SYSEN 6150: Model Based Systems Engineering

User Story (Revised)

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User Story:

1. **Card**:

   The users of the transit information and prediction system shall be able to retrieve real-time alerts on green house gas (GHG) emissions from bus idling during all operational hours. The system shall have a latency of no longer than 5 secs from the time each vehicle collects data to the time it is available for viewing from a mobile device. The data generated from the system shall be publicly available on a daily basis.

2. **Conversation**:

   (a) Users would like to be able to avoid exposure prolonged exposure to GHG emissions from buses that are stopped at bus stops.

   (b) Users require that the information they receive should be fast enough to make near immediate decisions by notifications from their mobile device.

   (c) Public health authorities have expressed interest in acquiring this data to inform future policy regarding transportation and respiratory disease.

3. **Confirmation**:

   (a) The transit information and prediction system successfully detected idling buses

   (b) The system has handled the incoming request load and stress test of users at all hours of operation.

   (c) The wall-clock time from data collection on vehicles to notifications on mobile devices has averaged less than 2 seconds.

   (d) A persistent and robust storage system of all historical data is open-source and publicly available and updated on a daily basis for download.