

PROGRAMME OPTIONS APPRAISAL			
1. General Information			
Directorate	Change & Support Services	Portfolio/Committee	Deputy Leader
Programme Title	Strategic ICT & Digital Investment Programme (2016-2021)	Programme Code	TBC
Programme Description	<p>Background Info</p> <p>The council now has an approved ICT & Digital Strategy (2016 - 2021) that contains six key themes. Each of the projects contained in the ICT & Digital Strategic Investment Plan (2016-2021) are aligned to one of these themes (see Appendix A1 of the accompanying private report). The intention is to replace these systems in keeping with the ICT & Digital Strategy (2016 - 2021) that mandates improved function, more flexibility and lower cost, with the choice of solution and implementation method being governed by a valid full business case and the guiding principles in the strategy.</p> <p>The projects themselves have origins in a 2015 review by the council's ICT delivery partner, Service Birmingham, that identified 19 systems that are nearing, or at the end of their lives. The priority of the projects has been based on dependencies on other projects and the business impact of a failure to replace them, or a failure of the systems themselves. Funding for the replacement of these systems has been set aside as part of the corporate Long-Term-Financial Plan (LTFP).</p> <p>The immediate benefit of implementing the priority projects is that the council will be able to continue to deliver its core ICT & Digital services, delivering greater flexibility and lower cost, by taking advantage of newer, cheaper, on demand technologies. These projects will also deliver the technical foundation for improved digital public services in the city and region. Specifically, but not exclusively:</p> <ul style="list-style-type: none"> • Develop end-to-end digital services that enable citizens to take control of how they consume services • Increase efficiencies and provide easier ways to access services that meet citizens expectations • Create the right conditions to develop smart city activities and applications, • Stimulate service transformation, through innovation and new ways of working in collaboration with partners • Use 'the right digital channels' to improve communications and partnership working • Release data in all its forms for reuse that increases the opportunities for citizens, civic tech entrepreneurs and businesses to gain insights and develop services 		

The projects will deliver replacement for existing end-of-life technology solutions, as well as enable the delivery of success factors in the ICT & Digital Strategy (2016 - 2021).

It is proposed that the approval of individual project Full Business Cases are delegated to the Strategic Director – Change and Support Services as many of the projects are needed to maintain the existing ICT estate. This approach to approvals will speed-up and simplify the process and accelerate the delivery of benefits, whilst maintaining appropriate governance controls. Under this proposal, all FBCs regardless of value will be approved by the Strategic Director of Change & Support Services. FBCs will follow the agreed standard council format and procedure. Oversight of the whole programme: budgetary control, monitoring of delivery and savings will be provided by the Deputy Leaders Corporate ICT Programme Board. Additionally, the programme will contribute to the Quarterly Capital Monitoring Report to Cabinet.

A second report will be brought before Cabinet between early 2018, to request approval for the remaining projects that are not planned to start in the initial 18 months.

By approving projects on an individual basis that fit the emergent technical needs of the council, there is an opportunity to implement flexible solutions that can adapt to future changing requirements. In addition, the council will be able to take advantage of “on-demand” services in the areas of data storage and software application supply.

The details of the proposed individual projects in the accompanying investment plan are given in Appendix A1 of the accompanying private report.

There are two procurement options:

1. To procure through Service Birmingham where the ICTD exclusivity applies
2. To procure through the council's procurement process

The route will be determined in each full business case

Links to Corporate and Service Outcomes	<p>This Programme will contribute to the delivery of the following Corporate and Service outcomes:</p> <ul style="list-style-type: none"> • At a Corporate Level: Council Business Plan and Budget 2016+, Page 98, “Part Eight - Information, Communication Technology and Digital Services” – there is a specific reference to this programme: <ul style="list-style-type: none"> “... an approved ICT&D Investment and Improvement Plan (relating to the investment budget)” <p>Additionally, there is a reference to the ICT & Digital Strategy, that has an aim:</p> <p>“To provide a rolling three year investment plan for ICT&D infrastructure and corporate and directorate applications which are included within the Council’s Long-term Financial Plan.”</p> <ul style="list-style-type: none"> • At a Service Level: This programme is one of two key pieces of work to deliver the aims of the approved ICT & Digital Strategy (2016 -2021) - specifically: Annexe 4, page 34, an : <ul style="list-style-type: none"> “Invest to Save Programme - high level scope is; Transformational activities - approved ICTD „Invest to Save Plan relating to the LTFP Investment budget”.
Project & Programme Deliverables	<p>At this stage these are the projects that support the council’s needs to sustain and improve its ICT service. However, given the changing nature of ICT and the business, there may be other projects that are identified that may provide better value for money. Where this is the case, approvals will be sought following the processes as set out in this report and within the approved financial envelope.</p> <p><i>Strategic Alignment:</i></p> <p>All projects will align to the cross-cutting themes of Innovation, Governance and Commissioning & Procurement. High level success factors are defined against each theme in the strategy.</p> <p>Integrated ICT & Digital Services</p> <ul style="list-style-type: none"> • Core infrastructure • Corporate platforms (including the Microsoft software estate licencing and upgrades) • Agile working • Document management strategy and upgrade/replacement of Documentum <p>Digital Facilitation</p>

- Customer First platform review/replacement

Insight

- Information Management Strategy
- Corporate Performance Management (replacement for SSM)
- Geo Spatial Strategy and replacement/upgrade of ArcGIS/Local View
- Open data platform development
- Customer Insight capability

1 Guiding Principles

All projects will follow agreed guiding principles as below:

Principle	Description
ICTD GP1	Put the stakeholder at the heart of everything we do
ICTD GP2	Invest to Save
ICTD GP3	Source solutions from the providers who deliver best 'Value for Money'
ICTD GP4	Deliver elegant and simple access to services
ICTD GP5	Design in flexibility – scale, demand, capacity and cost
ICTD GP6	Deliver leading edge business solutions through skilled and motivated staff
ICTD GP7	Protect our ICTD service - balancing 'Value for Money' and risk
ICTD GP8	Benchmark against the best
ICTD GP9	Identify excellence, emulate and then exceed it
ICTD GP10	Data is centric - leverage our Information Assets to facilitate our business
ICTD GP11	Use experts to guide us
ICTD GP12	Partner, collaborate and integrate – Design / Build / Run
ICTD GP13	Remove duplication, consolidate and rationalise
ICTD GP14	Manage and Operate in a lean and agile manner
ICTD GP15	Insist on all things 'open' - standards, specifications & integration etc.

2 High Level Project Briefs

NOTE: The Project numbers refer to the index number of the project

as given in the APPENDIX A2 of the private report: ICT & Digital Strategy Finance.

Project 1- Programme Management

There are multiple dependencies associated with the management of this programme and therefore it requires significant programme coordination. This project includes Service Birmingham Programme Management team costs.

Integrated ICT & Digital Services

Objective: to deliver a reliable, flexible, integrated, secure and well managed service

The core infrastructure platforms (e.g. servers, networks, operating systems, databases, corporate applications) underpin all BCC applications and ICT services and each component has an associated lifecycle of support; typically five to ten years.

Between now and 2021, a majority of the infrastructure estate will require a refresh/upgrade and 'do nothing' is not an option. There will be an evaluation on how the service can be provisioned going forward for each project, working with the council to complete business requirements documents, non-functional and technical requirements, completing options appraisals, PoCs (Proof of Concept) and Pilots, supplier selection processes, tenders and associated business cases, all of which will flow through a revised governance processes to ensure alignment to the overall ICT & Digital Strategy, and it's associated success factors and design principles.

These projects are unlikely to directly generate business savings themselves, albeit that there may be reduced ICT running costs going forward that will be considered under the framework of the SB contract. However, they form enablers in a number of subsequent projects such as agile working and any associated business savings will be covered by those projects.

Core Infrastructure Refresh

The projects associated with this theme are as follows:

Project 4 - Secure Web Gateway

Replacement of the existing Internet security server (Bluecoat)

which is end of life and forms a key component of our Information Security strategy.

The Secure Web Gateway sits between users and their interactions with the internet, to identify threats and control sensitive content.

The Secure Web Gateway consolidates a broad feature set, to authenticate users, filter web traffic and deliver network threat prevention.

Projects 23 & 9 - Server Platforms (UNIX & Wintel)

This project is needed to determine the type of computers that the council will need to store its electronic files and run the programs used by officers, member and citizens.

The underlying server infrastructure that supports a majority of BCC applications and ICT services is approaching the end of its current lifecycle and is in need to refresh or replacement. A majority of the existing server estate is hosted 'on-premise', within Capita data centres and this project will consider the future computer requirements of the council and evaluate the option to move to a hybrid cloud type service. Such a service will be a blend of 'on-premise' server to host our Key Performance / Critical applications (KPIs) and we will continue to invest in this platform; seeking to share capacity and space with potential partners, thus reducing Total Cost Ownership and delivering a Return on Investment (ROI). For non-critical systems, or for where a clear business case exists, platforms and applications in the Cloud (Public or Private / Partner provisioned) will be provisioned.

Project 15 - Data Storage Platforms

This project is needed to determine the approach that the council will need to take in storing its electronic files used by officers, member and citizens.

The existing data service consists of tiered storage platforms, providing data storage capabilities across the entire ICT estate, including both structured data (e.g. application data) and unstructured data (e.g. personal and shared network drives). The estate comprises a blend of network SAN storage (SAN – Storage Area Network) as well as dedicated physical storage, dictated by the requirements of the various applications or services supported. Currently Service Birmingham manages over 4.5 Petabytes of council data spread across the four Capita data centres. The platforms are approaching end of life and alongside the work on the server estate, an evaluation of on premise, cloud based and hybrid

architecture models will be considered for the future provision of this service.

Project 7 - Secure Application Delivery Platform

The existing network load balancers (which manage the application traffic on the Councils' network) and remote connectivity solution (Unified Access Gateway) are out of support. Network Load balancers are devices that triage the data moving around the council's network and coming in from the Internet. Without them, segments of the BCC network and certain computers would become overloaded and fail. A tender exercise was completed against a set of BCC requirements and the solution has been validated as aligned to the ICT&D strategy.

Corporate Platforms

The projects associated with this theme are as follows:

Project 6 - Microsoft Licencing Agreement

As most organisations are, the council is heavily dependent on Microsoft software, covering both desktop and server operating systems (Windows and SQL Server), staff productivity software (MS Office & SharePoint), messaging (Exchange/Outlook) and underlying support platforms like SCCM (System Centre Configuration Manager) and SCOM (System Centre Operations Manager) that support all MS enabled devices (e.g. servers, desktops, laptops).

The current versions of software in place are approaching end of life support from Microsoft and are constraining our ability to exploit functionality in new releases (e.g. better support for mobile working within Windows 10, provisioning of email and office software via Office 365).

Microsoft operate a volume licencing model known as an Enterprise Agreement (EA), which is the most cost effective vehicle for licencing requirements of this magnitude. The council previously had an EA with Microsoft, however this was allowed to lapse in 2010 as we were by then, already licenced for Windows 7, Office 2010 and SQL Server 2008, none of which had at that time been implemented. Subsequent capex projects saw these products deployed and the city is now faced with the need to again re-enter an EA to procure licences to enable them to upgrade the existing software, which will be end of life by 2020.

An EA is a complex licencing model and there are now two base

options; perpetual licencing with support and maintenance (capex), or subscription licencing (opex). These options will be evaluated to ensure the most cost effective option is chosen, giving consideration to financial challenges in terms of funding.

Project 25 - Microsoft SCCM Upgrade (System Centre Configuration Manager)

SCCM is systems management software used to manage large groups of both servers and end-user devices such as desktops, laptops, tablets and smartphones. It provides remote control, patch management, software distribution, operating system deployment, network access protection and hardware and software inventory. The current version in place (SCCM 2007) does not support current operating systems like Windows 8 or 10; likewise for the windows based servers (known as the Wintel estate).

The SCCM upgrade is a dependency on all subsequent Microsoft software upgrades.

Project 21 - Microsoft Windows Server Upgrade

The existing Windows Server estate (Wintel) is running on SQL Server 2008 which goes out of support in 2020. Based on the duration of the last project for upgrading from 2003 to 2008, this has been estimated as a two and half year's duration. Before proceeding, an evaluation of the opportunity to move as much of the Wintel estate to a hybrid/cloud service (e.g. MS Azure) will be done.

Project 20 - Windows 10 Operating System

All new windows devices are now supplied with Windows 10, which provides much greater functional support for mobile/agile workers. The current version in the council is Windows 7 and this goes out of support in 2020.

This project will explore the benefits of Windows 10 to drive operational benefits as well as planning for the required upgrade ahead of 2020. It is also a dependency on the agile working programme as most of the benefits of modern devices (e.g. tablets and hybrid devices) require Windows 10 to fully enable their capabilities.

Project 24 - Database Strategy

This project is needed to determine the long-term approach that the council will need to take to store its electronic files.

The existing BCC application estate uses either an Oracle or MS SQL database platform hosted on the existing infrastructure. This project will review the forward requirements for the BCC application estate and its associated database requirements. We will then review alternative platforms and delivery models to inform a business case for change. Consideration will be given to potential changes in the size and scope of the council, to ensure a flexible service is implemented to accommodate future projected changes.

Projects 5, 8, 19, 27 - Agile Working; including End-User Device Portfolio Review

Lenovo is the city's current chosen vendor for end-user devices (laptops, desktops) and the existing agreement comes to an end in March 2017. A re-tender is required and needs to be informed by the requirements of the agile working programme.

A review of the smartphone estate is also required, following the decision by the incumbent device vendor (Microsoft) to no longer focus on handsets as part of their portfolio. In addition, the underlying mobility management platform (MobileIron) is approaching the end of a support agreement, giving us the opportunity to review functional requirements for mobile/agile workers as well as general smartphone users going forward.

There will be an evaluation of Android as a platform as well as the Apple operating systems and device portfolio, as well as reviewing the security platform to ensure there is a balance between the responsibilities for protecting council data and ensuring an enabled workforce to be as productive as they can in a mobile environment. There will also be a review of alternative models such as BYOD (Bring Your Own Device) and COPE (Corporately Owned and Privately Enabled) to provide staff and members with choices and to ensure they are provided with the optimal hardware and software solutions to support them in a way that is appropriate to their work style. Pilots for Skype for Business, for improved collaboration, as well as Office 365 will be undertaken, as either an option for agile workers or as an alternative to the on-premise Exchange/Outlook messaging infrastructure and MS Office software products. This will inform the decision around the future messaging and office productivity platform (Exchange/Outlook and MS Office/SharePoint). Alongside the focus on devices and software, we will be reviewing

how we deliver applications and services to devices remotely, using solutions such as Citrix (the incumbent solution) and desktop or application virtualisation technologies (commonly referred to as thin-client delivery).

Project 26 - Governance – Workflow

It is generally recognised that the governance process within the council is effective, but needs to be reviewed to ensure continuous improvement. The recently implemented CMIS platform provides the foundation for workflow and process management support for the governance process and will be reviewed, alongside a more fundamental and critical review of governance processes to ensure they are fit for purpose and aligned to achieving council outcomes in the most productive and efficient way possible.

Digital Facilitation

Objective: we will enable our citizens to be fully included in the Digital Economy and Digital Society

The projects associated with this theme are as follows:

Project 11 - CWS/CRM (Customer First) Review

Digital facilitation is in many ways cross-cutting and will manifest itself in most ICT&D related projects that involve human interaction. However, this is most relevant in the way in which the council interacts with its citizens and partners across the city.

The primary enabling project under this theme is the review of the online transaction platform, known within the city as Customer First. This work is being led by Customer Services, under the Citizen Access strategy, and has already succeeded in putting in place the new Birmingham City Council website as a key enabling platform going forward.

A review is now underway of the integrated Customer First platform that already supports well over 2 million transactions with Birmingham citizens per year, of which around 350,000 are online via self-service. The aspiration is to improve the online customer experience, increase the scope and volume of transactions managed through self-service, thereby reducing the transactional cost to the council, and to reduce the total cost of ownership of the underlying ICT architecture.

Insight

Objective: *to become more data centric – so we can create the capability to turn data into information and information into insight.*

The projects associated with this theme are as follows:

Projects 12, 13, 14, 16, 17, 18 - Information Management Strategy

Development of an over-arching Information Management Strategy and associated data architecture and tooling, to realise the vision of what an integrated and intelligence lead approach can offer to support the Council of the future.

Clear ownership of data assets and associated support for maintaining minimum acceptable quality standards to enable aggregation of data, driving more effective and efficient management information reporting and analytics capabilities.

This programme will cover:

- **Project 12 - Open Data** – The council will make its data open, transparent and accessible by continuing to publish data sets. We will become less resistant to unlocking and providing access to data. Public access to Council information will promote lively democracy, integrity and better decision making.
- **Project 16 - Management Information** – a single reporting platform with an easy to use suite of tools in the hands of operational managers. There will be a review of the incumbent reporting platform, Business Objects, against market leading alternatives, accounting for existing investments and cost of change to develop a business case for consideration, against a set of BCC business requirements.
- **Project 17 - Customer Insight** – the council will create an Insight capability that will utilise its data assets, information and knowledge.

- **Project 18 - Document management** – the existing document management platform, Documentum, requires significant investment to upgrade and maintain support from the vendor. This project will undertake a city-wide review of document management requirements as well as capabilities of existing solutions in place, against alternative products in the market, ultimately informing a business case to either upgrade Documentum, or implement an alternative solution.
- **Project 13 - Geo Spatial Strategy** – to develop a strategy and implementation plan around geo-spatial requirements. This would provide a variety of capabilities designed to capture, store, manipulate, analyze, manage, and present all types of geographical data. The existing solutions (ArcGIS and LocalView) are out of support and either need upgrading or replacing with an alternative.
- **Project 14 - SSM (SAP Strategy Manager)** – SSM is the incumbent Corporate Performance Management platform and is facing significant upgrade costs that have questioned whether it is the right solution for the Council, particularly as it has not been fully exploited in terms of functionality. This project will review the current and anticipated future business requirements to drive the future platform selection.

Innovation

Objective: to be innovative; to make changes to what's established, by introducing new methods, ideas, and solutions.

The projects associated with this theme are as follows:

Project 22 - Innovation Portal & Lab

Innovation is cross-cutting through all projects, however as a theme in its own right, the intention is to create a portal and a safe space to facilitate co-design, ideas and prototyping of solutions to address major challenges faced by Birmingham as a city and as a community. This will enable stakeholders to submit innovative business and technology ideas and solutions that meet our key challenges.

Project 28 – Data Archiving & Retention Strategy

This project will review the nature of data stored, to establish whether a business case exists to implement a suite of data management tools to introduce archiving capabilities, which typically moves infrequently accessed data onto cheaper/slower storage solutions.

The council currently store over 4.5PB (peta-bytes) of council data, comprising a mix of structured data (typically application databases) and un-structured data (e.g. home drives for storing individuals and team documents). All such data is backed-up, encrypted and stored across the city's data centres.

Project Benefits

The nature of the cashable savings and possible future changes to the funding sources are given below:

The immediate benefit of implementing the priority projects is that the council will be able to continue to deliver its core ICT & Digital services, delivering greater flexibility and lower cost, by taking advantage of newer, cheaper, on demand technologies. These projects will also deliver the technical foundation for improved digital public services in the city and region. Specifically, but not exclusively:

- Develop end-to-end digital services that enable citizens to take control of how they consume services
- Increase efficiencies and provide easier ways to access services that meet citizens expectations
- Create the right conditions to develop smart city activities and applications,
- Stimulate service transformation, through innovation and new ways of working in collaboration with partners
- Use 'the right digital channels' to improve communications and partnership working
- Release data in all its forms for reuse that increases the opportunities for citizens, civic tech entrepreneurs and businesses to gain insights and develop services
- There are potential savings both Capital and Revenue, to be identified in the Full Business Cases for each of the projects, in the procurement and implementation of more effective successor solutions to the ones currently in use, that have a lower initial cost.
- Another potential source of savings is that these solutions may-well have lower recurrent costs.
- There may be a reduction in the requirement for capital funding should the Council move to using more off-site, Internet "cloud"-based computing resources for storing and processing data, or providing software applications. Details of which can be found in the programme/project deliverables.

	<p>Such a move would require lower capital resourcing to buy its own capital items. On the other side of the argument, it would mean a higher resourcing for operational expenditure to fund the “rental” of these Cloud services. This will all be contained within the approved resources envelope.</p> <ul style="list-style-type: none"> • One of the major benefits of this approach is that the Council would be able to increase, or decrease the volume of cloud services its uses in a flexible and agile manner, each FBC will determine the viability of using Cloud services. The Council would be able to vary the number of software licences it paid for, as well as the amount of data processing and data storage it was committed to. In essence, the amount of IT Service could be varied to suit the size of the Council. The actual variation in this financing will not be known until the analysis and options and have been considered. • Another benefit of moving to Cloud services is that the Council will be able to take advantage of suppliers’ technology refresh programmes that deliver more processing power and more data storage per unit cost. There will also be reductions in operating costs, as these new technologies are far more energy efficient. • For the council to get the full benefits from its ICT&D investment it must be fully-committed to utilising its ICT&D, particularly ensuring that all staff are enabled and committed to this objective. For example making full use of: Improved MI, Agile Working, Customer Insight and Improved governance.
Key Project Milestones	Planned Delivery Dates
<p>There are 27 projects that will start in this tranche of the programme, of which 16 will have completed within this period. The details of these projects are given above.</p>	<p>Various – Finance appendix private report.</p>

<p>Dependencies on other projects or activities</p>	<p><u>External dependencies</u></p> <p>This whole programme of work is primarily dependent upon the council of the future business architecture (what services the council provides and how they are provided). Changes to the council, the services it delivers and the way in which those services are delivered will affect the projects in this programme. e.g. the creation of a Children’s Trust.</p> <p><u>Internal dependencies</u></p> <ul style="list-style-type: none"> • There are interdependencies between projects and the future choices of technology, For example if the Microsoft Enterprise Agreement FBC is not approved this will impact: thin client delivery, Windows 10, Windows server OS upgrade, database strategy and SCCM upgrade.
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	<p>Details of these projects can be found above.</p> <ul style="list-style-type: none"> • Hardware upgrades will need to be delivered before software upgrades and these will be determined as part of a critical path analysis. • Placing orders with Contractors. • Third parties deliver in line with project timelines
Achievability	<ul style="list-style-type: none"> • Many of the projects within the programme are replacements for existing services that have already been implemented • Other projects are aimed at delivering solutions that have been proven elsewhere • Initial analysis and risk assessment will validate the amount of effort required to deliver the projects • The risks to project delivery will be identified and assessed. The appropriate mitigating actions will be taken to protect the delivery timescales and the project budget • The Chief Information Officer for the council will act in the role of Project Sponsor and Corporate customer; however delegation of this role will be decided within the FBC • The council has planned its resources to support the delivery of this programme of work and Service Birmingham are preparing to support the programme and its deliverables • The council will ensure regular monitoring and reporting on the delivery of this programme of work. In particular the reports will be taken to the ICT programme Board • The ICT Investment plan already contains outline details of a requirement and estimated outline costs for Programme management capabilities within Service Birmingham
Programme Manager	<p>Programme Management will be provided by Andy Fullard</p> <p>t: 07885 237 271</p> <p>e: andy.fullard@birmingham.gov.uk</p>
Programme Accountant	<p>Adrian Ingram</p> <p>t: 0121 464 1575</p> <p>e: adrian.ingram@birmingham.gov.uk</p>
Programme Sponsor	<p>Angela Probert</p> <p>t: 0121 303 2793</p> <p>e: angela.probert@birmingham.gov.uk</p>

Proposed Programme Board Members	The Deputy Leader’s Corporate ICT Project Board will act as the Programme Board:		
	Councillor Ian Ward	-	Deputy Leader & Portfolio Holder for ICT&D
	Angela Probert	-	Strategic Director, Change & Support Services
	Alison Jarrett	-	Assistant Director - Development, E&C
	Amanda Stevens	-	Head of Service - Contract & Delivery
	Andy Fullard	-	Interim Information and Technology Director
	Anne Shaw	-	Assistant Director - Transportation & Connectivity
	Chris Gibbs	-	Service Director – Customer Services
	Giles Hawtin	-	Chief Technical Officer, Service Birmingham
	Jackie Woollam	-	Head of [ICT] Governance & Strategy
	John Hunt	-	Operations Director, Service Birmingham
	Nigel Kletz	-	Assistant Director – Corporate Procurement
	Robert James	-	Service Director -Housing Transformation
	Wendy X Griffiths	-	Assistant Director-Policy & Commissioning
Head of City Finance (HoCF)		Date of HoCF Approval	
Other Mandatory Information			
• Has a Programme budget been set up on Voyager?			No
• Issues and Risks updated (Please attach a copy to the PDD and on Voyager)			Yes

2. Options Appraisal Records

There are six success factors that tie back to the six themes in the approved ICT & Digital Strategy (2016 - 2021). Each of these success factors has a set of projects associated with them. These have been chosen for inclusion in the programme on the basis that they are:

- Critical to maintain ICT Support for council Services and/or
- Necessary for the implementation of the ICT & Digital Strategy (2016 -2021) that will support the council services of the future

The reason for inclusion of each project is included in section 3 Programme Management Workstreams. Please refer to the “Principal Reason for Decision - Primary Driver” for each project.

NOTE: The traditional method of describing the options is as follows. However, this document deals with a larger number of individual projects that will have full Business Cases developed as they are prepared for approval at Chief Officer level or above.

Option 1 Do Nothing	This option is to not implement any of the projects described below.
Information Considered	The information considered was given in the following file: <ul style="list-style-type: none"> • “ICT & Digital Strategy - Building Blocks, Roadmaps and Delivery Programme - v029”
Pros and Cons of Option	<p>The argument in favour of this option is that:</p> <ul style="list-style-type: none"> • The council will not incur the estimated £41.690m costs of investment. <p>The arguments against this option are that:</p> <ul style="list-style-type: none"> • The council will encounter both chronic and acute ICT problems such as a slowing of the network or even outright failure of ICT assets such as network components or servers • Software will become outdated and unsupported, leading to further chronic failures, unpatched security vulnerabilities, non-compliance with the Public Services Network standards and possible disconnection from the PSN. In the event of a security breach, there may be a theft of personal data, a breach of the Data Protection Act (1998) with ensuing fines and reputational damage. • The council may –well not be able to avoid some of these costs, as it may be faced with uncontrolled, distress-purchases to rectify ICT asset failure. • Additionally, the council will not be able to implement its ICT & Digital Strategy (2016 - 2021) with the result that the ICT Service will be poorly-placed to support the new ways of working needed to deliver council services in a cost-effective manner in the future.
People Consulted	The people consulted were primarily: <ul style="list-style-type: none"> • Chief Technical Officer, Service Birmingham. • Interim Director of ICT, Birmingham City Council

Recommendation	Abandon this option.						
Principal Reason for Decision	The option is unrealistic and likely to still incur cost in the medium-long-term on account of ICT system failure, fines and reputational damage.						
Option 2 Implement Critical/Core elements	This option is to implement only the Core/Critical elements of the Investment Programme.						
Information Considered	The information considered was given in the following file: <ul style="list-style-type: none"> “ICT & Digital Strategy - Building Blocks, Roadmaps and Delivery Programme - v029” 						
Pros and Cons of Option	<p>The arguments in favour of this option is that:</p> <ul style="list-style-type: none"> The council will avoid the slow degradation, or possible catastrophic failure of its ICT systems The council’s software will be maintained and kept in support, complying with its requirement that allows it to remain connected with the Public Service Network. The ICT estate will be best-placed to withstand future security breaches and malicious attacks. The council will be able to maintain its ICT estate in a managed and cost-effective manner, with little if any recourse to distress purchases. <p>The arguments against this option are that:</p> <ul style="list-style-type: none"> The council will only be able to implement its ICT & Digital Strategy (2016 - 2021) in those areas where the Core/critical projects support it The Service will be poorly-placed to support the new ways of working needed to deliver council services in a cost-effective manner, in the future The council will incur the following, estimated costs: <table> <tr> <td>The initial 18-month period expenditure would be</td><td>c. £15.305m</td></tr> <tr> <td>By starting these projects, the commitment would be</td><td>c. £31.845m</td></tr> <tr> <td>The overall five-year expenditure for this option is</td><td>c. £37.845m</td></tr> </table>	The initial 18-month period expenditure would be	c. £15.305m	By starting these projects, the commitment would be	c. £31.845m	The overall five-year expenditure for this option is	c. £37.845m
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By starting these projects, the commitment would be	c. £31.845m						
The overall five-year expenditure for this option is	c. £37.845m						
People Consulted	The people consulted were primarily: Chief Technical Officer, Service Birmingham. Interim Director of ICT, Birmingham City Council						
Recommendation	Abandon this option						

Principal Reason for Decision	The ICT service is unlikely to be able to sufficiently support the new ways of working that will be necessary for the council to continue play its part in delivering public services to the City of Birmingham.
Option 3 Implement the full ICT & Digital Investment Programme	This option is to implement the full ICT & Digital Investment Programme (2016 -2021)
Information Considered	The information considered was given in the following file: <ul style="list-style-type: none"> “ICT & Digital Strategy - Building Blocks, Roadmaps and Delivery Programme - v027”
Pros and Cons of Option	<p>The arguments in favour of this option are that:</p> <ul style="list-style-type: none"> The council will be able to maintain and develop an ICT estate that supports the ambition to be a modern council avoiding the slow degradation, or possible catastrophic failure of its ICT systems The council’s software will be maintained and kept in support, complying with its requirement that allows it to remain connected with the Public Service Network. The ICT estate will be best-placed to withstand future security breaches and malicious attacks The council will be able to maintain its ICT estate in a managed and cost-effective manner, with little if any recourse to distress purchases The ICT service will be best-placed to support the new ways of working needed to deliver council services in a cost-effective manner in the future – in line with the ICT & Digital Strategy (2016 - 2021) The ability to take advantage of opportunities to drive out savings in annual running costs by optimising ICT&D services that best fit future council needs <p>The arguments against this option are that:</p> <ul style="list-style-type: none"> The council will incur significant cost of investment
People Consulted	The people consulted were primarily: <ul style="list-style-type: none"> Chief Technical Officer, Service Birmingham. Interim Director of ICT, Birmingham City Council
Recommendation	Proceed with this option
Principal Reason for Decision	The reason to take this option is that it will not only maintain a fit-for-purpose ICT service, but also prevent a lack of ICT investment becoming a barrier to the council meeting its future budgetary and service delivery challenges.

5. Budget information

The development of the FBCs will be met from existing resources from within the ICF and Service Birmingham (under the existing contract).