

Alert Ready: An Overview and the Evolution of Public Alerting with ATSC 3.0

Come join us for an insightful webinar on the future of Canada's emergency alerting system.

Virtual Webinar | November 12, 2025 | 11:00 AM EST

Pelmorex



Land Acknowledgment: Honouring the Land and Peoples of Adoobiigok

Humber College is located within the traditional and treaty lands of the Mississaugas of the Credit. Known as Adoobiigok, the “Place of the Alders” in Michi Saagiig language, the region is uniquely situated along Humber River Watershed, which historically provided an integral connection for Anishinaabe, Haudenosaunee, and Wendat peoples between the Ontario Lakeshore and the Lake Simcoe/Georgian Bay regions. Now home to people of numerous nations, Adoobiigok continues to provide a vital source of interconnection for all.



Meet the Presenters:



Martin Bélanger - Head of Alerting, Pelmorex Corp

- *Overview of the Alert Ready system*
- *Leveraging the B²C Lab to address system monitoring gaps*
- *How technology and ATSC standards could help with the evolution of Alert Ready*



Orren Johnson - Professor, Faculty of Applied Sciences and Technology (FAST), Humber Polytechnic

- *Prototype Presentation of Emergency Alert Confirmation by a Broadcaster*

Session Guidelines



Mute
microphone



Participation
welcome



Raise hand and
wait for facilitator
to call on you



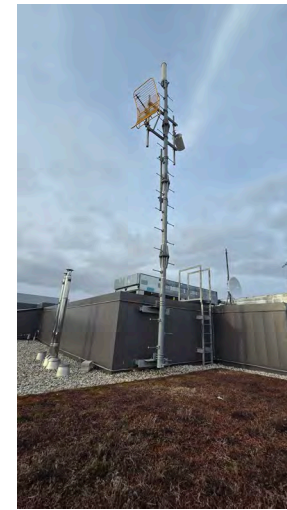
Type questions and
comments in the
chat window



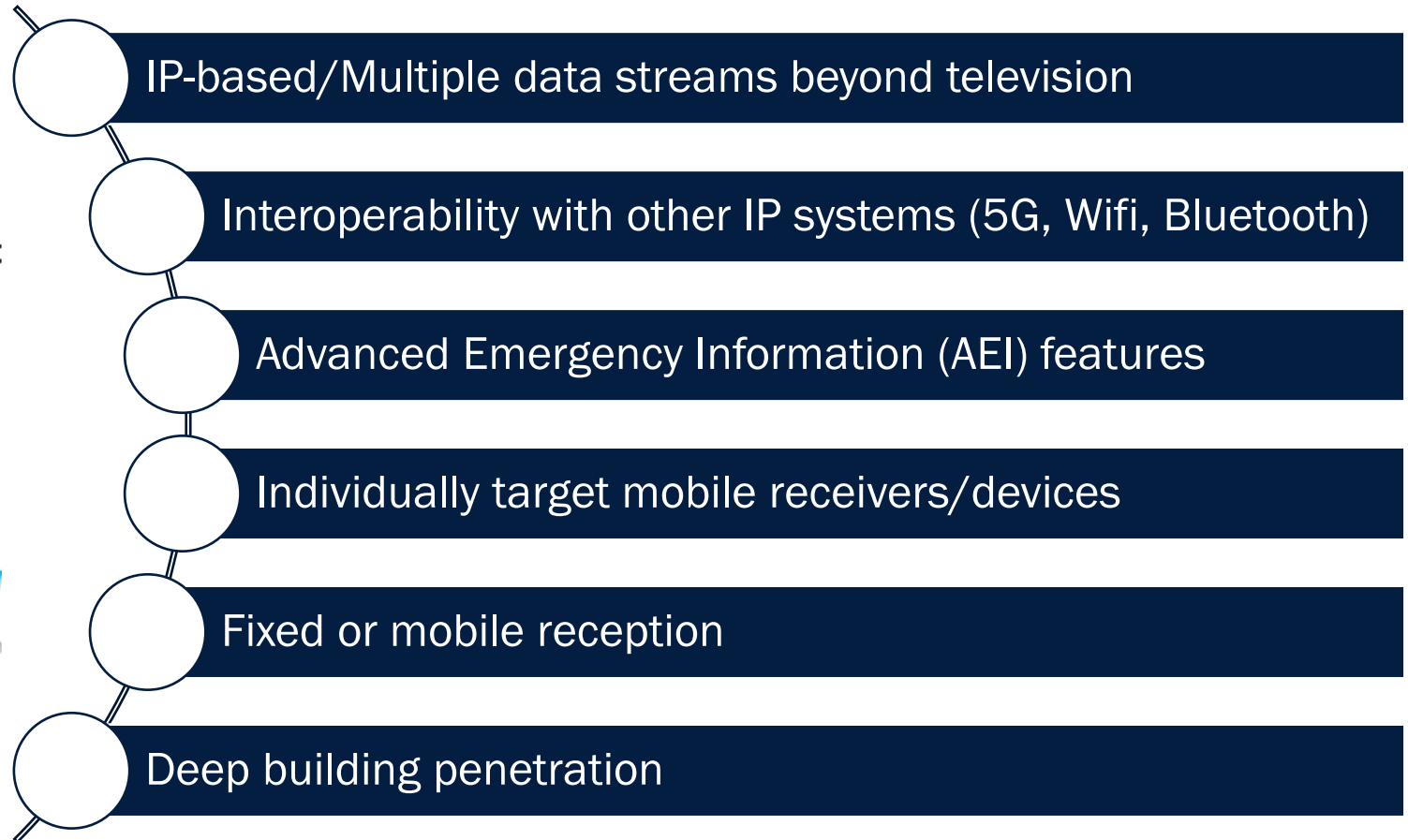
This session will
be recorded

Humber Polytechnic Broadcast-Broadband Convergence *B²C* Lab

- North America's first front-facing **industry research centre** exploring multi-sectoral applications of ATSC 3.0 broadcast including convergence with other IP global data delivery standards (5G,Wifi, Bluetooth)
- Equipped with both **ATSC 3.0 OTA broadcast system/multiple transmitter OTA broadcast testbed** across Toronto/Capability to reach 25% of Canada's marketplace. **RF anechoic test chamber** supporting the development of a wide range of wireless devices, sensors and antennas
- Three **5G core networks** supporting convergence applications
- Scientific Research to advance capabilities of broadcast system
- Testing, Deployment and Implementation projects
- Fostering partnerships between Humber Polytechnic and public and private sectors leading to business innovation at local, regional and national levels/Facilitating commercialization through innovation/technology transfer/adaptation in marketplace
- Students at the centre of the innovation experience



ATSC 3.0 Standard NextGen TV



What is Alert Ready?

Canada's national public alerting system

It delivers critical, potentially life -saving emergency alerts to Canadians through television, radio and compatible wireless devices

About Pelmorex

A trusted authority in public safety

- **Critical mission**

We built and operate Canada's first and only national public alerting infrastructure, serving over 40M Canadians with 20+ types of alerts in English and in French

- **Alerting expertise**

15 years of collaboration with government and industry partners as the builder and operator of the National Alert Aggregation and Dissemination (NAAD) System, the central technical infrastructure of the Alert Ready system

- **Effective alert distribution**

Distributing 50,000 alerts each year, including about 1,000 emergency alerts to television, radio and wireless for situations posing an imminent threat to life

- **AI innovation**

The first weather company in Canada to implement generative AI, transforming how forecasts and alerts are delivered



About Pelmorex

The Weather Network and MétéoMédia

- Proudly Canadian owned media brand
- Credibility built on the importance of weather, alerting & safety
- Bilingual with a national reach of 23+ million on digital, broadcast & CTV/FAST¹
- Trusted to keep Canadians safe and informed from coast- to-coast every day

Canada's

#1

weather app and website
Comscore, Dec 2024.

Canada's

#1

most trusted news source-
3 years running!
Pollara, 2025.

Canada's

#1

most influential media brand
2024 Most Influential Brand Study, Feb 2025.

Météo Média  The Weather Network



1. (Gross users, Comscore Media Matrix, Multiplatform, Total Canada, Sept. 2024, Top Products: GA4, Oct. 2024, Numeris, 2+, Total Canada. Monthly average based on Jan. to Aug. 2024, FAST and CTV estimates based on Google Analytics/GA4)

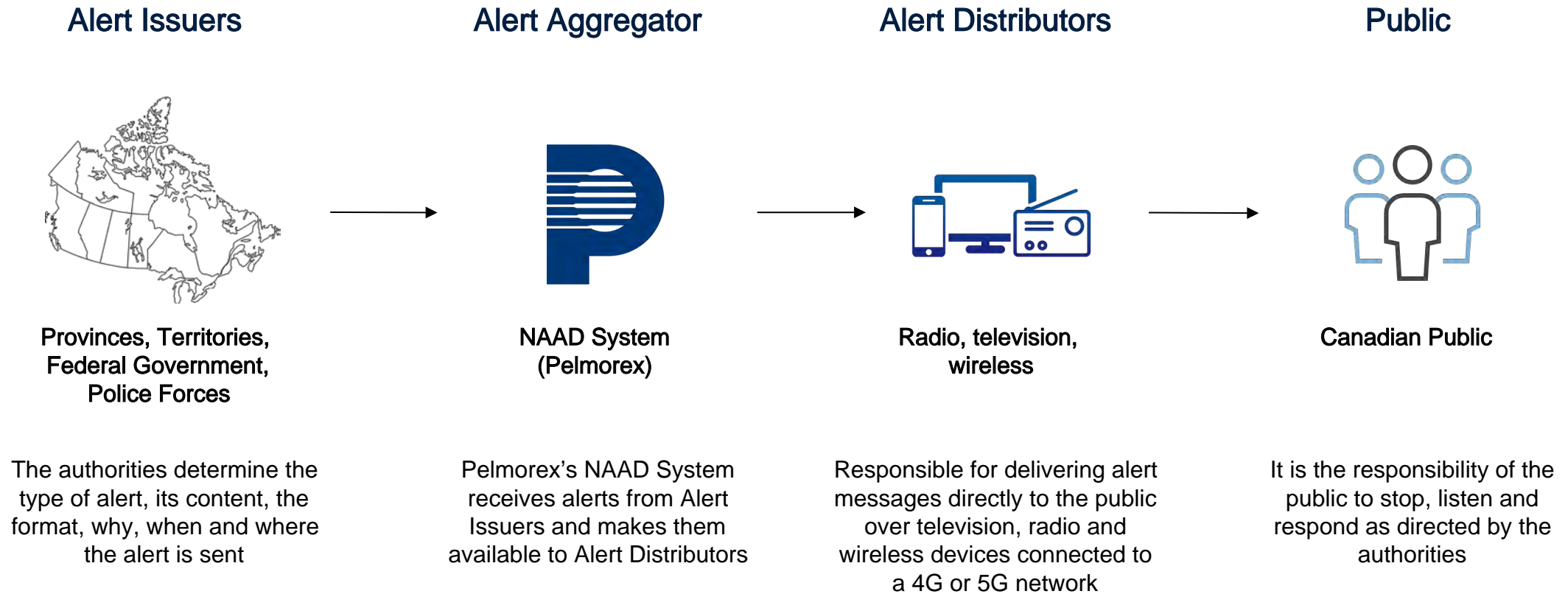
ALERT READY
EMERGENCY ALERT SYSTEM



EN ALERTE
SYSTÈME D'ALERTE D'URGENCE

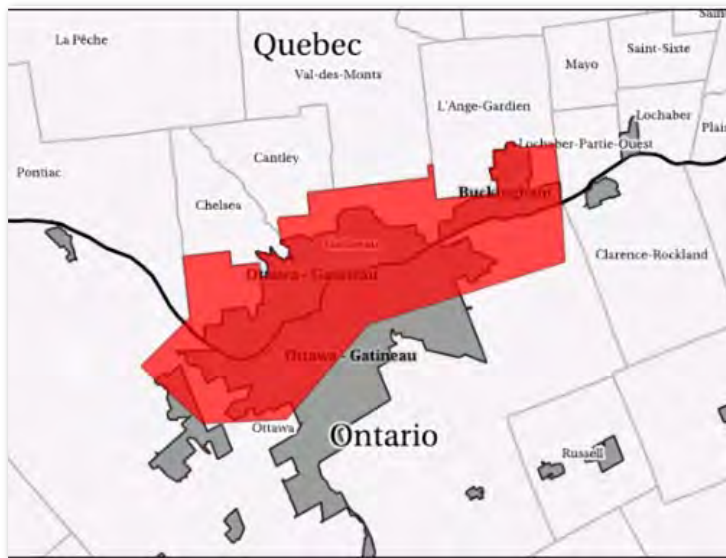
Pelmorex

A Model Based on Collaboration with All Partners



Distributing Alerts to the Public

Emergency alerts, known as Broadcast Immediately alerts, are distributed to Television, Radio and compatible wireless devices connected to an LTE or 5G network in the area where the alert is in effect



Types of Alerts



Types of Alerts

The Alert Ready system processes and delivers two types of alerts:

Broadcast Immediately (BI)

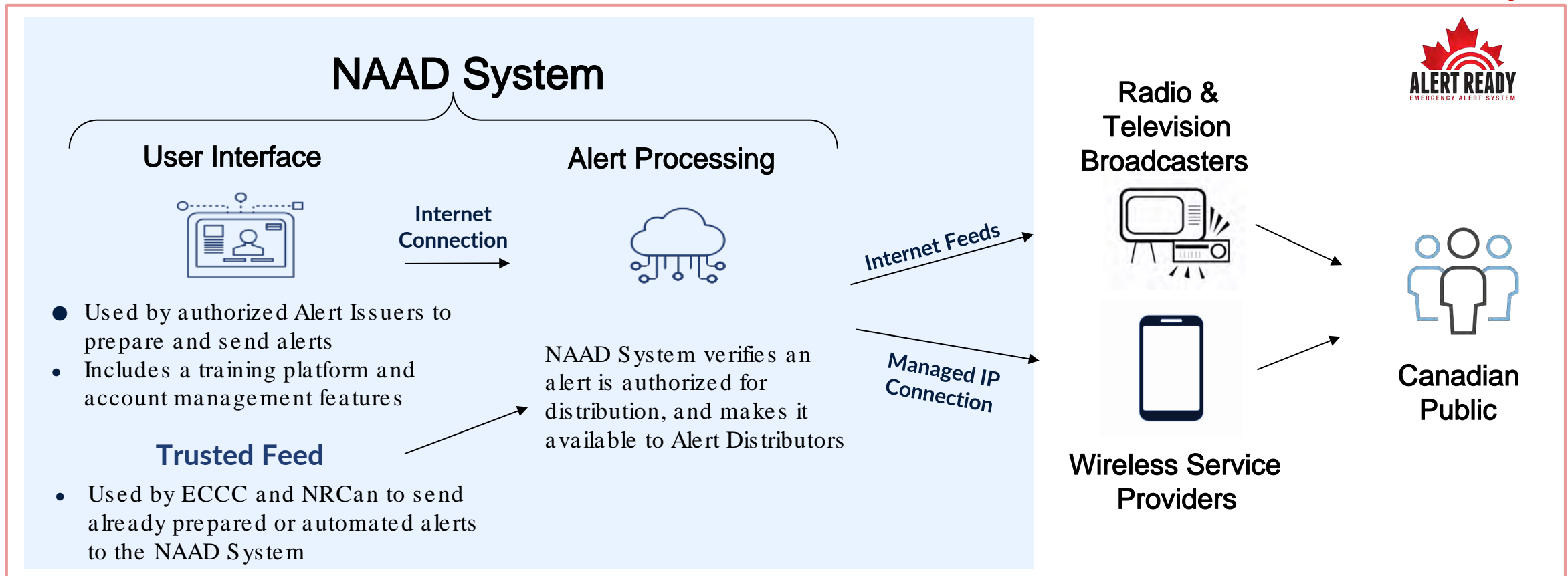
Emergency alerts for imminent threat to life situations (tornado, AMBER, forest fire, etc.) that interrupt TV and radio broadcasts and are delivered immediately to wireless devices.

Non Broadcast Immediately (Non-BI)

Watches, warnings and advisories for non-life threatening situations (wind warnings, boil water advisories, special weather statements, etc.). Distributed at the discretion of media and available through various mobile apps.

Alerting System Infrastructure

Alert Ready



Using ATSC 3.0 to Bridge an Alert Distribution Validation Gap

Background

- The NAAD System receives confirmation from all wireless operators of the reception of an emergency alert
- Currently outbound alert messages to broadcasters are not confirmed upon receipt

Why / Benefits

- Respond to inquiries from alert issuers and the regulator about the distribution reach of an emergency alert
- Generating and archiving broadcaster confirmation messages assists in troubleshooting alert distribution issues.

Project Definition

- Pelmorex wanted to explore receiving emergency alert reception confirmation from broadcasters, similar to Wireless.
- Worked with the B²C lab to create a prototype

Technical Overview & Demonstration

Orren Johnson

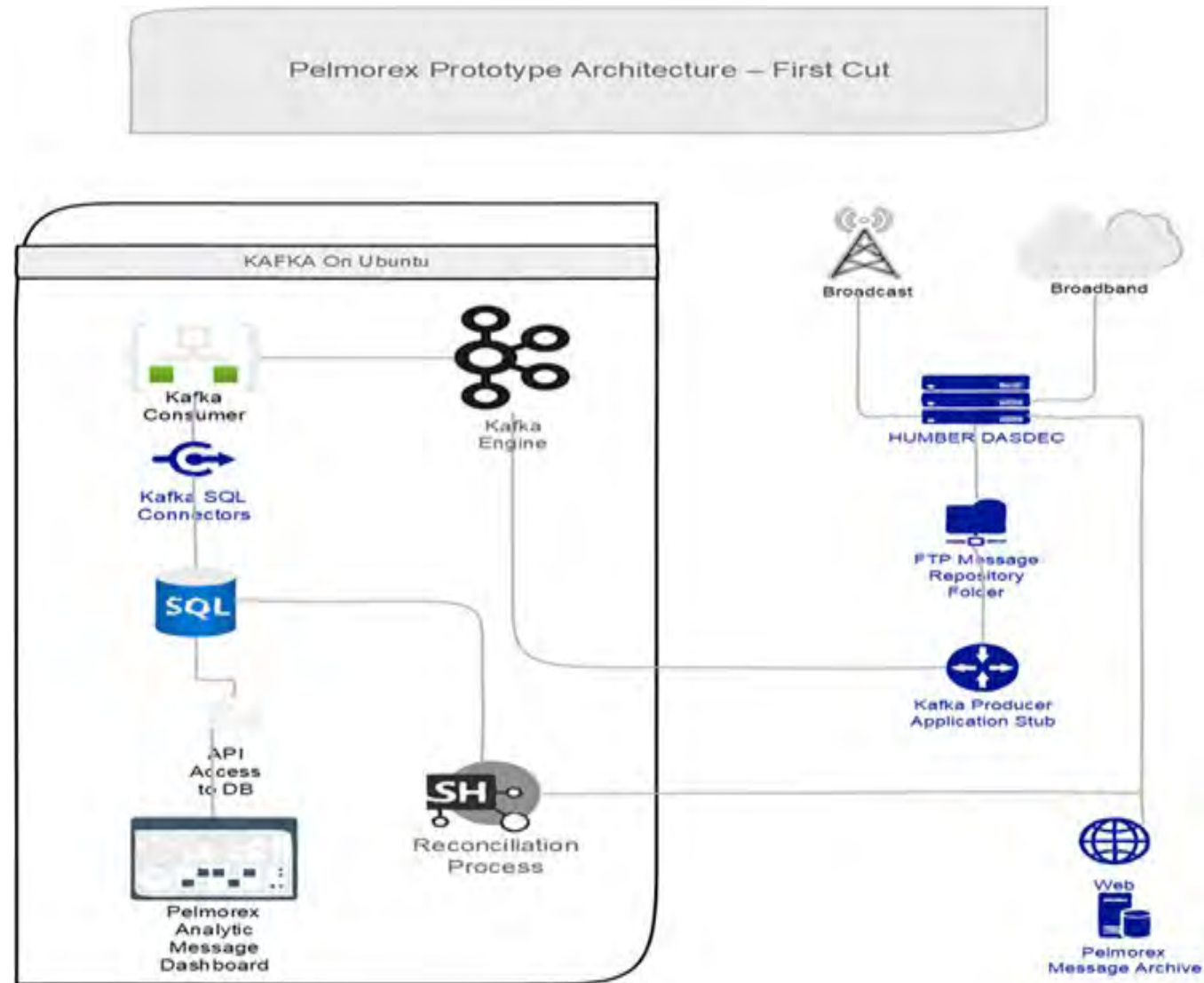
Overview

- Project Requirements
- Architecture Implementation
- Demonstration
- Questions

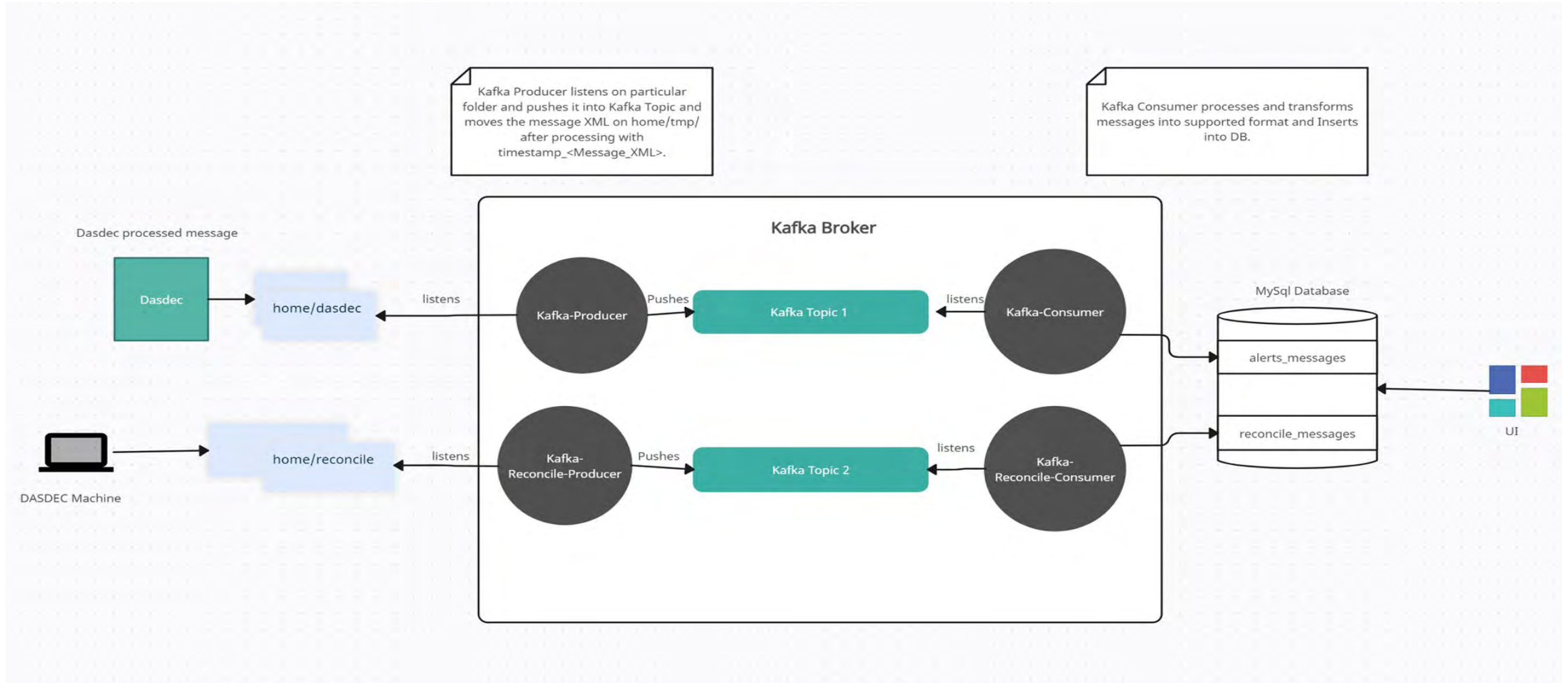
Project Requirements

- This project will enable the delivery of alerts through the ATSC 3.0 broadcast network; the B²C Lab will be instrumental in helping Pelmorex Corp. address critical message confirmation, geo-targeting, and localized messaging capabilities.
- Currently, outbound alert messages to broadcasters still need to be confirmed upon receipt. This can result in uncertainty regarding the extent of the broadcast coverage for a specific alert. To resolve this issue, Humber's B²C Lab along with Pelmorex Corp. will develop and test an alert message receipt confirmation capability that leverages the ATSC 3.0 broadcast ecosystem.
- A Dashboard will be built to encompass the receipt message and display some rudimentary analytical outputs

Architecture Implementation - Physical



Architecture Implementation - Process



Architecture Implementation - Dashboard

Add Filter											
No.	Identifier	Effective	Event	Expires	Headline	Message Type	Sent	BI	Boxes Received	Boxes Processed	Boxes Not Processed
1	Effective	2/7/2024, 21:19:06	qualité de l'air	2/8/2024, 21:17:06	avertissement de smog en vigueur	Update	2/7/2024, 21:33:16	No	1 / 2	0 / 2	1 / 2
2	Event	2/7/2024, 21:19:06	qualité de l'air	2/8/2024, 21:17:06	avertissement de smog en vigueur	Update	2/7/2024, 21:19:06	No	1 / 2	0 / 2	1 / 2
3	Expires	2/7/2024, 21:19:06	qualité de l'air	2/8/2024, 21:17:06	avertissement de smog en vigueur	Update	2/7/2024, 21:33:16	No	1 / 2	0 / 2	1 / 2
4	Headline	2/7/2024, 21:19:06	qualité de l'air	2/8/2024, 21:17:06	avertissement de smog en vigueur	Update	2/7/2024, 21:19:06	No	1 / 2	0 / 2	1 / 2
5	Message Type	2/7/2024, 17:28:15	freezing drizzle	2/8/2024, 09:24:43	freezing drizzle advisory in effect	Update	2/7/2024, 17:28:15		1 / 2	0 / 2	1 / 2
6	Sent	2/7/2024, 17:28:15	freezing drizzle	2/8/2024, 09:24:43	freezing drizzle advisory in effect	Update	2/7/2024, 17:28:15		1 / 2	0 / 2	1 / 2
7	BI	2/7/2024, 17:16:51	fog	2/8/2024, 09:14:57	fog advisory in effect	Update	2/7/2024, 17:16:51		1 / 2	0 / 2	1 / 2
8	urn:oid:2.49.0.1.124.1774405874.2024	2/7/2024, 17:16:51	fog	2/8/2024, 09:14:57	fog advisory in effect	Update	2/7/2024, 17:16:51		1 / 2	0 / 2	1 / 2
9	urn:oid:2.49.0.1.124.1151325003.2024	2/7/2024, 16:43:54	air quality	2/8/2024, 08:35:08	special air quality statement in effect	Update	2/7/2024, 16:43:54		1 / 2	0 / 2	1 / 2

Demonstration

Conclusion

Future Evolution of Alert Ready

Technology

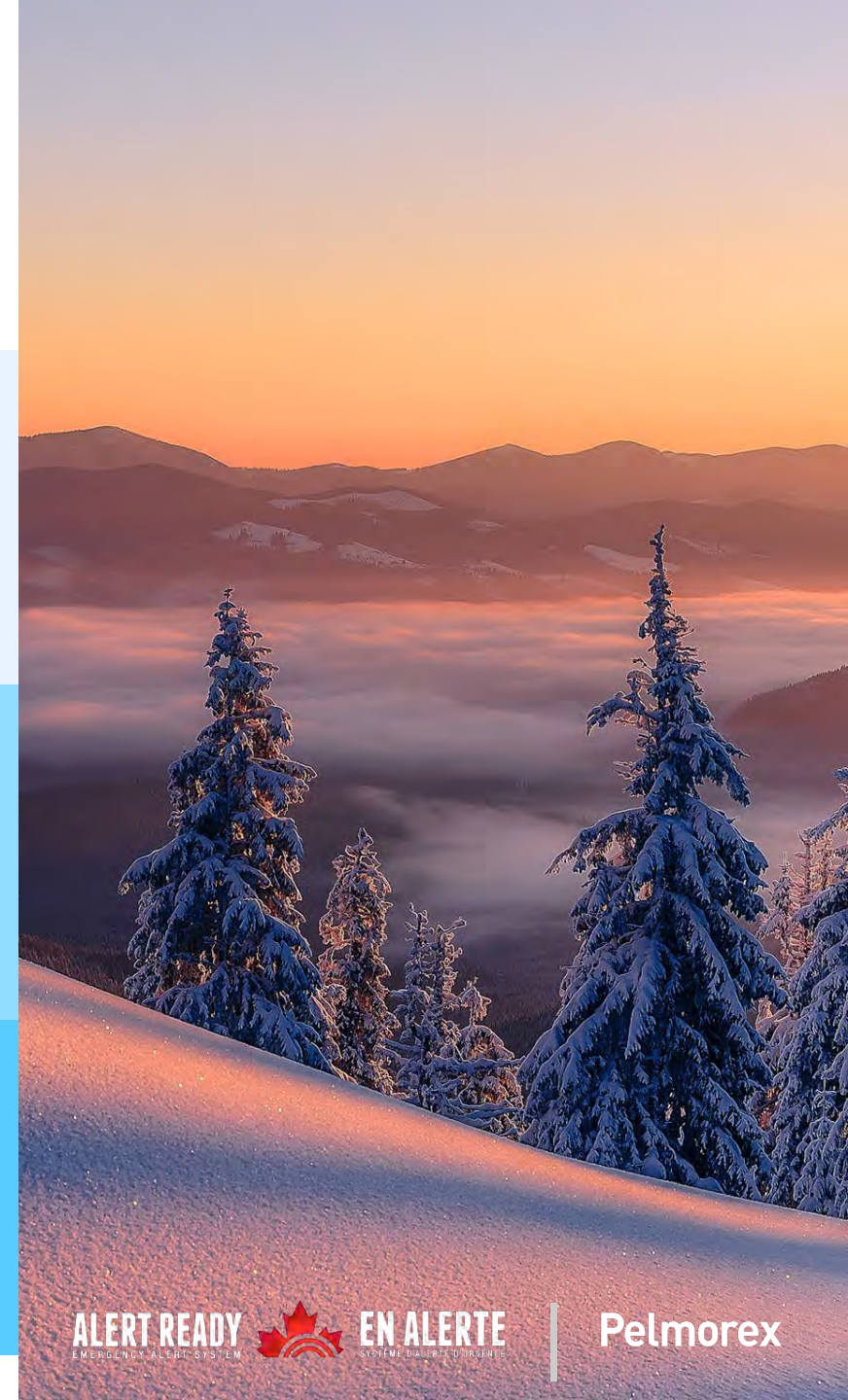
- More precise geotargeting of alerts
- New or improved capabilities (additional languages, TTS, content, etc.)
- New device/platform adoption (mobile apps, streaming devices, etc)

Process

- Best practices to ensure a more consistent use of Alert Ready
- Standardization of alert criteria
- Governance model

Canadian Public

- Educate people on the Alert Ready system
- Focus on awareness and preparedness
- Manage expectations in meeting the needs of Canadians



Conclusion and Q&A Period

- **Bridging the Confirmation Gap** : The Humber B²C Lab and Pelmorex prototyped an alert message receipt system utilizing the ATSC 3.0 broadcast standards to confirm alert reception by broadcasters, addressing a critical validation gap in current distribution.
- **CRTC Notice of Consultation** : This prototype demonstrates that the capability exists should the CRTC mandate to require alert reception and distribution confirmation by broadcasters.
- **The Future Evolution of Alert Ready** : There are opportunities to leverage the ATSC 3.0 standards to build new technical capabilities and deploy future system enhancements for effective, targeted and relevant emergency alerting in Canada.

Questions?





Pelmorex

Provide our partners with the most reliable, secure and effective public alerting system to keep Canadians safe and informed in both official languages.

Martin Bélanger

Head of Alerting

mbelanger@pelmorex.com

Thank You

