V2X Applications Overview

Vehicle-to-Infrastructure (V2I) Communications

Savari’s hardware product families and software stack enable a range of V2X applications, which are displayed on a vehicle’s infotainment platform or on the driver’s tablet or smartphone.

V2X applications include Vehicle-to-Vehicle (V2V), Vehicle-to-Infrastructure (V2I) and Vehicle-to-Phone (V2P) applications, all aimed at increasing traffic safety and efficiency. The goal is to eliminate traffic related fatalities by deploying life-saving V2X applications in all cars.

Savari’s V2I applications feature graphical representations of the traffic scenario, using host vehicles (HVs) and remote vehicles (RVs), and displaying alerts through the app to the driver in the host vehicle. All apps are developed in collaboration with the Crash Avoidance Metrics Partnership (CAMP) consortium. Many of the scenarios can only be achieved through radio-based sensors, which do not require line of sight. A rich feature set makes Savari’s offering unique:

- Radio-agnostic solutions supporting leading radio vendors
- Numerous applications
- Trial bed and market experience
- Built-in IP for positioning, map matching, target filtering and tracking at multiple levels
- Built-in IP for accurate situational awareness

Curve Speed Warning (CSW)

**What is it?** CSW enables connected vehicles to receive information that it is approaching a curve, along with information for computing the safe speed.

**How it works?** This capability enables the vehicle and infrastructure to provide a warning to the driver regarding the curve and its recommended speed.

Reduced Speed Zone Warning (RSZW)

**What is it?** The RSZW app sends information to vehicles about workzones.

**How it works?** The user receives a warning when the vehicle is approaching a workzone. Well before moving into workzone, the user receives lane closure information.

Red Light Violation Warning (RLVW)

**What is it?** RLVW provides information about the signal phase and timing of the traffic light intersection from the Road-Side-Unit (RSU).

**How it works?** The RSU broadcasts a Signal Phase and Timing (SPaT) message, Geometric Intersection Description (GID) and GPS correction to the vehicle. An in-vehicle device determines if the vehicle is in danger of violating a red light and displays it on the dashboard.