



CITY OF HAMILTON
CORPORATE SERVICES DEPARTMENT
Information Technology Division

TO:	Chair and Members Audit, Finance and Administration Committee
COMMITTEE DATE:	March 25, 2021
SUBJECT/REPORT NO:	Transit Division Radio System Support - Service Agreement- (FCS21022) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Fred Snelling (905) 546-2424 Ext. 6059
SUBMITTED BY:	Maria McChesney Director, Information Technology Corporate Services
SIGNATURE:	

RECOMMENDATION(S)

That the General Manager, Finance and Corporate Services, or their designate, be authorized and directed to establish a new multi-year Service Agreement with the incumbent vendor, Bell Mobility Inc. (Bell Mobility) for the support of the radio system used by Hamilton Street Railway (HSR) within the Transit Division of the Public Works Department for a 5-year term with a 5-year extension option as well as a one (1) year optional extension, at the discretion of the City, under the same terms and conditions as the previous agreement and in a format approved by the City Solicitor pursuant to Procurement Policy #11 – Non Competitive Procurements.

EXECUTIVE SUMMARY

Hamilton Street Railway (HSR) currently operates a radio system in the 400 MHz frequency range. The radio system is tightly integrated with Transit's existing Computer Aided Dispatch / Automatic Vehicle Location (CAD/AVL) system provided by Trapeze Software Group – Streets. This integration allows dispatchers to perform radio calls from directly within the CAD/AVL system. Operators can use the CAD/AVL software to select and contact multiple buses either by route, bus number, physical location on the map, etc. via the radio system. The radio system also provides the ability for the dispatchers/controllers to connect both the radio and telephone systems.

OUR Vision: To be the best place to raise a child and age successfully.

OUR Mission: To provide high quality cost conscious public services that contribute to a healthy, safe and prosperous community, in a sustainable manner.

OUR Culture: Collective Ownership, Steadfast Integrity, Courageous Change, Sensational Service, Engaged Empowered Employees.

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Bell Mobility maintains the Transit Division's radio towers and base station equipment located at two tower sites on the edge of the escarpment to provide good coverage of Hamilton. The two towers work as backup sites to each other. Each is capable of transmitting to the entire system. The sites are used one at a time. The sites are reached through fibre network connections set up through the City of Hamilton's network jointly with Bell Mobility.

The Hamilton Street Railway's radio system, originally installed in 1982, was previously supported by Glentel Inc. (Glentel), which has since been purchased by Bell Mobility. Staff from Glentel moved over to Bell Radio, now Bell Mobility, in the process and their understanding of our requirements surpasses that of City staff due to their long-term provision of radio services to the City.

Alternatives for Consideration – See Page 4

FINANCIAL – STAFFING – LEGAL IMPLICATIONS

Financial: The current cost for annual support and maintenance of the Radio System used within Transit is approximately \$195,000.

Staffing: n/a

Legal: Staff will be required to prepare and finalize the Agreement with Bell Mobility.

HISTORICAL BACKGROUND

The previous 5-year Service Agreement with a 5-year extension option with Bell Mobility for the support of radio services for the Hamilton Street Railway Division of Public Works expired December 31, 2020. A Procurement Policy # 11 has been approved extending this Agreement until March 31, 2021. This Service Agreement covers: dispatch consoles and backend hardware and software at both Mountain Transit Centre and MacNab Terminal; tower site equipment at two transmission sites, Automated Vehicle Location, supervisory vehicles, programmable LED signs, bus stop annunciators, mobile radios, antennas, cables, power harnesses, and speaker microphones.

The HSR currently operates a radio system in the 400 MHz frequency range. The radio system is tightly integrated with HSR's existing CAD/AVL system provided by Trapeze Software Group – Streets. This integration allows dispatchers to perform radio calls from directly within the CAD/AVL system. They can use the CAD/AVL software to select and contact multiple buses either by route, bus number, physical location on the map, etc. via the radio system. The radio system also provides the ability for the dispatchers/controllers to connect both the radio and telephone systems.

Bell Mobility has customized the console screen layout to HSR's specific methods of operation. The system is also configured via a specially engineered channel steering board to control the ability of the system to interact with dispatch/control. Drivers do not have open channels and cannot communicate amongst buses unless set up by the controllers to do so. They can only request to talk with dispatch/control who then set up the calls. This keeps the radio system quiet and available for business and emergency use. There is no chatter between buses. The system provides private call capability to have the radio move to a voice dispatch channel and Call Alert releases the channel without driver or operator intervention. Bell Mobility has engineered a special board used within all bus radios. This special board also disallows the radios being turned off by the driver and allows dispatch to be able to turn the radio on remotely. Emergency alarms are also specially configured in the system and interact with the radio system to sound the alarm simultaneously over the Ranger Mobile Data Terminal as well as over the radio system console. HSR controllers can then listen to events on the bus and make announcements over the bus Public Announcement (PA) system through the radio console. The ability for the dispatcher in the HSR control room to open a radio channel and talk directly to the passengers is available whenever the need should arise.

Bell Mobility also performs custom installations in the different makes/styles of buses. This includes customized wiring and control systems in buses to support passenger counting, LED displays, next stop announcements, driver voice announcements and emergency management as well as the non-revenue vehicles used by supervisors, inspectors, maintenance and fare administration staff.

Bell Mobility also maintains the Transit Division's radio towers and base station equipment located at two tower sites on the brink of the escarpment to provide good coverage of Hamilton. The two towers work as backup sites to each other. Each is capable of transmitting to the entire system. The sites are used one at a time. The sites are reached through fibre network connections set up through the City of Hamilton's network jointly with Bell Mobility.

HSR's radio system, originally installed in 1982, was previously supported by Glentel, which has since been purchased by Bell Mobility. Staff originally with Glentel were brought over to Bell Mobility. Bell Mobility's understanding of our requirements surpasses that of City staff due to their long-term provision of radio services to the City. Their understanding and expertise of our requirements augment staff resources due to the long-standing engagement with Bell Mobility. The proposed Service Agreement is for the continued service and support of HSR's radio system and including required service upgrades during the term.

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

Procurement Policy #11 Non-Competitive Procurements– 4.11

RELEVANT CONSULTATION

Report FCS21022 was prepared in consultation with:

- HSR (Transit Division), Public Works Department
- Procurement Division has provided comment only with respect to compliance with the Procurement Policy
- Legal Services Division and Risk Management Division, Corporate Services Department has provided comment with respect to the support required from Legal Services.

ANALYSIS AND RATIONALE FOR RECOMMENDATION(S)

Bell Mobility has been engaged to provide radio services to the City Transit Division since 1982. Based on the following rationale, it is being recommended that the City establish a new Service Agreement with Bell Mobility for a 5-year term with a 5-year extension option as well as a one (1) year optional extension as authorized by the General Manager Finance and Corporate Services under the same terms and conditions as the previous Service Agreement and the following is also provided:

- Part of the support required includes the installation of new equipment and replacement of broken equipment on Transit vehicles. Bell Mobility 's extensive knowledge of the various vehicles reduces costs incurred for these installations.
- Bell Mobility has integral knowledge of the existing system and the various customizations that have been made over the past 20 years to meet the needs of the Transit Division. A new vendor would need to build up this knowledge which would slow down work and put the infrastructure at risk.
- Custom installations are required due to the various types of vehicles. Bell Mobility is aware of the various install requirements which reduces installation time and cost.
- Bell Mobility has engineered a special board used within all bus radios. This special board also disallows the radios being turned off by the driver and allows dispatch to be able to turn the radio on remotely.
- Emergency alarms are also specially configured in the system and interact with the radio system to sound the alarm simultaneously over the Ranger Mobile Data Terminal as well as over the radio system console. HSR controllers can then

listen to events on the bus and make announcements over the bus PA system through the radio console.

- Bell Mobility maintains the Transit Division's radio towers and base station equipment located at two tower sites on the brink of the escarpment to provide good coverage of Hamilton. The two towers work as backup sites to each other.

ALTERNATIVES FOR CONSIDERATION

An alternative to the recommendation would be to enter into a single-year contract extension to allow staff to prepare a RFP for a competitive bid process. This is not being recommended due to the customized nature of the system. Opening this up to other vendors would come at a cost to the city to recreate all the customizations that have taken place since 1982.

ALIGNMENT TO THE 2016 – 2025 STRATEGIC PLAN

Built Environment and Infrastructure

Hamilton is supported by state- of- the-art infrastructure, transportation options, buildings and public spaces that create a dynamic City.

APPENDICES AND SCHEDULES ATTACHED

None

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