

Key Network Infrastructure (Core Data Switches)

Decision maker: Director of Resources and Assurance

Decision date: 23.06.2022

Report by: Programme Manager

Classification

Open

Decision type

Non-key

Wards affected

Widemarsh;

Purpose

To seek agreement to draw down the funds identified in the 2022/23 capital budget to replace on a like for like basis the core data centre switches and corporate Wi-Fi

Recommendation(s)

That:

- a) **Agreement to draw down the funds identified in the 2022/23 capital budget to replace on a like for like basis the core data centre switches and Wi-Fi; and**
- b) **Authority be delegated to the IT Client Manager to take all operational decisions to implement the above recommendation, which includes :-**
 - I. **Commissioning Hoople Limited to complete the work on behalf of the council as the IT support provider to the council**
 - II. **Award of contract for the replacement hardware and ongoing support and maintenance following a compliant procurement process.**

Alternative options

1. The council could decide not to agree the replacement of the core data centre switches or corporate Wi-Fi. This option is not recommended as the risk of security and hardware failure will increase over time. At some point hardware parts and components will not be available to source. Risk of security compromise will increase over time as cyber security threats and vulnerabilities for the aging technologies emerge. Operational and support costs will increase over time as compatibility with other equipment reduces overtime (i.e. obsolescence). The council will no longer be able to maintain the security posture and compliance certifications expected of a Local Authority

Key considerations

2. The council runs a modern network to operate and support its service delivery. Due to the sensitivity of the data processed within its key line of business solutions, the council needs to operate its IT systems in line with Government guidelines (currently HMG Security Policy Framework and Minimum Cyber Security Standard).
3. This decision is for the like for like replacement of the core data centre switches and corporate Wi-Fi components of the council's IT network infrastructure. Thus providing supported in life equipment with the provision of manufacturer security, software and hardware support and maintenance.
4. Supports the authority's obligations by maintaining the core infrastructure in a secure manner and protecting the council's Data.
5. The council needs to operate its IT systems in line with Government guidelines (currently HMG Security Policy Framework and Minimum Cyber Security Standard).
6. To adhere to these guidelines, the council must ensure that the underlying infrastructure is secure and that the hosting environment is maintained securely. Infrastructure must not be vulnerable to common cyber-attacks and this needs to be maintained through secure configuration and software patching.
7. Each year the council must comply with Public Service Network (PSN), Cyber Essentials Plus (CE+) and ISO27001 certifications, which are audited annually to ensure compliance.
8. IT equipment manufacturers operate support lifecycles in 3 main areas;
 - a. Software development (features),
 - b. Security patching (vulnerabilities) and
 - c. Hardware (parts)
9. To meet the vulnerability patching requirements as outlined above, equipment is considered to be within lifecycle for compliance management whilst the manufacturer continues to provide software releases for security vulnerabilities (b).
10. The council needs to replace the core switches and corporate Wi-Fi to enable the council's IT provider to continue to provide a secure environment for council services by mitigating against emerging Cyber Security Threats.
 - a) Provide hardware maintenance mitigating against component or equipment failure.
 - b) Support the council's requirement to maintain PSN and CE+ certifications.
 - c) Provide assurances in respect of the confidentiality, integrity and availability of the key line of business systems for the council
11. The like for like replacement will be delivered under the oversight of the IT Client Manager.

12. Any procurements emerging from this programme will be in line with the council's Contract Procedure Rules.

Community impact

13. The corporate plan ensures our essential assets, including IT, are in the right condition for the long- term, cost-effective delivery of services. The council has committed to deliver against bold and ambitious plans and, by working with our local and national partners, we seek to continue to improve the quality of life for the county's residents. Connected to this plan is a stated aim to further embrace digital technology to save costs and improve mobile working.

Environmental Impact

14. The council provides and purchases a wide range of services for the people of Herefordshire. Together with partner organisations in the private, public and voluntary sectors we share a strong commitment to improving our environmental sustainability, achieving carbon neutrality and to protect and enhance Herefordshire's outstanding natural environment.
15. Whilst this is a decision on back office functions and will have minimal environmental impacts, consideration has been made to minimise waste and resource use in line with the council's Environmental Policy.

Equality duty

16. Please Under section 149 of the Equality Act 2010, the 'general duty' on public authorities is set out as follows:

A public authority must, in the exercise of its functions, have due regard to the need to –
 - a) eliminate discrimination, harassment, victimisation and any other conduct that is prohibited by or under this Act;
 - b) advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it;
 - c) foster good relations between persons who share a relevant protected characteristic and persons who do not share it.
17. The public sector equality duty (specific duty) requires us to consider how we can positively contribute to the advancement of equality and good relations, and demonstrate that we are paying 'due regard' in our decision making in the design of policies and in the delivery of services. Our providers will be made aware of their contractual requirements in regards to equality legislation.

Resource implications

18. The request for draw down of the £490,000 will enable the procurement of third party services with the relevant expertise, including licencing, support and maintenance for 5 years for switches and 3 years for Wi-Fi.
19. The funding has already been approved and is included in the 2022/23 Capital Programme.
20. There will be an initial reduction in revenue costs of £10,400 per annum, however an increase in revenue costs from year four of £20,000 for the corporate wifi; from year six an additional revenue costs of £12,000 per annum for data centre switches.
21. The detailed breakdown of the resource implications is attached in the table below.

Revenue or Capital cost of project (indicate R or C)	2022/23	2023/24	2024/25	2025/26	2026/27	Future Years	Total
	£000	£000	£000	£000	£000	£000	£000
<i>Professional Fees (C)</i>	450						450.0
<i>Contingency(C)</i>	40						40.0
Licencing, support and maintenance (R)			(10.4)	(10.4)	(10.4)	32	0.8
TOTAL	490	0	(10.4)	(10.4)	(10.4)	32	490.8

Funding streams (indicate whether base budget / external / grant / capital borrowing)	2022/23	2023/24	2024/25	2025/26	2026/27	Future Years	Total
	£000	£000	£000	£000	£000	£000	£000
<i>Capital Borrowing (Capital)</i>	490						490
TOTAL	490	0	0	0	0	0	490

Revenue budget implications	2022/23	2023/24	2024/25	2025/26	2026/27	Future Years	Total
	£000	£000	£000	£000	£000	£000	£000
<i>Core data centre switches</i>			(3.9)	(3.9)	(3.9)	12 (Yr 6+)	0.3
<i>Corporate wifi</i>			(6.5)	(6.5)	(6.5)	20 (Yr 4+)	0.5
TOTAL	0	0	(10.4)	(10.4)	(10.4)	32	0.8

Legal implications

22. The Security Policy Framework sets out the standards, best practice guidelines and approaches that are required to ensure that the Government and organisations handling Government information will apply to ensure that the Government can function effectively, efficiently and effectively.
23. The Minimum Cyber Security Standard details the minimum security measures that should be implemented to protect information, technology and digital services. A key standard is to ensure that systems which handle sensitive information or key operational services shall be protected from exploitation of known vulnerabilities and this is to be achieved through secure infrastructure.
24. The council has the power to implement this decision in accordance with the s 1 - 4 of the Localism Act 2011, the general power of competence.
25. The replacement core data switches will be procured in accordance with the Public Contract Regulations 2015 and the council's contract procedure rules.

Risk management

26. The key risks associated with the options outlined in the paper are as follows:

Risk / opportunity	Mitigation
Due to the lack of engineering resource the hardware is not replaced in a timely manner	Reprioritise other work or engage professional services dependent on the prevailing risk encountered.
Disruption to services during migration to the replacement switches and Wi-Fi	Most services within the data centre operate within a resilient N+1 (1 additional component for redundancy) configuration. Core switching will run in parallel during implementation and services will be migrated based on risk (low to high). Those identified as not being resilient will be migrated out of hours with coordination with the business.
A delay in the implementation of the replacement switches and Wi-Fi and the potential security impact	Should any vulnerabilities be identified then additional security mechanisms may have to be implemented to mitigate the vulnerability. Each prevailing vulnerability will be reviewed and scored. Mitigation will be agreed dependent on the score and ability to treat or resolve within the context of the project delivery.
Increased cost of IT components	Utilise a framework to secure best value for money for the council
The project is not completed	A project will be set up to ensure the activities are complete, the project will report into the corporate transformation delivery board, project risks will be managed and escalated as required
Impact to security of not completing this work	Should any vulnerabilities be identified then additional security mechanisms may have to be implemented to mitigate the vulnerability. Each prevailing vulnerability will be reviewed and scored. Mitigation will be agreed dependent on the score and ability to treat or resolve within the context of the project delivery.

27. A project risk register will be maintained on the council's project management system, Verto.

Consultees

28. Consultations have taken place with the Cabinet member finance, corporate services and planning
29. This paper and the recommendations contained within it incorporate comments received during the above consultations.

Appendices

None

Background papers

None

Report Reviewers Used for appraising this report:

Governance	John Coleman	Date 07/06/2022
Finance	Louise Devlin	Date 30/05/2022
Legal	Alice McAlpine	Date 27/05/2022
Communications	Luenne featherstone	Date 23/05/2022
Equality Duty	Carol Trachonitis	Date 24/05/2022
Procurement	Lee Robertson	Date 24/05/2022
Risk	Kevin Lloyd	Date 24/05/2022
Approved by	Andrew Lovegrove	Date 14/06/2022

Please include a glossary of terms, abbreviations and acronyms used in this report.