NOTE: This is a visioning document for a workshop on station crowding. This is not a real press release for media distribution or use

MTA IMPROVES ACCESS TO TRANSIT
HELPS CUSTOMERS AVOID CROWDED STATIONS AND FIND BEST RIDE OPTIONS

Disclaimer: For visioning purposes only, document may not reflect current state of project

(New York, NY December 3, 2021) Today, the Metropolitan Transit Authority (MTA) launched a new solution to reduce station crowding and provide riders with real time data on station, train and system conditions and transit options. Using sensors, data analytics and digital kiosks, the MTA is now providing riders with up to date station crowding status so riders can make journey decisions before they enter stations. The solution is designed to reduce congestion by diverting riders to other transit options and improving rider satisfaction by minimizing delays and inconveniences.

MTA subway stations can become overcrowded by peak rider use, weather impacts, construction and incidents. Crowded stations are uncomfortable for many riders, including people concerned about social distancing, carrying parcels, traveling with children or pets, senior citizens and those with mobility issues. MTA research identified stations most prone to overcrowding and also that riders lacked the ability to find out these stations were crowded until after they had entered the station, passed through the turnstile and started down the stairs, escalator or elevator. By the time riders realized the situation they had already paid the fare creating an unfavorable experience and eroding trust in the MTA.

The MTA solution combines station based sensors, data analytics and kiosks outside subway and bus stations. The sensors are installed on subway station platform walls and are able to count the specific number of people on the platform. The sensors are powered by electricity and use the MTA Wi-Fi network to send data to a cloud based software program. The program combines the rider counts along with detail on the platform size to constantly calculate the density of people as people arrive and depart. Crowding levels are categorized by different levels of rider density. The real time crowd level at different stations is available on the MTA website, mobile app, on kiosks outside stations and to software developers through an application interface (API).

"There is no NYC without the MTA. Earning ride trust and providing the best possible transit experience post COVID is at the core what the MTA does and new technologies are continually creating ways for us to improve and expand how we communicate and engage riders," said Bob Jones MTC Chairman. "With this new service, the MTA is giving riders control of their transit by providing real time crowding data so they can make the best decisions for how to travel across New York City."

Riders can access crowding data in multiple ways - from a computer, mobile device or on MTA digital signage at stations and bus stops. Riders approaching a subway station entrance see a digital sign with the current crowding level signified by color coding of green, yellow and red. A red color coding indicates that the station platform is at capacity and riders should expect delays and enter with caution. A red code is supported with other rider transit options, including bus, nearby subways and bike share. Using a computer or mobile device, users can further explore transit options, route planning and obtain detailed information on station conditions and potential incidents. Route planning options show crowding levels at all stations on a journey so riders can plan. Riders can also set custom alerts to be informed when specific stations are crowded.

"As a returning commuter being able to receive real time information at my fingertips has made all of the difference. I was delighted to see the alert outside the station that my usual stop at Grand Central

was under construction and crowded. I took the local one more stop and avoided the crowds," said Sarah Sylvester, Bronx resident. "I know this is information I can trust, that is up to date and as I return back to taking the train I feel a little more comfortable being informed and in control." For more information please visit www.mta.com/crowding.

MTA Station Crowding Frequently Asked Questions (FAQ)

1. What are we building and why?

The MTA is building a sensor installation and digital solution to count people in subways stations, the analytics to use that data to identify crowding levels and digital signage to community crowding status and transit options to riders.

2. How does it work?

The solution includes three parts – the sensor network, the analytics platform and digital signage.

> Sensor Network
>
> Analytics Platform
>
> Digital Signage

3. What is the primary value to the MTA and riders?

The MTA will earn trust by improving their ability to provide an enjoyable, hassle free experience for riders. Additionally the MTA will reduce crowding by diverting riders to other options and maximize MTA resources by encouraging riders to use under capacity transit options.

4. Who owns the MTA solution?

The MTA owns the solutions and makes the data available to developers through an API.

5. Does the MTA have open data standards + requirements?

Yes. The MTA has open data standards and requirements. The solution is in compliance.

6. Why is releasing crowding data a good thing?

8. What is the value population for releasing station crowding data?

Releasing crowding data is a good thing because it helps riders make better decisions about how, where and when they use the MTA which improves the customer experience, earns trust and satisfaction with the MTA and helps reduce crowding by directing passengers to other MTA transit options.

9. What existing data sets does the MTA have that can be used for this project?

Existing data sets being used for the solution include station information, including square footage.

10. What data is being collected by the sensors?

The solution sensors are able to count the total number of riders in a station and calculate the density of people on the platform.

11. What are the data privacy standards?

The solution will ensure privacy by not using personal data.

12. What customer data is being used and how do we protect it?

No customer data is used for the solution. Cameras running computer vision applications are used to count the number of riders. The application runs at the edge and the imagery used is stored on a solid state drive and deleted at preset intervals.

13. How much does the solution cost to build and scale?

The capital costs include the purchase and installation of sensors and digital signage. Operating costs include hardware maintenance and costs to support the application.

14. Can it be used to generate revenue and/or reduce costs?

Potentially. The solution will help reduce MTA costs by maximizing the use of resources and reducing the need to put more trains and staff in service. The solution could also be sold to other transportation agencies and other organizations that need crowd mitigation solutions.

15. What does this need to be interoperable with?

The solution needs to be compatible with MTA turnstile data, Omni and PID Camera systems.

16. What is the right algorithm to express crowding (is it station based)?

This will be determined as the prototype is developed.

17. Are there existing examples of this that we can learn from?

Research existing station crowding solutions.

18. What training, education, promotion will be used to drive adoption?

Ideally the solution will include digital signage that does not require training, education or a device.

19. How do we communicate the level of crowing to riders?

The real time crowd level at different stations is available on the MTA website, mobile app, on kiosks outside stations and to software developers through an application interface (API).