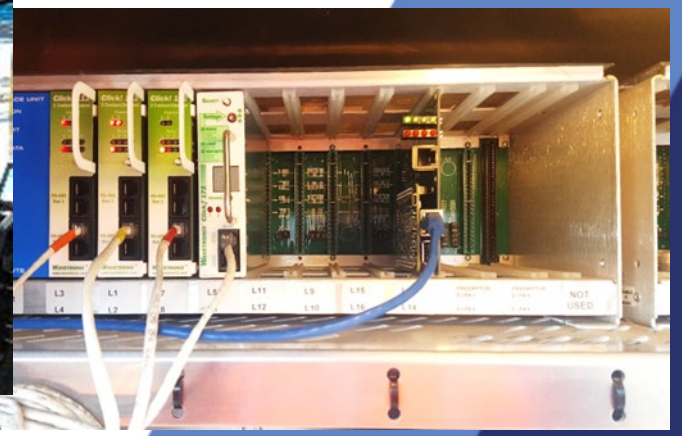
Connected Vehicle Deployments: The Utah Experience



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Why Deploy Connected Vehicle Technology?

- Safety / Saving Lives
  - Key to moving toward Zero Fatalities
  - “Coalition for Safety Sooner”
    - Move forward with technology now; Don’t wait while deaths continue
    - Using DSRC technology

- Mobility Benefits
  - Demonstrated benefits for transit
  - Mobility applications are easier (using fleet vehicles): start there to accelerate the learning curve

Zero Fatalities
A Goal We Can All Live With

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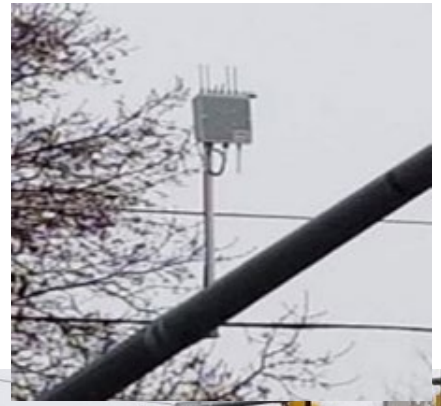
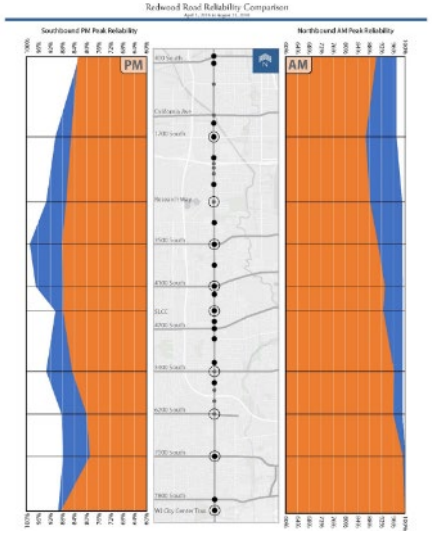
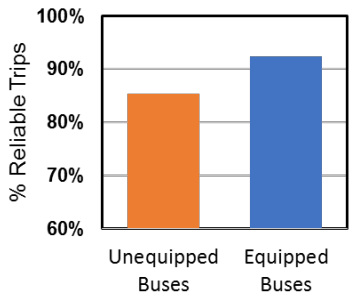
Redwood Road Connected Vehicle Project

- Transit Signal Priority (TSP)
  - Grant conditional priority when bus is behind schedule
  - Goal to improve transit schedule reliability
- DSRC wireless communication technology
  - 24 signalized intersections
  - 10 UTA buses
  - Using 5.9 GHz channels 172, 178, 184
- Operational since Nov 2017
- Schedule reliability improved by 6%
  - Minimal impact to other traffic







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Additional Deployments

- Provo-Orem BRT Project (UVX)
  - Transit Signal Priority using DSRC
    - 47 Signalized Intersections
    - 25 Buses
  - Operational December 3, 2018
- Snow Plow Pre-emption Project (Safety)
    - Salt Lake Valley – 5 corridors
    - 55 Additional Intersections
    - 46 Snow Plows
    - Evaluation Study Underway
  - Operational in March 2019

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More Connected Vehicle Deployment Coming . . .

- Existing State Funding
  - Snow Plow Pre-emption on UVX Route
  - 40 RSUs / 30 OBUs in 2019
  - 160 RSUs / 2000 OBUs over next 4 years
- ATCMTD 2018 Grant
  - Two more TSP Corridors; Additional Buses
    - (State Street Utah Co, State Street SL County)
  - Two more Snow Plow Pre-emption Corridors
  - Curve Speed Warning Application (20 locations)
  - Road Weather Warning Application (20 locations)
- CMAQ Funding
  - Two to three additional TSP Corridors in 2020
- CMAQ Funding for UTA
  - Extension of 3300 South MAX BRT Corridor – more TSP

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