



Report to: General Committee

Meeting Date: February 28, 2022

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**SUBJECT:** Award of Proposal 191-R-21 – Data Centre Hardware Refresh Solution

**PREPARED BY:** Sugun Rao, Ext. 4868  
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**RECOMMENDATION:**

1. THAT the report entitled “Award of Proposal 191-R-21 Data Centre Hardware Refresh Solution” be received; and,
2. THAT the contract for Data Centre Hardware Refresh (One-time - data centre hardware, implementation, training and Year 1 software subscription license, support & maintenance) be awarded to the sole bidder, Zycom Technology Inc. in the amount of \$871,439.70 inclusive of HST; and,
3. THAT the contract for Data Centre Hardware Refresh for Year 2 – 6 software subscription license, ongoing support and maintenance be paid upfront to the sole bidder, Zycom Technology Inc. in the total amount of \$402,791.53 inclusive of HST; and,
4. THAT the total capital cost of the award in the amount of \$1,274,231.23 (\$871,439.70 + \$402,791.53) be funded from capital project ITS – Data Centre Server Hardware and Storage System Replacement (account 049-6150-21187-005) with an available budget of \$934,820; and,
5. THAT the capital budget shortfall in the amount of (\$339,411.23) (\$934,820 - \$1,274,231.23) be funded from the Life Cycle Replacement and Capital Reserve Fund; and,
6. THAT the contract for vendor ongoing support and maintenance costs for (5) five years (Years 2 to 6, 2023 to 2027) be awarded to Zycom Technology Inc. in the amount of \$151,872.20 inclusive of HST and funded from GL 400-404-5461 (Computer Software Maintenance) subject to Council approval of the 2023-2027 operating budgets in the amounts of:
  - a. Year 2 (2023) - \$ 30,374.44
  - b. Year 3 (2024) - \$ 30,374.44
  - c. Year 4 (2025) - \$ 30,374.44
  - d. Year 5 (2026) - \$ 30,374.44
  - e. Year 6 (2027) - \$ 30,374.44Total - \$151,872.20

7. THAT the Chief Information Officer and the Commissioner, Corporate Services be authorized to extend the contract for software subscription, hardware maintenance, ongoing support and maintenance for an additional three (3) years (Years 7 to 9, 2028 to 2030) on behalf of the City (in its sole discretion), and execute any required documentation in a form satisfactory to the City Solicitor; and,
8. THAT Zycom Technology Inc. be designated as the preferred vendor for the City's Data Centre Server Hardware and HCI-Nutanix software subscription license for the term of this contract; and,
9. THAT the purchase orders may be adjusted to acquire additional Server Hardware, and Nutanix software subscription license to support growth and future projects, subject to Expenditure Control Policy; and,
10. THAT the Chief Information Officer and the Commissioner, Corporate Services be authorized to approve any new purchases of Server Hardware or HCI Software Subscription licenses needed due to growth during the term of this contract;
11. 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 approval to award the contract 191-R-21 for the data centre hardware refresh solution.

**BACKGROUND:**

The existing primary and backup data centre hardware, implemented in 2014 is 8+ year old and has long passed its expected life span. The manufacturer discontinued sale and support and the hardware cannot be covered under third party maintenance and support. In addition, the current 3-tier (converged) technology, which includes the server, storage networking and disk storage system, is now obsolete.

It is with this background that the City issued a RFP for the supply for data centre hardware (server, rack, power distribution unit (PDU), hyper-converged infrastructure (HCI) software for both the primary data centre and backup data centre). The scope of the solution also includes racking, mounting, configuring, testing, hardware warranty, maintenance, ongoing support and software subscription.

The primary objectives of this project includes (at a minimum) the following provisions:

- A scalable and fully redundant solution with improved security and high level of availability to meet dynamic business requirements and services and aligned to cloud technology;
- Provide high performance/reliable data centre IT infrastructure;
- Centralized management tools for administering the data centre environment;
- Improve uptime, reliability and support departmental objectives;
- Deliver IT services in cost-efficient manner; and,

- Reduce operational costs, while improving the quality of services delivered to customers

The scope of this initiative also includes:

- Supply, install, configure and deploy the required HCI software (Nutanix) and license, hardware (racks, server hardware, PDU) and the provision of setup, configuration, installation, integration, data migration of the proposed solution;
- Prepare a detailed design document and implementation strategy for solution to provide scalable and fully redundant with improved security and high level of availability to meet dynamic business requirements and services;
- Cisco Nexus hardware implementation;
- Configure hardware and software for a disaster recovery site and conduct various system failover testing;
- Training and knowledge transfer services and develop run book; and,
- Warranty, maintenance and on-going support services

**BID INFORMATION:**

Bid closing date	October, 28 2021
Number picking up documents	9*
Number responding to bid	1

\*Procurement contacted the suppliers who downloaded the document and did not submit a bid. Three suppliers stated this project is not their market niche (downloaded the document out of curiosity); two suppliers were unable to complete their bid submission by bid closing deadline (even though this bid opportunity was out to market for 6.5 weeks, which included a granted request for bid closing date extension); and, two suppliers stated issues with scope and timeline.

**PROPOSAL EVALUATION:**

The bid evaluation team was comprised of staff from the ITS Department, with staff from Procurement acting as the facilitator. Staff evaluated one proposal submission.

The Stage 1 technical proposals were evaluated against the pre-established evaluation criteria as outlined in the RFP: 10 points for Experience and Qualification of the Bidder and Project Team; 25 points for Project Understanding, Methodology and Delivery Management; 35 points for Technical Requirements; and 30 points for Price, totaling 100 points.

<b>Bidder</b>	<b>Total Score Technical and Financial (out of 100)</b>
Zycom Technology Inc	87.03

Zycom Technology Inc (“Zycom”) had a strong and robust technical submission. The City is receiving a complete solution including installation and support to ensure a successful deployment and positive transition to the new solution. Zycom’s proposed solution includes full implementation and training services, full support model of the entire solution for 9 years; local and dedicated sales and support teams; intimate customer support experience to ensure the City of Markham transitions to the new data centre hardware

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refresh solution smoothly.

Established in 1998, Zycom Technology has evolved into one of the premier IT services organizations. As a five-time Nutanix Partner of the Year recipient in Canada, Zycom has been modernizing data centres for their clients with Nutanix since 2013. Zycom maintains the top Nutanix partner certification of Cloud Champion and the only certified Nutanix service professional delivery partner in Canada. Zycom has leading experience with designing, integrating and supporting HCI solutions from as small as 3-nodes in the Small-Medium-Business Sector(SMB) up to 60+ nodes in the mid-market and enterprise sectors in Canada. By utilizing their in-house expertise of 45 employees and over 150 extended certified partnering engineers and architects, Zycom supports all levels of government, healthcare, education, not for profit enterprise and small to medium sized business.

**OPTIONS/ DISCUSSION:**

Zycom Technology Inc. software and professional services offering leads the industry in a number of ways:

- Distributed storage fabric with data locally, removes traditional storage area network (SAN) complexity;
- Compliance to security baselines from install;
- Unified infrastructure management;
- Operate, report and audit on compute storage, Virtual Machines(VM) and hypervisor with role-based access control (RBAC);
- Integrated Life Cycle Management (LCM) for fully automated VM, firmware, BIOS, AOS, hypervisor upgrades and health checks;
- Automate common operation tasks and easily integrate to SNOW for faster operations delivery;
- Built-in capacity planning resource forecasting and VM optimization;
- Easily orchestrate, automate, test failover and failback with VM-based disaster recovery (DR) site replication;
- Included enterprise-class hypervisor;
- Smaller data-center footprint for power, cooling & rack capacity;
- Reduced operational requirements for infrastructure management; and

Zycom Technology Inc proposed Nutanix solution is-highly scalable and includes (but is not limited to):

- Modular, simple Lego-like building blocks easy to scale-out infrastructure based on requirements;
- Acquisition includes Hewitt Packard (HP) Enterprise Server hardware with both software and hardware bundled in; and,
- Easily scale-out infrastructure in minutes.

In addition, the current primary and secondary data centre hardware (server and network device) is at end of life. The critical infrastructure may experience significant unexpected outages due to hardware failure. These failures increase the risk of unscheduled outages resulting in service interruption.

Although the City received a sole bid in response to the RFP, upon review of the market condition and the bid response, staff recommends to proceed to award to Zycom

Technology Inc. as they are a competent contractor in the marketplace who can meet the specifications and requirements set out by the City. Further, as a reseller of the specified hardware manufacturer, Zycom received their established rates from the manufacturer. This includes a MSRP discount rate, ranging from 50% to 65% for the Server Hardware and HCI for public sector customers.

**FINANCIAL CONSIDERATIONS**

The cost of award includes two (2) components:

- One time - hardware, implementation and training costs
- Recurring - Nutanix software and licenses, ongoing support and maintenance for six years being paid upfront in year one, with an option to renew the contract for additional 3 years

**One Time Cost**

<u>Items:</u>	Costs covered in upfront payments		
	For Year 1	For Year 2 - 6	Total Capital Costs
Hardware (One-Time Fee)	\$579,074.99		\$579,075
Implementation Services (One-Time Fee)	\$181,431.97		\$181,432
Software Licenses - Year 1	\$80,558.30		\$80,558
Software Licenses - Year 2 to 6		\$402,791.53	\$402,792
Hardware & Software Warranty and Support & Maintenance - Year 1	\$30,374.44		\$30,374
<b>Total Award (including 1.76% HST)</b>	<b>\$871,439.70</b>	<b>\$402,791.53</b>	<b>\$1,274,231.23</b>
<b>Project 21187 ITS Data Centre Server Hardware and Storage System Replacement (49-6150-21187-005)</b>			\$934,820.00
<b>Budget Shortfall</b>			(\$339,411.23)

The budget shortfall in the amount of \$339,411.23 will be funded by the Life Cycle Replacement and Capital Reserve Fund.

**Recurring Costs**

The award includes software licenses, ongoing support and maintenance costs for 5 years, from 2023 to 2027, an annual amount of \$30,374.44 or total amount of \$151,872.20 inclusive of HST impact, to be funded from GL account 400-404-5461 (Computer Software Maintenance), which will be recovered through future Life Cycle

Replacement and Capital Reserve Fund savings (to be discussed further below in the Life Cycle Reserve Impact section).

Other options were considered which would result in a lower initial payment but a higher annual operating impact. Staff selected the above option based on an overall financial impact to the City.

**Life Cycle Reserve Impact (\$ uninflated)**

	<b>Total \$ Over 25 Years</b>	<b>Annualized \$</b>
Funding Available in Life Cycle (LC) Reserve	6,010,729 A	
Funding Required based on current contract	<u>3,168,779 B</u>	
Surplus in LC Reserve	2,841,950 C = A-B	
Current capital cost shortfall to be funded from LC Reserve	<u>339,411 D</u>	
Adjusted LC surplus available	2,502,539 E=C-D	100,102 a
Reallocate from LC to Operating		<u>30,374 b</u>
Balance remaining in LC		69,728 c=a-b

The Life Cycle Reserve includes \$6,010,729 over the next 25 for the replacement of the Data Centre Hardware. Based on the award of this contract it is anticipated that this amount will be reduced to \$3,168,779 over the next 25 years resulting in surplus funds of \$2,841,950 (\$6,010,729 - \$3,168,779).

Part of this surplus will be used to offset the capital shortfall of \$339,411 in this award, leaving a balance of \$2,502,539 or an annual amount of \$100,102 (\$2,502,839/25 years). To offset the net new operating impact, funding will be reallocated from the Life Cycle Reserve to the operating budget in the amount of \$30,374.44 annually beginning in 2023. The balance of \$69,728 annualized surplus (\$100,102 - \$30,374) will be retained for the contract renewal in year 7 or other future similar subscription cost implications for other contracts.

Should the City decide to exercise the option to extend the contract, the operating budget will be adjusted accordingly, subject to Council approval of the 2028 operating budget.

**HUMAN RESOURCES CONSIDERATIONS**

Not applicable

**ALIGNMENT WITH STRATEGIC PRIORITIES:**

Digital Markham Strategy

**BUSINESS UNITS CONSULTED AND AFFECTED:**

ITS

**RECOMMENDED BY:**

Sumon Acharjee  
Chief Information Officer, ITS

Trinela Cane  
Commissioner, Corporate Services

**ATTACHMENTS:**

None