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REPORT
Meeting Date: 2022-07-07
Regional Council

REPORT TITLE: **Upgrade of Granite Software from On-Premises to Cloud Software as a Service**

FROM: Kealy Dedman, Commissioner of Public Works

RECOMMENDATION

1. **That a contract (Document 2022-390N - GraniteNet Software Cloud Service Subscription) for the Supply of GraniteNet Asset Inspection and Decision Support software platform Software Application, Maintenance, Support and Hosting be awarded to CUES Inc. in the estimated amount of $175,422 (excluding applicable taxes), for a contract period of 12-months pursuant to Procurement By-law 30-2018, as amended; and**

2. **That authority be granted to the Chief Financial Officer and Commissioner of Corporate Services to renew the contract on an annual basis (or for multiple years at a discounted rate) for ongoing maintenance, support, and to increase the contract for any upgrades and additional licenses for the lifecycle of the solution, subject to satisfactory performance, price, and approved budget.**

REPORT HIGHLIGHTS

- The Region of Peel's Wastewater Division has been using GraniteNet (GNET) software since the early 2000's to support evidence-based asset management decisions of the Region's wastewater collection systems.
- The software is critical to the Region's long-term planning and maintenance of the wastewater collection systems.
- The Region will realize several benefits moving GNET from on-premises to software as a service (SaaS) in the cloud.
- GNET software is proprietary to CUES Inc. and licensing, maintenance and support is only available directly from the vendor.

DISCUSSION

1. Background

The Region of Peel is committed to ensuring the long-term sustainability of its water and wastewater infrastructure through effective state of good repair (SOGR) planning supported by evidence-based decision-making tools. Understanding the in-situ condition of our wastewater pipe assets is key to understanding the performance and management of the wastewater system. The condition assessment of the Region's wastewater collection system is performed using closed circuit television (CCTV) inspection. Information collected through CCTV inspection observations is a key building block for decision support planning and

executing of operational, SOGR and capital forecasting (short term and long-term) and it is also an important consideration within risk assessments.

GraniteNet (GNET) Software is used by the Region to collect, store, and maintain CCTV inspection data and media that is an essential component of wastewater collection system inspection and condition assessment. GNET has been in use at the Region since the early 2000's and is designed to help the Region identify and prioritize wastewater collection system pipe repairs and optimize inspections and cleaning maintenance. GNET data is also used in the optimization of work plans and budgets. SOGR budgets for wastewater linear capital works are estimated at over $1 billion over the next 10 years.

GNET software is proprietary to CUES Inc., and hosting, licensing, maintenance, and support is only available directly from CUES Inc. Annual software support renewals are required for maintenance and support for the software and a one-time per user license is required for each advanced user.

2. Findings and Proposed Direction

The Region currently uses a version of GNET that requires on-premises hardware, software, data storage and data back-up. The on-premises GNET environment means the Region assumes the responsibilities, risks and costs associated with software maintenance, data recovery and security. The current media storage container is 70 Terabytes (TB). This space and content must be managed, operated and backed up on a regular basis by IT staff. The current client-server version of GNET also limits advanced end user access on a per installed and licensed device basis, which affects productivity in two ways: only those users with access to their device or another similarly licensed install on a device may log into the software, and a large latency penalty occurs in our hybrid environment when using virtual private network (VPN) services. Both versions include unlimited read only access to users, however the on-premises version requires an install of the application on all devices used.

It is proposed that the Region discontinues hosting the software on premise and procures a cloud-based version of the software (Software as a Service – SaaS). It is also requested that authority be granted to renew the contract on an annual basis for ongoing maintenance, support, and to increase the contract for any upgrades and additional licenses for the lifecycle of the solution, subject to satisfactory performance, price, and approved budget.

Replacing the current on-premises version of the software with a SaaS environment would have the following benefits:

- Reduction in technical complexity. Moving GNET to SaaS will eliminate the on-premises storage, backup and recovery systems which are oversized to accommodate growth. This would allow for the release of internal hardware and IT resources for use by other processes.
- Improvement in accessibility and user experience. Removing the requirement for accessing GNET using a VPN will save staff time by eliminating data exchange latency between a user's computer and the network. This would also allow staff to work from anywhere internet access is available, which supports staff as well as contractors and consultants.
- Asset condition information collected in the field would be available immediately for decision making. Currently, the data exchange latency and manual processes required delay the information availability by weeks or months.

- Facilitates oversight of contractors and consultants use of data and connectivity.
- Improved Service Levels. The vendor (CUES) would assume responsibility for providing, managing, and administering the application and the storage environment. Based on their extensive knowledge of the software at its creator, this would ensure that performance and security is always optimized as per their best practices.
- Alignment with Service Excellence and Innovation (SEI) strategy.
- Estimated cost savings of $171,829 for retiring the current software support infrastructure in the first year of implementation.
- GNET has built-in integration for Maximo, Peel's Enterprise Asset Management solution and for ESRI, the Regional Geographic Information Systems tool.

Procurement

GNET software is proprietary to CUES Inc. and hosting, licensing, maintenance, and support is only available directly from the manufacturer, therefore, this is a non-competitive procurement process and requires Regional Council approval. The process to award this contract complies with the Procurement By-law 30-2018.

This procurement is in accordance with Procurement By-law 30-2018, section 5.2.1, and amending By-law 4-2020, which authorizes the award of direct negotiation procurements for goods and services that are reasonably available from only one source by reason of the scarcity of supply in the market or the existence of exclusive rights held by any vendor or the need for compatibility with goods and services previously acquired and there are no reasonable alternatives or substitutes.

RISK CONSIDERATIONS

Continuing to maintain the existing GNET on-premises environment is not sustainable in the long term as it will require additional internal technical resources to manage the responsibilities of software maintenance, hardware upgrades and capacity expansions, data back-up and security. Also, as the Region grows and the wastewater system expands, significant additional storage capacity (currently grows by 5TB per year for existing system) and resources to support the software would be required. The Region would not realize the staff productivity gains and other technical benefits of the SaaS version.

FINANCIAL IMPLICATIONS

There is sufficient funding available in the current operating budget to carry out the report direction. The software replacement cost of $175,422 will be offset by the cost savings from retiring the on-premise hardware and software, therefore the impact on the utility rate is zero.

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