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

Greater Cleveland Regional Transit Authority
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

Greater Cleveland Regional Transit Authority
Engage with emerging technology

- Refocus using technology as a 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

**Greater Cleveland Regional Transit Authority**

**TIMEFRAME**

Short (2020-2022)
- 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 microbus to obtain community feedback

Medium (2023-2036)
- 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 solutions to customers among all available modes
- Collaborate with partners on workforce development and training for new technologies
- Ride Zero implementation

Long (2027-2030)
- Refine practices and practices as disruptive technology advances, such as minimum zero occupancy vehicles on transit corridors
- Continue to lead and leverage technological innovation in service of community goals

**RESPONSIBILITIES**

Champion: RTA
Supporting partners:
- RTA
- City of Cleveland
- Cuyahoga County
- Utility providers
- Municipalities
- Private and nonprofit partners
- Neighborhood groups

**OUTCOMES**

Outcomes Include:
- 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)

Wi-Fi Usage in TB

Greater Cleveland Regional Transit Authority
RTA Station Wi-Fi

RTA Free WIFI Locations

5 Stations with Wi-Fi access to expand in 2022
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

Greater Cleveland Regional Transit Authority
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