



Report to: General Committee

Report Date: November 17, 2014

SUBJECT: 179-R-14 Disk Based Backup and Archival Solution
PREPARED BY: Sugun Rao, Technology Manager
Rosemarie Patano, Senior Buyer Purchasing

RECOMMENDATION:

- 1) THAT the report entitled “179-R-14 Disk Based Backup and Archival Solution” be received;
- 2) THAT the contract for “Disk Based Backup and Archival Solution” be awarded to the highest ranked, lowest priced bidder, Compugen Inc., in the amount of \$456,088.98 inclusive of HST, (hardware, software and labour component totaling \$341,348.88 and warranty, support and maintenance fee component totaling \$114,740.10 for a term of six years to expire on December 31, 2020); and,
- 3) THAT the hardware, software and labour cost component for 179-R-14 be funded from capital project “Disk Based Backup and Archival System (Account #049-5350-14409-005) in the amount of \$341,348.88, and the remaining funds of \$12,690.36 will be used for the purchase of server racks, network switches as budgeted for in the Data Centre infrastructure replacement project; and,
- 4) THAT the warranty, support and maintenance fee component for the hardware and software at \$19,123.35 per year for a six (6) year term starting in 2015, for the total amount of \$114,740.10 (inclusive of HST) to be funded from operating budget account #400-404-5361 subject to Council approval of the 2015 to 2020 Operating Budgets; and,
- 5) THAT the recommended bidder, Compugen Inc. be designated as preferred vendor for City’s Disk Based Backup and Archival System for the term of this contract;
- 6) THAT the purchase orders may be adjusted to acquire additional Disk Based Backup and Archival Systems to support growth and future projects, subject to Expenditure Control Policy;
- 7) THAT the Chief Information Officer and Senior Manager, Purchasing & Accounts Payable be authorized to approve any new purchases of Disk Based Backup and Archival Systems needed due to growth during the term of this contract;
- 8) AND THAT Staff be authorized and directed to do all things necessary to give effect to this resolution.

PURPOSE:

The purpose of this report is to obtain committee approval to award the contract for “179-R-14 Disk Based Backup and Archival System” to the highest ranked, lowest priced bidder, Compugen Inc., for a term of six (6) years to expire on December 31, 2020.

BACKGROUND:

The City currently uses magnetic tape-based backup solution using Computer Associate’s ArcServe Ver 16 software and agents for data backup and restore. ArcServer backs up all system data incrementally each day and then fully each weekend. Each weekday the tapes are then sent to Iron Mountain for offsite storage. Annually approximately 120 tapes are utilized to backup 40 terabytes of corporate data which continues to grow exponentially each year.

The existing solution is not only complex and relatively slow (taking a number of hours to complete), but the use of the mechanical tape loaders makes the system very prone to breakage. In addition, the tapes themselves are not durable and have to be discarded on an annual basis. Furthermore, ITS receives requests from its clients to restore files from backup and the restore is delayed as it requires retrieval of tapes from Iron Mountain (off-site).

The increasing data storage needs, shrinking backup windows due to the combination of the amount of data and the existing technology, the need to restore / recover critical applications quickly, and declining disk costs lead to the recommendation to change to disk-based solutions.

Advantages to a Disk-based Solution:

- **Faster back-up and restoration of files from back-up.** All backups will be available immediately on-line. There is no need to search for the appropriate physical tapes. Also, since the nature of storage on tapes is sequential, one has to search through the tape to find the files needed, whereas disks are randomly accessible allowing quicker access to files.
- **Greater reliability.** Disks in an array setup are much more reliable and resilient to failure, and they have fewer moving parts that can jam or break down.
- **Easier management.** Requires no physical access and much less human intervention to manage. Nothing has to be sent off site or reloaded on a regular basis. Simply monitoring success of the backups and storage capacity are all that are required.
- **Data de-duplication (Less data for backup).** The solution eliminates duplicate data at the source from being backed up. Thus reducing the back-up time window.

The archival system addresses the storage capacity optimization by maximizing the effective use of expensive production disk storage by keeping current data while moving and preserving older data that need to be retained in a less expensive medium. Most of the current storage space is used by unstructured data such as Q drive, audio and video streaming, Agenda documents, etc. It is optimal to move inactive data to an archival system in order to continue to manage the increasing storage requirement and thereby also reduce the data back-up time/process.

Advantages of an Archival Solution:

- Helps to manage uncontrollable data growth by identifying files that are no longer active and clogging up the primary storage to move them to less expensive storage disk/space.
- Reclaims primary production storage and improves the business application performance
- Less data to backup, which in turn shrinks the time to back-up.

In summary, through this award, the city will have a scalable, reliable and more efficient backup and archival system that helps staff manage corporate data and provide reliable services as well as minimize risks.

Included with the scope of work are the supply, installation, testing, commissioning and maintenance of the proposed hardware and software. The new system will include both a disk-based backup system and an archival system. As part of the implementation services, the successful bidder will be responsible for all upgrades or data migration from the City’s current backup and archival system to new proposed solution. The proposed hardware will be rack-optimized in order to fit the space available in the data centre. The rack solution will allow for quick and tool-less access to all components inside the servers while they are on the rack.

Further, the following services to the City will form part of this contract:

- Detailed system design;
- Supply and installation of all requested software’s, licenses, hardware equipments;
- Integration and commissioning of the system;
- Data migration;
- Overall project management;
- Hardware and Software Warranty, Support and Maintenance for a period of 6 Years;
- Training

Estimated time for hardware, software delivery, implementation and project completion is 90 days from the date the contract is awarded.

BID INFORMATION

| | |
|--|-----------------|
| Advertised, place and date | ETN |
| Bids closed on | August 21, 2014 |
| Number of bidders picking up bid documents | 21 |
| Number of bidders responding to bid | 3* |

*Purchasing contacted bidders who did not submit a bid. From the nine follow-up calls made, Purchasing found that six bidders perceived the stipulated requirements to be too difficult to meet; one vendor indicated they did not submit a proposal as financing and leasing was not a requirement; one vendor indicated they did not have resources to commit to this project; and one vendor stated that due to the complexities of the project, they could not submit a bid without having gone through a comprehensive pre-consultation process with the City first.

PROPOSAL EVALUATION

The evaluation team was comprised of three staff from the ITS department with purchasing staff acting as the facilitator. The evaluation was based on pre-established evaluation criteria as detailed in the Request for Proposal: 15 points for Relevant Experience and Expertise of Firm & Team; 20 points for Project Understanding; Methodology, Delivery and Management; 35 points for Technical Requirements; and, 30 points for Price, totaling 100 points with resulting scores as follows:

Scoring

| Vendor | Score (Out of 100) | Rank |
|----------------------------|--------------------|----------|
| Compugen Inc. | 85.01 | 1 |
| TeraMach Technologies Inc. | 83.35 | 2 |
| Scalar Decisions Inc. | 57.79 | 3 |

Prices ranged from \$482,347.61 to \$786,257.79 inclusive of HST, based on the awarded quantities for the term of six years.

Compugen Inc. (“Compugen”), the lowest priced bidder scored highest on the technical submission demonstrating a thorough understanding of the project and its requirements, including a strong understanding of the required project tasks and deliverables, as well as, key issues and challenges. In addition, the Compugen proposal demonstrated, based on the team’s depth of experience and expertise on projects of similar scope and scale, the ability to successfully undertake the Project while meeting key milestones and timelines.

The City is receiving a complete solution of hardware (HP Server, Storage and Tape Library hardware) and software (CommVault Simpana) supply, including installation, training and support to ensure a successful implementation, migration and positive transition to the new solution. Furthermore, Compugen will provide a full warranty and support model with a local and dedicated customer service assigned to our account with on-site, phone and email access; all parts & labour; software setup and programming; software updates; and commitment of special discount on both hardware and software for entire term of the contract being presented as part of this award.

After evaluation scoring was completed, Purchasing staff negotiated with Compugen, the highest ranked and lowest priced bidder, a **5.5%** cost reduction (approximately \$26,258.63 exclusive of HST) from their initial proposed price, as allowed under the Purchasing By-Law.

FINANCIAL CONSIDERATIONS:

The contract award to Compugen Inc. for the Disk Based Backup and Archival Solution for a six (6) year term is \$456,088.98. The contract award is broken down to two components:

- A. hardware, software and labour component totaling \$341,348.88;
- B. on-going warranty, support and maintenance fees totaling \$114,710.10 (\$19,123.35 per year for a six year term)

The capital costs of \$341,348.88 will be funded from capital project #14409 “Disk Based Backup and Archival System”, and the remaining funds of \$12,690.36 will be used for

the purchase of server racks, network switches as budgeted for in the Data Centre infrastructure replacement project.

The future ongoing warranty, support and maintenance fees of \$114,710.10 (\$19,118.35/year) as outlined above for the years from 2015 to 2020 (fixed price for 6 years) will be funded from the operating account #400-404-5361, subject to Council approval of the operating budgets for the years 2015 to 2020. The future increase in operating costs will be considered as part of the annual Operating Budget process starting in 2015.

There is no change to the future Life Cycle Reserve Study updates as the new disk based system has already been taken into consideration.

ENVIRONMENTAL CONSIDERATIONS:

Not Applicable

BUSINESS UNITS CONSULTED AND AFFECTED:

Not Applicable

RECOMMENDED BY:

11/5/2014

X 

Nasir Kenea
Chief Information Officer

04/11/2014

X 

Trinela Cane
Comissioner, Corporate Services

ATTACHMENTS:

Not Applicable