City of Manhattan Beach

Legislation Text

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TO:
Honorable Mayor and Members of the City Council

THROUGH:
Bruce Moe, City Manager

FROM:
Sanford Taylor, Information Technology Department
Gwen Eng, Purchasing Manager
Leilani Emnace, Information Systems Manager

SUBJECT:
Consider Awarding RFP No. 1177-19 to DynTek Services, Inc. Approving the Purchase of a Storage Area Network Solution with an Estimated Value of $167,910; and Consider Awarding RFP No. 1190-19 to Nth Generation Computing, Inc. Approving the Purchase of an Enterprise Backup Solution with an Estimated Value of $170,333 (Information Technology Director Taylor).
ADOPT RESOLUTIONS NOS. 19-0035 AND 19-0036

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RECOMMENDATION:
Staff recommends that the City Council:

a)   Consider awarding RFP No. 1177-19 to DynTek Services, Inc. and adopt Resolution No. 19-0035 approving the purchase of a Storage Area Network solution with an estimated value of $167,910; and

b)   Consider awarding RFP No. 1190-19 to Nth Generation Computing, Inc. and adopt Resolution No. 19-0036 approving the purchase of an Enterprise Backup solution with an estimated value of $170,333.

FISCAL IMPLICATIONS:
Sufficient funds are included in the Information Technology (IT) Fiscal Year (FY) 2018-2019 budget for the Storage Area Network (SAN) and Enterprise Backup Solution replacement projects. Annual maintenance costs will be included in future budgets; the estimated annual maintenance cost for the SAN is $5,889 and the Enterprise Backup Solution is $15,000.

BACKGROUND:
The replacement of the City's storage and backup systems is scheduled to ensure business continuity and data recovery. Network storage and its backup is mission critical to City operations as it impacts solutions and applications which include, but are not limited to, electronic mail and voicemail communications, all City staff office documents and shared files, financials, human resource data, records management, fleet management, document management, land management, and Geographic Information Systems. The City Council approved the replacement of the Enterprise Storage Area Network and Backup solutions in FY 2018-2019.

Storage Area Network
The Network Analysis Study, completed in March 2002, recommended that the City invest in a Storage Area Network (SAN). The SAN provides scalable backup and data storage capabilities that were not in place at the time, with the purpose of creating an environment allowing:

- Centralized management of data storage;
- Instantaneous information backup for recovery purposes;
- Modular and incremental storage expansion capabilities; and
- Data recovery in the event of system failure.

The City's first SAN, the Hewlett Packard (HP) Enterprise Virtual Array (EVA) 3000 was purchased in 2003 for $248,946. It was replaced in 2012 with the purchased of the EVA P6300 for a cost of $103,397. A SAN replacement is needed at this time for the following reasons:

- City's current SAN (50 terabytes) is nearly at its capacity and more storage is required to accommodate anticipated growth for projects such as Tyler Munis Enterprise Resource Planning, Tyler EnerGov Permitting Solution, Hyland OnBase Document Management System, and Geographic Information Systems; and

- Hewlett Packard no longer manufactures and sells the EVA P6300 model and will end its technical support of the SAN in the next twenty-four months. The replacement solution must be in place in time for Information Technology staff to be familiar with the system and migrate the City's data from the existing SAN to the replacement storage.

Enterprise Backup Solution
The City has been using Commvault backup software and tape library to archive data to tape for the last 10 years. Backup software is an automated data management tool used to backup and recover City data, as needed.

Given that City data is mission critical and a vital asset to backup and protect, an upgraded backup solution is required to support the City's server infrastructure upgrades from physical to virtual servers. An upgraded backup solution will offer the following critical benefits:

- Further protection from ransomware;
- Reduced support and maintenance costs;
- Simplified backup process;
- Support for robust cloud strategies for long-term retention and disaster recovery;
- Replication of data to the cloud for fast data recovery; and
- Replacement of the existing and outdated tape backup system.

DISCUSSION:
Storage Area Network
The City issued Request for Proposal (RFP) No. 1177-19 and received four proposals from the following vendors:

- Sirius - IBM solution $204,225
- 5Nine Data Solutions - IBM Storwize $172,073
- DynTek Services, Inc. - NetApp $135,477
- Nth Generation - HPE Nimble $140,066

In order to determine the best fit for City business needs, vendor responses were extensively evaluated using the following criteria: performance, overall data protection, security, hardware/software interoperability, solution scalability, support, cost, and ease of management.

After a thorough evaluation, it was determined that Dyntek Services, Inc. offered a storage solution (NetApp) that not only best meets the current and future needs of the City but has the lowest cost. The total price was updated to $167,909.08 to reflect additional City requirements. The amount includes the NetApp system/switches' hardware and licensing with five years of maintenance ($121,198.85), implementation services ($38,880), and sales tax and shipping ($7,830.23).

The NetApp storage provides better performance than its competitors with a smaller footprint, as well as lowering power and cooling requirements. In addition, the solution has added benefits of deduplication, compression, thin provisioning, and virtual cloning, so that the City could achieve up to 70% storage savings and maximize storage on existing systems. NetApp uses technologies such as RAID-DP, FlexVol, Snapshot copies, deduplication, SnapMirror, and FlexClone to increase storage utilization, decrease storage costs, accommodate rapid data growth, and achieve increased performance. As a result, the City lowers costs and supports green policies in the data center in alignment with City's Environmental Initiatives.

With NetApp, the City can take advantage of one storage operating system - leveraging a single storage operating system across all storage platforms. At present, the City has two storage systems managed separately: City Hall and Police Department. The NetApp storage operating system will simplify and centralize the management between the City Hall and Police Department storage systems utilizing the NetApp's single-pane-of-glass data management tools. The ease of multi-system storage management will also allow IT staff to maintain any future large-scale-storage-system implementations with the same number of staff.

NetApp offers extremely flexible scalability, allowing IT staff to expand NetApp's performance and storage capacity by adding more controllers and disk drives, without requiring additional points of management. The solution also has zero-downtime lifecycle maintenance since all components can be replaced without system interruption or costly migrations. Thus, maintenance activities such as adding performance, connectivity, or capacity will not disrupt City operations. In comparison, the current SAN EVA's upgrades can have up to four hours of downtime.

NetApp is the recognized leader in Storage Area Network solutions and has over 23,000 customers worldwide including top innovators, and eighty-seven of the current Fortune 100 companies are active NetApp customers. Staff feels confident that the NetApp solution is a good fit for the City. Some of the major customers include Intel, Yahoo, Bank of America, Apple, AT&T, Citigroup, and Verizon Communications. NetApp is also utilized by public sector agencies such as Culver City, Port of Long Beach, City of Houston, City of Rochester, and City of New York.

Enterprise Backup Solution

The City received six responses for RFP No. 1190-19. Vendor list included:

- Alpha Data Technologies - Cohesity $242.902.81
- Cytranet - Cytranet Communication Platform $16,500
- Kelyn Technologies - CommVault $140,025.50
- Nth Generation - Rubrik $95,676.73
- Frontier Communications - Frontier36 Siris 3 $371,285.61
- Tec-Refresh - Rubrik $157,090

Staff carefully assessed the proposed solutions considering overall data protection and security, hardware/software interoperability, solution scalability, simplicity of the recovery process, and ease of management and support. After extensive review and evaluation, it has been determined that Rubrik enterprise backup solution best meets City requirements. The system reduces support and maintenance costs by eliminating the current tape library and tapes. The backup solution simplifies the process with the usage of one-click management and near-zero recovery times for applications with high service demand.

Additionally, Rubrik provides a robust cloud strategy for long-term retention and recovery, along with operational simplicity, streamlined infrastructure management, and scalability. The solution makes easier the daily scheduling of the backup jobs, resulting in Information Technology staff time-savings. It also offers speedy flash-optimized backups so that a full system, applications, and data files backup are completed in a few hours. The existing backup system needs 56 hours to complete a full back. All applications and data are stored in an immutable, or unchangeable, format so that the records cannot be modified once created, preventing malicious software from accessing and decrypting the backups. In order to decrease vulnerability, malware, and ransomware attacks, Rubrik provides multi-layered data security by encrypting data-at-rest and in-transit and assigning granular data access permissions on a platform level.

The backup system employs Pure Storage technology to deliver required performance and resiliency while reducing data center footprint through converging physically separate hardware and software resources into an all-in-one platform. Rubrik includes a converged and scale-out backup software and backup storage appliance called Brik. The Brik utilizes "rack and go" architecture providing the flexibility to scale as needed. In comparison, the current Commvault backup systems require a dedicated server with Windows server license and hardware support, multiple media agents licenses, a disk target for long-term storage, and a tape library appliance with 150 archive tapes. Those components create a complex environment increasing costs with more IT resource hours for backup management and additional server hardware, software, and support.

Rubrik is the manufacturer and offers its products through authorized resellers. Two vendors, Nth Generation and Tec-Refresh, provided Rubrik proposals. After a comprehensive solution review, staff determined that the system specifications needed to be updated increasing the initially proposed cost. Based on the revised system requirements, Nth Generation offered the lowest price:

- Nth Generation - $170,332.50
- Tec-Refresh - $202,097.99

The total amount includes Rubrik hardware and software ($118,961), three years of support

($43,422), implementation and training services, project management/rack, stack services ($2,280), and sales tax and shipping ($5,669.50).

Data backup and recovery are critical for any organization. With a more comprehensive backup system in place, the City will be better equipped in case of a disaster. Rubrik is utilized by the Department of Defense, Commander, Navy Installations Command (CNIC) for the Department of the Navy, United States Air Force, California Department of Education, Orange County Transportation Authority, City of San Francisco, City of Fontana, City of Las Vegas, Berkeley College, and other organizations. Staff is confident that the Rubrik solution offered by Nth Generation provides the best overall value, cost, and performance.

CONCLUSION:
Staff recommends that the City Council:

a.   Adopt Resolution No. 19-0035 approving an agreement with DynTek Services, Inc. for the purchase of NetApp Storage Area Network solution with five years of maintenance and implementation services with an estimated value of $167,910; and

b.   Adopt Resolution No. 19-0036 approving an agreement with Nth Generation Computing, Inc. for the purchase of Rubrik Enterprise Backup Solution with three years of support and implementation services with an estimated value of $170,333.

The completion of the projects is estimated to be six months.

PUBLIC OUTREACH:
Both of the RFPs were advertised on the City's website as well as BidSync, a public notification board for government bids and requests for proposal.

ENVIRONMENTAL REVIEW:
The City has reviewed the proposed activity for compliance with the California Environmental Quality Act (CEQA) and has determined that there is no possibility that the activity may have a significant effect on the environment; therefore, pursuant to Section 15061(b)(3) of the State CEQA Guidelines the activity is not subject to CEQA. Thus, no environmental review is necessary.

LEGAL REVIEW:
The City Attorney has approved the agreements as to form.

ATTACHMENTS:
1. Resolution No. 19-0035
2. DynTek Services, Inc. Agreement
3. Resolution No. 19-0036
4. Nth Generation Agreement