AI potential Applications in Transport

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Introduction

• Automated Driving – Multiple AI Applications
• Smart Networks – Possible AI Applications

• AI Applications for Users
• Conceptual Architecture
• The Future
• Q&A
Automated Driving - Multiple AI Applications

- Distance detection and object avoidance
- Lane Guidance
- Origin Destinations
- Optimal Route determination
- Information flow between vehicles in proximity
- Intersection management and guidance
- Vehicle Platooning
Smart Networks

• Traffic signal optimization based on data fusion
• Congestion Traffic management efficiency
• Travel pattern recognition
• Priority Vehicle management
• Kerbside Parking Management
• Infrastructure Management
AI Applications for Users

- Optimized route for travel, private and public transport
- Cost determination and settlement for transport service
- Available services and selection
- Commuter demand and supply determination
Conceptual Architecture

Role model conceptual architecture: Smart city ITS application service ISO/TR4445
An image of role model and functional model of ITS data aggregation servicer.

- Data exchange
- ITS data aggregation
- Providing requested data to service providers

- Uploading data collected by service providers

- Service providers
- Data from external sources such as:
  - Traffic management center
  - IoT devices
  - OEM probe data
  - Cell phone location data
  - Emergency evacuation information
  - Weather conditions
  - Local government holding data
  - Regulation and enforcement information

- Probe data collection from users & traffic, safety and regulation information provisioning to users
Operational Vehicle in New Zealand and South Korea
Summary

There are a number of focus areas that require AI and BD solutions that make this an extremely interesting space.
Thank you

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