GTFS Overview

➢ Lori Sand, ARC/ATL
What Is GTFS?
What can we do with GTFS Data?
THIRD PARTY PROVIDERS: GOOGLE MAPS

Atlanta

2:51 PM - 3:18 PM (27 min)

- 552
- M (Snel)
- 2:54 PM from Cherokee Ave SE @ Augusta Ave SE
- 6 min every 30 min

SCHEDULE EXPLORER

2:51 PM
- Zoo Atlanta
  800 Cherokee Avenue SE, Atlanta, GA 30315
  Walk
  About 3 min, 489 ft

2:54 PM
- Cherokee Ave SE @ Augusta Ave SE
  552
- Grant Park - Zoo Atlanta - West End Station
  11 min (16 stops) - Stop ID: 116128

3:05 PM
- West End Station
  Walk
  About 3 min

Hartford, CT

2:31 PM - 3:16 PM (45 min)

- 50-56
- 2:41 PM from Asylum St and Union Pl - 6 min late
- 10 min every 30 min

SCHEDULE EXPLORER

2:31 PM
- Hartford
  Connecticut
  Walk
  About 10 min, 0.5 mi

2:41 PM
- Asylum St and Union Pl
  66T - Farmington Av-UConn Health Ctr-Unionville-Tunxis Comm College
  35 min (45 stops) - 6 min late

3:16 PM
- Uconn Medical Ctr and Main Rd

3:16 PM
- UConn Health
  263 Farmington Ave, Farmington, CT 06030
THIRD PARTY PROVIDERS: TRANSIT
AGENCY-LED TRIP PLANNING: MARTA

Option 1: 1 hr, 7 min

2:05pm - 3:12pm

Walk 6 min

**Walk**

Montreal Rd @ Clarkston Industrial Blvd

Start on road heading NOR'EST

281 feet

**LEFT** on to The Oaks

0.2 miles

**LEFT** on to Montreal Road

114 feet

Board bus

125 Clarkson / Northlake to Memorial Dr @ Mountain Dr

2:12pm

Depart: Montreal Rd @ Clarkston Industrial Blvd

Time in transit: 16 min

2:28pm

Arrive: Memorial Dr @ Mountain Dr

Walk 6 min

**Walk**

Kensington Station

Start on Memorial Drive heading SOUTHWEST

255 feet

**RIGHT** on to service road

0.2 miles

ATL
AGENCY-LED TRIP PLANNING: TRIMET

From: N Going & Port Center Way W, Portland (Stop ID 2161)
To: Portland International Airport, Portland

Depart at 10:58am Tuesday, January 22, 2019, using Transit
Quickest trip with a maximum walk of 1 mile
Fare for this trip: Adult $2.50, Youth $1.25, Honored Citizen: $1.25

Best bet
59 mins, 1 transfer

Option 2
74 mins, 1 transfer

Option 3
67 mins, 1 transfer

Walk 1/3 mile to N Greeley & Going

11:07am Board 35-Macadam/Greeley to Oregon City TC via Portland City Ctr

Check TransitTracker View route map View full schedule

11:14am Get off at N Interstate & Multnomah (Rose Quarter)

Walk 832 feet to Rose Quarter TC MAX Station

11:25am Board MAX Red Line to Airport

11:54am Get off at Portland Int'l Airport MAX Station

Walk 718 feet to Portland International Airport, Portland

The southbound stop at SW River Pkwy & River Dr (Stop ID 13180) has closed for about 19 months, due to construction. Use the new stop at SW Moody & River Pkwy (Stop ID 13994). Effective as of January 16, 2018.
PERFORMANCE TRACKING

RELIABILITY

Bus

AVERAGE RELIABILITY

70%  71%  73%

January 21, 2019  Past 7 Days  Past 30 Days

Data from January 21, 2019
Transit Project Evaluation
State of GTFS in the Region:

- Need Real time feeds
- Need consistent data across all providers, regularly updated from each provider

What have we done so far:

- Surveyed agencies for expertise, maintenance tools used, general process
- Conducted day long workshop to increase understanding of GTFS, provide training in specific GTFS data management processes
Identify pinch points in the development and distribution of each agency’s GTFS feeds
Provide implementable guidance on improving data flows
Work with CAD/AVL vendors to achieve better GTFS real-time outcomes
Develop a regional vision for GTFS coordination
Procurement for improving data accuracy
Develop regional data standards
Outline regional roles and responsibilities for the development of the regional GTFS and GTFS real time feeds
Next Steps

► Move to Open Portal hosting for consumption by apps
► Contract for post-processing of CAD/AVL data and GTFS static feeds into GTFS Real-Time
► A second phase of technical assistance
TAM and EAMS

➢ Lori Sand, ARC/ATL
TAM Rule (49 CFR Part 625)

► Require FTA grantees to develop a TAM plan
► Establish TAM performance measures
► Reporting requirements
Targets

- **Rolling Stock**: % of revenue vehicles that have either met or exceeded their ULB

- **Equipment**: % vehicles that have either met or exceeded their ULB

- **Infrastructure**: % of segments with performance restrictions

- **Facilities**: % of facilities rated below condition 3 on the TERM scale
## Regional Targets

<table>
<thead>
<tr>
<th>Rolling Stock</th>
<th>Equipment</th>
<th>Infrastructure</th>
<th>Facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over-the-Road Bus: 30%</td>
<td>Automobile: 50%</td>
<td>Heavy Rail: 5%</td>
<td>Passenger/Parking: 50%</td>
</tr>
<tr>
<td>Bus: 30%</td>
<td>Trucks &amp; other rubber tire vehicles: 50%</td>
<td>Streetcar Rail: 0%</td>
<td>Maintenance: 50%</td>
</tr>
<tr>
<td>Cutaway Bus: 50%</td>
<td></td>
<td></td>
<td>Administrative: 50%</td>
</tr>
<tr>
<td>Heavy Rail Vehicle: 20%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Light Rail Vehicle: 25%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Van: 25%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Automobile: 22%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Rolling Stock

<table>
<thead>
<tr>
<th>Asset</th>
<th>Target</th>
<th>Asset Quantity</th>
<th>2019 Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over-the-Road Bus</td>
<td>30%</td>
<td>248</td>
<td>1%</td>
</tr>
<tr>
<td>Bus</td>
<td>30%</td>
<td>657</td>
<td>22%</td>
</tr>
<tr>
<td>Cutaway Bus</td>
<td>50%</td>
<td>314</td>
<td>42%</td>
</tr>
<tr>
<td>Heavy Rail Vehicle</td>
<td>20%</td>
<td>338</td>
<td>0%</td>
</tr>
<tr>
<td>Light Rail Vehicle</td>
<td>25%</td>
<td>4</td>
<td>0%</td>
</tr>
<tr>
<td>Van</td>
<td>25%</td>
<td>64</td>
<td>32%</td>
</tr>
<tr>
<td>Automobile</td>
<td>50%</td>
<td>3</td>
<td>67%</td>
</tr>
<tr>
<td>Asset</td>
<td>Target</td>
<td>Asset Quantity</td>
<td>2019 Estimate</td>
</tr>
<tr>
<td>--------------------------------------------</td>
<td>--------</td>
<td>----------------</td>
<td>---------------</td>
</tr>
<tr>
<td>Automobile</td>
<td>50%</td>
<td></td>
<td>58%</td>
</tr>
<tr>
<td>Trucks and other rubber tire vehicles</td>
<td>50%</td>
<td></td>
<td>68%</td>
</tr>
</tbody>
</table>
## Facilities

<table>
<thead>
<tr>
<th>Asset</th>
<th>Target</th>
<th>Asset Quantity*</th>
<th>2019 Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passenger/Parking</td>
<td>50%</td>
<td>50</td>
<td>9%</td>
</tr>
<tr>
<td>Maintenance</td>
<td>50%</td>
<td>7</td>
<td>0%</td>
</tr>
<tr>
<td>Administrative</td>
<td>50%</td>
<td>3</td>
<td>0%</td>
</tr>
</tbody>
</table>

* Asset quantity only refers to those assets that have been evaluated to date; not all assets were required to be evaluated in the first year.
<table>
<thead>
<tr>
<th>Asset</th>
<th>Target</th>
<th>Asset Quantity (DRM)</th>
<th>2019 Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heavy Rail</td>
<td>5%</td>
<td>101.3</td>
<td>1%</td>
</tr>
<tr>
<td>Streetcar Rail</td>
<td>0%</td>
<td>2.7</td>
<td>0%</td>
</tr>
</tbody>
</table>
Transit Asset Management:

- Enterprise Asset Management System (EAMS)
- ATL Procurement involving SRTA, CobbLinc, and ARC on behalf of Henry, Douglas, Cherokee and CPACS
- RFP released February 8, proposals due April 8
- Project should begin June 2019
- Project completion January 2020
Next Steps

- Integrate asset tracking into regional dashboard
- Monitor transit operator performance
- Use data to support the development of the Regional Transit Plan and TIP
Collaboration Opportunities/Existing Regional Technology Groups

➢ Jamie Fischer, PhD | Director of Transportation Performance Innovation
A MISSION OF EXPLORATION

 ► The ATL Regional Technology Committee...

Explores practical and innovative ways to leverage technology to integrate transit services and promote a more seamless, unified transit system across the region. Reviews and recommends technology standards and policies that if adopted will apply to transit operators, systems and/or other related service providers. The goal of such standards shall be to promote the safe, secure and efficient sharing of data to enhance the interconnectivity of transit services and operations within the region and to enhance customer experience and ease of use. The committee may explore strategic partnerships with educational institutions, the private sector and public agencies and recommend the formation of ad hoc projects and groups focused on the strategic use of technology to integrate and promote a more seamless unified transit system across the region.
OVERVIEW

► Existing Agency-Led Technology Groups
  • GDOT - State Transportation Innovation Council
  • MARTA - Regional Technology Group

► Other Interagency Collaborations
  • ARC - Regional TSMO and ITS Architecture Update

► Guidance & Next Steps
STATE TRANSPORTATION INNOVATION COUNCIL
(FEDERAL HIGHWAY & GEORGIA DOT)
The Federal Highway Administration (FHWA) established the Center for Accelerating Innovation (CAI) in 2012.

The national STIC network is one CAI program, established to:

- Bring together public and private transportation stakeholders to evaluate innovations and spearhead their deployment in each State.
- Promote and support rapid deployment of selected technologies, tactics and techniques.
- Identify and mobilize champions for deployment.
- Share information with all state stakeholders through meetings, workshops and conferences.
Expanding membership
- Georgia DOT Personnel
- FHWA Personnel
- MPO Representative – ARC
- University Transportation Center (UTC) Representative – GA Tech
- American Council of Engineering Companies (ACEC)
- Georgia Highway Contractors Association (GAHCA)

Historical focus on technology transfer and institutionalizing nationally selected EDC Initiatives
- Automated traffic signal performance measures
- Data-driven safety analysis / pedestrian safety
- Streamlined project management and delivery

Open to partnership with ATL on transit initiatives
REGIONAL TECHNOLOGY GROUP

MARTA & REGIONAL OPERATORS
Informal membership and structure
• Grass-roots effort to facilitate staff-level communication on transit technology
• Bimonthly meetings convened by MARTA include participants representing CobbLinc, Xpress, GCT, ARC, and smaller operators

Technology-anchored discussions
• Regional technology projects
  • Ticketing upgrades
  • Fare system upgrades
• Operational challenges
  • Super Bowl preparations
  • GTFS clean-up
• Strategic topics
  • Regional transit customer experience
  • Regional transit digital experience

Currently being restructured and re-tooled; open to formalization and partnership with the ATL
OTHER INTERAGENCY EFFORTS
Regional TSMO Vision and ITS Architecture Update

► Transportation Systems Management & Operations (TSMO) strategies focus on operational improvements that can maintain and even restore the performance of the existing transportation system before extra capacity is needed.

► Intelligent Transportation Systems (ITS) integrate advanced communication technologies into transportation infrastructure and vehicles.

► TSMO Vision and Architecture Update, 2018-2020
  • ARC-funded project led by consultant team and cross-agency steering committee
  • Addressing transportation technologies and data governance across multiple modes: highway, transit, and non-motorized transportation
  • Engaging transportation staff across the Atlanta region
    • More than 100 survey respondents
    • Approximately 40 workshop participants so far

► ATL staff are participating on steering committee
NEXT STEPS & COMMITTEE GUIDANCE
Guiding Questions

How might the ATL...

- Formally integrate efforts with the Georgia State Transportation Innovation Council (STIC), and leverage this collaboration for technology transfer?
- Formally or informally integrate efforts with the staff-level Regional Technology Group in crafting regional recommendations for transit technology?
- Leverage the ongoing development of a regional TSMO Vision & ITS Architecture Update?
- Engage directly with academic community and private sector?
Thank You
Regional Mobile Ticketing Update

➢ Kirk Talbott, MARTA
GCT MicroTransit Pilot

February 26, 2019
ATL Technical Committee Meeting
Why MicroTransit

Gwinnett Population Growth

Community Support for More Transit

- Abundant - we have more service than we need
- Appropriate - we have the right amount of service
- Don't Know
- Lacking - we need more transit service in the County
Why a MicroTransit Solution

- First Mile/Last Mile
- Route Replacement & Modification
- Underserved Areas
- Unserved Areas
- Evening/Weekend Route Replacement
Why Agency Owned MicroTransit

The Power of Agency Owned

Transit Expertise
Finance Stability
Operator Oversight
Title VI
Rider Equity and Accessibility
Sustainability Initiatives

Title VI
Rider Equity and Accessibility
Sustainability Initiatives
Finance Stability
Operator Oversight
Title VI
Rider Equity and Accessibility
Sustainability Initiatives

[Image of a microtransit bus]
The Pilot

• Partnered with TransLoc for the Pilot
• Pilot included Scenario Simulations
• Full Support for Technology Deployment
• TransLoc walked us through the implementation process step by step
Advantage of a Pilot

- Opportunity to test drive the program
- Support proof of concept
- Determine contracting methods
- Determine policy for the program
GCT Pilot Scenario Analytics

**Operating Efficiency**

| Miles | Vehicles | Vehicle Utilization (miles per vehicle hr)
<table>
<thead>
<tr>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>200</td>
<td>3</td>
<td>4.7</td>
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<td>200</td>
<td>5</td>
<td>6.2</td>
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<td>200</td>
<td>7</td>
<td>7.8</td>
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<td>5</td>
<td>3.5</td>
</tr>
<tr>
<td>400</td>
<td>7</td>
<td>2.9</td>
</tr>
</tbody>
</table>

**Time Utilization**

**Ride Quality**

<table>
<thead>
<tr>
<th>Miles</th>
<th>Vehicles</th>
<th>Average Wait Time (hrs)</th>
<th>50th% Wait Time (hrs)</th>
<th>Average Ride Duration (hrs)</th>
<th>50th% Ride Duration (hrs)</th>
<th>Average Total Trip Time (hrs)</th>
<th>50th% Trip Time (hrs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>200</td>
<td>3</td>
<td>10.9</td>
<td>6.0</td>
<td>15.8</td>
<td>9.8</td>
<td>32.1</td>
<td>23.4</td>
</tr>
<tr>
<td>200</td>
<td>5</td>
<td>10.9</td>
<td>6.0</td>
<td>15.8</td>
<td>9.8</td>
<td>32.1</td>
<td>23.4</td>
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<td>200</td>
<td>7</td>
<td>10.9</td>
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<td>32.1</td>
<td>23.4</td>
</tr>
<tr>
<td>300</td>
<td>3</td>
<td>15.0</td>
<td>9.0</td>
<td>20.8</td>
<td>12.8</td>
<td>48.6</td>
<td>32.4</td>
</tr>
<tr>
<td>300</td>
<td>5</td>
<td>15.0</td>
<td>9.0</td>
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<td>16.8</td>
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<td>40.4</td>
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<tr>
<td>400</td>
<td>7</td>
<td>20.0</td>
<td>13.0</td>
<td>25.8</td>
<td>16.8</td>
<td>60.6</td>
<td>40.4</td>
</tr>
</tbody>
</table>

**Wait Times**
Why this Solution for Gwinnett

• Portions of the County with suburban design are difficult to serve with traditional transit means

• Refreshes an old model with technology

• Can be integrated with the rest of the network
Current Pilot/Feedback

• Positive overall

• Service continues to increase

• First month issues mainly involved staff training and policy development, rather than technology
Pilot Results – Reporting

Total Passengers

This report shows the total number of passengers who boarded and completed rides in a day.

<table>
<thead>
<tr>
<th>Service</th>
<th>Start Date</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>All services</td>
<td>01-01-2019</td>
<td>01-31-2019</td>
</tr>
</tbody>
</table>

- Rides by Status
- Rides by Source
- Rides by Hour
- Ride Duration
- Ride Wait Time
- Total Passengers
- Vehicle Mileage
- Total Mileage
- Origins & Destinations
- Fare Payment
Pilot Results – Average Daily Trips

<table>
<thead>
<tr>
<th>Month</th>
<th>Average Trips</th>
</tr>
</thead>
<tbody>
<tr>
<td>September</td>
<td>64</td>
</tr>
<tr>
<td>October</td>
<td>142</td>
</tr>
<tr>
<td>November</td>
<td>171</td>
</tr>
<tr>
<td>December</td>
<td>170</td>
</tr>
<tr>
<td>January</td>
<td>188</td>
</tr>
<tr>
<td>February</td>
<td>196</td>
</tr>
</tbody>
</table>
Next Steps

• Run pilot for 8 months
• Evaluate program, pro and cons
• Competitively procure technology
• Redeploy into Snellville and then Buford
• Work on items such as fare integration with Cubic System
Questions

Karen Winger, ACIP CCTM
karen.winger@gwinnettcounty.com
Mobile App Concept Presentation

➢ Steve Dickerson, ATL Board Member
ADJOURN