

# Barriers to Successful ITS Implementation

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# Agenda

- Typical Barriers
  - Funding
  - Competing interests
  - Poor story telling
  
- City/Local Agency Barriers
  - Implementation
  - Post project planning



## Typical Barriers

- Limited funding
  - Last increase to Highway trust fund was in 1993
  - Local entities have similar funding restraints
- Competing interests
  - New Roads, Parks, Greenways, Police/Fires Station, etc.
- Poor story telling\*\*
  - Engineers are not known as great communicators



# City/Local Agency Barriers

## Implementation

- Raleigh managed and is managing 2 large ITS projects (lots of examples of barriers)
  - Signal System Upgrade (done)
    - \$28 million project upgraded 620 cabinets controllers and built 210-mile fiber network
  - TSP for BRT (ongoing)
    - TSP pilot project prior to 4 legs of BRT corridors
- Locally managed projects while beneficial has downsides;
  - Benefit of involving staff during construction helps later
  - However, it diverts resources
  - Staff not necessarily trained in project management



# City/Local Agency Barriers

## Implementation

- Multiple Entities and Contractors involved
  - Multiple Entities
    - State, City IT, City Traffic, FHWA, City Council
    - Important to be eligible for reimbursement
  - Multiple contractors
    - E.g. Signal System upgrade had GC, subs, integrator, and engineer which resulted in lots of finger pointing (e.g. network issues)
- Fish out of water
  - IT/Network components is not area Traffic Engineers are typically educated in (e.g.. Arp packet storm)
    - 40 intersections went into flash around 4:00pm b/c of storm



# City/Local Agency Barriers

## Post Project Planning

- Staffing needs not accounted for
  - Some operational duties of existing staff changes
  - New areas unaccounted for
    - e.g. network management and network maintenance
- No extra equipment
  - While you get new equipment with project, FHWA does not allow spares
    - Some switches life span is 8-10 years
    - Some components although new break
  - Need to plan for inventory of new equipment well in advance



# City/Local Agency Barriers

## Post Project Planning

- How to maintain new equipment
  - Fiber and switches big change from copper
    - Do you use Contractors or hire FTE staff
  - Unplanned problems
    - squirrel damage consistently causes breaks in fiber
- How to Operate new technology
  - Training can be good to poor
    - Having staff involved in project exposes them early to new equipment operations
  - Adaptation of some staff can be difficult



Questions?