ADOT Data Visualization

GIS-T April 24th, 2019

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Overview

- Project Goals
- Business Needs
- Data Needs
- Software Needs
- Challenges
- Best Practices
- Future Steps
Project Goals

- Interview Stakeholders
- Identify Authoritative Data
- Design Data Integration Pipeline
- Build Self-Service Dashboards
Business Needs

- Agency Wide Data Requests
- Open Data/Self-Service Mentality
- Dashboard Themes
  - Asset Management
  - HPMS Inventory
  - Bridge Condition
  - Executive Management
Data Needs

- Identify Data Owners early on - Interviews
- Need to Dynamically Segment Data
- Data Cleanup and Processing (QQT)
- Database Access – IT involvement
Software Needs

- Tableau – visualize the data
- FME – amalgamate the data
- ArcGIS – house and maintain data
  - Insights – possibly for future use
Challenges

- Data Preparation
- Data Cleanup
- Database/Server Permissions
ETLs – Boundary Data
ETLs – TOPS Data
ETLs – Bridge Data
Results and Challenges

- Dashboard Performance
- Dashboard Interface Updates

TOPS Mileage Metrics

<table>
<thead>
<tr>
<th>Centerline Miles</th>
<th>Lane Miles</th>
<th>VMT</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,833</td>
<td>11,246</td>
<td>77,081,788</td>
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HPMS Mileage Metrics for Analysts

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Best Practices

- Convince the Data Owner of ROI
- Data Governance Model
  - Identify the Authoritative Data and Owner
- Create Metadata
- Keep the Interface Simple
- Usability is Key
Future Steps

- Future RHUG Discussion Topic
- Pavement Data Integration
- Update via Customer Comments
- Push Out to the Public
Questions?

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