ESTABLISHMENT OF A PUBLIC-PRIVATE TRANSPORTATION DATA EXCHANGE CENTER

VISION

It is envisioned that a long-term data institute would be created with the successful establishment of the proposed data repository and exchange ecosystem in coordination with USDOT, FHWA, AASHTO, OEMs, and other key stakeholders.

INTRODUCTION

Highway safety is a massive topic of public interest and it is abundantly clear that data-driven insights play a key role in improvement of highway safety. Modern vehicles collect huge amounts of data with an aim of continuously improving their driving performance. This data repository is usually owned by the Original Equipment Manufacturers (OEMs). If this data were to be shared with the state Departments of Transportation (DOTs) that plan, build, and maintain highways then significant advancements and improvements in highway safety could be realized. However, such a synergistic relationship does not exist currently, which has resulted in emergence of a whole third-party industry that aggregates such data and sells it to the DOTs, often at hefty prices. Furthermore, the sources are not verifiable and have no standardization, making analyses difficult. Thus, motivated by the needs, this project led by MCTI and dSAIC under the University of Missouri System proposes to develop a secure computing, data analytics and storage infrastructure with a data repository that will collect all relevant data and share it with DOTs for analysis without any identifying information attached to improve transportation decision-making.

PHASE 1

The first phase of the project will intend to build rapport and trust for seamless exchange of data and information between DOTs and OEMs. This will encompass development of a shared computing infrastructure that will demonstrate our ability to securely ingest, integrate, store, and analyze multi-sourced data to support the safe and reliable operations of the US highway system.

FUNDING TARGET: $4 MILLION OVER 4 YEARS

PHASE 2

Phase 2 will focus on engagement and recruitment of OEMs, following the plans developed in Phase 1 and utilizing the results of the early projects designed to showcase the potential benefits of the proposed data repository and exchange ecosystem. It is envisioned that a long-term data center or institute would be established with the successful establishment of the data repository and exchange ecosystem. A widespread participation in this project will not only lead to an overall improvement of highway safety for the road users but could also potentially elevate the driving performance of all types of vehicles.