RFQ057 - Appendix D - SAN (and Blade) Replacement

Introduction:

The college has been running an HP Blade and SAN storage combination for the past 5 years and is now looking for a replacement system to carry the college critical business systems for the next 5 years.

This document summarises the current system and the anticipated requirements for a replacement system.

Current System:

SAN - HP P4500 Left Hand

Blades - HP G8 x 6 and G7 x 2

The system is split into an active-active formation between two server rooms. Each server room contains 4 blades in a chassis and a storage mount. For resilience, the sizing of the blades is such that one room can run all the college applications in the event of the loss of the other room. Likewise, the SAN copies data between the two systems and is available in the event of the failure of one side.

Number of applications on each system: xxx

* Windows
* Linux

Total amount of storage - 18Tb in use out of a possible 33Tb (usable storage rather than raw). i-SCSI is used. Currently multiple 1Gb fibre is used and this is likely to continue until 10Gb switches can be purchased.

VMWare 5.5 is used on the system. We will be upgrading to version 6.5 in the near future and this will possibly be complete before the Tender process is complete.

VEEAM is used to back-up the system.

There is no intention of moving away from VMWare and the VEEAM set-up is not being replaced as part of this tender as it was only installed in 2015.

Requirement:

The college recognises that the current set-up with the active-active server rooms is desirable but at a high cost. Therefore we would consider moving to a model with a primary server room hosting the main equipment and a secondary room/location as backup/disaster recovery/business continuity. The secondary room/location could be a full system but may just be 2 - 3Tb of data (copied in near real-time) from a few selective critical business systems, plus the means to bring up a VMWare system to run some selective applications. The latter would require 10 virtual processors and 16Gb RAM.

Blade Replacement Requirement:

1) The current blades will be replaced with 3 powerful servers. This will reduce the cost of licensing. The number of VMWare licences (supporting 8 hosts) will re-used but reduced accordingly to meet the end system.

These will be sourced outside the storage component and **is not part of this tender.**

The existing i-SCSI system will be re-used.

Storage Requirement:

The main requirement is at Appendix D

Other Factors:

Storage Options:

1. the college will also consider a co-location response for a second storage system or space rental. However the location must be within a 2 hrs of travel from the Plymouth site to allow for access in the event of disaster recovery/business continuity..
2. The college runs a separate Oracle system on a physical box and would consider using the new system to run this (or part of this) as long as it does not affect the Oracle licensing.
3. The college is starting to use Google more and more. In theory this could reduce the amount of storage required, although at present more and more space is thin provisioned (5Gb/ student) to an increasing number of students on courses demanding more local storage eg ICT Gaming, Media (Photoshop etc), etc. The MAC suite need more local storage due to the way they work.
4. The college runs several MSSQL and MySQL databases on the existing SAN as a mixture of Raw direct ISCSI targets and VMFS volumes.

Companies should see the requirement as a minimum specification and anything offered as a option should be clearly stated.

All goods must be new. No grey imported goods will be accepted.

Budget:

£65k has been allocated for the project. This includes all hardware, software, 5 year same day support (although include next business day as an option) warranty, installation services and VAT.

It is recognised that the solution would benefit from new 10Gb switches however the budget will not allow for that this financial year.

Costs:

Costs should be broken down as line items to include:

1. Hardware of primary and any secondary systems
	1. Primary Solution - All hardware on site
	2. Secondary Option - supplier to provide options
2. Licensing for all products
3. Reporting/monitoring systems
4. Installation/set-up costs
5. On-going warranty and maintenance costs (Assume 5 years initial maintenance).
	1. For hours/days - 24 x 7.
	2. Option - For hours/days - 12 x 7
	3. Include an annual indicative costs beyond the 5 year period.
6. Any additional modules/options/anything of added value
7. Any networking changes

Timetable:

Tender - Feb

Discussions - Feb

Shortlist - Feb/Mar

Further clarification/discussions - Feb/Mar

Selection - March

Implementation - July - note this will be a busy period for the college as the new STEM building is being handed over on 14th July. Implementation could be earlier, although May/June is exam time and no down-time can be afforded. Supplier suggestions are welcome around the practicalities of the implementation.