

Safety Technologies

Locomotive Video and Voice Recorder

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What is Metrolinx?

Metrolinx was created in 2006 by the Province of Ontario as the **first Regional Transportation Agency** for the Greater Toronto and Hamilton Area.

Plan



Build

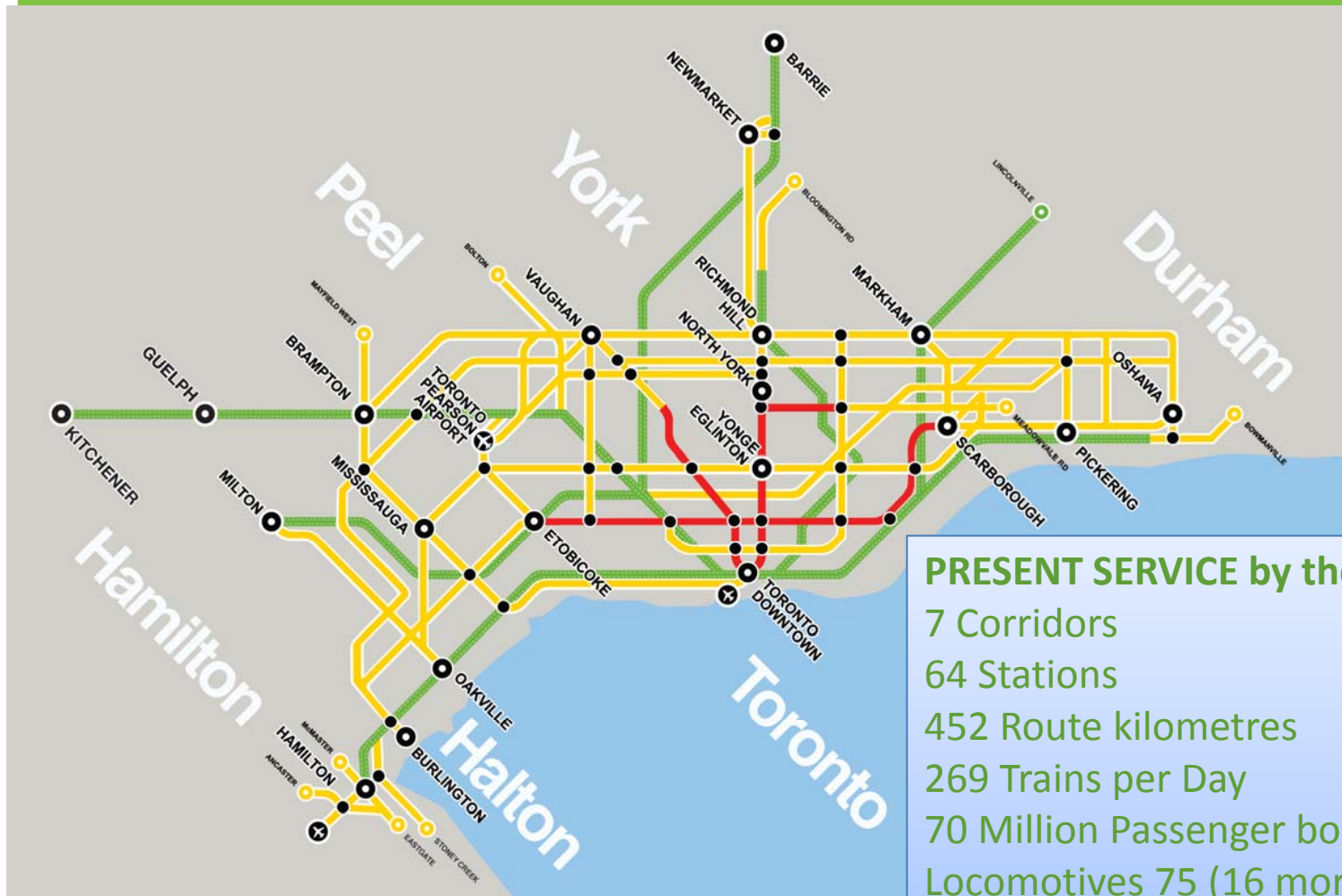


Operate



The Big Move Strategy #1:

“Build a comprehensive regional rapid transit network”



PRESENT SERVICE by the Numbers

7 Corridors

64 Stations

452 Route kilometres

269 Trains per Day

70 Million Passenger boarding's a year

Locomotives 75 (16 more on order)

Bi-level coaches 630 (200 on Order)

GO Transit – Safety is our Priority

GO Transit took on the initiative as it aligns with our passenger charter.

“TO ALWAYS TAKE YOUR SAFETY SERIOUSLY – The safety of our riders, employees and all of those who come into contact with our service is at the core of everything we do”.

Metrolinx Business Environment Scan

Railway safety is of heightened public interest.

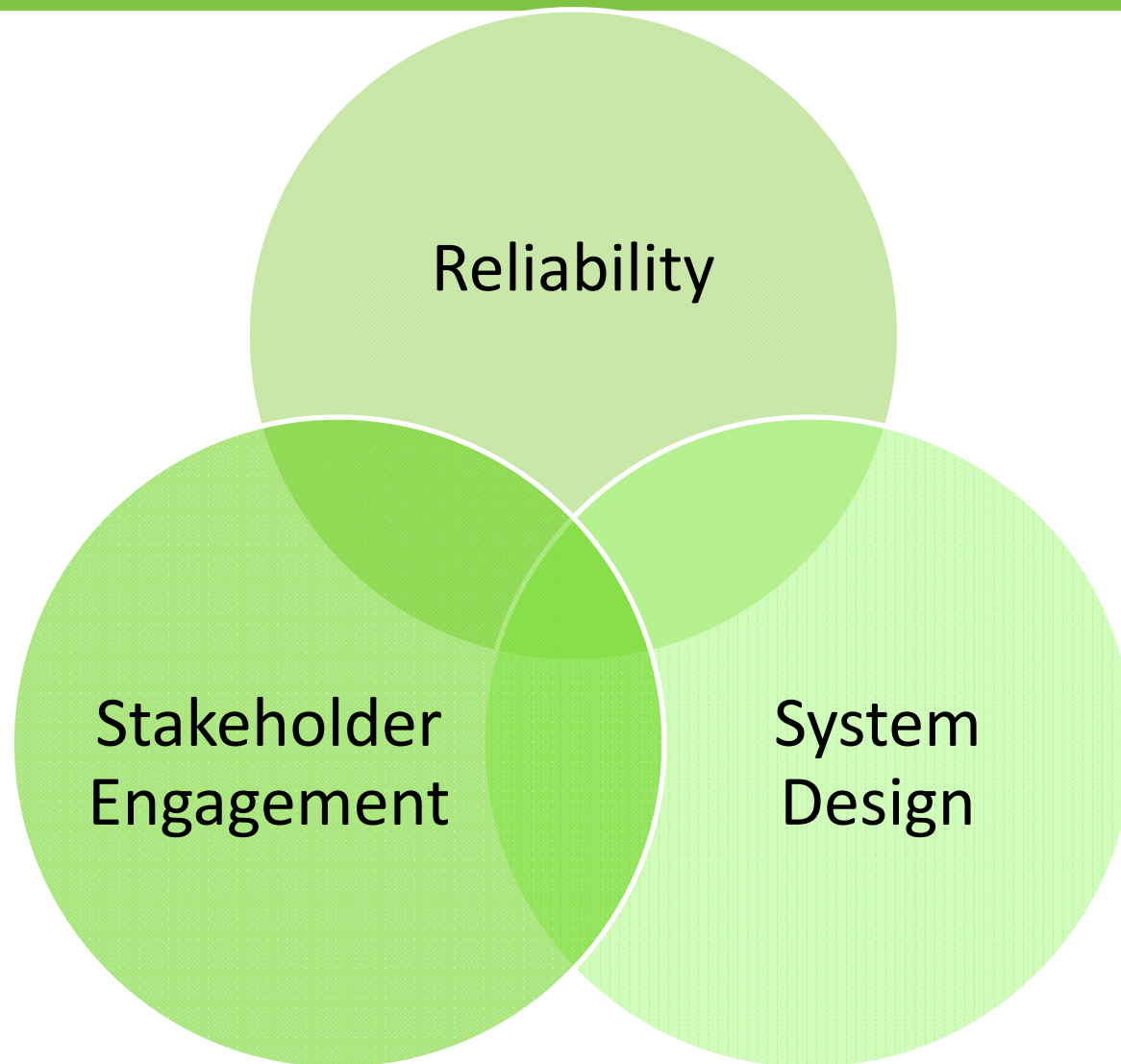


Why Develop a Video and Voice Recorder?

- Development of an LVVR system began in late 2013.
 - Recommendation came from TSB report on VIA Rail incident.



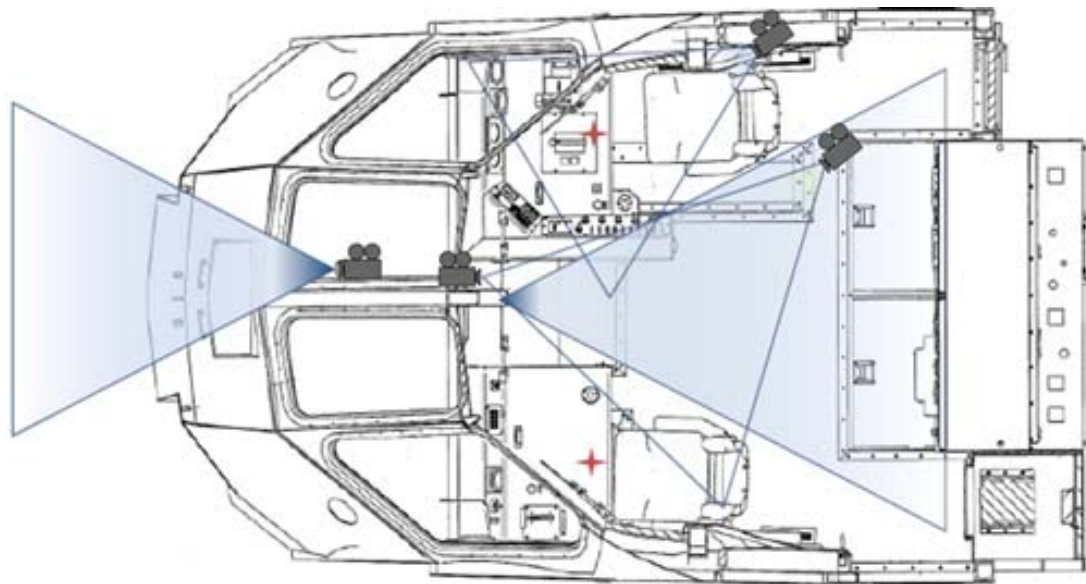
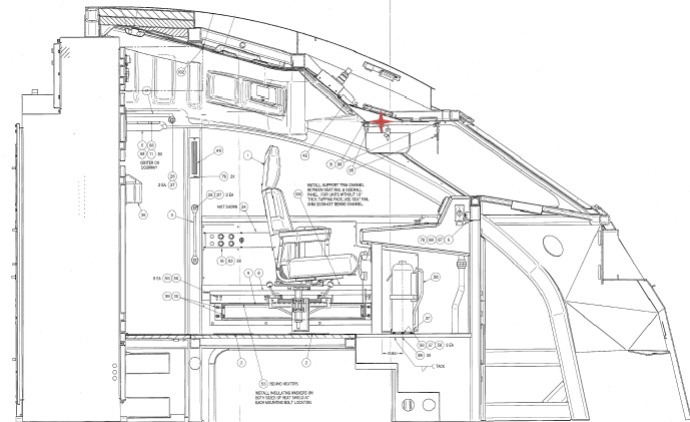
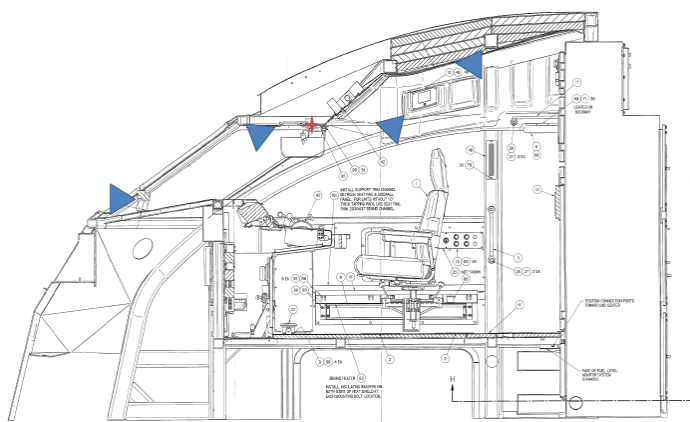
Challenges



System Requirements

REQUIREMENTS		
<u>Primary</u>		<u>Secondary</u>
<u>Audio</u>	<u>Video</u>	<u>System</u>
<ul style="list-style-type: none"> • Audible recording and playback during locomotive operation (worst case scenario tested) before software adjustments. 	<ul style="list-style-type: none"> • Clarity during day and night operations (low light, sun reflection, glare, shadows). 	<ul style="list-style-type: none"> • Able to store information according to privacy commissioner recommendations, and adjust to future need. • Maximum 3 days of recording.
<ul style="list-style-type: none"> • Multiple microphone inputs (area and individual). 	<ul style="list-style-type: none"> • Multiple camera inputs. 	<ul style="list-style-type: none"> • Able to connect to current event recorder and have first-in, first-out memory.
<ul style="list-style-type: none"> • Low microphone visibility/intrusion. 	<ul style="list-style-type: none"> • Tamper proof and low visibility/intrusion. 	<ul style="list-style-type: none"> • Data should not be easily accessible for download, transferring, viewing and modifying.
<ul style="list-style-type: none"> • Individual outputs for Locomotive Engineer and Conductor. 	<ul style="list-style-type: none"> • Ability to work with forward facing camera. 	<ul style="list-style-type: none"> • Ability to expand system for future needs (expandable memory and system capabilities).

System Layout



Sample Layout Pictures



Next Steps

- Testing
- Installation
- Training
- Continued Study
- Formalize Data Use



Guidelines and Custody and Control

- Authorized Access
- Confidentiality
- Freedom of Information
- Coroner or Law Enforcement
- Custody, Control, Retention and Disposal

April 2015

Prepared by System Safety, Safety & Security



GO Transit
Closed Circuit Television Video (CCTV) and
Audio Visual (AV) Policy (CA-0405-10)





METROLINX

An agency of the Government of Ontario

