Traffic Operations Open Data Service

Skylar Knickerbocker, Iowa State University

Abstract

The goal of this project was to establish an operations based open traffic data service using data from Iowa DOT, which will allow vendors and agencies to provide near real-time, proactive alerts. This open data service provides operations-related data to any commercial, public or private entity to develop their own applications or integrate these data into their existing hardware, software, and logistics systems.

The open data service makes transportation related data accessible to both internal DOT and external third-party users. A combination of high-performance computing (HPC) on premise and on the cloud was used to create data feeds which provide clean data streams, alerts for traffic congestion using machine learning, performance reporting, and data analytics.