Committees:	**Dates:**
Digital Service Committee - For Decision Police and Authority Board - For Decision City Bridge Foundation - For Decision Projects and Procurement Sub Committee - For Information	24 July 2024 04 September 2024 19 September 2024 23 September 2024
Subject: Public Switched Telephone Network (PSTN) Replacement **Unique Project Identifier:** **12453**	**Gateway 2:** **Project Proposal** Regular
Report of: Chamberlain **Report Author:** Nishat Faruque	**For Decision**

PUBLIC

Recommendations

1. Next steps and requested decisions	**Project Description:** By 31 January 2027, the Public Switched Telephone Network (PSTN) and the Integrated Services Digital Network (ISDN) will be switched off nationally and must be replaced by an IP (Internet Protocol) fibre-based network and infrastructure. The City of London Corporation also relies on MPF technologies (metallic path facilities) for the majority of its business connections, and although the deadline for MPF to IP migrations is 2030, the project will aim to migrate these connections by 2027 to ensure a smooth transition to IP only services. **Next Gateway:** Gateway 3/4 - Options Appraisal (Regular) **Next Steps:** Following approval, the project will engage a third party to conduct a thorough audit of analogue connections. This will help us identify necessary actions, provide an estimation of costs related to the transition and plan the next steps accordingly. **Requested Decisions:** 1. That a budget of £200,000 is approved for the appointment of a consultant to reach the next Gateway, subject to the release of funds by Resource Allocation Sub Committee, Policy and Resource Committees and the City Bridge Foundation (CBF) Board. 2. Note the total estimated cost of the project is subject to an audit of our current state.

	3. Note that that an indicative amount of £2.5m has been put forward under the City's Capital and Supplementary Revenue (SRP). 4. That a Costed Risk Provision of £50,000 is approved up to the next Gateway as detailed in the Risk Register in Appendix 2.			

2. Resource requirements to reach next Gateway	Item	Reason	Funds/ Source of Funding	Cost (£)
	PSTN Consultant	To identify the locations and extent of required works, to provide available options to manage migrations	City Fund: 57% City Estate: 38% CBF: 5%	£150,000
	Internal Programme Resources	To support with the coordination of the audit, analysis of data, stakeholder engagement	City Fund: 57% City Estate: 38% CBF: 5%	£50,000
	Total			£200,000

Costed Risk Provision requested for this Gateway: £50,000 (as detailed in the Risk Register – Appendix 2). The CRP will be funded by City Fund, City Estate and City Bridge Foundation.

3. Governance arrangements	• Service Committee: Digital Services Committee • SRO: Sudeep Chatterjee, DITS (Digital, Information and Technology Services) Assistant Director Cloud Infrastructure & Security • Project Manager: Nishat Faruque • Governance: PSTN Replacement Project Board TBC

Project Summary

Context	a. The Public Switched Telephone Network (PSTN) is scheduled to be switched off on 31 January 2027 and traditional landline connections must be replaced with Internet Protocol (IP)-based services. b. Provided by BT Openreach, the PSTN is the analogue copper cable telephone network that has been in use since 1876. As well as landline services, the PSTN also provides standard broadband and fibre-to-the-cabinet (FTTC) broadband services via fibre optic cables. c. Services rely on PSTN for critical functionality such as telephony, payment machines, emergency lines and fire alarm systems, so moving to a modern, fit for purpose alternative before the end of January 2027 is crucial. PSTN Systems and equipment that are incompatible with IP, may also need replacing. d. The City of London Corporation also relies on MPF technologies (metalic path facilities) for the majority of its business connections. The deadline for MPF to IP migrations is 2030.
4. Brief description of project	a. The project plan includes conducting a comprehensive audit of our current analogue connections, which aims to support a more accurate cost estimation and strategic planning for required upgrades. b. Conducting an audit of our current state will assist in identifying the number of connections in operation, their locations, purposes, and the compatibility of existing hardware with IP. It is also predicted to identify a number of connections that are no longer required. c. The overarching goal of the project is to co-ordinate the replacement of all of the Corporation's analogue connections by Janaury 2027, address potential disruptions and ensure uninterrupted functionality of essential business services across sites managed by the Corporation. This includes both PSTN and MPF connections. d. The project will directly manage the migration of connections under DITS (Digital Information and Technology Services) contracts. These include City of London Police sites, as well as the City Bridge Foundation, Barbican Centre, Guildhall School of Music and Drama (GSMD) and the Schools. e. If the audit identifies other locally contracted connections, the project will work with the responsible department to migrate them. f. Analogue connections to Residential and Investment Properties are not in scope for replacement within the context of this project. These are to be managed by Housing and Investment Property Group respectively.

5.	**Consequences if project not approved**	a. With Openreach ceasing PSTN services in 2027, the transition must be completed to ensure uninterrupted service provision. b. Any equipment that currently uses the PSTN will stop working. Some examples are alarms, EPOS machines (electronic point of sale), door entry systems, CCTV, faxes, emergency care lines. c. The Integrated Services Digital Network (ISDN) will also stop working. d. MPF connections will cease in 2030. e. An audit of our existing analogue infrastructure must be carried out to be able to make an informed decision on which technologies to migrate to.
6.	**SMART project objectives**	a. Conduct an audit on all of the Corporation's analogue business connections. b. Ensure that all analogue connections are ceased or replaced with an alternative IP based solution by the start of 2027. c. Replace any equipment, asset or component that is not compatible with IP. d. PSTN replacement is completed with minimal disruption for end users; engaging and informing stakeholders throughout the project lifecycle to maintain transparency and alignment with objectives. e. Ensuring compatibility and integration with existing systems and future technologies. f. Adhering to regulatory requirements and industry standards throughout the transition process.

7.	**Key benefits**	a. By undertaking this project, we ensure full compliance with Openreach standards and alignment with industry requirements.
		b. Other benefits include:
		   • simplifying and future proofing our systems
		   • reducing costs
		   • boosting sustainability
		   • enabling a more flexible workplace
		
		The project will have a better understanding of benefits after a comprehensive audit on all analogue connections.

8.	**Project category**	7b. Major renewals, typically of a one-off nature (supplementary revenue)
9.	**Project priority**	A. Essential
10.	**Notable exclusions**	a. The project will audit and facilitate the replacement of PSTN in and around sites managed by the Corporation. b. While the project will cover the costs for purchasing and installing necessary hardware, and other associated

	costs, such as cost for project management resources, the responsibility for managing the purchase and installation of systems (such as lifts, emergency care lines, Building Management System, and fire alarms) lies with the Facilities Manager or the responsible department.
	c. IPG and residential connections are not included in the PSTN Replacement Project.

Options Appraisal

11. Overview of options	1. Do nothing – this option is not recommended as it will expose the Corporation to significant risk. Refer to Section 5 above.
	2. Audit and migrate PSTN connections only to address the January 2027 deadline.
	• This option would alleviate any immediate risks to the business once PSTN is switched off.
	• Ensures that there is no undue pressure on resources.
	• Does not allow planning for the MPF migration.
	3. Audit and migrate all analogue connections by January 2027, prioritising sites with PSTN connections. Note that some sites contain both MPF and PSTN connections, in which case the project will aim to migrate all connections at those sites at the same time.
	• Addresses the immediate risks to the business.
	• Auditing all connections may provide immediate cost benefits as well as ensuring that the Corporation is prepared for MPF replacement in terms of costs, resources and lessons learned.
	• Delivering the upgrade to IP into two priority groups will mean that there is no undue pressure on resources.
	• Aligns with the bid cycle structure. Following the audit's conclusion, the MPF migration requirements will become more defined. Subsequently, a capital bid can be formulated for 25/26 based on these assessments.

Project Planning

12. Delivery period and key dates	**Overall project:** All PSTN connections to be ceased or migrated to IP technology by 31 January 2027.
	Key dates:

	Start audit/discovery work: November 2024

G3/4/5: April 2025

Start works: June 2025

Practical Completion: January 2027

G6: February 2027

Other works dates to coordinate: None that the project is aware of. |
| **13. Risk implications** | **Overall project risk:** Medium

The most significant risks relate to uncertainty around costs. Until the audit process is completed all migration costs are estimated.

There is also a risk that our third-party suppliers for lifts, fire alarms and other components are not ready for the change to IP. The project will investigate alternative solutions, such as copper to IP converters, and will work with the responsible departments to ensure that the risk of down-time is mitigated. An audit of the current state will inform the necessary adjustments.

Costed Risk Provision (CRP) will be estimated after the audit has been completed in Gateway 2.

Further information available within the Risk Register (Appendix 2) |
| **14. Stakeholders and consultees** | a. City Surveyor's – Corporate Property Group, Facilities Management,
b. City of London Police
c. Chamberlain's – IT, Finance, Procurement
d. Capital Bids team.
e. Corporate Projects
f. Barbican Estate
g. Markets
h. Housing
i. Environment – Strategic infrastructure
j. Daisy Corporate Services
k. BT Business
l. BT Openreach
m. CBF – Operational & Finance Teams |

Resource Implications

15. Total estimated cost	**Likely cost range (excluding risk): £2.5m**

Likely cost range (including risk): To be confirmed in the next Gateway.

The costs will be determined based on the outcomes of the audit. Presently, an indicative amount of £2.5 million has been allocated for utilisation in the years 2024/25. |

16. Funding strategy	Choose 1:	Choose 1:
	All funding fully guaranteed	Internal - Funded wholly by City's own resource

Funds/Sources of Funding	Cost (£m)
City Fund	1.425
City Estate	0.950
City Bridge Foundation	0.125
Total	**2.500**

This was submitted in the new bids process for 24/25, an indicative amount of £2.5m was approved, with the acknowledgment that the amount would change when a more detailed assessment was undertaken.

Note that allocations for future funding are provisional at this stage of the project and will be revised based on the findings of the audit. The final funding breakdown will be agreed in consultation with Chamberlain's and City Bridge Foundation.

In the event that the investigation reveals the need for additional funding, this will be documented during Gateway 3/4. At that point, Members will have the choice to either reduce or approve additional funding. Costs beyond £2.5m will come from future allocations of capital funds.

17. Investment appraisal	None. An investment appraisal may be carried out in the next Gateway.
18. Procurement strategy/route to market	There will be two procurement streams relating to this project. a. Procurement 1: In relation to Gateway 1 and 2, the Commercial Service will procure a contract for a PSTN consultant to carry out an audit on PSTN and MPF connections. b. Procurement 2: The procurement strategy for the latter part of the project is dependent on the findings of the PSTN and MPF audit and will be undertaken by Commercial Service.
19. Legal implications	None.
20. Corporate property implications	The project has reached out to the City Surveyor Facilities Management team to inform them about the upcoming project. Once an audit is conducted, we will clarify the requirements of Facilities Management and related departments. The audit will identify the locations needing work and assess available options for management.

21. Traffic implications	No traffic implications at this Gateway.
22. Sustainability and energy implications	There may be relevant sustainability impacts associated with this project, but they will be considered at a later Gateway.
23. IS implications	The project needs to ensure that any new technology acquired due to the migration to IP aligns with the DITS strategy. Further implications will be clarified upon completion of the audit.
24. Equality Impact Assessment	An equality impact assessment will not be undertaken
25. Data Protection Impact Assessment	The risk to personal data is less non-applicable and a data protection impact assessment will not be undertaken

Appendices

Appendix 1	Project Briefing
Appendix 2	Risk Register

Contact

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