Positioning Challenges and Vision for Transportation

ION GNSS+

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Enabling Research

• Communications, Cloud Data
• Local Sensors
• Data Fusion
• Control Systems
• Human-in-the-Loop
Connected Vehicles

• Benefits: Safety, Mobility, Energy

• Applications
  – Platooning
  – Intersections

• What’s Next
  – Scaling benefits, interoperability
  – Verification
Truck Platooning

• Benefits: Energy, Mobility, Safety
• Research Issues
  – HMI, vehicle dynamics, scenarios
Pedestrian Navigation

• Benefits: Mobility, Safety
• Research Issues
  – Signal access
  – Power
  – Indoor to outdoor transitions
• What’s Next
  – HMI
  – Initial network
Government Vision

• Public Benefit Promoting
  – Health and safety, economics
  – Access to open, heterogeneous network

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