

Greater Cleveland Regional Transit Authority



IT-ITS Update

Enhancing Transit Through Technology

Ad Hoc Technology Committee

April 21, 2022



Connecting the Community

Mission

Connecting the Community

Vision

Leading the delivery of safe and creative mobility solutions and community connections

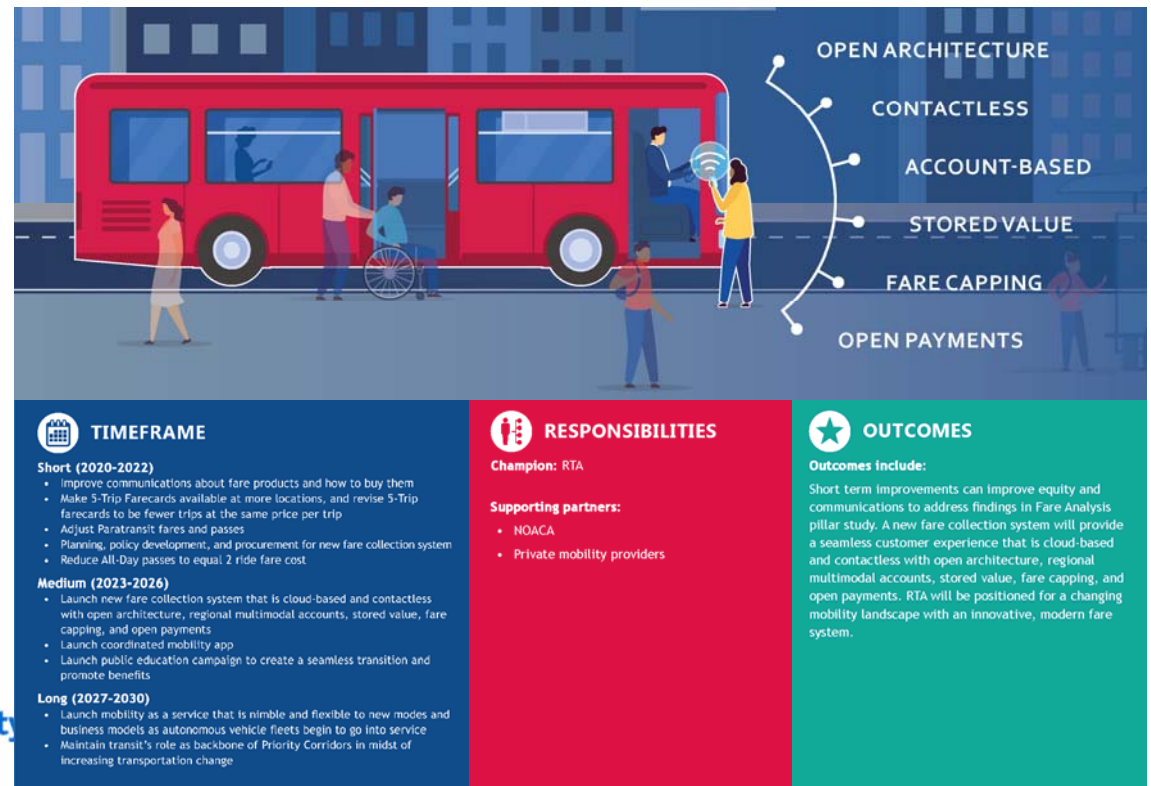
RTA Strategic Plan: Key Initiatives

1. Improve where and when buses travel
2. Improve how streets function
3. Improve how customers pay
4. Improve passenger safety and comfort
5. Engage with emerging technology, data and new mobility
6. Address funding challenges
7. Partner to support vibrant communities and access to job centers

Improve How Customer Pay

- Implement recommendations from Fare Equity Analysis pillar study
- Change RTA fare collection to improve customer experience and better reflect best practices
- Seamless, equitable

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Engage with emerging technology

- Refocus using technology as way to improve the customer experience & equity
- Experiment with connected vehicles
- Improve infrastructure
- Enhance real-time info
- Invest in data security & sharing
- Pilot mobility management

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 TIMEFRAME	 RESPONSIBILITIES	 OUTCOMES
<p>Short (2020-2022)</p> <ul style="list-style-type: none"> • Implement sharing of open information pertinent to customers on public-facing online dashboard • Establish policies with regional partners for data management and common standards for mobility providers on public right-of-way • Conduct a six-month pilot of an autonomous microshuttle and obtain ongoing community feedback <p>Medium (2023-2026)</p> <ul style="list-style-type: none"> • Incorporate dedicated power and dedicated communications into new infrastructure projects in association with partners • Integrate mobility-as-a-service in order to deliver optimal travel solution to customers among all available modes • Collaborate with employees on workforce development and training for new technologies • Vision Zero Implementation <p>Long (2027-2030)</p> <ul style="list-style-type: none"> • Refine policies and practices as driverless technology advances, such as minimizing zero occupancy vehicles on transit corridors • Continue to lead and leverage technological innovation in service of community goals 	<p>Champion: RTA</p> <p>Supporting partners:</p> <ul style="list-style-type: none"> • NOACA • City of Cleveland • Cuyahoga County • Utility providers • Municipalities • Private and nonprofit partners • Neighborhood groups 	<p>Outcomes include:</p> <ul style="list-style-type: none"> • Transit remains the backbone of transportation as new modes, technologies, providers, and business models continue to integrate into the transportation system • Seamless customer experience • Coordinated system of standards, infrastructure, and data that creates efficient public systems and supports an inviting private sector business environment • Emerging technologies that aim to improve air quality, lower mobility costs, and reduce travel times • Equitable distribution of technological benefits • Workforce development that prioritizes expertise of existing RTA employees and expands knowledge in new technologies

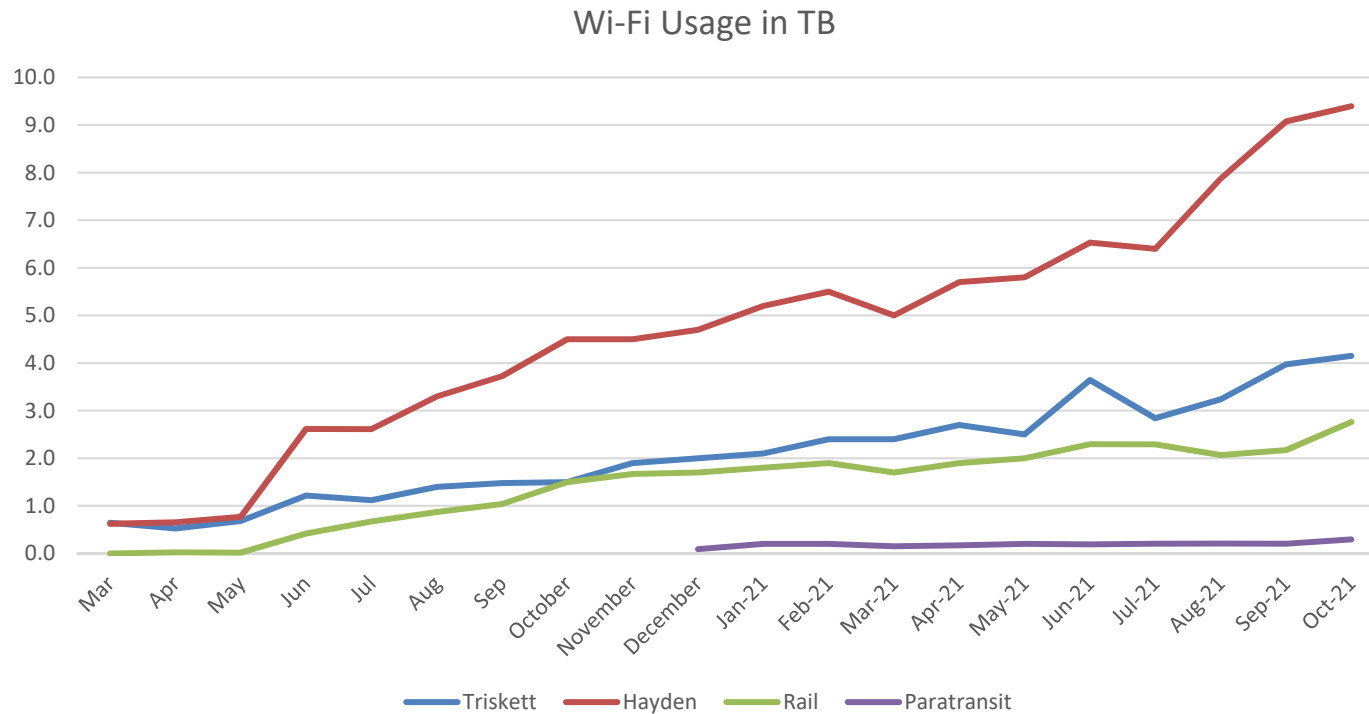
Cleveland's Digital Divide

- 2018 Census Bureau: Cleveland had the lowest rate of connectivity
- 2019 American Community: 30.7% of Cleveland households had no broadband access
- The 2020 COVID-19 pandemic showcased the divide
 - Schools and companies transitioned to remote learning
 - Students and employees may not have had adequate solutions

RTA and the Digital Divide

- In 2019, RTA launched an innovative, radio communication project
- RTA installed mobile routers and hired ATT for unlimited, un-throttled internet service
- As part of the project, RTA launched complimentary Wi-Fi for all riders
- RTA team members were awarded the “Most Innovative” award at the Vontas conference in 2021

RTA Vehicles: Wi-Fi Usage (TB)



RTA Station Wi-Fi

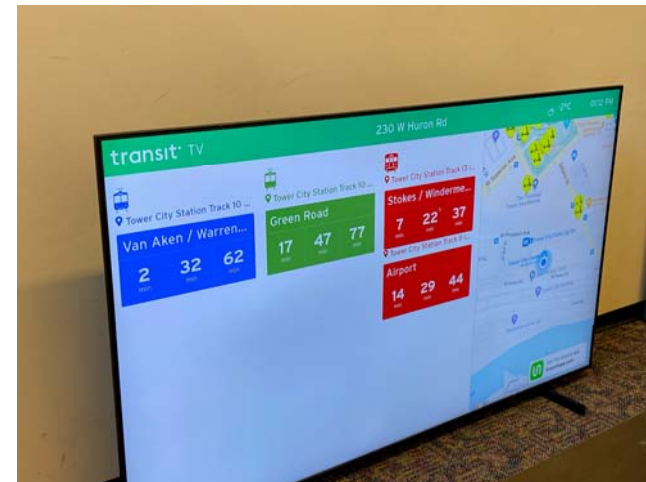
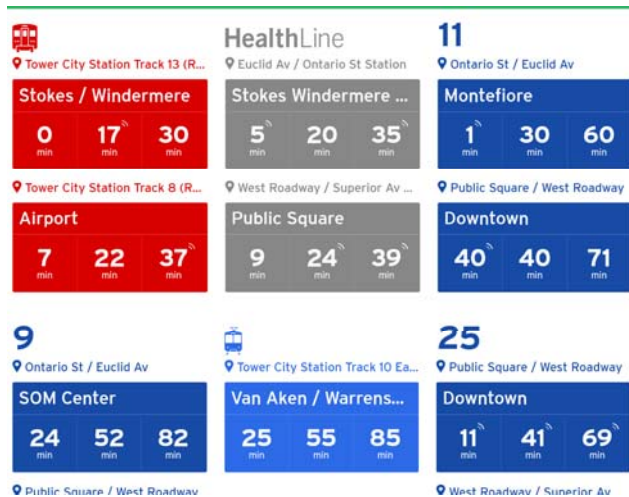


RTA Job Fairs

- In 2021, RTA held multiple job fairs to recruit operators
- RTA used buses and other mobile routers to provide connectivity to applicants and the human resource department



Real-Time TVs



- Real-time information at key stations
- Free Wi-Fi for a fully connected trip

Infotainment: New Buses



Onboard Messages:

- New buses are equipped with multiple screens that display route information
- All buses have audio announcements
 - RTA can now record messages in Spanish

New Fare Collection System

- In May 2022, RTA will soft-launch the new mobile, fare payment app
- As part of the project, RTA will also implement smartcard technology

Smartcards:

- Free for riders
- Provide account based ticket
- Provides fare capping capabilities for fare equity
- Allows riders to load funds (credit card or cash) onto their card

New Fare Collection System



Validator on HealthLine vehicle
Front Door



Validator on HealthLine vehicle
Back Door



Mobile device scan for retailers

Public Comments

- In person
- Call 440-276-4600
- Web form:
 - Submit comments and IT topic suggestions for future meetings. Webform comments will be sent to the committee and staff.

Questions

