Transit Innovation Partnership

Information Session

November 14, 2018

PARTNERSHIP for New York City

MTA New York City Transit

Transit Tech Lab

Program that enables tech companies to propose innovative solutions to MTA challenges. Selected companies pilot with the MTA for one year.

MTA & NYCT Leadership

Pat Foye
MTA
President

Veronique Hakim
MTA Managing Director

Janno Lieber
MTA Chief Development Officer

Andy Byford
NYCT
President

About MTA

MTA

Bridges and Tunnels

Capital Construction

Long Island Rail Road

Metro-North Railroad

New York City Transit

About NYCT

NYCT

Subways

Buses

Access-A-Ride

Staten Island Railway

Challenge

Subway Challenge	**How can we better predict subway incident impacts and serve customers?**
Bus Challenge	**How can we make buses faster and more efficient?**

Who Should Apply?

Growth stage companies with a great product that can be used to address the subway or bus challenges. This may include technology that:

- Leverages machine learning
- Analyzes social media sentiment
- Develops predictive models
- Improves real-time customer communication
- Uses computer vision to identify bus lane obstructions
- Uses sensors such as lidar and radar, connected infrastructure
- Offers route analysis, modeling, and more!

Eligibility Requirements

To be evaluated, applicants must meet these requirements:

- Growth-stage companies with innovative solutions to one of the challenges.
- Solutions do not necessarily need to be designed for a transit system, but need to address the challenge.
- Technology must be at least in beta version and successfully deployed to customers.
- Independently owned and operated; subsidiaries of larger companies are not eligible.
- Registered as a corporation, joint venture, partnership or LLC (with Federal Tax ID) and with the NYS Department of State, Division of Corporations, State Records & UCC

Evaluation Criteria

Impact – 25%

a. Workable in MTA environment
b. Presents a viable solution relevant to the chosen challenge
c. Potential positive impact on Performance/Service Delivery
d. Potential positive impact on Customer Experience

Product – 25%

a. Product is in post-prototype phase and available for live demonstration
b. Is able to present metrics or other evidence illustrating market fit, including if any of the applicant's products are used by paying customers.

Team – 25%

a. Qualified, compatible team
b. Financial position (funding, revenue and burn rate) sufficient to ensure participation through duration of TTL program
c. No conflicts of interest
d. Available for participation in person in NYC throughout program

Value – 25%

a. Presents a new way of deriving more value from existing MTA assets
b. Pricing is competitive with or lower than alternative solutions
c. Presents a potential new revenue source or cost savings for the MTA
d. Presents an opportunity to more efficiently manage infrastructure, operations or customer service

What Do You Get?

- An accelerated, pre-approved process to facilitate collaboration
- Each application submitted is reviewed by relevant domain experts at NYCT
- Direct access to relevant decision makers and subject matter experts
- Exposure to MTA leaders, private sector investors, and industry experts
- Eight weeks of programming for finalists with a customized plan to evaluate technical integration
- Opportunity to participate in year-long pilot

Key Dates

Applications Due	November 30, 2018	Remote
Semi-finalist Demo Day	January 15-17, 2019	In person
Accelerator Starts	February 25, 2019	In person
Pilot Begins	June 10, 2019	In person

Kurt Raschke

Manager, Technology Initiatives

Subway Data:

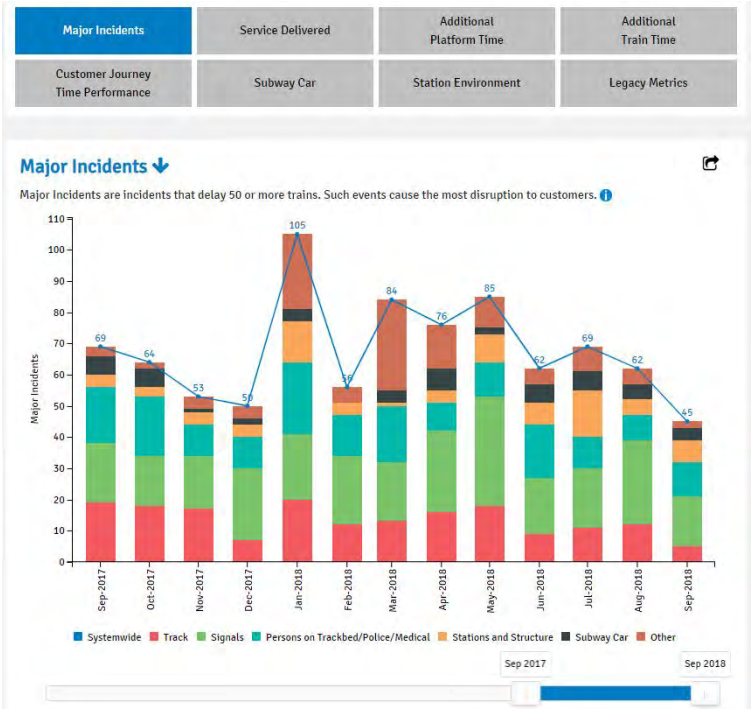
- Historical subway arrival time data using GTFS-RT
- Major Incidents archive
- GTFS subway schedule and line strip maps
- MTA real-time arrival information
- Published service alerts
- Planned service changes (the Supplemented GTFS feed)

Kurt Raschke

Manager, Technology Initiatives

Available Data

- Major Incidents
- Service Delivered
- Customer Journey Time Performance
- Subway Car
- Legacy Metrics
- Station Environment
- And more!



Sunil Nair

Chief Officer, Bus Technology Systems

Problem: Bus lanes must be clear to be effective

Photo: Gustavo Solis, DNA Info

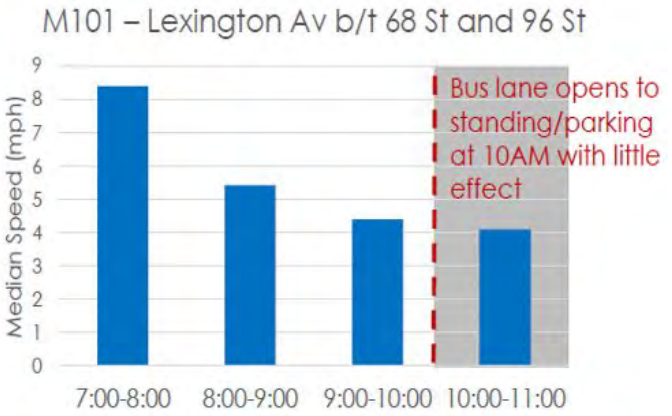


Photo: Brooklyn Daily

Photo: Streets Blog

Sunil Nair

Chief Officer, Bus Technology Systems

Challenge: Can existing on-bus cameras be used to identify bus lane violations?

3,300 of NYCT's 5,500 buses have high resolution cameras installed facing forward towards traffic.

On bus

- Cellular Capabilities: All buses have 4G LTE cellular connectivity via Verizon.
- Electricity Specs: System power is 24 volts (on-bus)

At depot

- WiFi: All bus depots have fuel-lane WiFi and NYCT is deploying depot-wide WiFi.
- Power: Depots provide 120V AC power connectivity via electrical outlets in designated areas.

Sunil Nair

Chief Officer, Bus Technology Systems

Bus Camera Technical Specifications:

- High-definition images in mass transit surveillance applications
- Camera can generate three separate H.264 streams simultaneously
- True day/night functionality and built-in infrared illuminators for capturing images in various lighting scenarios

Further Challenge Resources

Subway Challenge

- Fast Forward: The Plan to Modernize NYCT
- MTA Subway Performance Metrics Dashboard
- Base Subway Schedules, Train Arrival Times (GTFS-RT), and more
- Historical Train Arrival Time Data for October 2018

Bus Challenge

- NYCT Bus Performance Dashboard
- Bus Schedules and Bus Route Location Data (Requires Registration)
- Specifications for Front-Facing Cameras in Buses [.pdf]
- 90 Second Sample Video Feed from an MTA Bus [.zip]

Key Dates, Q&A

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Thank you.