



INFORMATION REPORT

TO:	Chair and Members Audit, Finance and Administration Committee
COMMITTEE DATE:	October 22, 2020
SUBJECT/REPORT NO:	Upgrade of 911 System to the Next Generation 9-1-1 (NG9-1-1) Messaging Services Delivery (FCS20082 / HSC20045) (City Wide)
WARD(S) AFFECTED:	City Wide
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COUNCIL DIRECTION

N/A

EXECUTIVE SUMMARY

On June 1st, 2017, in order to create a safer environment for Canadians by enabling access to enhanced and innovative 9-1-1 services, the Canadian Radio-television and Telecommunications Commission (CRTC) mandated all telephone companies to update their networks to provide Next-Generation 9-1-1 voice and text messaging services to all Canadians. The deadline for transition to NG911 is March of 2024. At that point the legacy system E911 will be decommissioned by CRTC.

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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The City of Hamilton's Information Technology Division, in conjunction with the Hamilton Police Service, Hamilton Fire Department, Hamilton Paramedic Service will lead the technical components of this initiative. A Steering Committee and a Working Committee will be established with representation from the Hamilton Police Services, Hamilton Paramedic Service, Hamilton Fire Department, City Information Technology Division (IT) and the Finance and Procurement Divisions, of the Corporate Services Department to work collaboratively to deliver this project.

The Information Technology Division will be putting forward a new multi-year capital project through the 2021 Capital Budget process, estimated at \$6 million. This will cover hardware and software costs, implementation, training, as well as an external Project Manager with the appropriate subject matter expertise.

Some of the benefits of NG9-1-1 include:

- True system interoperability, allowing the ability to communicate with any PSAP in Canada – PSAP to PSAP;
- this migration to NG will meet public expectations of a 911 system as society becomes more technologically advanced, 911 needs to keep up.
- Data sharing between Public Safety Answering Points (PSAP) (Emergency Dispatch Offices);
- Data sharing with trusted 3rd party entities;
- Improved redundancy and reliability (virtual PSAPs);
- Improved response times;
- improved location services - NG9-1-1 will drastically change how a 911 comes in from a location standpoint, relying on GPS and corresponding GIS models;
- Enhanced disaster response;

With NG9-1-1 services, Canadians could eventually stream video from an emergency incident, send photos of accident damage or a fleeing suspect, and send personal medical information, including accessibility needs, which could greatly aid emergency responders.

The CRTC has stated that “NG9-1-1- is the mandatory replacement of the current Enhanced 911 infrastructure and systems across Canada.” Our current 911 system is antiquated and will no longer be supported.

INFORMATION

In Over 98% of locations North America, dialling "9-1-1" from any telephone will link the caller to an emergency dispatch office—called a Public Safety Answering Point (PSAP) by the telecommunications industry—which can send emergency responders from Fire,

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Police and/or Emergency Medical Services, to the caller's location. T911, text with 9-1-1 is an emergency texting service available for deaf, deafened, hard of hearing and speech impaired (DHHSI) customers. T911 service is currently available only to subscribers from the DHHSI community.

Access to emergency services (911), which was launched in Canada in 1974, is critical to the health and safety of residents of our community. An effective emergency 9-1-1 system is an important part of ensuring that you have access to a world-class communications system.

On June 1st, 2017, in order to create a safer environment for Canadians by enabling access to enhanced and innovative 9-1-1 services, the Canadian Radio-television and Telecommunications Commission (CRTC) mandated all telephone companies update their networks to provide Next-Generation 9-1-1 voice and text messaging services to all Canadians. Telephone Service Providers must be ready for Voice NG9-1-1 on March 30, 2021, they must be RTT ready by March 30 of 2022. Coordinated PSAP launch of NG9-1-1 will commence in April of 2021 and continue to February of 2024. ALL PSAPS must be migrated over to the NG9-1-1 network before March 30, 2024.

The current E9-1-1 (Enhanced 9-1-1) system has reached end of life and no longer meets today's technology needs nor the public expectation of a 911 system. NG9-1-1 services will provide Canadians with access to new and innovative emergency services and capabilities. These services are enabled by the prevalence of mobile devices and the evolution of telecommunications networks. The CRTC wants to ensure that Canada's 9-1-1 system takes advantage of these technological advancements to improve public safety.

The provision of 9-1-1 services throughout Canada is complex and requires coordination between various parties, including telephone and mobile wireless companies, provincial, territorial, and municipal governments, emergency call centres and emergency responders such as fire, police and paramedics. The CRTC is recommending that Public Safety Canada take a leadership role in establishing a national coordination body, including emergency call centres and emergency responders, to assist with the transition to NG9-1-1. All these organizations have a role to play to ensure the safety of Canadians.

The incumbent telephone companies will be responsible for the construction, operation, and maintenance of the NG9-1-1 networks, with CRTC oversight.

The "Agreement" is more properly the 'Public Emergency Reporting Service Agreement' (PERS), signed by the region in 1993 and provides the municipality with 911 service including Automatic Location and Number Identification (ANI & ANI). The PERS

agreement obligates the municipality to provide a 24-7 communication centre which is the first point of reception of 91 calls (also known as a PSAP). This agreement also obligates the municipality to validate all geographical data including street names, addresses and boarder service the 911 service area.

The City entered into an Agreement with Bell Canada in 1993 for 9-1-1 services. This contract is still in effect with a continuous 5-year renewal term and staff will be working entering into a new Agreement for the Next Generation 9-1-1 system.

BENEFITS OF NEXT GENERATION 9-1-1

With NG9-1-1 services, Canadians could eventually stream video from an emergency incident, send photos of accident damage or a fleeing suspect, and send personal medical information, including accessibility needs, which could greatly aid emergency responders.

- True system interoperability
- Data sharing between PSAPs
- Improved redundancy and reliability (virtual PSAPs)
- Improved response times
- Enhanced disaster recovery

This is a mandatory migration. One of the largest benefits of NG9-1-1 is improved location services for citizens dialing 9-1-1. PSAPs will no longer be able to take 911 calls after March of 2024 without the required NG9-1-1 technology to deal with 911s in the new format. Every PSAP within Canada will be required to update and replace their systems in order to have compatibility to receive 911 calls and transfer them accordingly

CITY ADDRESSING ISSUES

In consultation with Bell Canada and the City's Planning and Economic Development staff, the City must ensure all addresses are unique and not duplicated. Growth Management will be issuing a report to the Planning Subcommittee (PED20175 – October 20, 2020) with recommendations to resolve this issue. Bell Canada will only enter into a NG9-1-1 agreement if this issue is resolved, as mandated by the CRTC.

CONSULTATION

- Hamilton Police Services – report prepared in consultation with Hamilton Police Services. A similar report has been presented to the Hamilton Police Services Board at the October 15, 2020 meeting.

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- Hamilton Fire Department
- Hamilton Paramedic Service
- Hamilton Finance Division
- Planning and Economic Development Department

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