

# Session 1: Innovation & Emerging Technologies

## *Infrastructure Readiness for Connected Vehicles & Traffic Signal Performance Measure Applications*

- Number of state sponsored/hosted pilot programs in the following areas:
  - Connected vehicles
  - Automated vehicles
  - Fully autonomous vehicles
- Which wireless technologies does your agency currently use for infrastructure-based (I2I/V2I/I2V) communications?
  - 5.9 GHz DSRC
  - Commercial Cellular Services
  - WiMax
  - Wi-Fi
  - Bluetooth
- Does your agency have a formal institutional structure for overseeing the deployment/management of strategies to support I2I/V2I/I2V communications?

Iowa is just starting our first Connected/Automated Vehicle project, working with HERE to develop high-definition mapping and weather-related traffic modeling. Communication methods have not yet been determined.

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- Number of signals currently broadcasting Signal Phase and Timing (SPaT) info:
- Number of SPaT broadcast deployments currently planned by 2020:
- Number of other roadside units (RSUs) broadcasting infrastructure information:
- Approximate breakdown (%) of signal controller inventory by the following standards (intended to ensure compatibility with connected vehicle applications)?
  - ATC 5.2b:
  - Model 2070LX:
  - Model 2070E:
  - Model 2070L:
  - NEMA, Modern (e.g., Econolite ASC3, Ethernet port is present):
  - Type 170, Modern (Ethernet port is present):
  - Incompatible (e.g., NEMA Legacy, Electromechanical):

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- Number of signal controllers currently running CV applications:
- Number of signal controllers planned to run CV applications by 2020:
- Do your current procurement specifications for traffic signal hardware (e.g., controllers) include language for SPM support?
- Do your current procurement specifications for any ITS hardware (including signal controllers) include language for CV application support?

Iowa's traffic signals are owned and maintained by our cities. We currently do not have traffic signals broadcasting SPaT information, but the Dubuque STREETS initiative is starting and there is some potential for another project in Iowa City/Coralville/North Liberty.