

To: Finance Committee

From: Stephanie Sinnott, Commissioner,
Finance Services

Report Number: FIN-22-88

Date of Report: September 14, 2022

Date of Meeting: September 20, 2022

Subject: Next Generation 9-1-1 (NG-911) Single Source

Ward: All Wards

File: 03-05

1.0 Purpose

The purpose of this report is to recommend and negotiate single source contracts for the replacement of the Next Generation 9-1-1 (NG-911) Public Safety Answering Point (P.S.A.P.) services

As per Section 5.05 (2.) of the Purchasing By-Law 80-2020, requires Council approval to award single source contracts greater than \$100,000.

2.0 Recommendation

That the Finance Committee recommend to City Council:

1. That in accordance with Report FIN-22-88 dated September 14, 2022, that the Manager, Procurement and Accounts Payable be authorized to award a single source contract to Netagen in the amount of \$775,000 (exclusive of HST), for a NG-911 compatible communication systems for a five year term; and
2. That in accordance with Report FIN-22-88 dated September 14, 2022, that City staff be authorized to negotiate a contract with Intergraph Canada ULC, Hexagon Safety, Infrastructure, & Geospatial Division for a NG-911 compatible C.A.D. solution for submission in the 2023 Capital Budget; and
3. That in accordance with Report FIN-22-88 dated September 14, 2022, upon approval of NG-911 compatible C.A.D. solution project in the 2023 Capital Budget and successful negotiations with Intergraph Canada ULC, Hexagon Safety, Infrastructure, & Geospatial Division, that the Manager, Procurement and Accounts Payable be authorized to award a single source contract to Intergraph Canada ULC, Hexagon Safety, Infrastructure, & Geospatial Division:

- a. The City's component of the cost not to exceed the approved 2023 capital budget, and the total which is anticipated to be approximately \$2.55 million; and
- b. include the City's component of the cost of support and maintenance in the annual operating budgets, which is estimated to be approximately \$56,000/year

3.0 Executive Summary

Not Applicable

4.0 Input From Other Sources

- Information Technology Services
- Fire Services

5.0 Analysis

5.1 Background

Oshawa Fire Services currently provides 911 secondary Public Safety Answering Point (P.S.A.P.) services to the municipalities of City of Oshawa, Town of Whitby, Town of Clarington, Township of Scugog, Township of Uxbridge, and Township of Brock to dispatch fire services. With the recently signed Dispatch Services Agreement with the partner municipalities, approximately 67% of the operating and capital costs associated with this project will be recouped from the partners.

Canadian Radio-television and Telecommunications Commission (C.R.T.C.) has directed that all P.S.A.P. systems are required to support new Next Generation 9-1-1 (NG-911) standards. Failure to meet NG-911 standards will eliminate the City's ability to dispatch Fire services.

Through the 2020 budget process, Council approved project 20-30-0099 NG911 Network Upgrade in the amount of \$330,000.

5.2 Existing Equipment

Staff have reviewed and found multiple critical systems utilized by Oshawa Fire Services to provide P.S.A.P. services including the 911 telephone system and Computer Aided Dispatch (C.A.D.) product do not support the new NG-911 standards and the systems require replacement.

The existing Computer Aided Dispatch (C.A.D.) product is not NG-911 compatible, nor is the current provider able to integrate technology. Areas that fall short of compliance are, Internet Protocol technology, texting, mapping, soft phone technology, and data sharing from cross agencies and video streaming. Additionally, the existing C.A.D. provider does not include telephony or radio services as part of their existing product, has a limited customer base, and only offers on-call support. Reporting and analysis recommended in the Oshawa Fire Master Plan requires significant manual effort reducing effectiveness.

The existing product is based on antiquated technology, and has experienced an increasing number of errors and technical faults when attempting to provide dispatch services resulting in delayed response to calls for service. Many of these errors have not been addressed by the current C.A.D. provider, causing staff to manually correct and reset systems during emergency operations.

5.3 Timing and Risk

In June 2021 the Canadian Radio-television and Telecommunications Commission C.R.T.C. directed all telecommunications service providers to be NG911 compliant by March 2025 and remove legacy services.

Design, implementation, testing and staff training for the new NG-911 communications system and Computer Aided Dispatch (C.A.D.) system are projected to take twelve to twenty-four months to complete.

Failure to initiate these projects no later than end of Q1, 2023 will result in Oshawa Fire Services not being able to reach the 2025 target date. If that occurs Fire Services will not be able to receive 911 calls and information in any manner or dispatch fire services for the City of Oshawa or partner municipalities under the current dispatch service agreement, creating significant legal and life-safety issues within the region.

Approval of report FIN-22-88 will allow the Netagen NG-911 communication system to go-live as early as Fall 2023.

5.4 New Equipment

To satisfy the C.R.T.C. requirements the City requires a new NG-911 communication system and Computer Aided Dispatch system (C.A.D.). Netagen (formerly Combat Networks) will provide the NG-911 communication system and upon successful negotiation Intergraph Canada ULC, Hexagon Safety, Infrastructure, & Geospatial Division (operating as Hexagon) will provide the NG-911 compatible C.A.D. solution.

5.4.1 Netagen

Netagen has proposed a solution that is compatible with logging and recording system deployed in cooperation with Durham Regional Police Service for recording 911 telephone and radio communications and technologies being deployed in other P.S.A.P.s. This solution will utilize industry standard products compatible with other planned municipal NG-911 systems and common Computer Aided Dispatch (C.A.D.) systems.

Netagen has approximately 300 customers and been the City's communications support provider since 2010. Netagen has demonstrated experience in designing and implementing NG-911 compatible systems and has been engaged by other P.S.A.P.s to provide NG-911 solutions.

Netagen has provided a quote for a fully managed communication solution for a fixed price of \$775,000 plus H.S.T. for a five-year term. The contract includes 24/7/365 remote and

onsite support, maintenance and upgrades of all hardware and software requirements to guarantee the reliability of the system.

The communication solution can be implemented with the existing 911 telephone system operating as a backup system to allow training and experiential learning for existing Fire Communications staff in advance of NG-911 requirements minimizing risk and implementing the solution as early as Fall 2023.

5.4.2 Hexagon OnCall

Hexagon has proposed a NG-911 compatible C.A.D. solution, complying with all required advanced technology. The current version of Hexagon OnCall is additionally compliant with proposed Canadian NG-911 requirements, supports integration with multiple 911 communications systems including the City's existing 911 telephone system, the NG-911 Managed Service proposed by Netagen, and the Harris radio communications system utilized by emergency services in Durham Region.

Hexagon currently supports integration with multiple existing solutions including the City's existing and proposed 911 telephone solutions, Automatic Vehicle Location (A.V.L.) including real time display, G.I.S. mapping, Pulse Point, mobile devices, logging and recording implemented by Durham Region Police Service, and others.

Hexagon can utilize multiple map solutions and support integration with the City's existing Geographic Information System (G.I.S.) allowing it to be configured to access multiple types of data without manual intervention or conversion.

Hexagon provides an integrated analytics solution including both delivered and customizable reports to allow monitoring and measurement of existing response capabilities and forecasting of future requirements. This solution will significantly reduce manual efforts required to measure service performance, improve accuracy and accountability and inform decision making within Oshawa Fire Services as recommended by the Oshawa Fire Master Plan.

Due to differences in Fire Marshall reporting requirements across provinces, Hexagon does not currently include an Ontario Fire Marshall (O.F.M.), RMS reporting module, however, Hexagon has the ability to integrate with several RMS solutions, including the current C.A.D. RMS component. Discussions will be held in 2023 with all Fire Services within the Region to look at the benefits of sharing one collective RMS system. No decision on RMS needs to be made until the 2nd or 3rd Quarter of 2023.

5.4.3 Budget

5.4.3.1 Netagen

The capital component of NG-911 communication system to be supplied by Netagen is estimated to be approximately \$30,000 which can be funded from the approved 2020 project 30-0099 NG911 Network Upgrade. Annual operating costs are estimated to be approximately \$150,000/year and will be partially recouped through the municipal Dispatch Services Agreement.

A portion of the cost may be eligible for Next Generation 9-1-1 grant funding from the Government of Ontario however details of the grant program have not been made public at this time.

5.4.3.2 Hexagon

City staff will negotiate with Hexagon for procurement, implementation, support, training, integration with existing City technology including the proposed NG-911 communication system and migration of recent data from the existing C.A.D. product. This negotiation will include costs associated with a potential partnership with other local P.S.A.P.s to enhance resiliency in the event of a major event.

The C.A.D. replacement will be part of the 2023 capital and operating budgets. The cost for replacement is anticipated to be approximate \$2.55 million, which will be shared by the municipal partners.

A portion of the capital and annual operating cost may be split with other Regional P.S.A.P.s in the event of a partnership agreement. The total solution cost will be reduced if there is no partnership agreement due to a reduction in scope and requirements.

The City portion of capital and year one operating cost to be funded from the previously approved project 30-0099 and the City Equipment Reserve.

6.0 Financial Implications

Description	*Estimated Contract Five Years (\$)
Contract Value	
(taxes excluded)	775,000
Plus H.S.T. 13%	100,750
Total Cost	875,750
Less H.S.T. Rebate	(87,110)
Total Net Cost	788,640

*Implementation cost of approximately \$30,000 can be funded from the 2020 capital budget 30-0099 NG911 Network Upgrade and operating costs will be included in the Fire Services operating budget.

7.0 Relationship to the Oshawa Strategic Plan

This report supports the Oshawa Strategic Plan goals of Financial Stewardship & Economic Prosperity and Accountable Leadership by ensuring respect, responsiveness and transparency.



Derrick Clark, Fire Chief
Community Services Department



Ron Diskey, Commissioner
Community Services Department



Stephanie Sinnott, Commissioner,
Finance Services