



Belfast City Council

Report to:	Strategic Policy & Resources Committee
Subject:	Authority to Seek Tender - Implementation of a Virtualised Data and Information System Infrastructure.
Date:	24 th April, 2009
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Relevant Background Information

The Council owns a large quantity of information both in the form of electronic documents and computer databases.

The Council's documents are held within a central data repository (called a SAN) in ISB which is replicated in a backup facility at Duncrue. The SAN also holds the databases used by the Council's email and core financial systems. The council's SAN is now over 5 years old and is nearing end of life.

All other databases are held in a large number of data disks that are connected to or are part of the council's collection of over 130 servers delivering all of the other information systems that the Council requires.

Most of the Council's servers reside at ISB with a small number located at Duncrue providing backup for the email system. Additional servers are currently being installed at Duncrue to provide backup for the core finance and payroll systems.

Modern technology enables the provision of the information systems used by the Council using a significantly smaller number of servers. This technology is called server virtualisation and it delivers:

- (i) Savings arising from less power and cooling required for a smaller number of servers, and efficiencies arising from easier administration.
- (ii) Greater flexibility – computer resources can be adjusted to the required workload immediately. New or extra computer resources required can be created in minutes as opposed to the current situation where new computing devices must be procured and prepared in advance.
- (iii) Greater resilience – the Council's systems can continue to deliver information even while experiencing certain levels of hardware failure.

A pre-requisite of implementing server virtualisation is that all of the Council's documents and databases must be held in a single central data repository (or SAN); therefore a new SAN with the capacity to hold all of the Council's data held in ISB and

replicated at the backup site in Duncrue is required. This storage solution would manage the availability of information and the backup and restoration of information in as efficient a manner as possible.

Key Issues

Due to the complexity and intimate relationship between the storage and virtual server technologies, it is vital that the Council engages with a single partner who can provide a single point of contact on all matters pertaining to this work and can engage with the Council in order to plan and implement all aspects of this technology in line with the Council's business requirements.

Resource Implications

Financial

There is a capital budget in place to ensure the procurement of both the equipment and services required.

Centralised Storage

The cost of the current storage equipment if kept and maintained is £100,000 over the next 4 years. This would include the council taking on the risk of relying on an aging storage facility which will be more prone to failure with resulting service provision failure. Estimates based on indicative quotations place a new centralised storage facility supported for 4 years at £310,000 resulting in an actual cost of £210,000.

Servers

Current server maintenance costs if kept and maintained is £120,000 over next 4 years with the council again taking on the increased risk of server failure and loss of service provision. Estimates based on indicative quotations show a server replacement with 4 years support costing £250,000 resulting in an actual cost of £130,000.

Savings arising from power & cooling

It is estimated that the power and cooling costs for the current equipment in ISB is £43,000 per year.

The new equipment would reduce power and cooling costs to £8,000 per year. Over 4 years this represents a saving of £120,000. This reduces the total spend on equipment replacement to £220,000 for an infrastructure that will deliver all of the benefits described earlier.

Human Resources

While ISB staff will be heavily involved in the planning and implementation of the technology, it is vital that a council-wide engagement is done in order to ensure that business continuity arrangements for all systems in the new infrastructure are in line with the requirements of departments and sections using them.

Recommendations

Permission is sought to go to tender in order to seek a partner who will:

- (a) be a supplier of hardware (i.e. storage and servers for a virtual infrastructure)
- (b) provide ongoing maintenance support of the hardware
- (c) will help plan and implement the creation of a virtual infrastructure and the migration of the Council's information systems to the virtual infrastructure

Key to Abbreviations

<p>SAN Storage Area Network – a centralised storage facility that is provides storage to computers and servers over the corporate network.</p>

Documents Attached

None

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