Monterey County

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Board Report

Legistar File Number: A 15-005

January 27, 2015

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Current Status: Agenda Ready

Matter Type: BoS Agreement

a. Authorize the Deputy Purchasing Agent for Natividad Medical Center (NMC) to execute an Agreement with Integrated Archive Systems, Inc. for providing hardware, software, implementation services and ongoing hardware/software maintenance for NMC's data storage environment, with a total Agreement amount not to exceed $574,250.13 for the period February 1, 2015 through January 31, 2018.

b. Authorize the Deputy Purchasing Agent for NMC to execute up to two (2) future Amendments to the Agreement which do not significantly alter the scope of work and do not cause an increase of more than ten percent (10%) of the original cost of the Agreement.

RECOMMENDATION:

It is recommended the Board of Supervisors:

a. Authorize the Deputy Purchasing Agent for Natividad Medical Center (NMC) to execute an Agreement with Integrated Archive Systems, Inc. for providing hardware, software, implementation services and ongoing hardware/software maintenance for NMC's data storage environment, with a total Agreement amount not to exceed $574,250.13 for the period February 1, 2015 through January 31, 2018.

b. Authorize the Deputy Purchasing Agent for NMC to execute up to two (2) future Amendments to the Agreement which do not significantly alter the scope of work and do not cause an increase of more than ten percent (10%) of the original cost of the Agreement.

SUMMARY/DISCUSSION:

NMC is requesting to purchase new network storage from a vendor named Network Appliance (NetApp) to refresh the current aging storage infrastructure. NMC's IT infrastructure has recently experienced an explosion in growth in the amount of required servers, storage, and applications systems. Many of these application systems and services have been deployed to comply with Meaningful Use requirements as dictated by the Centers of Medicare and Medicaid Services (CMS). As an example, NMC has added electronic physician documentation (Pdoc) and more than 350 new virtual desktop systems and 150 new virtual servers over the past year and a half. Due to this growth, NMC's current storage infrastructure will not support the amount of storage workload, both from a performance and capacity perspective, that is now required.

There are several risks (listed below) now inherent in NMCs' infrastructure that requires NMC to refresh its storage:

- NMC'S Electronic Health Record (EHR) Meditech, is hosted on an end-of-life storage platform with no valuable maintenance available. Dell, the storage manufacturer, no longer supports or manufacturers EMC storage arrays. There is currently no hardware, software, or technical support available to NMC for the Meditech storage array. NMC will now be required to move the entire Meditech Health Care Information System (HCIS) to a new storage platform.
- The MEDITECH HCIS, has now reached full storage capacity after running on a 5+ year old storage array. NMC can longer provision additional disk space to any existing Meditech servers. New modules, services, or servers cannot be brought online without purchase of additional storage hardware.
- NMC currently runs MEDITECH, Client/Server 5.x software. The MEDITECH 6.x platform is the latest version of the company's EHR software. In contrast to our current MEDITECH Client/Server 5.x environment, MEDITECH 6.x requires higher storage performance with additional input/output operations per second (IOPS) per server. MEDITECH 6.x also requires higher storage capacity per server. NMC will be required to deploy new storage infrastructure to meet the upgrade requirements for MEDITECH 6.x which will be implemented in the near future.
- Latency Issues -Latency describes the speed at which the storage system is accessed, i.e. slowness. NMC storage infrastructure regularly experiences performance problems with storage latency values for input/output operations reaching anywhere from 200MS - 2000MS. A normal or recommended latency value would be 10ms. A bad latency value would be considered 50MS. A 200MS - 2000MS latency value is 20 to 200 times slower than the required performance for our current application systems.
- NMC storage capacity has also reached its designed limits. Our newly deployed PACS system currently consumes 8 Terabytes (TB) of data alone. NMC can no longer increase our PACS storage volume without upgrading our storage array system from Data Ontap 7.3.4 (x32) to Clustered Data Ontap version 8 (x64).

NMC is requesting the following hardware, software, and services:

- FAS8060 storage array.
- 4 storage shelves for additional capacity/performance
- 2 solid state drive (SSD) shelves for caching and performance for MEDITECH
- NetApp premium software suite including snapshots, disaster recovery, and replication
- 3 years of technical support, software upgrades, and maintenance
- IAS professional services to assist NMC personnel in the basic setup of the array.
  - Setup physical equipment.
  - Basic software setup configuration.
  - Physical tear down and migration of OLD array equipment to new array.

Timeline of services:

1. NMC will accept delivery of physical equipment within 2-3 weeks after contract execution.
2. NMC and IAS will perform basic configuration and setup of equipment. (2 days)
3. NMC will migrate all servers, virtual desktops, applications, and services from old storage array to temporary swing storage on new array. (1 month)
4. NMC and IAS will decommission and relocate old physical storage shelves to new array and verify operation. (1 day)

5. NMC will relocate and optimize all servers, virtual desktops, applications, and services to final storage locations on new array. (1 month)

Benefits:

- Addresses current storage performance and capacity problems.
- Provides required scalability for NMC's primary datacenter for the next 5 years.
- Provides a certified storage environment for Meditech 6.x.
- Reutilizes all of our existing storage shelves and disks.
- Provides necessary capacity and performance for essential clinical projects and upgrades nearing implementation including McKesson PACS upgrade, ORM surgery module, Surgery anesthesia, and Forward Advantage faxing.

The NetApp hardware and software was selected because NMC currently runs NetApp as the primary storage array for our enterprise. This hardware refresh will allow us to consolidate all disparate storage infrastructure including the legacy MEDITECH storage array to a single storage platform simplifying management, operation, and maintenance. It also allows us to reutilize all of our old storage shelf hardware and hard disks providing huge cost savings. Integrated Archive Systems (IAS) is the designated Vendor in which the NetApp and Professional Services will be purchased. IAS was selected based on providing NMC the best price available.

Cost Summary:
$192,790.86 - Hardware
$158,042.84 - Software
$207,416.43 - 3Yr Maintenance (approx. $69,139 per year)
$16,000.00   - Professional Services
$574,250.13 - Total Agreement

OTHER AGENCY INVOLVEMENT:

County Counsel has reviewed and approved this Agreement as to legal form and risk provisions, and the Auditor-Controller has reviewed and approved as to payment provisions. The Agreement has also been reviewed and approved by NMC's Finance Committee on 12/23/14 and by its Board of Trustees on 1/9/15.

FINANCING:

The cost for this Agreement is $574,250.13 of which $435,972.51 is included in the Fiscal Year 2014-15 Adopted Budget. Amounts for remaining years of the Agreement will be included in those budgets as appropriate. There is no impact to the General Fund.

Prepared by: Dr. Charles Harris, Physician, 783-2785
Approved by: Dr. Kelly O'Keefe, Interim Chief Executive Officer, 783-2553

Attachments: Agreement