

**Contract Award – Request for Proposal (RFP) 2105-11-3007  
Radio Infrastructure Project**

<b>Date:</b>	January 10, 2012
<b>To:</b>	Executive Committee
<b>From:</b>	Chief, Toronto Fire Services Chief, Toronto Police Service Chief, Toronto Emergency Medical Services Acting Director, Purchasing and Materials Management Division
<b>Wards:</b>	All
<b>Reference Number:</b>	P:/2012/Internal Services/pmmd/ec12001pmmd (AFS14849)

**SUMMARY**

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The purpose of this report is to advise on the results of RFP 2105-11-3007 and to request the authority to negotiate and enter into agreements with the recommended proponent, Motorola Solutions Canada Inc., being the highest ranked proponent, for the supply and delivery of the new radio infrastructure (TRIP) for use by the Fire, Emergency Medical, and Police services including a commercial off the shelf fire station alerting system (COTS-FSA), and 15 years of ongoing maintenance and support for both TRIP and COTS-FSA.

**RECOMMENDATIONS**

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The Chief of Toronto Fire Services, the Chief of Toronto Emergency Medical Services, the Chief of the Toronto Police Service and the Acting Director, Purchasing and Materials Management Division, recommend that:

- 1) City Council authorize staff to negotiate and execute agreements with Motorola Solutions Canada Inc., being the highest ranked proponent for both Part "A" TRIP and Part "B" COTS-FSA, to supply and install TRIP and COTS-FSA in accordance with the terms and conditions set out in the Motorola Canada Solutions Inc., proposal, and otherwise on terms and conditions satisfactory to the City Manager, at the cost set out in the Motorola Solutions Canada Inc., proposal, subject to revisions for the estimated costs identified in this report, not to exceed the approved capital budget, in a form satisfactory to the City Solicitor.
- 2) Subject to adoption of Recommendation (1), City Council authorize staff to negotiate and execute a 15 year agreement with Motorola Solutions Canada Inc., in a form satisfactory

to the City Solicitor, for ongoing support, maintenance and system lifecycle requirements of TRIP and COTS-FSA in accordance with the terms and conditions set out in the proposal submitted by Motorola Solutions Canada Inc., and otherwise on terms and conditions satisfactory to the City Manager, at the cost set out in the proposal submitted by Motorola Solutions Canada Inc., subject to revisions as identified in this report.

## **Financial Impact:**

### **Capital Costs**

The approved capital budget for the project is approximately \$70 million.

The RFP was issued in June 2011 and included the requirements for TRIP, COTS-FSA, and the total cost of ownership (ongoing support, maintenance and system lifecycle requirements) (TCO) for both TRIP and COTS-FSA. Due to RFP time constraints, the cost of the project related civil work was not requested of the proponents but rather a costing model was requested that would identify the proponent administration fee that would be added to costs for conducting the required civil work for overseeing and managing the civil work. The cost of the civil work was estimated by the project and included in the approved capital budget. Detailed costing for civil work will be determined after contract negotiations are finalized with Motorola Solutions Canada Inc.

Civil work represents the construction aspect of the radio infrastructure project required to develop new radio sites, expand existing sites and communications centres, enhance electrical power requirements and address the required radio tower foundation remediation at City owned radio towers. It was not possible to provide sufficient detail in the RFP to allow for fixed pricing to cover required civil work. Time constraints, incomplete site selection or lease arrangements with building owners and variations between proponent equipment footprints and electrical requirements necessitated the use of a costing formula within the RFP to address civil work. The preferred proponent utilized a 15% administration fee to facilitate civil work.

Motorola Solutions Canada Inc., TRIP cost revisions are required to account for RFP requirements or elements that were removed or altered during the RFP process at the request of proponents so as to produce a fair, transparent, and competitive RFP. These requirements or elements are required for the radio infrastructure. Similar cost revisions would have been negotiated with any preferred proponent as they are key to the radio infrastructure.

The proposals submitted by Motorola Solutions Canada Inc., for both TRIP and COTS-FSA from a capital cost perspective are below the approved project capital budget. Motorola Solutions Canada Inc., provided the highest technical scoring and the lowest price submission for both TRIP and COTS-FSA.

The total capital cost for the radio infrastructure (TRIP and COTS-FSA) is not expected to exceed \$46 million. The capital costs required for the completion of the projects include:

<b>Project Capital Cost - 2012 Radio Infrastructure Project ( \$ 000 \$ )</b>	
<b>Capital Cost Item Description</b>	<b>Total</b>
Radio Infrastructure (TRIP & COTS-FSA)	\$26,360.0
Civil Work	\$8,000.0
Costing Revisions (Subscriber Gear Functionality, TFS Mobile Repeaters, Infrastructure Network Security...)	\$3,840.0
Project Management, Transitional Costs, Site Connectivity, Contingency Costs	\$7,800.0
<b>Capital Cost Total</b>	<b>\$46,000.0</b>

Review of the project capital budget and the projected cash flow will be undertaken with Finance during the first quarter of 2012 following contract negotiations. As a result of project delays, which included the G20 Summit, project cash flows will span into 2014. The projected cash flow is now as follows:

<b>Project Cash Flow - 2012 Radio Infrastructure Project ( \$ 000 \$ )</b>				
<b>Year</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>Total</b>
2012 Recommended Capital Budget and Commitments	\$34,562.0	\$24,192.0	\$10,366.0	\$69,120.0
Revised Project Projections Based on RFP	\$23,000.0	\$16,100.0	\$6,900.0	\$46,000.0
<b>Cash Flow Difference By Year</b>	<b>(\$11,562.00)</b>	<b>(\$8,092.00)</b>	<b>(\$3,466.00)</b>	<b>(\$23,120.00)</b>

In 2005 the City commissioned Lapp-Hancock Associates Limited to prepare a report with the objective of identifying current and emerging technology options available to the Toronto public safety community in regards to the two-way radio communications with long term viability (more than 15years). The report also provided a cost estimate for achieving an improved radio infrastructure, which, at that time, was \$70 million.

This estimate was based upon the review of three recent public safety contract awards for voice radio systems, as well as recent implementations in North America of systems of similar size to that in Toronto.

The consultant’s budget estimates assumed a direct one for one replacement of radio infrastructure components and subscriber terminals which were derived from discussions with the only two major system vendors capable of providing a replacement system. The consultant’s budget estimates did not include any additional costs that would result from increased radio coverage (number of sites), increased capacity (number of channels), and operational transition or required civil work, however, the approved project budget of \$70 million did account for the costs associated with the items that the consultant’s estimate did not include.

Several factors have contributed to the favourable outcomes from the RFP process and the reduced cost of the project. Changes in the North American marketplace can be attributed to greater competition resulting from the introduction of a third vendor capable of providing a replacement system, as well as the advancements in the adoption of radio standards (P25) for public safety voice radio communications. In fact, delays experienced in the project allowed for further maturity of the P25 standards. Standards allowing for a fair and open competition among multiple vendors, a financial evaluation component that included a 15 year TCO an economic downturn in US markets and a genuine desire by proponents to establish the City of Toronto as a key account are all factors which ultimately had a positive effect on proponent pricing. Subscriber portable radios purchased to support the G20 Summit also contributed to reduction of overall costs as part of the project.

### **Operating Costs:**

The current radio infrastructure operating cost is based on a cost sharing formula which is contained in the project governance agreement endorsed by the services. The current operating cost is managed by the Toronto Police Service (TPS) and was \$2,000,000.00 for 2011. TPS charges \$411,000.00 to Fire Services and \$319,000.00 to Emergency Medical Services, with the remainder funded within Toronto Police Service.

The new ongoing operating costs for TRIP and COTS-FSA are incremental to the existing radio infrastructure described above and represent ongoing support, maintenance and system lifecycle requirements. These are new operating costs and are based on fixed pricing for a 15 year period which is scheduled to begin in 2014 following the operational readiness of both TRIP and COTS-FSA. These costs are:

- TRIP, operating cost as \$629,396.00 annually and COTS-FSA \$99,481.00 annually;
- The Motorola Solutions Canada Inc., submission indicated a 1% annual escalation of these costs rather than an escalation based on the CPI and, therefore, the operating costs for the 15 years for both TRIP and COTS FSA total \$11,732,656.93;
- Required costing revisions to account for the RFP requirements or elements that were removed or altered during the RFP process are expected to have a minor impact to the stated operating costs for the new radio infrastructure.

TCO guarantees a 15 year lifecycle for the radio infrastructure and shelters the City from any unexpected high capital cost during the TCO period, as TCO includes all future hardware and software upgrades to the radio infrastructure.

<b>Project Operating Costs - 2012 Radio Infrastructure Project</b>				
<b>Year</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
2011 Operating Budget (Yearly Increase Expected)	\$2,000,000.0	\$2,000,000.0	\$2,000,000.0	\$2,000,000.0
New Radio Infrastructure Ongoing Operating Costs (Begins in 2014, *)	\$0.0	\$0.0	\$0.0	\$728,877.0
<b>Yearly Operating Budget</b>	<b>\$2,000,000.0</b>	<b>\$2,000,000.0</b>	<b>\$2,000,000.0</b>	<b>\$2,728,877.0</b>

\* there is a 1% annual escalation.

The ongoing operating costs may change subject to contract negotiations and will be subject to future years operating budget processes. As recommended by Budget Committee as part of adopting Fire Services 2012 Capital Budget and Plan, the Fire Chief, in consultation with Chief Financial Officer, will determine the operating impacts arising from the completion of the Radio Communication Replacement project in time for the 2013 Capital Budget process.

The Deputy City Manager and Chief Financial Officer has reviewed this report and agrees with the financial impact information.

### **DECISION HISTORY:**

In 2004 the Chiefs of Toronto Fire, Police and EMS forecasted the requirement to replace the City's existing public safety voice radio system shared by all three agencies. In 2005 a consultant, Lapp-Hancock Associates Limited, was commissioned to review technology direction and financial impact for the services and to provide a report on potential radio infrastructure options for the next 15 years.

At its meeting of March 7, 2007, City Council approved the 2007 Fire Services Capital Budget and, in so doing, adopted the following recommendation:

*An initial project cost for the Radio Communication System Replacement of \$0.500 million for consultant studies be approved with cash flow commitments of \$0.250 million in 2007 and \$0.250 million in 2008 and that the Chiefs of Toronto Fire Services, Toronto Police Service and Emergency Medical Services in consultation with the Steering Committee for Radio Communication System Replacement project and Deputy City Manager and Chief Financial Officer, report to the Budget Committee by July 2007 on the project status and any emergent issues, detailed project cost and cash flows.*

At its meeting of December 11, 12 and 13, 2007, City Council approved the 2008 Fire Services Capital Budget, authorizing a \$70 million capital project. As recommended by Council, the Steering Committee continued to report to Budget Committee annually.

**Council:**

<http://www.toronto.ca/legdocs/mmis/2007/cc/minutes/2007-03-07-cc04-mn.pdf>  
<http://www.toronto.ca/legdocs/mmis/2007/cc/minutes/2007-12-11-cc15-mn.pdf>

**Budget Committee:**

<http://www.toronto.ca/legdocs/mmis/2007/bu/bgrd/backgroundfile-5258.pdf>  
<http://www.toronto.ca/legdocs/mmis/2008/bu/bgrd/backgroundfile-15481.pdf>  
<http://www.toronto.ca/legdocs/mmis/2009/bu/bgrd/backgroundfile-25238.pdf>  
<http://www.toronto.ca/legdocs/mmis/2009/bu/agendas/2009-11-16-bu59-ar.pdf>  
<http://www.toronto.ca/legdocs/mmis/2011/bu/bgrd/backgroundfile-34871.pdf>

Further Council decisions that impacted the project resulted from the G20 Summit. <http://www.toronto.ca/legdocs/mmis/2010/cc/bgrd/backgroundfile-30808.pdf>

**ISSUE BACKGROUND:**

The City's public safety voice radio system infrastructure is approaching the end of its supported lifecycle. After 2012, system support from the vendor will become "best effort" as there are no service level agreements in place to guarantee a repair time, and no guaranteed availability of replacement components. This is a significant risk for one of the City's most critical systems, where any outage will affect first responders' ability to deliver emergency services to the public. In house spare parts and G20 Summit related upgrades to the existing system may mitigate the risks to some degree, but the short term risks will continue until a new system is implemented.

A Radio Communications Steering Committee, co-chaired by Fire, Police, and EMS, reporting to the project executive sponsor, the City Manager, has provided project oversight. A Governance Agreement for the project was established among the three emergency services.

The initial timelines for the completion of the project changed due to unexpected delays associated with federal regulatory matters affecting radio frequency availability and the Summit held in the City on June 26 and 27, 2010.

The G20 Summit hosted in Toronto presented a large challenge to the project team and significant setbacks. To ensure effective communications were in place to support this unprecedented security event, all focus was shifted away from the project and shifted towards the upcoming G20 Summit. In the second quarter of 2010, the project retained the services of a senior project manager who assessed the impact of the G20 Summit on the overall radio infrastructure project.

The G20 Summit required that external security personnel be provided with radio communications on the City's radio infrastructure. The existing radio infrastructure was not capable of handling the additional loads that would stress coverage, capacity, and dispatch capability without an emergent upgrade to the existing radio infrastructure.

The requirements for equipment and services for the G20 Summit needed to be procured immediately and compatibility with the existing radio infrastructure was a key factor, along with familiarity with the existing radio infrastructure in place at the City. Time was of the essence for

procurement and installation of the G20 Summit equipment and services. As a result, with Council approval, the project team negotiated and executed a sole source agreement satisfactory to the City Solicitor, with existing provider Motorola Canada Ltd to purchase all the required equipment and upgrades necessary for the existing radio infrastructure to meet the demands for the G20 Summit.

As a result of the G20 Summit related project delays, it was anticipated that a new system would not be in place until well beyond the end of supported life date of the current system, which is December 2012. While the Steering Committee recognizes that the current system configuration with the G20 Summit components is not optimal, the G20 Summit initiative replaced some of the most vulnerable core equipment allowing the City to complete a procurement process for the replacement of the existing radio infrastructure for the 15 year lifecycle.

### **COMMENTS:**

The Steering Committee retained the services of a Fairness Commissioner, PPI Consulting in 2009 for the various stages in the procurement process and including the requirements for the G20 Summit.

Due to the emergent requirements for the G20 Summit, a sole source agreement with the existing provider, Motorola Canada Ltd, was executed, with approval from Council, to provide the necessary equipment and services. It was identified that this agreement with the existing provider could potentially impact the integrity or lack of market interest of the upcoming RFP. Recognizing this, it was decided that a Request for Expression of Interest (REOI) be issued to determine whether or not there was sufficient market interest to proceed and it was further intended to gather information that could assist the City in the development of a future procurement process.

### **Request For Expression Of Interest (REOI):**

A (REOI) 2105-10-2134 was issued and was supported by commercial in confidence meetings (CICM) with requesting proponents as outlined in the call document. Four (4) responses were received as a result of the REOI. Results from the REOI and CICM(s) established that there was a high level of proponent interest in the radio infrastructure project and a proponent willingness to participate in an open, fair, and competitive RFP process, notwithstanding the material advantage of the incumbent resulting from the G20 Summit sole sourced procurement.

CICMs provided a means for the City and a proponent to conduct face-to-face confidential meetings to discuss potentially sensitive commercial information and request additional information related to the RFP and project background, scope, and expected outcomes. The CICM was designed to assist with information on this particular City opportunity and address any concerns associated with the project. The exchange included responding to questions raised by both the City and by the proponent.

As a result of the positive responses received from the REOI, the project team began the preparation for the Request for Proposal (RFP).

## **Request For Proposal (RFP):**

The RFP consisted of two parts. Part "A" submission requirements for TRIP and Part "B" submission requirements for COTS-FSA. The proponents had the opportunity to submit responses for one part or for both parts. The RFP utilized a two-envelope process which required each proponent to submit two (2) separate envelopes, one (1) titled "Technical Requirements" and the second (2) titled "Cost of Services". Two (2) separate envelopes were required for both TRIP and COTS-FSA submissions. Technical Requirements (envelope 1) was evaluated first to determine whether or not it had met a minimum technical threshold score with regard to its ability to fulfill the requirement as specified in the RFP. For each proponent which met the minimum technical threshold score, its separate sealed cost of services proposal (envelope 2) would be opened and evaluated to determine the lowest cost provider.

The cost submissions called for total cost of ownership (TCO) for both TRIP and COTS-FSA, over the system's expected life span of 15 years. TCO includes the capital cost and the 15 years of ongoing support and maintenance. TCO guarantees a 15 year lifecycle for the radio infrastructure and shelters the City from any unexpected high capital cost during the TCO period, as TCO includes all future hardware and software upgrades to the radio infrastructure.

The RFP 2105-11-3007 for Toronto Radio Infrastructure Project (TRIP) and Commercial off the shelf Fire Station Alerting System (COTS-FSA) was issued by Purchasing and Materials Management Division (PMMD) on June 15, 2011 and was available for download in PDF on the City's internet website. The closing date for submissions was September 19, 2011. Two (2) responses were received for TRIP- Part A (Motorola Solutions Canada Inc., and Cassidian Communications Corp.), and (3) three responses were received for COTS-FSA- Part B submission (Motorola Solutions Canada Inc., Locution Systems Inc., and Westbury National Show Systems Ltd.).

The RFP was divided into three stages (for both Part A and Part B) and evaluated on the following as per the evaluation guidelines contained in the submission assessment guidelines for evaluators issued September 15, 2011:

- Stage 1, Initial Evaluation of Mandatory Requirements (PMMD evaluation) PASS/FAIL
- Stage 2A, Detailed Evaluation (Technical Evaluation),
- Stage 2B, Technical Presentation (Technical Evaluation)
- Stage 3, Cost (Financial Evaluation)

In compliance with the RFP terms of reference, stage 1 of the evaluation process was a pass/fail review of submissions with regard to the mandatory technical submission requirements. A review by PMMD of the submissions determined that the technical proposals submitted by Westbury National Show Systems Ltd., and Locution Systems Inc., were not in compliance with the mandatory requirements as specified in the COTS-FSA RFP (Part B) and they were not considered further.

The RFP submission evaluators included members from Toronto Police Service, Toronto Fire Services, Toronto Emergency Medical Services, with oversight provided by the Fairness Commissioner.

Stage 2 had documented criteria within the RFP whereby Proponent submissions would be scored and required to attain a threshold of 70% to advance to the cost evaluation.

The RFP submission evaluators completed the scoring for the Technical evaluation individually followed by consensus scoring to arrive at a unanimous agreement (all services) on a line by line basis. All proposals met the technical thresholds and had their cost envelopes opened.

The contract award recommendations are based on the technical and cost submission evaluation results which identify that Motorola Solutions Canada Inc., achieved the highest technical scoring and lowest cost submissions for both TRIP and COTS-FSA.

The entire procurement process (REOI and RFP), as well as the issues that had to be addressed as part of the G20 Summit, were overseen by the Fairness Commissioner. The Fairness Commissioner issued a report in support of the procurement process and a report in support of the G20 Summit, both of which are attached to this report.

The Fair Wage Office has reported that the recommended firm has indicated that it reviewed and understands the Fair Wage Policy and Labour Trades requirements and has agreed to comply fully.

Proponents scores, financial comparison and staff analysis of the evaluation results can be provided to Councillors in an in-camera presentation if so requested by Committee members.

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**SIGNATURES:**

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Victor Tryl, Acting Director, Purchasing & Materials Management Division

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William A. Stewart, Chief, Toronto Fire Services

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William Blair, Chief, Toronto Police Service

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Paul Raftis, Chief, Toronto Emergency Medical Services

**Attachments:**

Appendix 1, Fairness Commissioner Report (RFP Process)

Appendix 2, Fairness Commissioner Report (G20 Summit)