

## Report to Community and Protective Services Committee

**To:** Chair and Members  
Community and Protective Services Committee

**From:** John Paradis, Deputy City Manager Enterprise Supports  
Cheryl Smith, Deputy City Manager, Neighbourhood and  
Community-Wide Services

**Subject:** NG 9-1-1 Hosted Call Handling Solution Amending Agreement  
to the Bell Authority Service Agreement

**Date:** December 2, 2024

## Recommendation

That, on the recommendation of the Deputy City Manager, Enterprise Supports, and the concurrence of the Deputy City Manager, Neighbourhood and Community-Wide Services, the following actions be taken with respect to the Hosting Call Handling Solution Amending Agreement to the Bell Authority Service Agreement,

- a) the attached proposed by-law (Appendix 'A') BE INTRODUCED at the Municipal Council meeting to be held on December 17, 2024, to:
  - i. Approve the Next Generation 9-1-1 Authority Service Amending Agreement attached as Schedule "A";
  - ii. Authorize the Mayor and Clerk to execute the Amending Agreement; and,
  - iii. Delegate authority to the Deputy City Manager, Neighbourhood and Community-Wide Services to approve and execute any further amending agreements to the above-noted Agreement and undertake any administrative actions that are necessary in connection with section 1 of this by-law.
- b) the balance of this report BE RECEIVED for information; and
- c) Civic Administration BE AUTHORIZED to undertake all the administrative acts that are necessary in connection with part a) above.

## Executive Summary

This report recommends that the Corporation of the City of London enter the Hosted Call Handling Solution Amending Agreement (the "Amending Agreement") to Next Generation 9-1-1 Authority Service Agreement (the "Agreement") between Bell Canada, and the Corporation of the City of London (the "Recipient"), attached to Appendix A as Schedule A to the existing by-law and Next Generation 9-1-1 Authority Service Agreement between the Corporation of the City of London and Bell Canada. The Amending Agreement adds the "ability of Bell to provide the 9-1-1 Authority a call hosted solution".

## Linkage to the Corporate Strategic Plan

This report is aligned with the following strategic areas of focus in the City of London Strategic Plan (2023 – 2027):

- Well-Being and Safety: London has safe, vibrant and healthy neighbourhoods and communities: and,
- Climate Action and Sustainable Growth: London's infrastructure and systems are built, maintained, and operated to meet the long-term needs of the community.

# Analysis

## 1.0 Background Information

### 1.1 Previous Reports Related to this Matter

- [London Fire Department Single Source Call Handling Software \(CPSC, January 31, 2023\)](#)
- [Next Generation 9-1-1 Authority Service Agreement with Bell Canada \(CPSC, January 31, 2023\)](#)

### 1.2 Background Information

In June 2017, the Canadian Radio-Telecom Commission (CRTC) directed telecom companies to upgrade their networks, as the current analog E9-1-1 network was reaching the end of its useful life and to prepare for the transition to Next Generation 9-1-1 (NG 9-1-1) voice and messaging services with Internet Protocol (IP) settings. This will enable Canadians to access new, enhanced, and innovative 9-1-1 services.

All 9-1-1 agencies in Canada currently providing E9-1-1 services must migrate to the NG 9-1-1 network by March 4, 2025, as E9-1-1 will be decommissioned. As primary and secondary Public Safety Answering Points (PSAPs), London Police Service (LPS) and London Fire Department (LFD) must upgrade their infrastructure to have the capabilities to receive, transfer and process NG 9-1-1 calls. Currently, LPS has transitioned, and LFD is currently undertaking steps to transition to NG 9-1-1.

The Bell NG 9-1-1 Authority Service Agreement was a mandatory agreement the City entered into with Bell in March 2023. The Agreement was required for Bell to provide NG 9-1-1 services to a 9-1-1 Authority, which is, “the municipality, local service board, first nation, province or any other authorized signing authority responsible for 9-1-1 service operations pursuant to the Bell Canada National Services Tariff Item 601 – Next Generation 9-1-1 (NG 9-1-1) Service”. The City of London is the authority representing the two PSAP’s<sup>1</sup> operating in the City’s boundaries and Bell is the only network provider offering NG 9-1-1 connectivity in Ontario. The Agreement has been attached for reference as “Appendix B”.

## 2.0 Discussion and Considerations

### 2.1 Bell Hosting Call Handling Solution Amending Agreement

To implement the call handling software tenancy option, where LPS is the host and LFD is the tenant, Bell Canada requires the City to enter a “Hosting Call Handling Solution Amending Agreement”, to amend the original Authority Agreement.

The Amending Agreement outlines deployment criteria that the 9-1-1 Authority (the City) must ensure all PSAPs and HCHS sites meet mandatory requirements to ensure reliability, resiliency and security. Such criteria include geographically diverse sites with redundant data paths, interconnection between demarcation sites, IP Network protocol support, encryption of traffic to and from the ESInet (Emergency Services IP Network), contingency routing and outage reporting requirements.

The 9-1-1 Authority shall indemnify and hold Bell and its Affiliates harmless from and against all damages, expenses, costs, liability, claims or losses suffered in connection with the failure of a PSAP to report NG9-1-1 Service outages as required pursuant to Section 11 of Schedule “E” of the Amending Agreement attached. This provision poses a risk to the City and is non-negotiable. However, considering our obligations and the benefits of the agreement, the City’s Fire Services, Financial Planning, and Risk Management support accepting this risk.

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<sup>1</sup> Since all Central Ambulance Communication Centres fall under provincial jurisdiction, the City of London will identify that they are utilized as a secondary PSAP (S-PSAP) in the municipality, but a separate agreement was signed on their behalf by the Ministry of Health.

### **3.0 Financial Impacts**

There is no direct financial impact associated with this report.

### **Conclusion**

Authorizing Civic Administration to enter and execute the Hosting Call Handling Solution Amending Agreement to Bell Canada's NG 9-1-1 Authority Service Agreement is required to successfully migrate the mission critical 9-1-1 system from the current, end of life Enhanced 9-1-1 network to Next Generation 9-1-1 by the the Canadian Radio-television and Telecommunications Commission (CRTC) imposed deadline of March 5, 2025.

**Prepared and Submitted by:** Paul Ladouceur, Director, Emergency Management and Security Services

**Al Hunt, Deputy Fire Chief, Communication and Training, London Fire Department**

**Concurred by:** Cheryl Smith, Deputy City Manager, Neighbourhood and Community-Wide Services

**Recommended by:** John Paradis, Deputy City Manager, Enterprise Supports

**Cc:** Lori Hamer, Fire Chief London Fire Department

## Appendix A: Proposed By-law

Bill No.

By-law No.

A by-law to authorize and approve the Next Generation 9-1-1 Authority Service Amending Agreement between The Corporation of the City of London and Bell Canada and to authorize the Mayor and City Clerk to execute the Amending Agreement.

WHEREAS section 5(3) of the *Municipal Act, 2001* S.O. 2001, c.25, as amended, provides that a municipal power shall be exercised by by-law;

AND WHEREAS section 9 of the *Municipal Act, 2001* provides that a municipality has the capacity, rights, powers and privileges of a natural person for the purpose of exercising its authority under this or any other Act;

NOW THEREFORE the Municipal Council of The Corporation of the City of London enacts as follows:

1. The Amending Agreement attached as Schedule “A” to this by-law, being the Next Generation 9-1-1 Authority Service Amending Agreement between The Corporation of the City of London and Bell Canada, amending the agreement entered into between the Corporation of the City of London and Bell Canada on February 14, 2023, is hereby authorized and approved.
2. The Mayor and City Clerk are hereby authorized to execute the Amending Agreement approved under section 1 of this by-law.
3. The Deputy City Manager, Neighbourhood and Community-Wide Services, or their designate, are hereby authorized to approve and execute any further amending agreements to the above-noted Agreement.
4. The Deputy City Manager, Neighbourhood and Community-Wide Services, or their designate, are hereby delegated the power to undertake any administrative actions that are necessary in connection with section 1 of this by-law.
5. This by-law comes into effect on the day it is passed subject to the provisions of PART VI.1 of the Municipal Act, 2001.

Passed in Open Council on December 17, 2024 subject to the provisions of PART VI.1 of the Municipal Act, 2001.

Josh Morgan  
Mayor

Michael Schulthess  
City Clerk

First Reading – December 17, 2024  
Second Reading – December 17, 2024  
Third Reading – December 17, 2024

## Schedule "A"

### HOSTING CALL HANDLING SOLUTION AMENDMENT TO NEXT GENERATION 9-1-1 AUTHORITY SERVICE AGREEMENT

This Agreement is between

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a municipality, local service board, first nation, province or other authorized signing authority located at:

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(the "9-1-1

Authority")

**AND**

**BELL CANADA**, a company incorporated under the laws of Canada, and located at 1 carrefour Alexander Graham Bell, Building A7, Verdun, Quebec H3E 3B3 ("**Bell**")

**WHEREAS** the 9-1-1 Authority and Bell have entered into a Next Generation 9-1-1 Service Authority Service Agreement dated **March 3<sup>rd</sup>, 2023** (the "**Agreement**").

**AND WHEREAS** the parties now wish to amend the Agreement to add the ability of Bell to provide the 9-1-1 Authority a Hosted Call Handling Solution ("**HCHS Amendment**").

**NOW THEREFORE**, for valuable consideration, the receipt and sufficiency of which are acknowledged, the parties agree as follows:

1. All terms not defined under this HCHS Amendment have the meanings given to them under the Agreement.
2. The Agreement is amended effective **November 19<sup>th</sup>, 2024**, as follows:
  - 2.1. Wherever found in the Agreement, a reference to a "PSAP Location" shall include an "HCHS Site";
  - 2.2. The following is inserted as Section 5(C),

“(c) The 9-1-1 Authority shall indemnify and hold Bell and its Affiliates harmless from and against all damages expenses, costs, liability, claims or losses suffered in connection with the failure of a PSAP to report NG9-1-1 Service outages as required pursuant to Section 11 of Schedule “E”.”;
  - 2.3. Schedule “A” Definitions is amended by inserting the definition of “Hosted Call Handling Solution Site” and “ESInet Demarcation”,

**“Hosted Call Handling Solution Site” or “HCHS site”** means the physical address(es) where the PSAP hosted call handling solution is located;” and

**“ESInet Demarcation”** means the boundary that delineates the network responsibilities between the NG9-1-1 network providers and the 9-1-1 governing authorities:”

2.4. Schedule “C” PSAP Designations & Locations is deleted and the following inserted,

**Schedule “C”**

**PSAP DESIGNATIONS AND ESINET DEMARCATION**

<b>PSAP and HCHS Type</b>	<b>Name of Site</b>	<b>PSAP and HCHS Sites (full address)</b>	<b>Connected to ESInet (Y/N)</b>
ESInet Demarcation / HCHS Site	LONDON POLICE		Y
ESInet Demarcation / HCHS Site	LONDPOLBKUP		Y
Primary PSAP (*1 & *2)	LONDON POLICE		Y
Secondary PSAP Police (*1 & *2)	LONDON POLICE		Y
Secondary PSAP Fire (*1 & *2)	LONDON FIRE		Y Via HCHS
Secondary PSAP Ambulance (*1 & *2)	LONDON AMBULANCE		Y
Additional Offnet Agency if required (*1 & *2& *3) i.e. Poison control			N
Designated Provincial or Territorial default i3 PSAPs (*4)			N
<p>Notes:            *1 – 9-1-1 Authority shall ensure all Sites connected to ESInet meet the NG9-1-1 requirements.            *2 – 9-1-1 Authority shall ensure that if a PSAP changes during the Term, the replacement is aware of the 9-1-1 Authority obligations re: PSAPs under this Agreement, and Bell is notified of the change.            *3 – Offnet Agencies are not connected to the ESInet. *4 – This PSAP is only required if there is a PSAP designated as a safety net for a specific Province or Territory.</p>			

; and

2.5. Schedule E Deployment Criteria is deleted and the following inserted,

**Schedule**

**“E”**

**DEPLOYME**

**NT**

**CRITERIA**

PSAPs utilizing networks to process and deliver NG9-1-1 Calls outside of the ESInet do so at their own risk and assume all liabilities including prolonged restoration times in the event of an outage.

In order to ensure reliability, resiliency and security of the NG9-1-1 Service, the 9-1-1 Authority shall ensure that all of the PSAPs and HCHS site meet the following mandatory requirements without which the PSAPs and HCHS site will not be permitted to interconnect with the production NG9-1-1 network:

**1. IP VPN ESInet Interconnection**

The 9-1-1 Authority must have 2 geographically diverse sites per HCHS.

All IP VPN ESInet demarcation locations are provided with two (2) redundant data paths and must make use of both. The PSAP and HCHS sites must make use of all available in-house diversity (cable entrance, power, etc.).

ESInet physical demarcation locations must be geographically located within the Bell Canada NG9- 1-1 Serving region.

PSAPs and HCHS sites are expressly forbidden to establish private VPN tunnels over the ESInet, through the provided IP VPN circuits.

## **2. ESInet Interconnection of Non-designated PSAP and HCHS sites facilities**

For those PSAP and HCHS sites not listed in Schedule “C”, if the 9-1-1 Authority requires additional circuits, these arrangements may be provided by Bell for a fee;

## **3. PSAP and HCHS site CEE Interconnection Requirement**

- a. All ESInet demarcation sites shall employ a NENA i3 compliant Border Control Function (“**BCF**”) as defined in the Bell NG9-1-1 UNI technical specification as a mandatory condition of interconnection with the NG9-1-1 network. The BCF must be comprised of a minimum of both a firewall and session border controller function. The BCF must be deployed in a manner which prevents single points of failure.
- b. PSAPs and HCHS sites shall ensure their local network infrastructure (i.e., Local Area Network [LAN] and/or private Wide Area Network [WAN]) is sized appropriately to support the bandwidth of all NG9-1-1 traffic as calculated and provisioned by the NG9-1-1 Network Provider, in addition to their own in-house network requirements;

## **4. i3 Call Handling CODEC requirement**

All PSAPs and HCHS sites shall implement the mandatory list of CODECs as defined in Telecom Decision CRTC 2019-353 (<https://crtc.gc.ca/eng/archive/2019/2019-353.htm>) and make necessary changes as updates become approved by CRTC.

## **5. IP Network protocol support**

All PSAPs and HCHS sites shall deploy Dual Stack as the method for simultaneous use of IPv4 & IPv6 address spaces, or to individually perform Network Address Translation - Protocol Translation (“**NAT-PT**”) for their Network Domain as defined in the Bell NG9-1-1 UNI technical specification. This is a mandatory condition to interconnect to the NG9-1-1 Service Network;

## **6. End-to-End Encryption**

All PSAPs and HCHS sites shall support encryption of traffic from and towards the ESInet as defined in the Bell NG9-1-1 UNI technical specification;

## **7. QoS Support**

All PSAPs and HCHS sites shall implement the QoS requirements as defined in the Bell NG9-1-1 UNI technical specification;

## **8. PSAP Credentialing Agency – NG9-1-1 Network Provider service**

All PSAPs shall utilize the Bell PSAP Credentialing Agency service. PSAPs shall identify to Bell as part of the onboarding process the individual or group responsible for acting as the Local Registration Authority (“LRA”). The LRA agreement and the roles and responsibilities can be found at <https://911flex.bell.ca/Login.html>, under the title “NG9-1-1 Onboarding Documentation”. There is no expectation that the NG9-1-1 Authority will sign the LRA agreement itself but the NG9-1-1 Authority will ensure that the selected PSAPs will execute such agreement.

## **9. Contingency Routing**

PSAPs shall communicate all 9-1-1 contingency arrangements to Bell including agreements and arrangements with other agencies in order to design and implement Policy Routing Rules accordingly. PSAP’s defined Policy Routing Rules must contain at a minimum one Policy Routing Rule specifying a partner third party PSAP to act as backup in the event the PSAP is not able to

respond to 9-1-1 Calls. PSAP shall indemnify and hold Bell harmless from and against any liabilities, claims, losses, costs, damages and expenses, arising from such failure.

**10. Domain Name Service (DNS) – NG9-1-1 Network Provider service**

PSAPs and HCHS sites shall utilize the Bell NGCS-based DNS service to ensure resiliency of DNS functions and seamless PCA functionality.

**11. Outage Reporting**

PSAPs shall provide the 9-1-1 Authority and Bell by 30 days prior to the CRTC reporting deadline:

NG9-1-1 Service outage reports (the first being due 30 March 2023) of all 9-1-1 Service outages that are attributable to HCHS providers or the connections between the HCHS providers and the PSAP(s); and

Which shall include, for each NG9-1-1 Service outage, the date, duration, and cause of the outage; the affected area(s); the remedial action(s) taken to address the outage; and the number of affected calls, if this information is available.

The NG9-1-1 Service outage reports shall cover the period of 1 January to 31 December of the preceding calendar year. Abridged versions of these reports, including aggregated information regarding outages, will be filed by Bell for the public record.

The 9-1-1 Authority is requested to encourage PSAPs and HCHS to utilize the following NGCS provided functions to further enhance network reliability, resiliency and security of the NG9-1-1 Service:

**1. Network Time Protocol (NTP) – NG9-1-1 Network Provider Service**

PSAPs and HCHS sites are encouraged to utilize the Bell NGCS-based NTP service to ensure accurate time synchronization with all ESInet interconnected elements and as an additional time source within their Local Area Network (LAN).

3. The Agreements are hereby amended by the provisions of this HCHS Amendment, and shall remain in full force and effect as so amended. The Parties agree to continue to be bound by and benefit from the terms and conditions of the Agreement, as amended, for the remaining term thereof.
4. Should there be a conflict between the terms and conditions of this HCHS Amendment and the Agreements, this HCHS Amendment shall take precedence.
5. This HCHS Amendment may be executed by facsimile and in counterparts, each of which when so executed shall be deemed to be an original and all of which when taken together shall constitute one and the same agreement.

**IN WITNESS WHEREOF**, the parties have duly executed this HCHS Amendment as of \_\_\_\_\_

<p><b>[9-1-1 AUTHORITY NAME]</b></p> <p>SIGNATURE: _____</p> <p>NAME: _____</p> <p>TITLE: _____</p> <p>DATE: _____</p>	<p><b>BELL CANADA</b></p> <p>SIGNATURE: _____</p> <p>NAME: _____</p> <p>TITLE: _____</p> <p>DATE: _____</p>
<p>SIGNATURE: _____</p> <p>NAME: _____</p> <p>TITLE: _____</p> <p>DATE: _____</p>	



**Appendix B: Next Generation 911 Authority Agreement between the City of London and Bell Canada (the “Agreement”)**