Colorado DOT I-70 Mountain Corridor.

Colorado (USA).

Kapsch TrafficCom is the first manufacturer to submit its RIS-9260 roadside unit (RSU) for dual-use certification by the OmniAir Consortium, the global industry association promoting interoperability and certification for intelligent transportation systems, tolling, and connected vehicles. The Kapsch RIS-9260 is used in connected vehicle (V2X) applications and can operate within either or both the DSRC and C-V2X protocols as dual-mode/dual active. It is already OmniAir-certified for DSRC operation.

Kapsch TrafficCom V2X Technology Enables Future Connectivity and Protects Infrastructure Investment

In 2018, Kapsch installed 100+ RIS-9260 units along the 90-mile I-70 Mountain Corridor highway in Colorado to support the world's first-ever dual-mode DSRC/C-V2X RSU deployment as well as the largest C-V2X deployment in North America. The units were tested with snow plows and test vehicles to demonstrate safety and mobility use cases largely standardized by SAE J2735 and SAE J2945.

In collaboration with Qualcomm, and under advisement of the project prime, Panasonic, Kapsch rapidly developed and deployed first article units in under nine months from product conceptualization to customer delivery. Furthermore, the RSU received OmniAir Certification for DSRC functionality in September 2019. Kapsch is currently the first vendor to apply the RSU for C-V2X certification as well through OmniAir's recently-established C-V2X certification program.

Project Scope:

The goal was to establish a smart and connected roadway that provides vehicles and authorities with the necessary information and increased safety.

- Implementing the first real-world demonstration of V2X: connecting vehicles, roadways, regional traffic management center in Denver
- The performed services for the project include specification, development, design, validation, integration, and deployment in the context of Panasonic / C-DOT / I-70
- While highlighted as a deployment project, the project also served as a product development vehicle for the RIS-9260

The Challenges:

The weather conditions in Colorado provide a major challenge for road authorities, but thanks to vehicle communication information regarding road conditions, weather conditions, accidents and reliable travel times can be provided in real-time.

The Solution:

- RIS-9260 Roadside Unit (RSU)
- Dual-mode and dual-active capable for DSRC and C-V2X
- The adaptable design of the dual-mode / dual-active RSU which removes investment risk for roadway operators with operating capability on both DSRC and/or C-V2X protocols
- C-V2X with determined method of channel access by time slot allocations

Your Added Value

- ***Provides fast V2I data exchange to enable full capabilities of cooperative systems***
- ***RSU works with numerous traffic controllers and supports various applications***

Kapsch TrafficCom AG | Am Europlatz 2 | 1120 Vienna | Austria | P +43 50 811 0
F +43 50 811 2109 | ktc.info@kapsch.net | www.kapsch.net | www.kapschtraffic.com