Traffic Signal System
Performance Measures

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How are we doing?

- Declining funding
- Lack of political support
- Stock answers
  - 10 percent improvement
  - 3-5 year retiming
  - Adaptive is (great/too expensive)
    [chose one]
Classic Economic Analysis

- Tally up small numbers to create large benefits (10 million people in NYC get home 90 seconds sooner, every day, for 10 years = $10 billion)
- Benefits can’t be traded for a single cup of coffee (Starbucks or other)
Unmeasurable Performance

- The ambulance arrives 90 seconds sooner because of priority based traffic signal system, saving a life
- What are the benefits?
- How are they factored into system design?
Imagine a Car without a Speedometer

- How do you know how you are doing?
- How would you comply with speed limits, yet make a trip in the least amount of time?
How Is Our Traffic Control System Performing?

- The progression speed is 35 mph
- Our simulation says the average delay is 30 seconds per intersection
- Our after study says the average travel time was reduced 7 percent
- My optimization software says these are the best timings
What Is The Answer?

- Hold a workshop
- Provoke discussion
- Think outside the box
- Needs to be simple
- Needs to be automatic
- ??????