



# Transportation and Public Works

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BILL SPRINGER

ILLINOIS FIRSTNET SYSTEM ARCHITECT

# Background

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33 Years at Illinois Toll Highway Authority

NIMS: Transportation is ESF #1 Public Works is ESF #3

Critical Infrastructure – Response and **Prevention**

Traffic Flow is a Safety Issue

Response to Incidents is an important Transportation function.

**Preventing** Incidents is even more important.

# Current Situation: Drivers at Risk



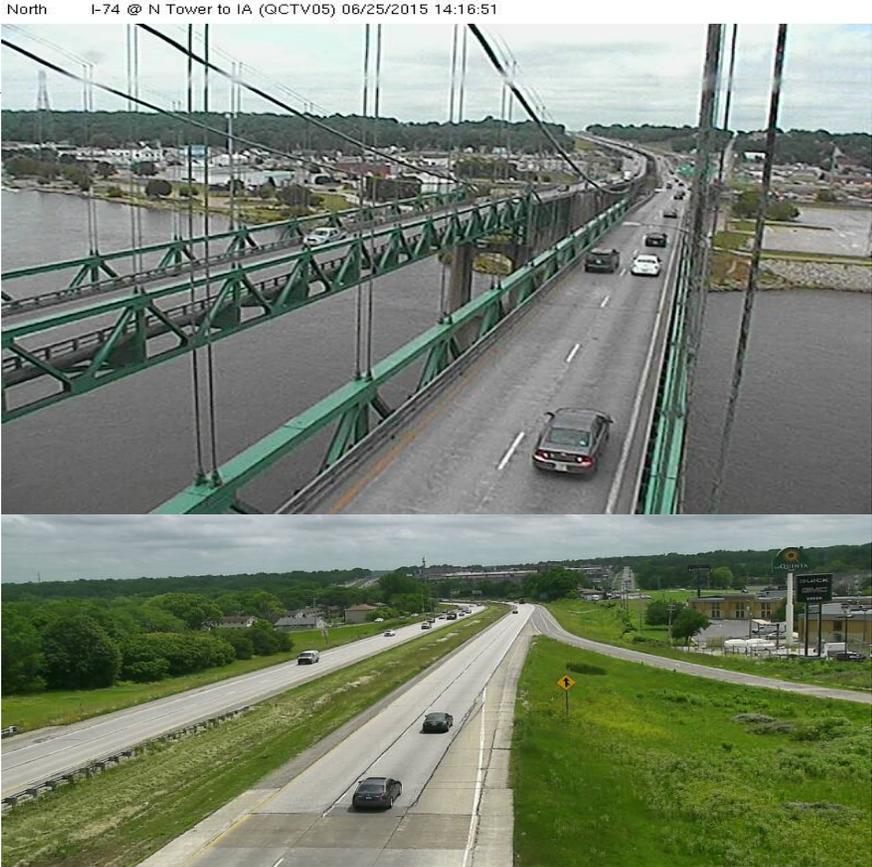
# Current Situation: How We Communicate

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- Traffic conditions can be reported by Voice Radio or Cellular.
  - Tried and True, but a limited picture.
- Traffic conditions can be monitored by fixed cameras and fixed sensors.
  - These work well, but are limited by their lack of movement.
  - Tied to their cables.

# Current Situation: Fixed Cameras & Sensors



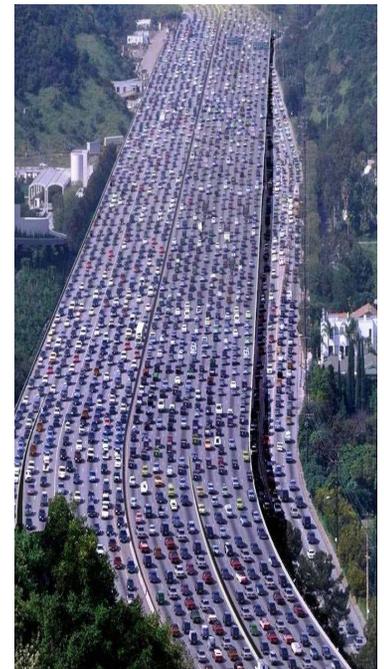
# The Future: Portable Cameras, Sensors and Messaging



## Transportation and Public Works Uses of Roadway Data

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- Dispatch, EOC, Traffic Centers
- Day-to-Day Use
  - Traffic Monitoring & Emergency Response
- Planned Events
  - Concerts & Sports Events cause Major Disruptions
- Disaster Response
  - Make Sure Evacuation Routes are OPEN!



# A Look Ahead



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- Voice Communications, i.e., Mission Critical Push-To-Talk:
    - Integrated Narrowband and LTE Devices and Systems using the best path/spectrum for the particular situation.
  - FirstNet has the potential to change how information is distributed, especially video and sensor data
  - Mobile Streaming Video will be a Game-Changer
  - The biggest thing FirstNet brings to the table is **Bandwidth** and **Capacity**: The ability to do things we can only imagine today.