Using Data To Manage Mobility

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Overview

• Current Data Sources
• Data Aggregation Tool
• Changes To GDOT’s External Performance Metrics Website
• Next Steps
Navigator – Advanced Traffic Management System
Traffic Congestion Model
73.1% Arrivals On Green (Average Across the State)
Interstate Device Data
WAZE Data

Reporting Live Updates Every 30 Seconds
GEARS Data

Total Crashes
461,273

Fatal: 1,455 (0.34%)
Injury: 41,125 (8.92%)
PDO: 418,793 (90.73%)

Disclaimer: Crash data may not represent the true number of crashes. PDO includes crashes with multiple crashes (PDO). This data is modeled and not actual. Click on a location to view incident details.
Predictive Weather and Surface Condition Analytics
Connected Vehicle Data Deployment

Phase 1: Pilot
- Actively Operating – June 2018

Phase 2: RTOP – April 2019
- First 250 of FY 2019 to be installed by mid-April 2019
- Connectivity on every major arterial in metro Atlanta
- Open data stream to third parties also available
All This Data, Now What?

• Are we installing devices where they can be of the most impact?

• Are we staging HEROs and CHAMPs appropriately for incident response?

• How do we find out about incidents more quickly and ultimately clear the roadway more quickly?

• What is the true impact of a crash on delay?
Data Driven Decisions Focusing On Mobility Management

ITS Devices  WAZE Data  CHAMP Operators  Crash Data
Data Aggregation Tool

Road Closed
Norcross Street, Roswell, Fulton County
Start Time: 03/16/2019 02:34 PM
Last Reported Time: 03/18/2019 10:44 PM

19 NEARBY DEVICES

1. GDOT-RDS-485-084
   - Device Type: RDS
   - Device Status: ● OPERATING
   - Critical Device: N
   - Last Updated Time: 03/19/2019 12:05 AM

   Explore

2. RDS-E2R786
   - Device Type: RDS
   - Device Status: ● OPERATING
   - Critical Device: N
   - Last Updated Time: 03/19/2019 12:05 PM

   Explore

3. GDOT-VDS-N4C244
   - Device Type: VDS
   - Device Status: ● DOWN
   - Critical Device: N
   - Last Updated Time: 03/19/2019 12:05 AM

   Explore

4. GDOT-CAM-381
   - Device Type: CCTV
   - Device Status: ● OPERATING
   - Critical Device: N
   - Last Updated Time: 03/19/2019 12:05 AM

   Explore
Use Case – Identify New CCTV Location
Data Aggregation – Phase 2

Traffic Signals

Navigator Data

Lane Closures
GDOT Accountability – Public Facing Data

Average Speeds in Metro Atlanta based on Time of Day

Select Segments for Additional details
GDOT Accountability – Public Facing Data

Selected Segment: GA-400NB From I-85 To I-285, Approx. 6.5 Miles

Lane Type: General Purpose

Average Speed: 49 mph
Travel Time: 8 mins
Average Volume: 1434 vphpl
Travel Time Index: 2.48

The Average Volume is the number of Vehicles per hour per Lane.
The TTI (Travel Time Index) is the ratio of travel time in the peak period to the travel time at free-flow conditions.

Average Speed

[Diagram showing average speed distribution at different times of the day]
Overall HERO Assists Summary in Georgia

<table>
<thead>
<tr>
<th>Last month HERO Assists Summary</th>
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</thead>
<tbody>
<tr>
<td>8065</td>
</tr>
<tr>
<td>No. of HERO Assists</td>
</tr>
<tr>
<td>11 minutes</td>
</tr>
<tr>
<td>Avg. Time To Arrival</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Overall HERO Assists Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall HERO Assists:</td>
</tr>
<tr>
<td>114,792</td>
</tr>
<tr>
<td>No. of Active Operators:</td>
</tr>
<tr>
<td>110</td>
</tr>
<tr>
<td>Avg. Assists / Month:</td>
</tr>
<tr>
<td>9566</td>
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<tr>
<td>Avg. Time To HERO Arrival on Scene</td>
</tr>
<tr>
<td>09 minutes</td>
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</tbody>
</table>

HERO Assists by Incident Type

- Abandoned Vehicles: 2,755
- Accident: 9,342
- Stall: 2,755
- Debris: 468

The HERO Operators assists in Atlanta Region.
Next Steps

- Import additional data sources
- Launch external website in partnership with GDOT’s Office of Performance-Based Management and Research and Communications
- Explore additional innovations
  - Work zone tracking and safety
  - Connected Vehicle Expansion
  - Automated Incident Detection (AID) Expansion
QUESTIONS

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