

**REPORT TO: ' POLICY AND RESOURCES COMMITTEE - 4 JUNE 2018**

**REPORT ON: CENTRALISED COMPUTER MAINFRAME AND STORAGE PURCHASE**

**REPORT BY: EXECUTIVE DIRECTOR OF CORPORATE SERVICES**

**REPORT NO: 186-2018**

## **1.0 PURPOSE OF REPORT**

1.1 To recommend the purchase and supply of centralised computer mainframe system and storage facilities.

## **2.0 RECOMMENDATIONS**

2.1 The Committee is asked to approve the following:-

- a) Procurement of the Private Cloud for Linux, customer owned, hosted & managed, would be via a direct award under the Crown Commercial Service G-Cloud 9 framework - Lot 1 Cloud Hosting (IaaS) and (PaaS) to Purchase 2 IBM Z14 mainframe computer systems and 2 IBM Flashsystem A9000 storage systems to be hosted by Dundee City Council.
- b) Agree the expenditure described in Paragraph 3 for the capital cost of the new system and the five year licensing, maintenance and support contract.

## **3.0 FINANCIAL IMPLICATIONS**

- 2.1 The total purchase and implementation cost of £779,321 will be funded from the 2017/18 capital budget.
- 2.2 One off Costs for maintenance and support of £93,656 will be met from Corporate Services Revenue Budgets covering a five year period.
- 2.3 Internal staffing costs for configuring and administering the system will be contained within Corporate Services Revenue Budgets.

## **4.0 MAIN TEXT**

- 4.1 The aim of this procurement exercise was to provide new platforms for a wide variety of critical Council systems and the main storage platform for the vast majority of Council data.
- 4.2 Existing physical computer systems host 73 virtual machines covering a plethora of Council functions. Significant applications and databases hosted on these machines include payroll, planning, pensions, cash receipting, document management, housing, training records, flexitime and batch letter production.
- 4.3 Existing storage facilities encompass all data held by the Council on premise currently. This includes all the databases of the computer systems as well as data held for email, the corporate electronic document management system (CeRDMS), personal and network shares.
- 4.4 Existing computer systems and storage are nearing the end of their 5 year life cycle and significant annual maintenance costs in excess of £240000 per annum would be encountered to extend the life of this equipment with no benefit and the growing risk of hardware failure and business disruption.

- 4.5 An evaluation exercise was carried out on alternatives for future provision of both computer systems and storage. Consideration was given to both alternative internally hosted solutions and to external cloud provision.
- 4.6 This evaluation exercise identified similar costs would be encountered as well as significant workloads being needed to transfer these computer systems and storage to alternative equipment, technologies or external cloud.
- 4.7 This transfer of workloads would occur alongside significant existing projects and initiatives. Transfer to alternative equipment, technologies or external cloud would also carry high risk of disruption to fundamental Council services.
- 4.8 Additionally, major software applications are not yet widely available in the external cloud as Software as a Service (SAAS). Adoption of full scale cloud deployment at this time would mean that multiple suppliers private cloud services would be adopted with increased costs due to the disaggregation of applications and storage to multiple cloud providers.
- 4.9 New generation IBM computer systems and storage facilities have been evaluated and provide a relatively seamless migration route from existing platforms to a new internal cloud with anticipated increases in performance and expanded storage capabilities.
- 4.10 New computer systems offer up to 50% performance increases as well as improved security through full encryption of data.
- 4.11 Existing storage facilities allow for 70 terabytes in each of the Councils 2 data centres. The new storage facilities will provide 100 terabytes in each of the Councils 2 data centres as well as bringing technologies which allow between 2 and 4 times actual use of this storage through techniques such as compression and deduplication. This expanded capability will enable the Council to meet its ever expanding need for data storage.

## **5.0 POLICY IMPLICATIONS**

This report has been screened for any policy implications in respect of sustainability, Strategic Environmental Assessment, Anti-Poverty, Equality Impact assessment and Risk Management. There are no major issues.

## **6.0 CONSULTATIONS**

- 6.1 The Council Management Team were consulted in the preparation of this report and agree with its contents.

**GREGORY COLGAN**  
**EXECUTIVE DIRECTOR OF CORPORATE SERVICES**

**18 MAY 2018**