

REPORT TO: CITY GOVERNANCE COMMITTEE – 19 FEBRUARY 2024

REPORT ON: CLOUD COMPUTING MIGRATION

REPORT BY: EXECUTIVE DIRECTOR OF CORPORATE SERVICES

REPORT NO: 41-2024

1.0 PURPOSE OF REPORT

1.1 To gain approval for the migration of applications, desktops, and IT services to cloud computing.

2.0 RECOMMENDATIONS

It is recommended that the Committee:

- (a) agrees to the purchase of cloud computing.
- (b) approves the procurement exercise in respect of the project described, based on the sourcing strategy, summarised in this report.
- (c) delegates authority to the Executive Director of Corporate Services to direct award this to Amazon Web Services accredited partner Cloudbridge, through the Crown Commercial Services Framework, carried out in compliance with the Public Contracts (Scotland) Regulations of 2015.

3.0 FINANCIAL IMPLICATIONS

3.1 The overall cost of this contract will be £1,200,000 over a 3-year period. The net annual costs of this will be met from the existing Customer Services & IT Revenue Budget. Any material deviation from this cost, will require further approval from this Committee, prior to the contract being awarded.

4.0 BACKGROUND

4.1 This report supports the Council's IT Strategy which was approved at Policy and Resources Committee on 18 February 2019 (Report 81-2019). The Council's IT strategy sets out to deliver digital services, mobile and flexibly accessible services through cost effective solutions.

4.2 At the City Governance Committee in December 2023, report 364-2023 was approved for the Council's IT desktop transformation project. Following further analysis of the market solutions a decision has been taken to utilise cloud computing to replace the current Citrix platform. This approach aligns with the future strategy of migrating IT services to cloud computing. The scope of this project will be extended to include all IT infrastructure, applications, and services.

4.3 Cloud computing offers the Council many benefits including reducing license costs, maintenance of IT infrastructure, data centre hosting costs and future hardware replacement costs. The flexibility offered by cloud computing will allow us to increase or decrease capacity on demand, which avoids extra cost for over provisioning capacity when we purchase hardware.

4.4 The time required for support and maintenance of IT infrastructure is significantly reduced. In addition, the cost of running IT infrastructure will also be reduced. Time and resource will be freed up to focus on other work that adds value to applications and services.

4.5 Cloud computing provides a secure environment that can be accessed by staff from anywhere on any device. This will enhance the capabilities for using laptops to support hybrid working and more mobile and flexible ways of working.

- 4.6 Cloud computing has a portfolio of services available on demand. These can be easily accessed and integrated with current applications and services if necessary. These additional cloud services will enhance current capabilities and provide a platform for developing new applications and services. Cloud will also support future digital transformation projects by providing access to new technologies and capabilities not currently available in the on-premises environment. The most notable of these are Artificial Intelligence and machine learning capabilities of cloud computing.
- 4.7 Migrating to a cloud computing platform will make the IT service more energy efficient. Cloud computing can help reduce the Council's carbon footprint as we stop using on-premises hardware and data centre cooling. The flexibility of cloud allows us to easily reduce capacity and running costs during quiet periods, such as overnight and weekends, which will reduce energy consumption.
- 4.8 Cloud computing is a robust, resilient platform that will enhance the Council's IT disaster recovery and business continuity capabilities. It provides a cost-effective approach to protect critical Council applications from failure, reducing system outages and downtime. It also allows the transformation of IT services, applications, desktop, and infrastructure, improving the overall service for staff.
- 4.9 Following market evaluation the cloud platform selected will be from Amazon Web Service (AWS). AWS are one of the leaders in cloud services and have worked closely with the Council to carry out testing and proof of concept. AWS offer discounted pricing through the One Government Value Agreement (OGVA), which the Council will use for this project. This is a Crown Commercial Services agreement offering 3 years of discounted pricing for public sector organisations to achieve better value for money.
- 4.10 There is a tried and tested cloud adoption framework available from AWS that will assist with the migration of services. AWS offer free and paid training support for Council IT staff to help develop the necessary skills. AWS have extensive experience carrying out cloud migrations with local government. AWS services comply with a series of UK, EU, and global data protection standards, including International Organization for Standardization (ISO) 27001, 27017, 27018, 9001, Cyber Essentials Plus, GDPR/Data Protection Act 2018, National Cyber Security Centre Cloud Security Principles.
- 4.11 The operating cost for cloud services will increase as more services are migrated. Through cost optimisation and management tools provided by AWS we will monitor and manage the consumption of cloud services. This will allow costs to be minimised and controlled. It is expected that annual costs will not exceed £400,000 once all services are migrated and optimisation is carried out.
- 4.12 The use of cloud computing means the need for Council owned and operated IT infrastructure will be significantly reduced. Cloud computing costs are based on a consumption model. Some costs can be fixed based on capacity that is known in advance. This requires a change from capital expenditure on hardware and licenses to a revenue model. This will mean a reduction in IT capital expenditure for purchase of computer equipment.
- 4.13 The cost for cloud migration will be partially offset by reduction and removal of current costs for licenses, hardware maintenance and data centre hosting, including electricity costs. These savings are estimated to be around £100,000 in the first 12 months and increasing to around £150,000 once the migration is fully complete. Further cost savings from capital budgets will also be achieved because hardware refresh is no longer required. These adjustments will be updated in future plans and submitted to members for approval in due course.

5.0 SOURCING STRATEGY SUMMARY

- 5.1 In order to drive maximum benefits from the contract, the Council will use the discounted One Government Value Agreement (OGVA) and G-Cloud services framework.
- 5.2 The Council's aim is to extract best value from this contract.

5.3 The OGVA will be contracted with a certified and approved AWS partner. An evaluation of the partners will be carried out through Crown Commercial Services G-Cloud framework.

6.0 RISK ANALYSIS

6.1 There are four standard risks in any procurement and for public sector regulated procurements, a fifth is added, that of the procurement exercise itself breaching the public contract regulations and leaving the Council open to a legal challenge:

Key Risks			
Description of Risk	Probability (L/M/H)	Impact on DCC (L/M/H)	Actions required to manage Risk
Commercial Risk – That either the price objectives are not achieved up front or there are other costs that arise during the contract and diminish the overall benefits.	Low	Low	Tender Specification very clear expectations. Many suppliers available that creates competition.
Technical Risk – This concerns the difficulty in being able to specify the desired outcome and on the market being unable to deliver to the specification	Low	Low	Tender Specification sets requirements clearly. Technical solutions are already proven within the sector.
Performance Risk – This concerns the ability of suppliers to perform consistently over the life of the contract to deliver the planned benefits	Low	Low	Clear projects goals specified in the tender. Suppliers will be assessed on ability to deliver and support service offered.
Contractual Risk – Being able to remedy the 's shortcomings in the contractor's performance without severely damaging the contract and about avoiding reliance on the contracted supplier as the contract develops.	Low	Low	Clearly stated in the tender specification and evaluated as part of the procurement. Suppliers support service will be assessed.
Procurement Risk – where a procurement is found unsound in law, through the public procurement rules	Low	Low	Clear set of requirements stated and use of a procurement framework.
Overall Contract Risk			

7.0 CONCLUSION

7.1 The approval of this report will allow the procurement process to be carried out for Cloud Computing.

8.0 POLICY IMPLICATIONS

8.1 This report has been subject to the Pre-IIA Screening Tool and does not make any recommendations for change to strategy, policy, procedures, services, or funding and so has not been subject to an Integrated Impact Assessment. An appropriate senior manager has reviewed and agreed with this assessment.

9.0 CONSULTATIONS

9.1 The Council Leadership Team were consulted in the preparation of this report.

10.0 BACKGROUND PAPERS

10.1 None.

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HEAD OF CUSTOMER SERVICES AND IT**

**ROBERT EMMOTT
EXECUTIVE DIRECTOR OF CORPORATE SERVICES**

DATE: 30 JANUARY 2024