Indiana SR-9 Deployment: Traffic Signal Performance Measures Case Study

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Abstract
As part of ongoing maintenance, INDOT annually identifies several signalized corridors for equipment upgrades and updating of traffic signal timings. The first phase of these efforts is detector maintenance and deployment of upgraded controllers and communication. Traffic signal performance measures collected using the upgraded equipment can then be used to identify signal timing improvements. This poster illustrates the steps followed and outcomes from the traffic signal modernization work on State Road 9 (SR-9) in Anderson, Indiana.

Study Area

Modernization Projects

SR-9, Anderson, IN

Sample Progression Optimization

Existing Flow Profiles:
- SB: 240-17 6:00 - 9:00
- NB: 240-17 6:00 - 9:00

Optimized Flow Profiles:
- SB: 240-17 6:00 - 9:00
- NB: 240-17 6:00 - 9:00

Optimized using Link-Pivot Algorithm; implementation & results TBD.

Outcome Assessment

Lessons Learned

- Need for centralized detector channel mapping
- Importance of asset management
- Managing impact of modernization projects
- Identifying milestones for successful implementation
- Equipment upgrades, communication status
- Differences in high-resolution data implementation between controller vendors