IntelliDrive℠ Dynamic Mobility Applications

I. Candidate Application Concept Template

The United States Department of Transportation (USDOT) initiated the IntelliDrive℠ Dynamic Mobility Applications Program to develop applications that transform mobility by providing transportation managers and systems operators with real-time monitoring and management tools to manage mobility between and across modes more effectively, and travelers the ability for dynamic decision making. To this end, the Dynamic Mobility Applications Program is inviting stakeholders to submit ideas for transformative applications that show the potential to improve the nature, accuracy, precision and/or speed of dynamic decision making by both system managers and system users.

This is not a request for proposals. The USDOT Dynamic Mobility Applications team will work with stakeholders from the public and private sectors, and the academia to prioritize the collection of suggested applications of interest either for further development or for testing in Phase II of the Program.

Please submit on-line or send your completed form to DMA-Template@dot.gov by 15 October 2010. The USDOT Dynamic Mobility Applications team may contact you for additional details. An example of a filled out template is given in Section II for your reference. Definitions of terms used in the template are given in Section III.

1. Contributor

   Enter your name or the name of the representative organization, an email address, and a phone number so that we may contact you.

2. Name of candidate application of interest

   Specify the name of the suggested application of interest.

3. Problem addressed by the application

   Concisely state the problem addressed by the application.
(Check all that apply)

1. Individual (traveler) benefits
   - increased accessibility
   - reduced cost of travel
   - reduced delay/travel time
   - reduced environmental impacts
   - increased safety
   - increased security
   - increased travel reliability
   - Other ____________

2. System efficiency
   - reduced agency costs
   - reduced environmental impacts
   - increased goods throughput
   - increased person throughput
   - increased ridership/vehicle occupancy
   - increased safety
   - increased security
   - increased system reliability
   - Other ____________

3. Mode
   - roadway
   - transit
   - freight
   - parking
   - non-motorized (pedestrians, bicycles)

4. Application description

   Provide a brief description of the suggested application of interest. Please discuss how the application is transformative, and how IntelliDrive will enable this transformation. Who will use the application and who will be impacted by the application?
5. Potential benefits and impacts

Please summarize the near-term (e.g., due to limited market penetration of IntelliDrive-enabled vehicles) and long-term impacts of the suggested application. Assessment can be conceptual or verified in a simulation environment or a test environment. When can we realistically deploy the application and see an impact?

1. Near-term impacts

2. Long-term impacts

6. High-level application needs

1. Data needs

Please specify the type, frequency, latency, quantity, and market-penetration of data needed from connected travelers, vehicles and infrastructure-based sensors.

2. Communications needs

Please specify the critical communication needs if known. Are low latency wireless communications required to see the full impacts of the application? Can benefits from the application be realized with lower speed and higher latency communications? Communications here may be among any combination of connected travelers, vehicles, and infrastructure.
3. Infrastructure needs

Please specify the critical infrastructure components for the application.

4. Other needs

7. Is the suggested application of interest a modification or enhancement of existing/ongoing research that you have conducted?

Please specify here if the application will leverage existing or ongoing research and development efforts that you are currently involved in.

☐ Yes If yes, specify:
  Project title ________________________________
  Sponsoring organization ________________________________

☐ No
## II. Definition of Terms

**IntelliDrive:** interoperable networked wireless communications among vehicles (light vehicles, transit, and freight), the infrastructure, and travelers’ personal communications devices

**Mobility application:** an application that increases the efficiency of the system and enhances the mobility of individuals (travelers) within the system

**Stakeholder:** a direct or indirect user of the surface transportation system and transportation system managers. In the case of the Dynamic Mobility Applications Program, stakeholder groups are identified by those who utilize developed mobility applications and those impacted by the deployment of a particular mobility application.

**System efficiency:** the capability of the surface transportation system to transport goods and travelers reliably and safely and with the lowest possible environmental impact and most efficient use of energy

**Transformative application:** an application that enables a transformative effect on surface transportation system performance, i.e., it significantly raises the capability of the surface transportation system to transport goods and travelers reliably and safely and with the lowest possible environmental impact and most efficient use of energy