

Innovative Transit Signal Priority Enhancements



Presented by
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Outline



1. Objectives
2. Existing TSP Systems
3. TSP Tools
4. Data Integration
5. Lessons Learned
6. Next Steps

Solutions that move you

Objectives



- Improve travel time
- Implement automated data collection
- Improve diagnostic toolset

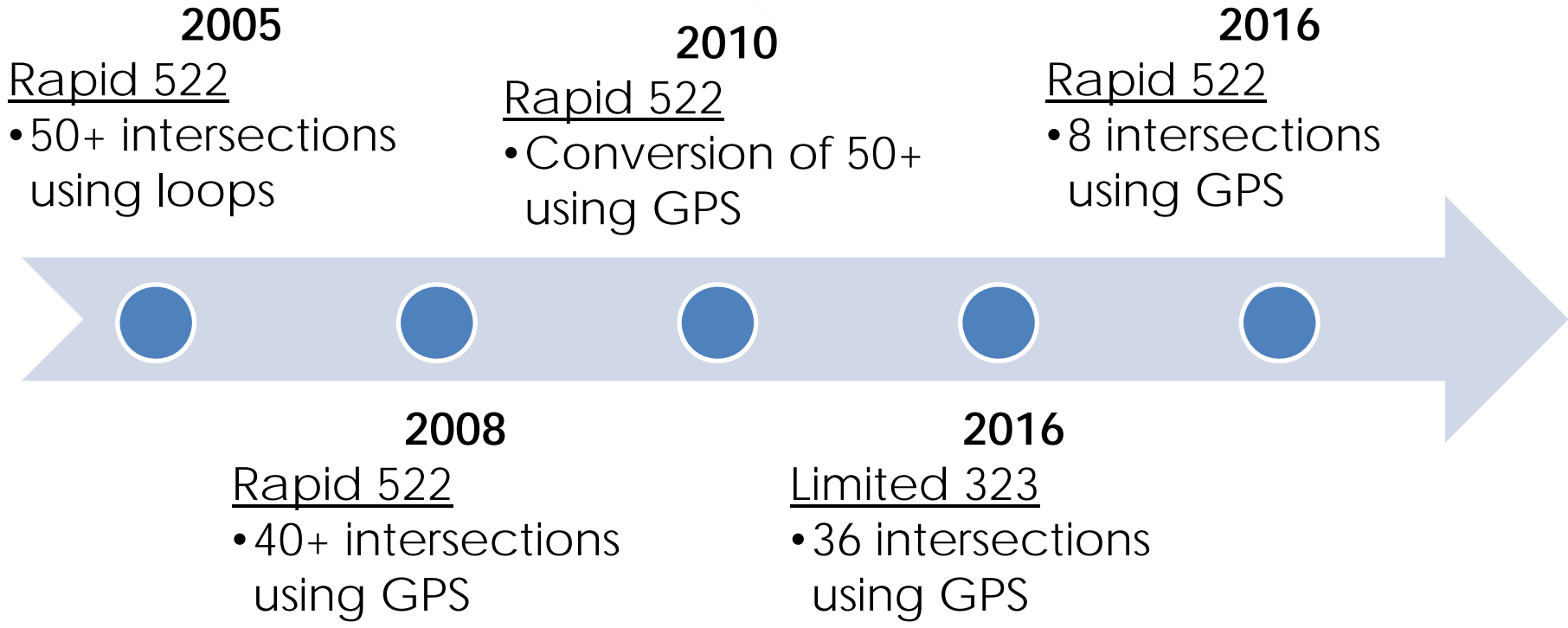


Solutions that move you

Existing Systems

Bus TSP System Timeline

Total Current Locations: **138**



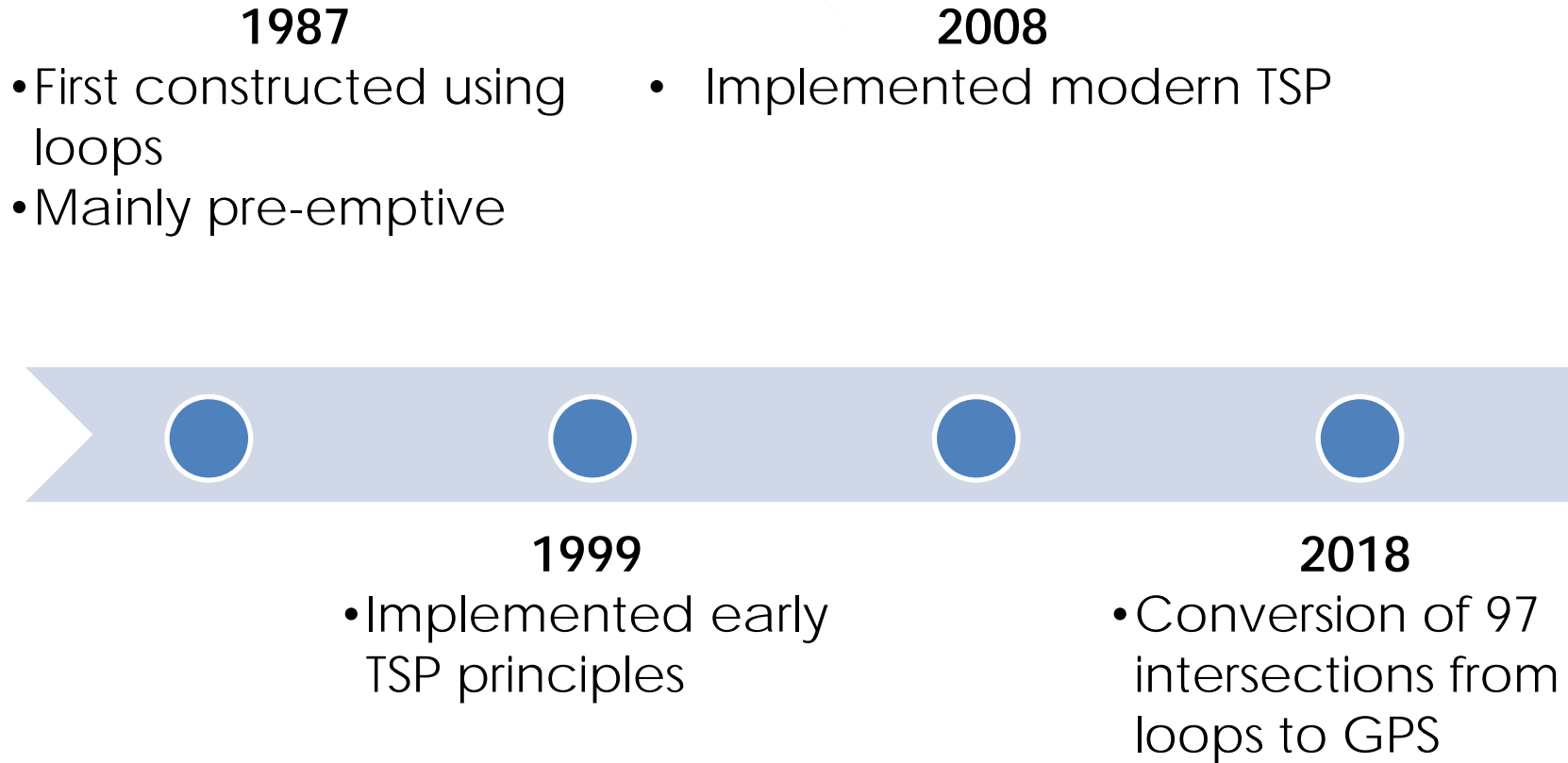
10-20% Travel Time Savings
10-20% Increased Ridership



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Light Rail TSP System Timeline

Total Current Locations: **97**



Solutions that move you

TSP Equipped Vehicles

- 103 Light Rail Vehicles (planned)
- 65 Bus Vehicles (29 Line 522, 36 Line 323)



Solutions that move you

TSP Tools

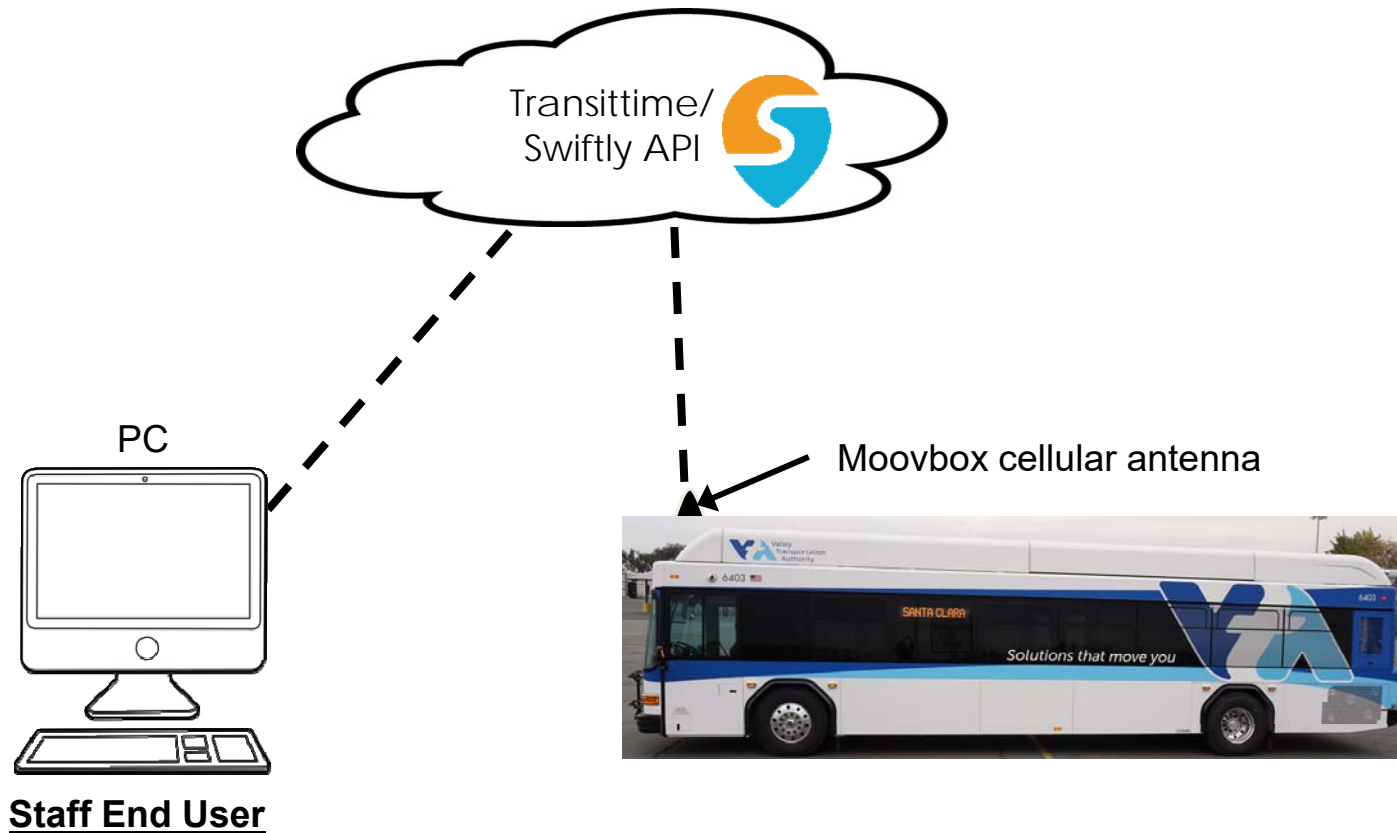
Existing TSP Tools

- Time Points check-ins used in scheduling
- Operator and Public complaints
- Automated People Counter (APC)
- Automatic Vehicle Location (AVL)
- Vehicle TSP log



Existing Efforts to Meet Vision

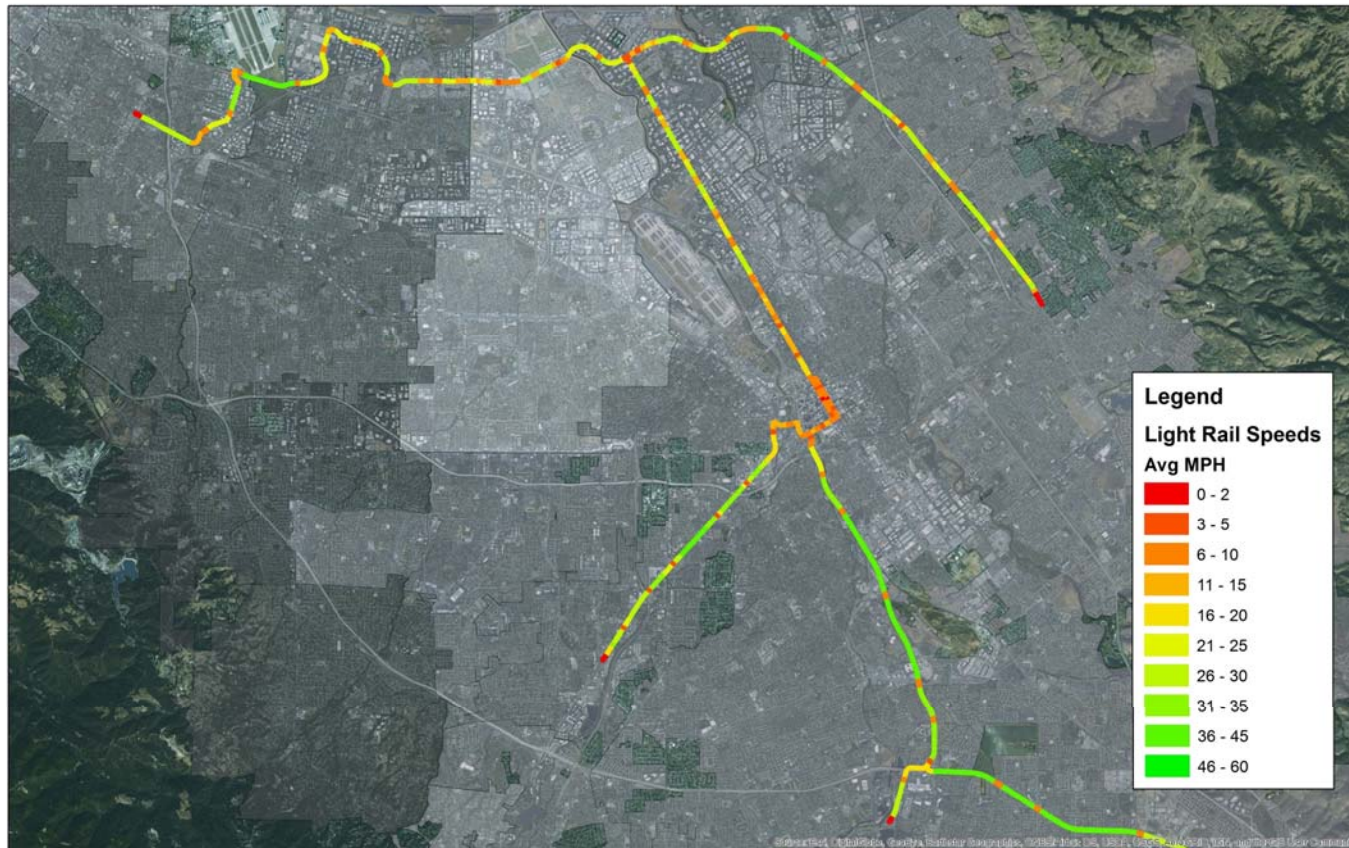
Use existing the **WiFi** gateway (Moovbox) used to provide internet to our customers to pull positioning data in realtime to the Transitime/Swifty API



Solutions that move you

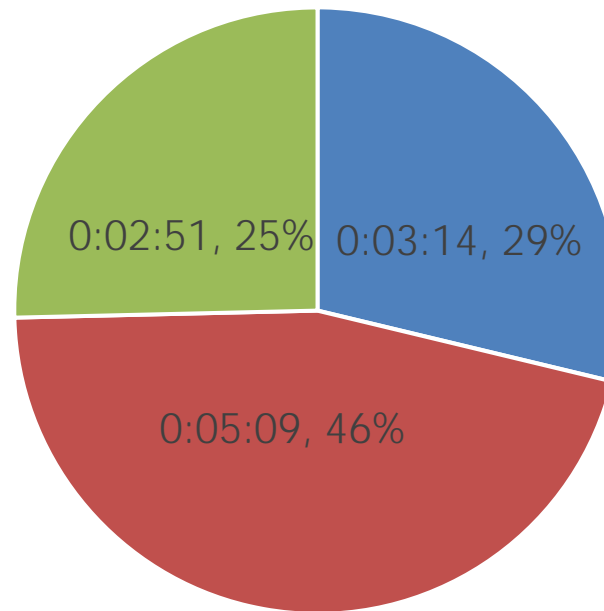
Existing TSP Tools - AVL

Use case of Swifly Data – Light Rail Systems Speed Map



Existing TSP Tools - AVL

LRV Travel Time Pie Chart
Tasman Drive, Santa Clara



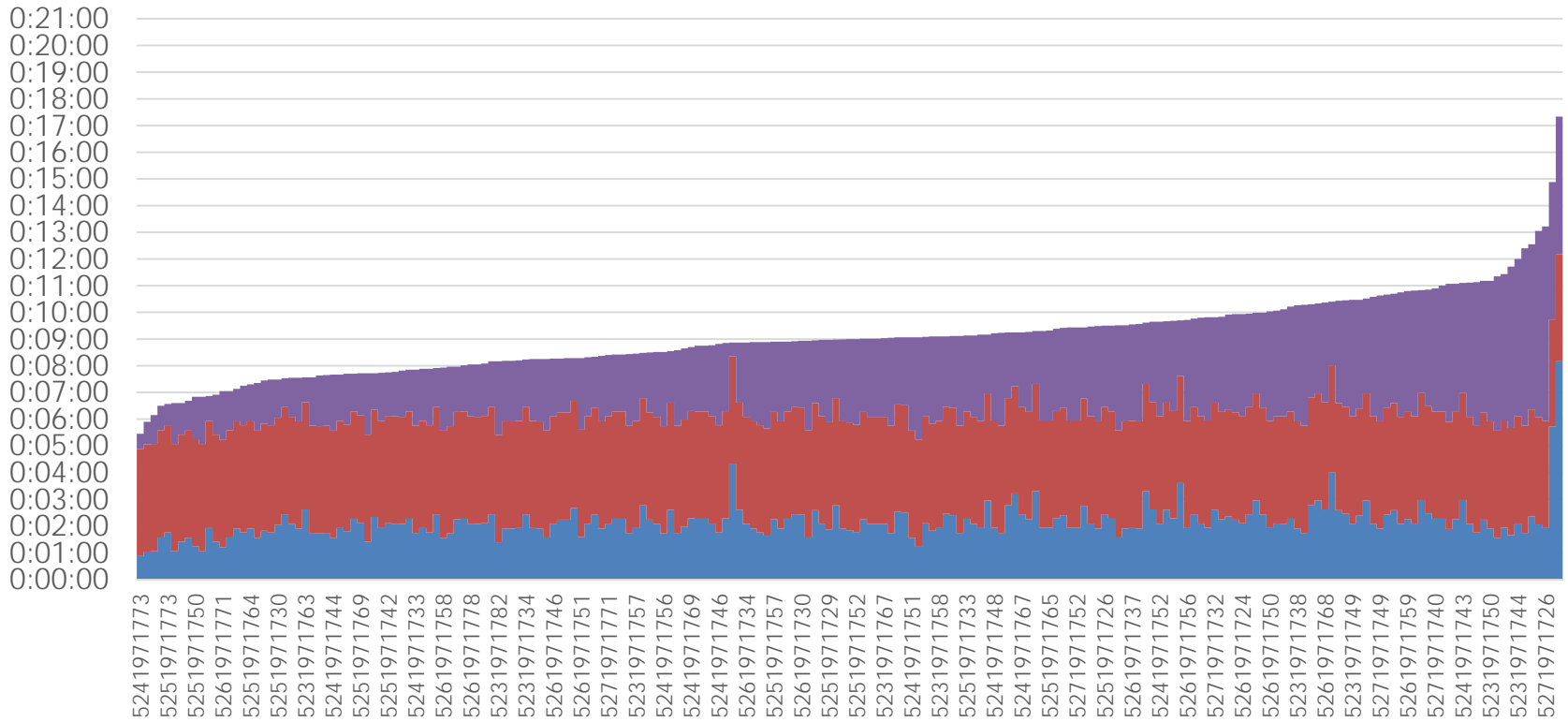
■ dwell ■ travel time ■ stop delay



Solutions that move you

Existing Efforts to Meet Vision

Light Rail Travel times
 Reamwood to Champion Westbound
 May 2016



■ dwell ■ travel ■ stop

Solutions that move you

New TSP Tools

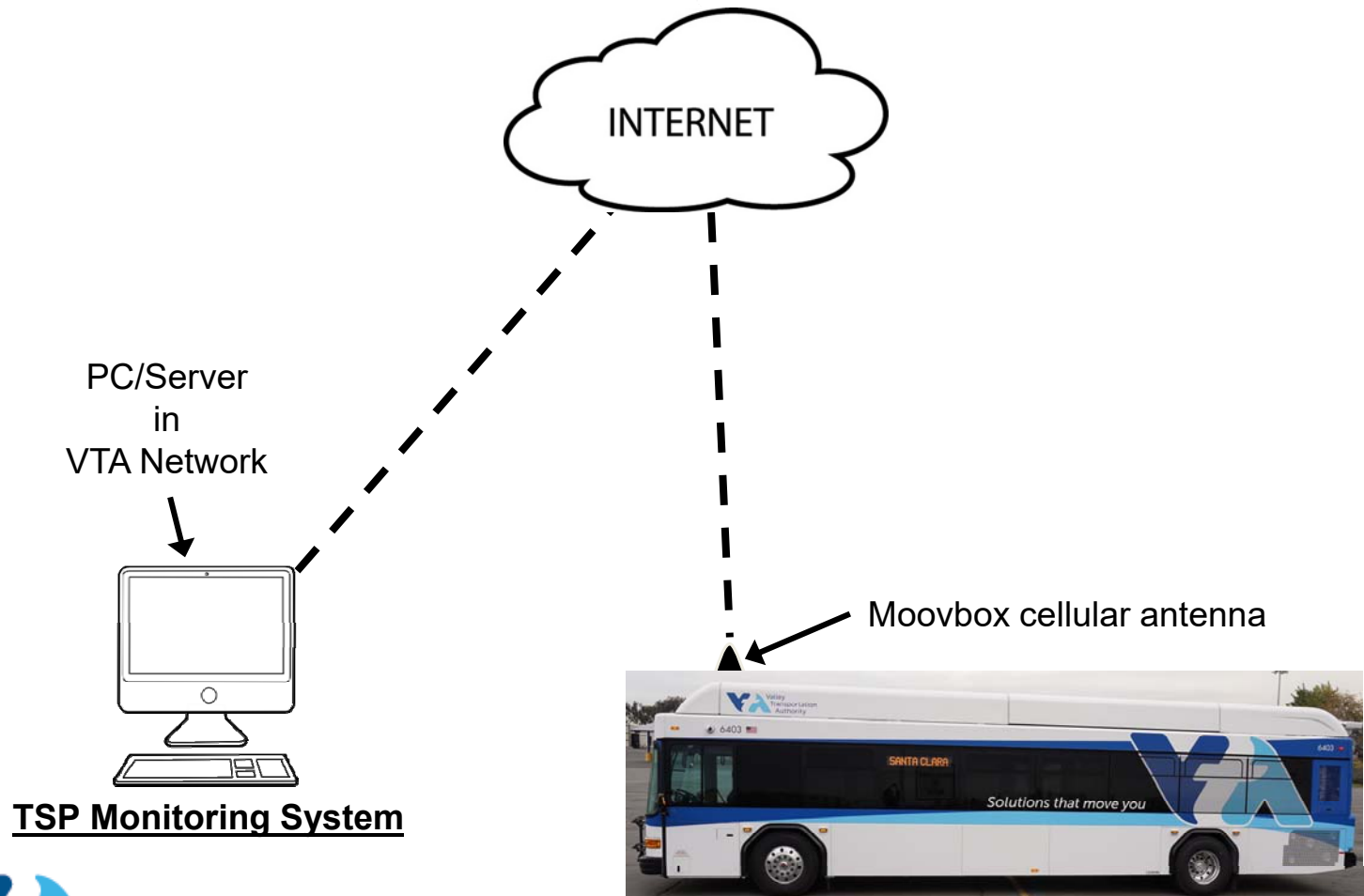
Central System

- Automated data collection
- Alerts
- Remote access



Planned Efforts to Meet Vision

Use existing the **WiFi**[®] gateway (Moovbox) used to provide internet to our customers to pull TSP logs.

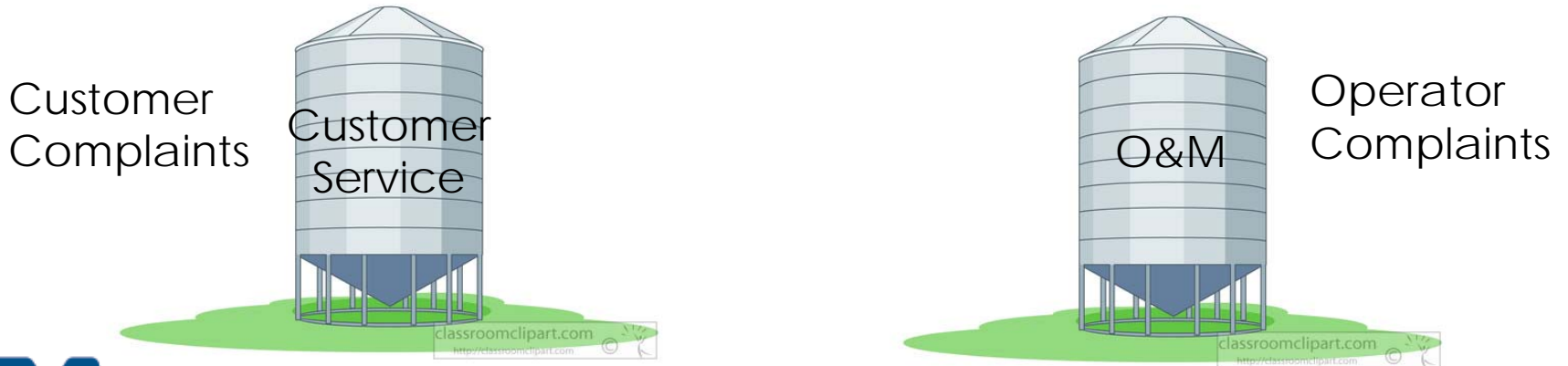


Solutions that move you

Data Integration

Data Integration

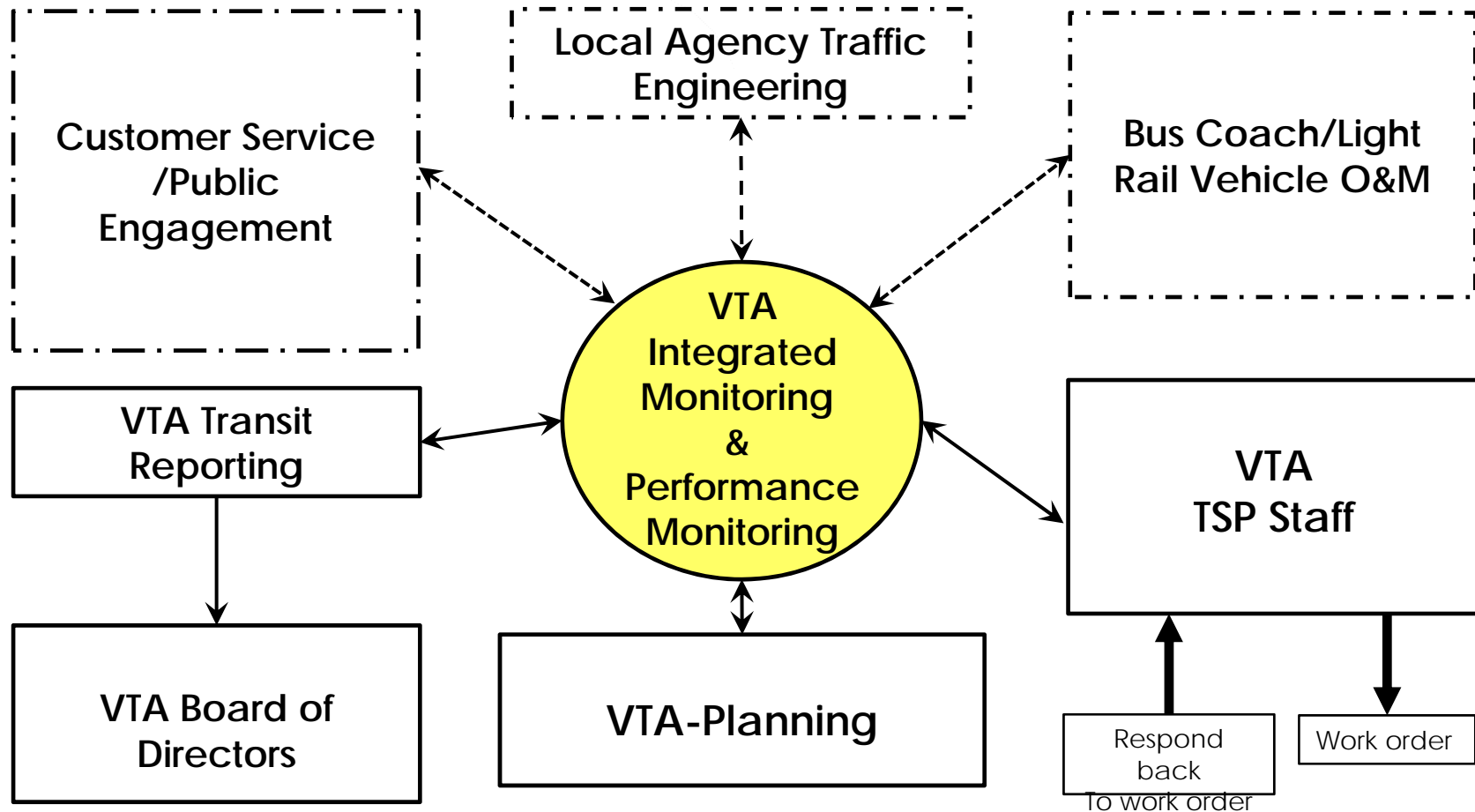
□ Information Silos



Solutions that move you

Data Integration

Vision for Centralizing Data



Solutions that move you

Why Integrate Performance Monitoring?

Ability to Cross Query




- Patterns in data
- Failure points
- Relationships

Management

- Processing and notification
- Tracking



Lessons Learned

□ Less Reactive  More Proactive

- *Stakeholders Concerns:*



- *Difficult to Pin Point Issue:*



REUTERS/PHOTO.COM



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Next Steps

- Continue Stakeholder Outreach
- Build a Common Repository for Data
- Seek Funding and Staff Resources



Questions?

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