



Halton Regional Police Service Public Agenda Information Report

To: Chairman and Police Service Board Members

From: Chief Stephen J. Tanner

Subject: HRPS PUBLIC SAFETY BROADBAND NETWORK (PSBN)

Report #: P18-11-I-09

Date: November 19, 2018

INTRODUCTION AND BACKGROUND:

Changes in allocation of radio spectrum by North American Federal bodies have resulted in the availability of a dedicated Public Safety Broadband Network (PSBN). These new channels are intended to be utilized by Public Safety entities across North America through the use of LTE wireless technology. In August 2017, the HRPS Board approved the acquisition and installation of specialized equipment from Motorola to support the utilization of the PSBN by the HRPS and their public safety partners. The HRPS has taken a leadership role on behalf of municipal, provincial and federal agencies in developing PSBN governance, education and communication roadmap strategies for public safety entities.

The Board has recognized that **data communication has become as critical as voice communication**. At present, the Service is planning to use this dedicated, high performance data network to support day-to-day and emergency response operations for the front-line. Front-line officers rely on many sources of information to perform their duties. This includes computer aided dispatch data, records systems access, photos, license plate information, multiple video sources, In-Car Camera systems and GPS data. Additionally, requirements to support Next Generation 911 (NG 911) technology also drives the need for a reliable, private network that will remain accessible during times of disaster or major incident response. The PSBN is key to maintaining effective first response for all first responders. This only reinforces the necessity for HRPS to ensure the reliability of data communications with the front-line.

Halton's dedicated PSBN will also provide opportunity for connectivity with regional critical infrastructure including Public Works and Transit. These entities may join the PSBN following commissioning and governance discussion – with the purchase of department specific mobile devices.

As stated, in August 2017, the Board approved and authorized the HRPS to award a single source contract for the acquisition, installation, managed services and system warranty of a new Public Safety Grade LTE Data Network and mobile peripherals from Motorola Solutions Canada Inc. The approval stipulated that HRPS would continue to negotiate with Motorola to maximize savings to the HRPS and the Region of Halton. Additionally, the Board authorized transactions within the Police Capital Reserve in order to fund the capital requirements in 2017.

Since that time, the HRPS has completed infrastructure installations on ten (10) HRPS Radio Access Network (RAN) sites. The HRPS has also taken a leadership role in initiating memorandum of understanding (MoU) negotiations with other GTA police services who intend on participating in PSBN.

HRPS has led the communication strategies relating both on a provincial and federal government agency level and has also spearheaded discussions relating to models of operation, as appropriate, with private carriers. The HRPS has been invited to present their PSBN vision and model at numerous speaking engagements, conferences, seminars and technical workshops across the province to both public and private industry stakeholders.

This report will provide an update to the Board relating to progress made towards the approved recommendations and further implementation strategies for a dedicated PSBN. Specific updates will be provided in the following areas, including: Core Business, Governance, Field Deployment, Infrastructure, Communication Efforts and Broadband Spectrum Status. The HRPS has been recognized as an innovator across each of these pillars and continues to lead discussion on a provincial and national level with respect to governance and best practices.

A formal presentation will be made to the Police Services Board in early 2019.



Stephen J. Tanner
Chief of Police

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Attachment: Updates

UPDATES

LTE Infrastructure

LTE Infrastructure installed on the HRPS Radio Access Network (RAN) has been fully installed as of November 2018. The ten (10) radio sites are deployed and “on-air” (operational). The PSBN LTE geo-redundant Core (hereinafter referred to as the “Core”) is fully operational within the new HQ Data Centre. This major milestone was essential for the implementation of a functional PSBN. The HRPS – Information and Technology (IT) department will now complete final coverage testing and proceed with deployment of field equipment noted above.

HRPS Field Deployment

The HRPS have also taken possession of the LTE field testing devices for vehicles and SmartPhones from Motorola as planned. All vehicular modems are ready for in-house testing and SmartPhones testing will begin in December 2018. Prior to full rollout, the IT department will be finalizing vehicle architecture for the modems. It is anticipated that the completion of these architectural designs will occur in Q1 – 2019. Completed field vehicle and SmartPhone tests will also occur in Q1 - 2019 and it is anticipated that SmartPhone procurement and operational field deployment in will occur sometime in Q2 - 2019.

Core Business

As stated, HRPS has acquired, installed and is testing their Motorola Core in the new HQ – Data Center facility. In addition to the Core acquisition and installation, several concurrent activities are underway with key stakeholders in relation to the HRPS vision for PSBN in Ontario. The following are some of the efforts to date:

It is anticipated that in December 2018, the Peel Regional Police (PRP) will officially announce joining the HRPS PSBN core. A joint press release on a PSBN partnership between PRP, Motorola and the HRPS is being prepared and anticipated prior to Q1 2019. The joint effort will reduce Core maintenance costs for both the PRP and HRPS. Specifically for HRPS, maintenance costs will be reduced by 50% upon official PRP signing. Annual managed service fees will be reduced to a total of \$365,918 for year one and \$235,713 for year two. This represents a reduction of \$528,000 over two years.

The HRPS also continues to lead discussions with various public and private agencies relating to the PSBN model. Included in these discussions are potential new partners for Core access, research and innovation agencies, Provincial and Federal decision makers and Telco-Carriers. Some of these activities include:

- **ORION** - As the Ontario partner in Canada’s National Research and Education Network, ORION is a non-profit agency which connects over two (2) million of Ontario’s students, educators and researchers to their peers nationally and around the world and is the only high-speed, fibre-optic network specifically committed to

supporting research, education and innovation in Ontario. A partnership with ORION will enhance the delivery of a dedicated PSBN network across Canada to any municipality or entity willing to connect with the Halton PSBN.

- **Telco Carriers** – A key element to PSBN is the principal of interoperability with other public safety entities within a jurisdiction or across municipalities. In order to attain full interoperability with various PSBN deployments, it is necessary to maintain Carrier integration for roaming, voice services, and text messaging over the PSBN, allowing for a network of networks to integrate and mesh between agencies. HRPS is engaged with key Telco Carriers to ensure mutual consideration while achieving the necessary arrangements for full interoperability.
- **Industry Science and Economic Development (ISED) Canada** – as the key Federal PSBN decision maker and issuer of the current HRPS PSBN test licence, the HRPS hosted delegates from ISED in October 2018. Discussions related to potentially obtaining carrier status designation for the HRPS and the extension of the HRPS test licence to possibly a two (2) year term versus yearly renewal. The ISED meeting was very positive with agreement to work collaboratively on this initiative. HRPS and ISED will meet in late November to continue discussions.
- **Ontario Association of Chiefs of Police (OACP) and other police agencies** - the HRPS has been involved in PSBN discussions with multiple other police agencies across Ontario, including the OACP. At the OACP Annual General Meeting in June 2018, HRPS proposed a resolution on behalf of all police services across Ontario. The resolution encouraged Public Safety Canada (PSC) during its continued deliberations to ensure that Canada’s PSBN framework remained flexible for all police services to administer a PSBN according to their unique needs, verses a single prescriptive model across all jurisdictions. The resolution was accepted and a letter from the OACP to PSC has been sent outlining the resolution. Deputy Chief Duraiappah had occasion to present to the OACP Zone 4 meeting on November 14, 2018 (Board Strategic Advisor Mr. Kaustinen in attendance).
- **Additional Core-Joining Public Safety Entities:** HRPS has been engaged in numerous discussions with other public safety agencies who are contemplating proceeding with PSBN. HRPS has provided detailed information in relation to the proposed PSBN vision as it gains momentum. In addition, several public non-police agencies (Hydro and other municipal entities) have also contacted the HRPS for information relating to the PSBN core and their critical infrastructure needs.

Governance

As the Federal government contemplates how PSBN should be proctored across Canada; the HRPS has recognized the need to demonstrate leadership through the development of a PSBN Governance model which can be considered by PSC, ISED and subsequently accepted as a standard for public safety nationally.

A comprehensive governance structure is an essential part of sustaining working partnerships with respect to PSBN shared Core services. As agencies join the HRPS core, a governance model will be required to clearly set out the delineation of roles, responsibilities and decision making. An initial proposed PSBN memorandum of understanding (MoU) framework has been created by the HRPS and shared with several interested partners (GTA based police agencies and ISED) for input and feedback. As a result, this MoU has been developed as a framework for prospective partners. This short term solution will provide excellent guidance as all participating agencies seek an eventual move to a formal, long-term non-profit entity, similar to the E-Comm organization in British Columbia ([E-Comm 911](#)). E-Comm is a non-profit multi-municipality agency that provides central emergency communications operations for British Columbia. E-Comm is also interested in the HRPS-led model and approach and are exploring further in synergies. HRPS will be hosting E-Comm delegates at HRPS HQ on December 4, 2018, along with other key PSBN entities to review the HRPS PSBN model.

The HRPS, as indicated above, has also had initial meetings with ISED in relation to cooperation & collaboration on governance opportunities with the HRPS. Part of this cooperative process will involve the HRPS providing formal field test results to ISED for consideration throughout 2019 and 2020.

In addition to the agencies listed above, the HRPS has had communication with the Temporary National Coordination Office (TNCO). The TNCO is a key federal entity that has been designated by Federal, Provincial and Territorial (FPT) Ministers as being responsible for recommending the preferred PSBN framework in Canada. This is anticipated to be completed by the end of 2020. Several members of the TNCO committee, along with E-Comm delegates, will be visiting HRPS HQ during the evening of December 4, for discussions on the HRPS proposed PSBN model.

In sum, December is a key month with respect to showcasing the HRPS led PSBN model. Deputy Duraiappah is spearheading meetings with several other interested Ontario first responder services to discuss the model and present the aforementioned MoU framework. Additionally, Deputy Duraiappah will be presenting to the OACP Board of Directors relating to the PSBN MoU framework in December 2018.

Communications Strategy

A fundamental tenet to the implementation of a successful PSBN system across Ontario and Canada is the communication of the HRPS PSBN model and the education of prospective partners and stakeholders. The HRPS has leveraged both industry experts, internal IT resources and the HRPS Corporate Communications bureau to prepare a communications roadmap to achieving this goal. Several key communication strategies are outlined below.

The HRPS has drafted seven strategic communication brochures for sharing information about the HRPS-PSBN model targeting internal staff, external agencies, government stakeholders and potential commercial partners. The first communication released is planned for the 12th Annual Canadian Interoperability Technology Interest Group (CITIG)

conference on December 2-5 2018, in Toronto. CITIG was created to improve Canadian public safety communications interoperability. Deputy Duraiappah has been asked to present at this pivotal conference about the HRPS PSBN model. Deputy Chief Duraiappah will be updating the conference delegates with this corporately designed communication presentation that will also feature a video vignette of senior executives from the HRPS, HRPS Board Chairman, Peel Regional Police (PRP) Executive, Municipal Fire, Halton EMS and the Region of Peel V-COMM.

As PRP joins the HRPS PSBN Core (2018), a joint press-release will be prepared across Peel, Halton and Motorola for release in late 2018 to announce the collaboration between both regions and the growth of the Motorola core and RAN networks. Communication from the HRPS Board will also be included in this release.

Broadband Spectrum

As mentioned previously, ISED is a key federal stakeholder with respect to licensing for the PSBN spectrum. The HRPS has submitted a request for a 2-year term licence instead of an annual licence renewal (initial discussions are positive). Additionally, the HRPS has requested amendments for Carrier status proceedings for designation purposes by CRTC.

Summary

The HRPS has made great strides in the planning and implementation of a Halton led PSBN-LTE model in Ontario. Several significant milestones have been realized with the installation of key infrastructure assets in Halton Region, including 10 of 10 planned radio sites and central geo-redundant cores.

Peel Regional Police have indicated they are in the final stages of their agreement with Motorola for the purchase of LTE equipment and maintenance support. Once finalized, the PRP will join the HRPS PSBN core resulting in a 50% reduction of annual maintenance service fees for the HRPS, totalling \$528,000 over two years.

The Board and HRPS have been recognized as leaders in the pursuit of a dedicated PSBN model. HRPS will continue to meet with municipal and provincial stakeholders, including key decision makers at the Federal level (ISED, PSC and TNCO). The HRPS is also finalizing arrangements to host the Honourable Ralph Goodale - Federal Minister of PSC and Emergency Preparedness, as well as the Honourable Navdeep Baines – Federal Minister of ISED. The meeting is intended to demonstrate the HRPS model for a dedicated PSBN through the exhibition of Halton’s innovative technologies and new HRPS data centre, tentatively set for Q1 2019. HRPS PSBN initiative will be highlighted on a national level and is considered a major step towards gaining favourable key decisions by ISED and Public Safety Canada in 2019 and 2020.