving slowly or not at all. All Future Guildford Phase A staff rollouts and migrations are complete bar the Engineers who are receiving support around their use of AutoCad.

Of the 393 devices to be replaced, approx. 35 new devices have been returned to ICT due to staff leaving the council. Ordering of new devices is being aligned with these returns however there remains a level of uncertainty around this due to further Future Guildford phases still yet to complete.

Migration of old email and office accounts to Microsoft 365 is going well with few problems. 'H' drives personal to each member of staff have moved to Microsoft OneDrive in the Cloud. All other staff-based storage remains on site.

A Public Service Network (PSN)<sup>1</sup> review, carried out by an independent party, places a dependency for the removal of unsupported systems (such as Windows 7 devices and 2013 / 2018 servers) by June

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<sup>1</sup> Government Guidelines on PSN - <https://www.gov.uk/guidance/public-services-network-psn-compliance>

2020, failure to do so could result in the Council losing its PSN certification and potential disconnection from the PSN service. Analysis and planning of decommissioning legacy devices from the Councils estate is underway with consultations planned with service areas to provide alternative solutions to legacy products they use on legacy platforms.

### 2.2.3 Recommendations

Outside of the governance recommendations there are a small number of recommendations as the project is moving along and due to complete soon. However, caution should be noted on where and how devices are maintained in the future to include new devices and older devices due for disposal.

- P2R1: A secure location is provided for ICT to store, build, maintain and decommission devices. This includes a lockable door with little or no other access, sign-in and out procedures, limited access to approved officers with a mechanism to electronically capture entry and exit of staff, risk and insurance assessed, and in certain circumstances dedicated CCTV should be used or a means to visually record the environment over a period.
- P2R2: Regular stock checks should be undertaken and managed in-line with council policy and internal audit recommendations.
- P2R3: A single asset register should be maintained as the master record of asset use and ownership.
- P2R4: Devices due for disposal should be done so under the Waste Electric and Electronic Equipment (WEEE) Regulations 2013.
- P2R5: Consideration should be given to the purchase of a low-level degaussing device to allow for the adequate destruction of data on old hard disk drives and approved in line with appropriate security compliance e.g. GDPR, PCI, HIPAA or as specified by PSN. Alternatively, a cost-neutral third-party disposal company should be engaged to remove, destroy and certify compliance with the WEEE and appropriate security controls.
- P2R6: Consideration should be given to employing a permanent End User Computing or Desktop Engineer to the ICT Team. This role is critical to the safe and efficient operation of the asset life cycle and to ensure there is a connecting role that naturally sits between ICT Infrastructure and Caseworkers under the new Future Guildford Phase A structure.

## 2.3 Telephone System

### 2.3.1 Scope & Description



The Telephone system introduced a Unified Communications approach with technology extending the traditional phone system by featuring various new types of technology e.g. soft phones. The Mitel system was purchased and installed alongside main telephone trunks being replaced with SIP trunks.

Telecoms organisations are supplying new improved faster services such as Session Initiation Protocol (SIP) trunk services. It is a protocol used in Voice over Internet Protocol (VoIP) communications as a modern alternative to legacy ISDN lines, which allows phone call and network

data services transmitted securely over a public or private internet. Currently the Council uses a Public Switch Telephone Network over a private branch exchange. By using SIP trunks, data and voice usage can be managed more efficiently and reduces long term costs in managing and maintaining a single service.

### 2.3.2 Current Status

In general, this project is complete but there remain several smaller issues to resolve. Firstly, the Japonica resilient site needs to be built and configured, and secondly the use of Soft phones has not yet been fully explored or agreed across the organisation. In terms of soft phones there is also a clash of technology with other status-based software and video conferencing software namely Microsoft Teams. Although both provide similar features there should only be one solution in use organisation-wide to ensure consistency and understanding.

### 2.3.3 Recommendations

- P3R1: Commission a specialist company to assess, design and implement a resilient site for voice and data
- P3R2: Agree on the Video Conference, Instant Messaging and Status platform to be used across the council, such as Microsoft Teams. Implement the chosen platform alongside appropriate staff education.

## 2.4 WIFI services

### 2.4.1 Scope & Description



The Wifi project consisted of the installation and configuration of new Access Points across all previously connected council sites. This now provides access for council staff, members and public.

### 2.4.2 Current Status

The project is mainly complete. The initial scope of the project included all existing sites, but not sites that previously didn't have Wifi. This was mainly due to the connections available at those sites and the inability to back haul Wifi services onto the corporate network. The SafeConnect system requires installation and configuration, this will allow much improved public access to WiFi avoiding the need to obtain the current password from reception and providing splash screen access.

### 2.4.3 Recommendations

P4R1: Assess the need for Wifi services at remote sites not covered by this project

P4R2: Complete the WiFi configuration at connected remote sites

P4R3: Implement the SafeConnect system to improve Public Wifi services. This will provide a GDPR compliant Public WiFi solution that gives the council the security needed when providing the public with connectivity to the internet, whilst giving the added ability to target marketing communications to specific demographics, and potentially provide a self-sustaining service through advertising revenues.

## 2.5 Core Network equipment

### 2.5.1 Scope & Description



The purpose of this project was to improve the Local Area Network (LAN) equipment alongside improvements to the Core Network. A number of hardware 'Switches' make up the LAN and required replacement across all council sites. Typically, LAN switches are termed as 'edge'.

### 2.5.2 Current status

New edge switches were installed in Millmead House and other remote sites. A new Core switch was also installed. In total approx. 80% of switches have been installed with most of the remainder to install at remote sites. There is also some work to do to disconnect parts of the old core from the new.

### 2.5.3 Recommendations

P5R1: Complete remote sites switch installations

P5R2: Complete work to disconnect the old core from the new

P5R3: Where Network Cabling is required and insufficient, consider replacing network cabling to a minimum standard of C5e across all sites. Cat5e is an enhanced version of Cat5 cable. This Ethernet cable speed is up to 1000Mbps or "Gigabit" speed.

## 2.6 On-site and Cloud Storage technology

### 2.6.1 Scope & Description



The council's data storage requirements are wide and varied but predominantly fall into 2 areas;

- a) staff storage for personal documents and files and
- b) storage used by larger line of business systems including databases.

Traditionally, storage was server specific and siloed, however more prevailing solutions now exist including Storage Attached Network (SAN) devices and Cloud Storage. This project replaced the old SAN and, alongside the Laptop rollout and migration work, moved some of the staff-based storage to the Cloud within Microsoft OneDrive.

### 2.6.2 Current status

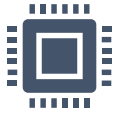
The Replacement SAN is in place and under support. It accommodates 50 Tera Bytes of storage for internal and external storage. The current SAN replaced the old SAN, most of the data was moved and migrated. The old SAN is now out of support but continues to host some file storage and support storage for Hyper-V hosts.

### 2.6.3 Recommendations

- P6R1: Commission a specialist company to design the eventual architecture for SAN and general storage with an emphasis on moving storage to Azure or another cloud-based service.
- P6R2: Move the data on staff shared drives to Azure/OneDrive following a review of shared drives to establish if shared drives are required, in light of the introduction of Microsoft teams and the ability to create shared collaboration areas.
- P6R3: Assess the operational efficiency of the old SAN in terms of outages and resilience.
- P6R4: Undertake a Data Cleansing/Housekeeping exercise across the council to ensure the Council only stores the data it requires in-line with the GDPR and other statutory and legal requirements. Appoint an authority to carry out an analysis and plan the removal or archiving of non-required data with the service areas.
- P6R5: Ensure an up to date and relevant Retention Policy exists and is regularly reviewed.

## 2.7 Servers and Compute including Citrix

### 2.7.1 Scope & Description



This project set out the replacement of servers which run several operations including the hosting of line of business applications e.g. Finance, Planning, Revenues & Benefits. The target model was to replace existing hardware with new and to transfer the data and applications. Although Citrix should have been decommissioned, this has not happened, instead Citrix use has been increased due to the inevitable issue of legacy applications e.g. IKEN not working with the new laptop and office products. Citrix therefore becomes the backstop for such applications.

### 2.7.2 Current status

Three new Hyper-V based host servers are now in place, combined they host approx. 40 virtual servers each of which run multiple systems. There are 9 servers still connecting to the old SAN which is out of support. There are also a small number of physical servers that exist to service specialist systems.

Citrix, a virtual platform to deliver desktops to staff through the network is now old and unsupported. The desktops it delivers also run Windows 7 which is also unsupported.

### 2.7.3 Recommendations

- P7R1: Plan and Decommission the connections to the old SAN
- P7R2: Assess suitability of smaller physical servers to be virtualised
- P7R3: Decommission Citrix and assess an alternative e.g. Microsoft App-V

## 2.8 Firewalls

### 2.8.1 Scope & Description



The scope of this project was to replace the Firewalls with new devices. A Firewall is a network security solution that monitors, and controls incoming and outgoing network traffic based on predetermined security rules. A firewall typically establishes a barrier between a trusted internal network and untrusted external network, such as the Internet.



## 2.8.2 Current status

The Firewalls were replaced at the start of the project work and are complete.

## 2.8.3 Recommendations

P8R1: It is critical that regular maintenance and up-keep of Firewalls is maintained to avoid hardware failure and to ensure that the security defences of the council are continually hardened against known and unknown threats.

# 2.9 Virtual Private Network (VPN)

## 2.9.1 Scope & Description



The scope of this project was to replace the VPN system. A Virtual Private Network (VPN) extends the council's internal network across the internet and enables staff to send and receive data across the internet as if their devices were directly connected to the council's network.

## 2.9.2 Current status

The VPN system was installed and is working, however there is some instability with the service at times.

## 2.9.3 Recommendations

P9R1: Review the stability of the VPN service with a view to ensuring full stability.

P9R2: Should the Council wish to allow flexibility for staff and elected members to use personal devices not provided by the council, the VPN system should be assessed to ensure it enables this approach.

## 2.10 Printers

### 2.10.1 Scope & Description



The Printer Project established the replacement of old Xerox printers many of which were broken beyond repair, with new Hewlett Packard multi-function devices. Part of this project was also to take advantage of the managed service which includes auto reporting of serious faults and ink ordering.

### 2.10.2 Current status

All printers are now replaced at all sites where the procurement began in Summer 2019. The printers were then installed within a 3-week period during December 2019. Vision are the new company providing the printers and the managed service. 'Papercut' software is now used on the printers to provide more detailed reporting on printing stats, e.g. cost per print per person.

### 2.10.3 Recommendations

P10R1: Ensure complete removal of the old printer fleet

### 3. Lessons Learnt

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As part of this review Socitm Advisory captured thoughts and observations around the project and present here the key insights and lessons learnt.

- 3.1 Whilst the project has yet to complete fully, the overall feeling around project approach and delivery is that the project should have included all components and should have been scheduled over a 3-4-year period.
- 3.2 The project has achieved a great deal in terms of the expected outcomes, these are outlined within the successes mentioned earlier
- 3.3 The Printer project went well, with a quick implementation, and a good working partner is now on board
- 3.4 As a result of unexpected scope changes mentioned in earlier section, the project delays meant that the project delivery then ran into the ICT restructure. The change to ICT resourcing and natural turnover of staff compounded the issues and the ICT service's ability to manage the project and its deliverables.
- 3.5 The scale and complexity of the project provided too much work at one time and was too complex.
- 3.6 Project Planning should have been more robust, and outcome orientated with an emphasis on fully understanding what the council required from the project.
- 3.7 The project board should have been in place for the full duration of the project to provide strategic direction and project oversight.
- 3.8 A robust communications and training plan should have been developed to ensure that all staff were fully informed of the changes, received training on the new applications that the technology has delivered and therefore are able to realise the benefits of the devices they have been provided with.
- 3.9 Governance of the overall programme was poorly defined with little transparency.
- 3.10 The external technical contract was not delivered to expectations and has since left behind problems that will take time and resource to correct.

## 4. Summary of Recommendations

Governance		
Item ID	Recommendation	Priority
PGR1:	Commission an Enterprise Architect on a short-term basis to review the Technology Landscape, make recommendations for sustainable ICT architecture, and provide the council with a costed Technology Roadmap spanning 5 years	Medium
PGR2:	Commission or introduce on a permanent basis Solutions Architects that straddle the gap covering technical architecture, business analysis and project management. Delivering solutions to council customers working alongside Digital and other corporate teams	Medium
PGR3:	Consider and review the actions listed within the PMO report included in Appendix 1 with a view to agreeing how delivery of technology-based projects are delivered in future	High
PGR4:	Introduce a gated project governance framework and project management templates. These will be delivered as part of the Socitm Advisory PMO work.	High
PGR5:	Consider launching a Phase 2 Refresh Project that focuses on cleaning up and decommissioning various technology items	High
Laptops and Personal Computers		
Item ID	Recommendation	
P2R1:	A secure location is provided for ICT to store, build, maintain and decommission devices. This includes a lockable door with little or no other access, sign-in and out procedures, limited access to approved officers with a mechanism to electronically capture entry and exit of staff, risk and insurance assessed, and in certain circumstances dedicated CCTV should be used or a means to visually record the environment over a period	Medium
P2R2:	Regular stock checks should be undertaken and managed in-line with council policy and internal audit recommendations	Low
P2R3:	A single asset register should be maintained as the master record of asset use and ownership	Medium
P2R4:	Devices due for disposal should be done so under the Waste Electric and Electronic Equipment (WEEE) Regulations 2013	Low
P2R5:	Consideration should be given to the purchase of a low-level degaussing device to allow for the adequate destruction of data on old hard disk drives and approved in line with appropriate security compliance e.g. GDPR, PCI, HIPAA or as specified by PSN. Alternatively, a cost-neutral third-party disposal company should be engaged to remove, destroy and certify compliance with the WEEE and appropriate security controls	Low

P2R6:	Consideration should be given to employing a permanent End User Computing or Desktop Engineer to the ICT Team. This role is critical to the safe operation of the asset life cycle and to ensure there is a connecting role between ICT Infrastructure and Caseworkers	Medium
<b>Telephone System</b>		
<b>Item ID</b>	<b>Recommendation</b>	
P3R1:	Commission a specialist company to assess, design and implement a resilient site for voice and data	High
P3R2:	Agree on the Video Conference, Instant Messaging and Status platform to be used across the council, such as Microsoft Teams. Implement the chosen platform alongside appropriate staff education	Medium
<b>WiFi services</b>		
<b>Item ID</b>	<b>Recommendation</b>	
P4R1:	Assess the need for Wifi services at remote sites not covered by this project	Low
P4R2:	Complete the WiFi configuration at connected remote sites	Medium
P4R3:	Implement the SafeConnect system to improve Public Wifi services. This will provide a GDPR compliant Public WiFi solution that gives the council the security needed when providing the public with connectivity to the internet, whilst giving the added ability to target marketing communications to specific demographics, and potentially provide a self-sustaining service through advertising revenues.	Medium
<b>Core Network equipment</b>		
<b>Item ID</b>	<b>Recommendation</b>	
P5R1:	Complete remote sites switch installations	High
P5R2:	Complete work to disconnect the old core from the new	High
P5R3:	Where Network Cabling is required and insufficient, consider replacing network cabling to a minimum standard of C5e across all sites. Cat5e is an enhanced version of Cat5 cable. This Ethernet cable speed is up to 1000Mbps or "Gigabit" speed	Medium
<b>On-site and Cloud Storage technology</b>		
<b>Item ID</b>	<b>Recommendation</b>	
P6R1:	Commission a specialist company to design the eventual architecture for SAN and general storage with an emphasis on moving storage to Azure or another cloud-based service	High
P6R2:	Move the data on staff shared drives to Azure/OneDrive following a review of shared drives to establish if shared drives are required, in light of the introduction of Microsoft teams and the ability to create shared collaboration areas	Medium
P6R3:	Assess the operational efficiency of the old SAN in terms of outages and resilience	High
P6R4:	Undertake a Data Cleansing/Housekeeping exercise across the council to ensure the Council only stores the data it requires in-line	Medium

	with the GDPR and other statutory and legal requirements. Appoint an authority to carry out an analysis and plan the removal or archiving of non-required data with the service areas	
P6R5:	Ensure an up to date and relevant Retention Policy exists and is regularly reviewed	Medium
<b>Servers and Compute including Citrix</b>		
<b>Item ID</b>	<b>Recommendation</b>	
P7R1:	Plan and Decommission the connections to the old SAN	High
P7R2:	Assess suitability of smaller physical servers to be virtualised	Medium
P7R3:	Decommission Citrix and assess an alternative e.g. Microsoft App-V	High
<b>Firewalls</b>		
<b>Item ID</b>	<b>Recommendation</b>	
P8R1:	It is critical that regular maintenance and up-keep of Firewalls is maintained to avoid hardware failure and to ensure that the security defences of the council are continually hardened against known and unknown threats	High
<b>Virtual Private Network (VPN)</b>		
<b>Item ID</b>	<b>Recommendation</b>	
P9R1:	Review the stability of the VPN service with a view to ensuring full stability.	Medium
P9R2:	Should the Council wish to allow flexibility for staff and elected members to use personal devices not provided by the council, the VPN system should be assessed to ensure it enables this approach.	Low
<b>Printers</b>		
<b>Item ID</b>	<b>Recommendation</b>	
P10R1:	Ensure complete removal of the old printer fleet	Medium

## Appendix 1

### Guildford Borough Council PMOaaS

## 1. Introduction

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Socitm Advisory have been commissioned by Guildford Borough Council to review current PMO practices within the IT Department and to recommend a best practice approach to IT PMO support. Socitm Advisory will provide support to these recommendations that fall within the scope of the original agreement.

This review has been completed in a compacted timeframe to ensure that the 10 days allocated to the PMOaaS are used effectively and with a focus on tangible deliverables.

### 1.1. Documents Reviewed

The following documents provided:

- ICT All Project – High Level

### 1.2. Meetings Completed

Several internal meetings were held with Guildford Borough Council staff.

## 2. Observations

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### 2.1. Observations on current PMO support and Portfolio Governance with the IT Department

#### 2.1.1. Observations

- There is a wide range of activities and the team has a high commitment to delivering effectively with the required skills and experience to deliver successfully
- The IT team are fully committed in terms of resource capacity but there is limited capacity to manage additional activities as and when they come about. There is no detailed resource reporting across the Portfolio of activities
- IT are not provided with enough scope, requirements or delivery timescales before they are asked to support programmes and projects across the Council. Often the involvement of the team is a reactive event as the programmes and projects have been commissioned by other departments without their visibility, this has several impacts on both the team and on delivery:

- Resource management is difficult across the activities as resources are scheduled in a reactive manner and this means forward planning of resources is not done effectively having an impact on other projects and programmes delivery requirements
- Activities are not commissioned with input from the ICT team which means that the projects and programmes themselves may have risks, dependencies or delivery requirements not considered by those initiating the project and programmes
- The lack of visibility of pipeline activities means that ICT are unable to take a strategic view of project and programme delivery and map out effectively the overall direction of the Portfolio
- SME's such as the Information Security Manager and the Applications Manager are not engaged to ensure best practice is designed into the programmes and projects from the initial stages. This means that projects and programmes across the Council are initiated without drawing on the skills and talents that are currently in place within the Council. This is especially a risk around Information Security which has regulatory and legislative implications which could be a substantial risk to the Council. Equally the fact that the Information Security manager is the only information security role in the Council means that there is a single point of failure and lack capacity to support projects and programmes
- There is currently no central log or a project dossier of projects and programmes within the IT Department, despite the team managing a wide range of activities. PM's maintain a log at a local level, but this is not a definitive or departmental wide document
- Ownership of activities needs to be clarified effectively as often IT are being asked to support programmes across the Council they are not managing, and clearer stakeholder scoping is required
- Gateway management is not used effectively as a way to ensure quality of delivery and to provide lessons learned on the project and programmes being delivered. This is especially important to align with Information Security requirements and other SME activities. In addition, lesson learned are not implemented on a consistent basis across the programme
- There is a lack of consistent status reporting on activities across the current Portfolio of work within the IT Department. This includes consistent Status Highlight Reporting, RAID Management and Planning updates. This could potentially lead to the following issues:
  - Status reporting is provided on an ad hoc basis and not effectively documented which leads to a lack of an audit trail and a lack of visibility on key delivery targets
  - Although a Portfolio wide Risk Log exists, for instance capturing Information Security Risks, there is no formal requirement to update this log as part of a structured approach to Risk Management and there is a lack of risk review workshops for existing activities. Potentially this could lead to critical risks not being escalated or prioritised effectively
  - Project Plans are not provided as a mandatory tool to support delivery and there is no high-level deliverable plan for level 1 and critical dependencies. This could lead to dependencies not being managed and therefore resource requirement not allocated effectively to critical dependencies
  - There is no central PMO resource within the IT Department to coordinate activities and support a centralised and coordinated approach to delivery activities
- Currently there is a lack of a formal department architecture on the development and then release of projects and programmes into the live environment. There is no Enterprise



Architecture or Business Analyst/ Solution Architect support to work as a design authority within the Council

- The IT team are seen within the Council as supporting Council operations but not necessarily as a Technology enabler to provide innovation and to future proof the Council. This impacts on the nature and scale of activities the IT team are involved in
- Key strategic programmes from the Future Guildford Programme requires greater clarity around dependencies

### 3. Recommendations

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The following recommendations are based on the best practice for setting up and rolling out of effective Programme and Project Governance across the IT Portfolio. These recommendations are based on the current maturity levels and delivery capabilities of Guildford Borough Council IT department, they are not based on a large enterprise delivery model which may not be suitable. The Socitm Advisory PMOaaS will support these recommendations which fall within the scope and time of the current agreement:

#### 3.1.1. Recommendations

Ref	Recommendation	Benefits
Rec1	Central Programme and Project dossier to be initiated and to sit in a central location as a definitive guide to all programme and project activity. Can be within an excel format with a fortnightly review of activities	Ensures clear understanding of all activities and the associated high-level dependencies. Allows more effective resource and risk management
Rec2	Fortnightly risk and dependency reviews with the project management teams. Recommended 1-2-hour session for each. This can be resourced either internally within ICT or additional resource pulled into ICT externally to support this process	Ensure more effective quality risk and dependency reporting and allows greater visibility of risks before they become issues
Rec3	Standardised suite of Project Management templates delivered to ensure consistency across the activities	More effective and consistent reporting and ensures the onboarding of new staff is done in a consistent manner
Rec4	All those who own activities provide a status report on key activities, including risks and key milestone updates. This status report can be provided on a monthly basis initially and then moving to a fortnightly or weekly once the reporting maturity is developed	Provides visibility to programme and project delivery and ensures a clear audit trail on activities
Rec5	IT should be involved at the concept stage of all activities that they will need to support the delivery of. This can be as a stakeholder or as part of the formal gateway that agrees for the project to go live. This is especially true for those members of IT that have a specific skill sets such as the Information Security Manager.	Will ensure projects and programmes are more robust and will deliver better quality deliverables

	This should be supported by greater engagement across the Council to ensure stakeholders are engaged early. This is a symptom of the fact there is no formal project design and release governance in place, and this should be developed as part of the ongoing maturity requirements around project management delivery	
Rec6	For large programmes of work there should be formal gateway reviews which include SMEs such as the Information Security Manager. Workshop required to map out the required programme gateways and also the handover process into BAU/ Benefits mapping approach	Will drive out quality in the delivery of the activities and ensure effective risk management/ lessons learned as you progress through the gateways
Rec7	Governance framework or standards document should be created to set out a high-level framework for how to manage projects and programmes for Guildford staff.	This will ensure consistency of approach, ensure effective onboarding and will support resource management as staff move between delivering different activities. Will ensure a common project language is used across the range of activities
Rec8	Resourcing mapping tool (excel initially) should be implemented to track resources across the activities. This should include tracking time against non-project activities and internal portfolio activities	Ensures effective resource management across the IT Portfolio and allows for greater forward planning of resource management
Rec9	Governance Boards should be standardised. Approach should include a standard set of requirements and Terms of Reference for each Governance Board Should set out a clear timetable for governance boards and these should be managed within the framework of the wider Council Governance structures Two-hour workshop should be set up to outline key requirements for IT Governance	Ensures consistent approach to delivery and allows for a clear and effective escalation process
Rec10	Timetables set out for reviewing the Project Controls/ Governance set up on a quarterly basis as you would a large programme of work	Will ensure Project Controls activity is constantly reviewed for innovation, best practice and ensuring that the delivery is to a required standard

## 4. Conclusion

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The portfolio of activities is currently being managed by professional, focussed members of the Council with the required skill set to deliver successfully across a range of activities in a challenging environment.

The current challenge is that projects and programmes are being delivered without the required resources and in a reactive process. The current way projects are initiated does not allow formal commissioning of activities or a clear view of pipeline activity. This has a knock-on effect of constantly 'firefighting' the activities within the portfolio without any capacity to plan for more effective delivery and develop the structures and governance required for better implementation.

Without more stringent project governance, this will negatively impact on delivery methods and quality and this in turn impacts on pressure around resource management. A more centralised and standardised approach to delivery will provide a range of benefits that will increase the quality of reporting, planning and above all delivery.