Arterial Performance Measure Reporting

Three Agencies Case Studies:
Issues
Solutions
Lessons learned moving forward

OPTIONS WITH INNOVATION AND TSM&O TECHNOLOGY
Three Agencies Efforts:

- FDOT District 4 AMP: Broward County
- FDOT District 4 AMP: Palm Beach County
- Seminole County

Seminole County
- Population, ~ 467,832
- Number of Traffic Signals: ~ 396
- Fiber communication primary communication
- ATMS.now

Palm Beach County
- Population, ~ 1,485,491
- Number of Traffic Signals: ~ 1,100
- Fiber communication primary communication
- ATMS.now

Broward County
- Population, ~ 1,951,260
- Number of Traffic Signals: ~ 1,290
- Fiber communication primary communication
- ATMS.now
Variety of Issues

- How do we baseline and quantify our corridors using ITS equipment we’ve deployed?
- We have too much data!
- Where should we be focusing our efforts?
- Multiple hardware/software platforms, how do we consolidate the data?
- Software is constantly changing and evolving, we can’t keep up!

- Do any of these ring a bell to you?
- Other issues?
- Let’s talk details…..
Three Step Process: Quantify information, Baseline information and Actionable information

Broward Dashboard 2.0
- 15 Routes of Significance identified and reported.
- Produced by the team after the 1st of every month.

Data Sources:
- BlueTOAD Data
- MVDS Stations

Report Information Displayed:
- Volumes
- Corridor Origination and Destination
- Travel Time Reliability
  - Travel Time Index
  - Planning Time Index

Impacted Teams/Audience:
- County Traffic Engineers
- Project PM’s
- Consulting Engineers
Issues:
- Which routes in our AMP program need attention?
- Which time period/direction have reoccurring issues (roadway at capacity)?
- What insights can we glean from the data?

Solutions:
- Evaluate all 15 identified corridors (consolidated information)
- Verify PM Westbound timing plans.
- Re-evaluate mid-day timing plans; this corridor & all corridors.

Lessons Learned:
- Verified with baselining
- Actionable based on data
- Uncovered the unknown using the data insights
Three Step Process: Quantify information, Baseline information and Actionable information

Palm Beach Dashboard 2.0
- 15 Routes of Significance identified and reported.
- Produced by the team after the 1st of every month.

Data Sources:
- RITIS data
- ATMS.now

Information Displayed:
- Historical Travel Times
- Travel Time Reliability
  - Travel Time Index
  - Planning Time Index
- Top 5 Alarms triggered

Impacted Teams/Audience:
- County Traffic Engineers
- Project PM’s
- Consulting Engineers
Issues:
- Which routes are impacted seasonally?
- Too much data! (alarms)
- What insights can we glean from the data?
- Evaluate corridors trends
- Focus manpower/efforts from alarm results
- Alarm data, specific

Lessons Learned:
- Re-think corridor type
- 30 alarms, focused on 5
- Uncovered the unknown on alarms

Solutions:
Three Step Process: Quantify information, Baseline information and Actionable information

Seminole County 1.0
- 15 Routes of Significance identified and reported.
- Produced by the team after the 1st of every month.

Data Sources:
- BlueTOAD data
- ATSPM volume data (Intersection level)

Report Information Displayed:
- Historical Travel Times
- Travel Time Reliability
- Travel Time Index
- Planning Time Index
- Origination/Destination

Impacted Teams/Audience:
- County Traffic Engineers
- Project PM’s
- Consulting Engineers
Issues:
- Deployed ITS equipment last 10 years, how are we doing?
- Where should we be focused?
- Software is changing, how should we incorporate?

Solutions:
- Baseline our information
- Impacting our signal retiming efforts
- Consolidate software information into 1 report

Lessons Learned:
- Verification of efforts
- Need more information
  - ATSPM’s
- Flexibility: ATSPM’s
Quick Conclusions:

1) Identify Objectives and Definitions of Success per Audience
   ◦ Summary of data into 1 location versus multiple software platforms and vendors
   ◦ “Big data” becomes noise

2) Focus of our efforts
   ◦ Are we doing the right things?
   ◦ What new can we start doing?

3) Can we be ready for new software/technology and data?
   ◦ Flexibility of our information
   ◦ ATSPM’s
   ◦ Connected vehicle datasets
Questions?

Thank you!

SHELBY COKE, P.E., PTOE
SCOKE@COKECONSULTINGLLC.COM
561-839-1537

ADDITIONAL CREDIT TO:
FDOT-DISTRICT FOUR
PALM BEACH COUNTY TRAFFIC ENGINEERING
BROWARD COUNTY TRAFFIC ENGINEERING
SEMINOLE COUNTY
LIAN WOLFE OF COKE CONSULTING, LLC