

York Region ITS Update 2016 ITS Technology

Ghassan Saad, Supervisor

Traffic Management Operations, Transportation Services

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Outline

- York Region Quick Facts
- Intelligent Transportation Systems (ITS) Strategies
 - CTCS Conversion
 - Transit Signal Priority
 - ATMS
 - CCTV Expansion
 - Bluetooth
- Updates on ITS Systems Progress
- Next Steps



York Region Quick Facts

- Area - 1776 km²
- Population
 - 2013 – 1.1 million
 - 2041 – 1.8 million
- 1,100 linear lane km of roads
 - 40% Urban
 - 60% Rural
- 800+ traffic control signals



ITS Strategies

- Central Traffic Control System (CTCS) Conversion
- Transit Signal Priority Expansion
- Advanced Traffic Management System (ATMS)
- Arterial CCTV Camera Coverage
- Bluetooth Evaluation for Travel Time Information



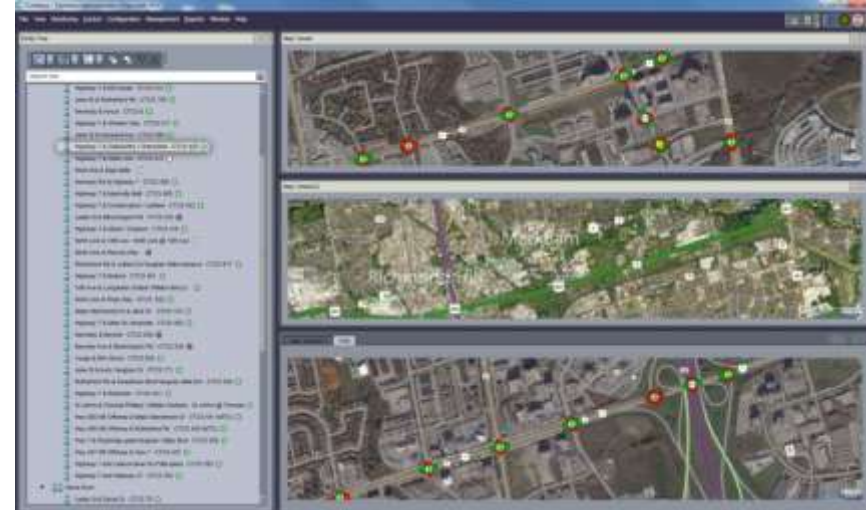
New Central Traffic Control System

- 852 Traffic Control Signals
- 193 Centracs (increase by ~100 per year)
- 659 CTCS (decrease by ~100 per year)



Enhanced Control Functionalities

- Second by second communication
- Instant controller malfunction notification
- Split monitor reports
- Full functionality in programming
- Open source graphic interface with GPS settings



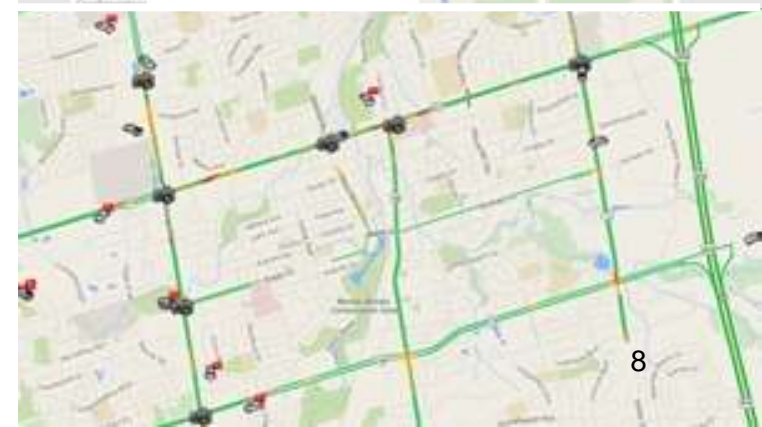
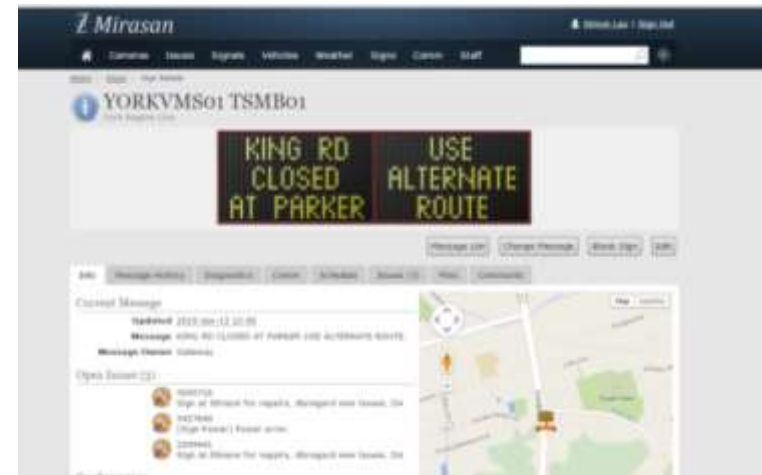
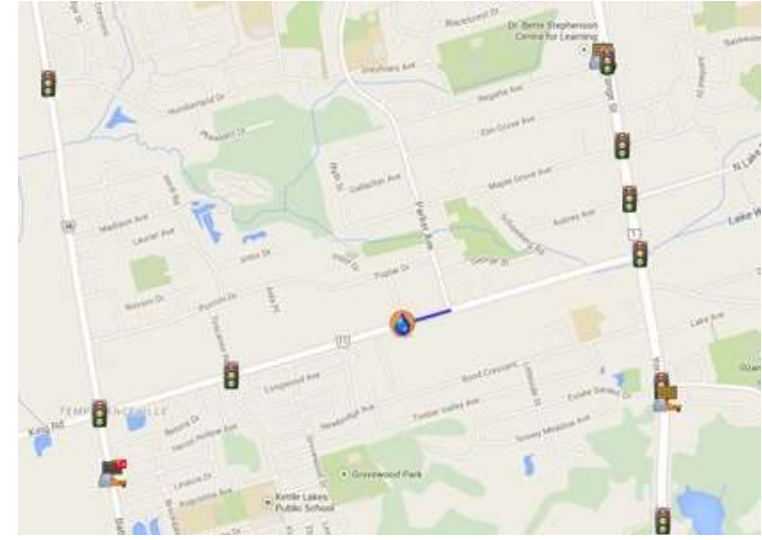
Transit Signal Priority/Emergency Vehicle Pre-emption

- 852 Traffic Control Signals
- 157 TSP (IR: 133, GPS: 24)
- 753 Emergency Vehicle Pre-emption



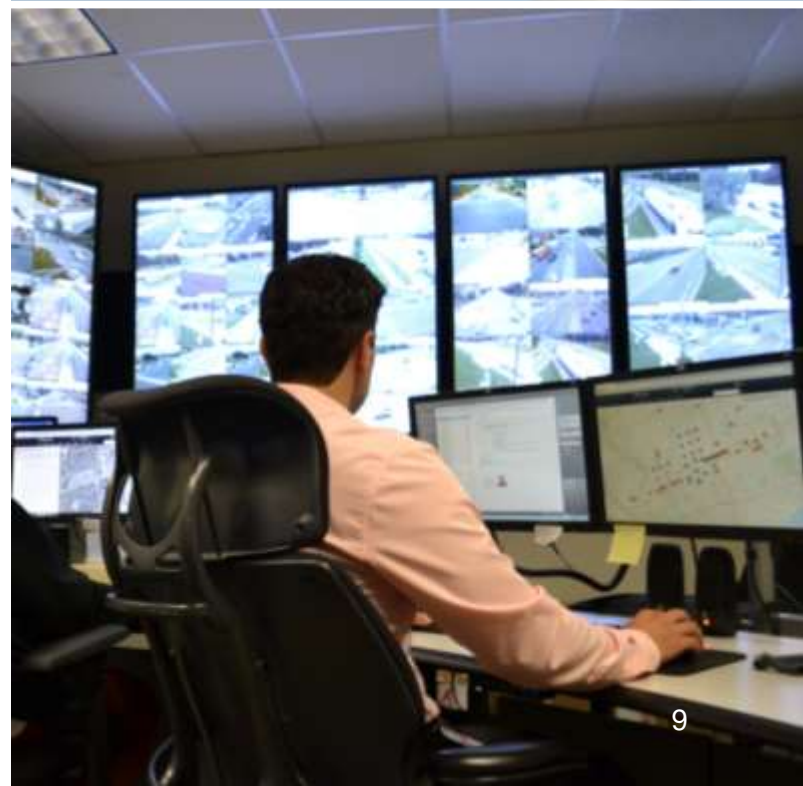
Advanced Traffic Management System

- Currently using Mirasan
- Input and tracking of both planned and emergency incidents
- Equipment Status
- PVMS monitoring and control
- Integration with
 - Fleet Management
 - Open data from other sources

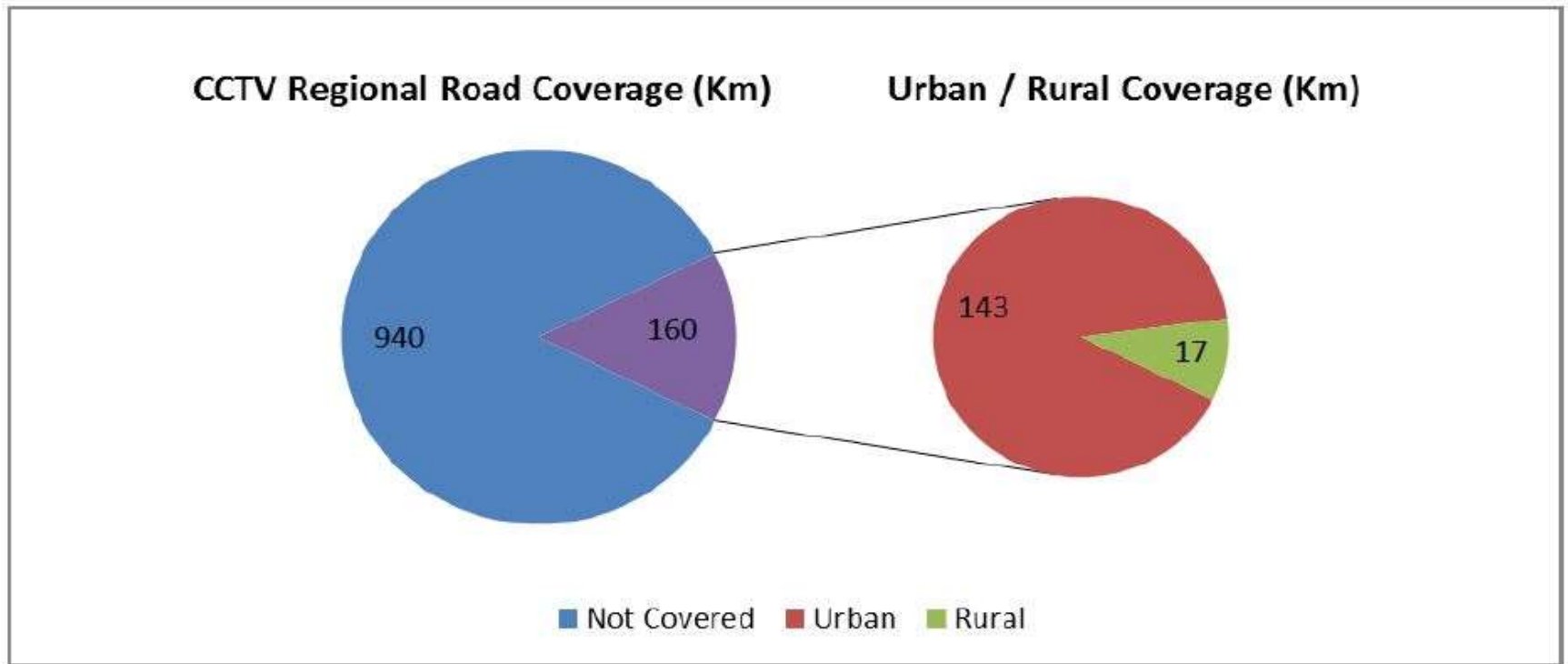


Expansion of Arterial CCTV Cameras

- Total number = 110
- Added 20 in 2015
- Target to add ~15/year



Urban/Rural CCTV Coverage



Total Regional Road: 1,100 km (linear km)

Total Regional road covered by CCTV: 160 km (linear km)

Percentage of overall CCTV coverage = 15%

Percentage of urban areas covered = 33%

Percentage of rural areas covered = 3%

PAN AM Games Participation



Traffic Operations Centre (TOC)



CCTV



PVMS

City of Markham Games Route Network:
Markham Pan Am Centre (ATOS) and Angus Glen Golf Club

City of Vaughan Games Route Network:
York University

Maps Legend:

- ★ Venue
- Angus Glen: July 14 to 19, 2015
- ATOS Markham: July 11 to 25, 2015
August 8 to 14, 2015
- York University: July 11 to 25, 2015
August 8 to 14, 2015

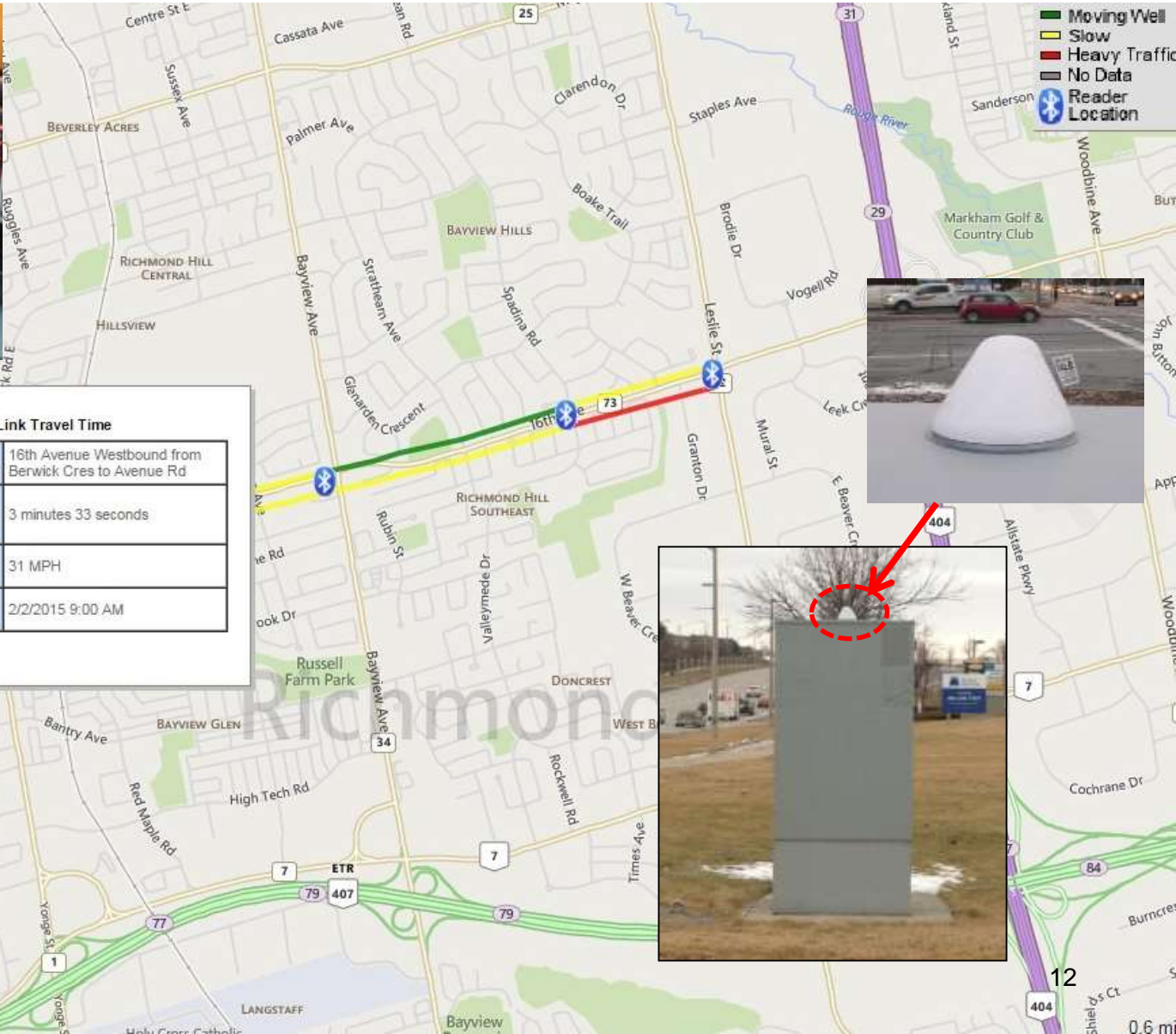
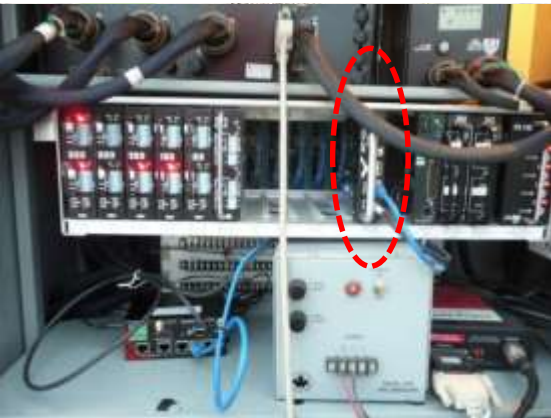
For more information about York Region's Open Roads program, please contact permits@york.ca, 905-830-4444 ext. 75700 or visit york.ca/roadpermits.

For more information about the Toronto 2015 Pan Am/Parapan Am Games, please visit toronto2015.org

York Region

Permits

Bluetooth Evaluation



Roadway Link Travel Time	
Roadway	16th Avenue Westbound from Berwick Cres to Avenue Rd
Avg Travel Time	3 minutes 33 seconds
Avg Speed	31 MPH
Data Time	2/2/2015 9:00 AM



Discussion

Ghassan Saad

Supervisor, Traffic Management Operations
Roads and Traffic Operations Branch
Transportation Services

905-830-4444 ext. 75244
ghassan.saad@york.ca

