EZfare Update
Improve How Customer Pay

Greater Cleveland Regional Transit Authority

RESPONSIBILITIES
Champion: RTA
Supporting partners:
- NCUCA
- Private mobility providers

OUTCOMES
Outcomes include:
Short term improvements can improve equity and communications to address findings in Fare Analysis pillar study. A new fare collection system will provide a seamless customer experience that is cloud-based and contactless with open architecture, regional multimodal accounts, stored value, fare capping, and open payments. RTA will be positioned for a changing mobility landscape with an innovative, modern fare system.
Fare Collection Vision

Short Term:
• Replace RTA’s current mobile payment app
• Purchase and install ticket validators on vehicles
• Keep the current fareboxes
• Begin to incorporate fare capping and smart cards
• Create a connected, regional fare system

Long Term:
• While implementing the short term objectives
  – Evaluate the replacement of TVMs, CSKs and fareboxes
Project Summary

Project is split into 3 phases

• Proof of Concept – Complete
  – 16 HL Vehicles
  – Software configuration
  – Visual Validation

• Phase 1 – In-Process
  – Fleet wide installation of JRVs
  – Marketing and Training

• Phase 2 – Not Started
  – Smartcard configuration and deployment
  – Account Based Ticketing/Fare Capping
EZFare Overview

Total Sales: (since June)
• $2,300,000
• All day and 1-trip most popular passes

Total Users:
• 150,000 total EZfare users

Validator Installs:
• 225 vehicles are equipped with validators
  • More than 60% of the fixed route fleet (313)
Daily EZfare Scans

Greater Cleveland Regional Transit Authority
EZfare Scans

- 68,648 activations
- 40,193 scans
- 58% of riders are utilizing validators

Increasing scans assists with smart card deployment and ABT
Account Based Ticketing

ABT

• Open loop system
• Transition from physical fare media and cash
• Use of smart cards with mobile wallets and stored values (cash to value on card)
• ABT is a key driver in fare capping
• Utilizes tokens as identification and tracking
Fare Capping: All Day Pass

Riders taps their token at 7:00 a.m.
1-trip ride
$2.50

Rider taps and transfers to another RTA line at 8:00 a.m.
$2.50 + $0 = $2.50

Riders taps their token at 12:00 p.m.
1-trip Ride
$2.50 +$2.50 = $5.00

Riders taps token at 5:00 p.m.
Rider Capped
$5.00 + $0 = $5.00

Current State: Rider could pay $7.50 in a single day (without an all-day pass)
Future State: Rider is capped at $5.00.
## Fare Capping: Weekly Pass

<table>
<thead>
<tr>
<th>Weekly Fare Capping</th>
<th>Sunday</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Day Pass</td>
<td>$5.00</td>
<td>$5.00</td>
<td>$5.00</td>
<td>$5.00</td>
<td>$5.00</td>
<td>$0.00</td>
<td>$0.00</td>
</tr>
</tbody>
</table>

**Current State:** Rider could pay more than $5.00 in 1-day and more than $25.00 during the week

**Future State:** Rider is capped at $5.00 each day and $25.00 in the week
## Overall Project Next Steps

<table>
<thead>
<tr>
<th>Tasks</th>
<th>Estimated Completion</th>
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</thead>
<tbody>
<tr>
<td>Installation of HealthLine Validators</td>
<td>Complete</td>
</tr>
<tr>
<td>RTA CLE Discontinuation</td>
<td>December 2022</td>
</tr>
<tr>
<td>Fixed Route Validator Installation</td>
<td>December 2022</td>
</tr>
<tr>
<td>Light Rail/Paratransit Validator Installation</td>
<td>Q2 2023</td>
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<tr>
<td>Red Line Station Validator Installation</td>
<td>Q2 2023</td>
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<tr>
<td>Smart Card Implementation/Distribution</td>
<td>Q2 2023</td>
</tr>
<tr>
<td>Implementation of Account Based Ticketing (ABT)</td>
<td>2023</td>
</tr>
<tr>
<td>Partner Portal Implementation</td>
<td>2023</td>
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<tr>
<td>Development of regional transfer policy</td>
<td>2023</td>
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<tr>
<td>Evaluation of TVMs and Fareboxes</td>
<td>On-going - Finance</td>
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</tbody>
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Other 2022-2023 Projects
RTA is committed to improving the user experience through continued technology enhancements.

**Goal:** Implement cost effective solutions internally to create efficiencies that result in future benefits to the customers and community.
# 2022-2023 IT Projects

<table>
<thead>
<tr>
<th>Pillar</th>
<th>Technology Projects</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintenance</td>
<td>Maintenance Software Upgrade (Hosted)</td>
<td>In-Process</td>
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<tr>
<td></td>
<td>Oracle Database Upgrade</td>
<td>In-Process</td>
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<tr>
<td></td>
<td>Active Directory Upgrade</td>
<td>In-Process</td>
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<tr>
<td></td>
<td>Novell Decommission</td>
<td>Complete</td>
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<tr>
<td>Service Delivery</td>
<td>Mobile Routers for Non-revenue vehicles</td>
<td>Complete</td>
</tr>
<tr>
<td></td>
<td>Tough Tablets for Non-revenue vehicles</td>
<td>Not Stated</td>
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<tr>
<td></td>
<td>Hastus Software Upgrade (Hosted)</td>
<td>In-Process</td>
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<tr>
<td></td>
<td>Computer Refresh (Laptop and PC)</td>
<td>In-Process</td>
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<tr>
<td></td>
<td>Red Line Fiber</td>
<td>In-Process</td>
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<td></td>
<td>Wi-Fi Expansion</td>
<td>In-Process</td>
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<tr>
<td></td>
<td>Sprint Cellphone Replacement: ATT FirstNet Devices</td>
<td>Complete</td>
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<tr>
<td></td>
<td>Network Core</td>
<td>Complete</td>
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<tr>
<td>Customer Experience</td>
<td>Proof of Concept: Contactless Payment/Trip Planning</td>
<td>Complete</td>
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<td></td>
<td>Phase 1: Conference Room Refresh</td>
<td>In-Process</td>
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<td></td>
<td>Upraded ATT Services: District Bandwidth</td>
<td>In-Process</td>
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<td>Paperless Document Workflow</td>
<td>Complete</td>
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<tr>
<td>Safety and Security</td>
<td>Police Cruiser Routers and Radios</td>
<td>Complete</td>
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<tr>
<td></td>
<td>Police Body Worn Cameras (BWC)</td>
<td>Complete</td>
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<td></td>
<td>Transit Ambassadors: Radios and Tablets</td>
<td>Complete</td>
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<td></td>
<td>GPS Units for Non-revenue vehicles</td>
<td>Complete</td>
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<td></td>
<td>Enhanced Computer Imaging and Patching</td>
<td>Complete</td>
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<tr>
<td></td>
<td>CyberSecurity - Security Operations Center (SOC) for Disaster Recovery</td>
<td>In-Process</td>
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</tbody>
</table>
Computer Refresh

- 145 laptops and 55 desktops replaced
  - State-of-good-repair cycle to limit age of devices
- Bi-weekly patches for applications
- Matching customer need with deployed machine (Profiles)
  - Microsoft Surface
  - PC
  - Laptop
- Training Laptops for classroom sessions
Conference Room Refresh

Dual Owl Setup with PC

Owl Lab with no PC
Non-revenue Tough-tablets

- Implementing Tough-tablets in non-revenue vehicles
- Provides remote capabilities
  - Transit Police
  - Mobile Trucks
  - Electronic Repair
  - Service Quality
- Tablet is removable when team members are out of their vehicles
Paperless Workflows

- IT continues to convert paper forms to digital forms
  - Time and cost savings
- 37+ forms complete and in process
  - Pre-filled based on employee ID
  - Sign-offs and approvals
Communication Screens

• Installing TVs around the organization to increase employee and rider communication (waiting and common areas)

• Screens utilize a Fire stick and Screen Cloud software
Tablet Deployment

- Cellular tablets have been deployed in multiple business areas to increase productivity
  - Electronic Repair
  - Service Management
  - Transit Ambassadors
  - Employee Surveys
**Network Enhancements**

- Implemented a new core to manage various networks within our business
- Upgraded Firewall
- Enhanced Wi-Fi network and security
- New ATT circuits and devices to improve district bandwidth/management
- Oracle 19C upgrade to support IaaS
Disaster Recovery

- Multiple network paths into Bluebridge Data Center (Euclid Ave.)
- Secondary site being established in Columbus (100+ miles away)
- Provides disaster recovery for applications and alternatives for phone outages
GPS for Non-revenue Vehicles

- Allows RTA to monitor vehicles in real-time
  - Location
  - Maintenance
- Allows RTA to deploy shelter cleaners and snow plows to key areas
Maintenance Software

- Manages facility and vehicle maintenance, supply chain and work hours
- Q2 2023 Go-live
- New Features:
  - Cloud-hosted
  - Packaging to improve maintenance planning
  - Enhanced sorting options
  - Improved labor tracking
  - Mobile mechanic (field work)
Schedule Software Upgrade

- Manages operator’s work performance, scheduling, daily work and payroll
- Q1 2023 Go-live
- New Features:
  - Cloud-hosted
  - Trip Generation
  - Enhanced Algorithm
  - Graphical Tools
  - Mapping Interface
  - Impact Simulator

Greater Cleveland Regional Transit Authority
Questions
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.