



Halton-Peel initiated Public Safety Broadband Network (PSBN) extends service over Telesat’s Low Earth Orbit satellite – a giant leap for Public Safety communications.

Halton Region and Peel Region’s efforts to ensure reliable and secure data and voice communications to first responders in Canada have reached new heights, literally. Through the newly established Halton-Peel Public Safety Broadband Network Innovation Alliance, along with Telesat and Motorola Solutions engineers, the teams successfully enabled the extension of mission critical PSBN LTE data services over a satellite link to Telesat’s operations center in Hanover, Ontario. The link was made possible through the recently launched Telesat Phase 1 Low Earth Orbit (LEO) satellite.

Use of LEO satellite links breaks down barriers of providing rural and remote public safety data communications access. The successful test underscores the utility of public safety’s use of Telesat’s planned fleet of LEO satellites around the globe. The testing proves that public safety data and voice services can function in day-to-day use, or in times of need, in rural communities across the country – as well as in the most remote areas of Canada.

Formed in early 2019, the PSBN Innovation Alliance is a not-for-profit organization driving the development of secure, reliable data communications for First Responders. Halton Regional Police Service Superintendent Anthony Odoardi heads up the PSBN Innovation Alliance as Managing Director. Through the leadership of the Ontario Association of Chiefs of Police, founding members of the PSBN Innovation Alliance (the Halton Regional Police Service, Peel Regional Police and the Greater Toronto Airports Authority) work together as a not-for-profit entity – advocating public safety agency oversight of the Public Safety Broadband Network.

“Our PSBN Innovation Alliance membership is expanding rapidly,” says Superintendent Odoardi. *“With membership of more than thirty public and private partnership agencies, including First Responders, critical infrastructure organizations, transit companies, and high tech companies - the PSBN Innovation Alliance continues to shape the governance framework required to successfully operationalize this valuable data spectrum for public safety.”*

Launched on January 12, 2018, Telesat continues customer and vendor testing of its first LEO satellite to demonstrate the improved flexibility and performance across a wide range of applications and technologies. Telesat will deploy a global LEO constellation that will revolutionize broadband communications services around the world with affordable, high-performing, fibre-like broadband for enterprise, telecom, aeronautical, maritime and government applications. Telesat LEO satellites will be 35 times closer to Earth than today’s geostationary satellites, resulting in ultra-low latency and lightning- fast Internet speeds for users. The Telesat LEO constellation will consist of 298 satellites, with a patent-pending design that includes polar and inclined orbits, resulting in full global coverage with the ability to bring concentrated capacity into areas with higher demand.

“Access to secure connectivity for data and voice services is mission critical for our public safety officers and first responders,” said Michel Forest, Telesat’s Director of LEO System Engineering. “With Telesat LEO’s easy plug-and-play integration with terrestrial networks, we are able to extend the geographical reach of public safety networks and also ensure communications are maintained during natural or man-made disasters that impact terrestrial wireless infrastructure.”

Peel Regional Police Chief Nishan Duraiappah, a founder of the PSBN Innovation Alliance, is encouraged by the results of this demonstration. *“Peel Police’s and Halton Police’s newly formed PSBN Innovation Alliance, with its growing membership of first responder organizations, is diligently working to define governance and technology to provide reliable and secure data communications for first responders and critical infrastructure operators in Ontario. This recent test is significant as we work to build a PSBN model that will provide access in urban, rural – and potentially the most remote areas of the country,”* says Chief Duraiappah.

Halton Regional Police Service Deputy Chief Roger Wilkie says, *“The goal of public safety sector leaders is to ensure that our organizations have the tools to always succeed within our complex and challenging work environments. The PSBN Innovation Alliance has become a leader in leveraging technology and key public-private partnerships to explore new and innovative ways of building infrastructure that ultimately deliver critical data services. The successful testing of the Halton-Peel PSBN LTE with Telesat’s LEO satellite is yet another testament to the vision and leadership of the Alliance on a national scale. This use of next-generation satellites is a game changer and the future is bright.”*

This recent PSBN testing over LEO satellite systems is a significant enabler for maintaining the safety and well-being of Canadians. *“Our successful testing using real-world public safety applications proves that we can extend critical Public Safety Broadband communication services into any area of the country over Telesat’s planned LEO network,”* says Bill Payne, Director of Information Technology, Halton Regional Police Service. *“We were able to successfully demonstrate the practical use of remote vehicle and handheld dispatch, secure messaging, police records access, and our mission critical push to talk services – all performed over Telesat’s LEO communications link – a first for PSBN innovation in Canada.”*

The public safety broadband network, provided by Motorola Solutions, provides uninterrupted access to mission-critical data applications including GPS, maps, pictures, videos and real-time analytics during emergency situations and day-to-day operations. It supplements the regions’ mission-critical Project 25 (P25) radio network to provide police, fire and paramedics with access to important data-based information for fast, efficient response in an emergency.

“Halton Region and Peel Region are dedicated to using the latest technology advancements to help keep their communities safe,” said George Krausz, Motorola Solutions Canada president. *“By using a high bandwidth, low latency, low earth orbit satellite to provide backhaul to their dedicated public safety broadband network, they will experience high-network availability for access to the critical data they need when traveling anywhere across the regions.”*

The PSBN Innovation Alliance is pleased to accept new first responder and public safety technology members. We focus on governance and technical innovation on aspects of PSBN policy that will help bring highly secure and resilient data communications to first responders as well as rural broadband enablement in Ontario.

For more information, we invite you to contact info@psbninnovationalliance.ca.



*Caption: Halton Regional Police Service cruiser pictured at Telesat Canada's operations center in Hanover Ontario on January 30, 2020.
[Photo: Halton Regional Police Service]*