**United States Connected Vehicle Research Program**

Benjamin McKeever, P.E., Federal Highway Administration (FHWA)

While America's transportation system continues to be one of the nation's greatest achievements and is the lifeblood of the U.S. economy, critical improvements are needed to make surface transportation safer, smarter, and greener and ultimately enhance livability for Americans. Part of this transformation to our transportation system can be achieved through connectivity. Connected vehicles have the potential to transform the way Americans travel through the creation of a safe, interoperable wireless communications network that includes cars, buses, trucks, trains, traffic signals, cell phones, and other devices. Like the Internet, which provides information connectivity, connected vehicle technology provides a starting point for transportation connectivity that will potentially enable countless applications and spawn new industries.

Connected vehicle applications provide connectivity:

- Among vehicles to enable crash prevention
- Between vehicles and the infrastructure to enable safety, mobility, and environmental benefits
- Among vehicles, infrastructure, and wireless devices to provide continuous real-time connectivity to all system users.

A connected vehicle network can vastly improve our nation's transportation system in the areas of safety, mobility, and environment. This presentation will provide an overview of connected vehicle technology and describe the U.S. Department of Transportation's Connected Vehicle Research Program. Some of the key program elements that will be discussed include the Connected Vehicle Safety Pilot, connected vehicle applications research, technological research, policy implications, and deployment scenarios.