# **ROUP OF NORTH AMERICA**

#### Infrastructure Based Solutions for Connected and Automated Vehicles



Liam Pedersen, Ph.D. Nissan Advanced Technical Center – Silicon Valley

#### Data for Intelligent Speed Adjustment



J. Sprinkle, D. Work et al, Vanderbilt University

#### Tennessee I-24 Motion Cameras



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#### Data for Autonomous Driving



#### Why Use Stationary Infrastructure for AD?



**Better View** 



#### **Better Perception**

Change detection in relatively static scene



#### AD as a Service



GPS / Odometry / Steering



Telemetry to AD S/W Command from AD S/W

#### Challenges

## Who Pays

### Access

# Latency & Safety

#### Acknowledgments

# davteq





contra costa
transportation
authority