AIMES Connected Corridor and Intelligent Intersection solutions, Melbourne, Australia

The project: A Kapsch TrafficCom Connected Corridor solution within the Australian Integrated Multimodal Ecosystem (AIMES) zone in Melbourne, Australia

Kapsch TrafficCom Australia has established a local Connected Corridor and Intelligent Intersection pilot within the Australian Integrated Multimodal Ecosystem (AIMES), a 6km2 area of Melbourne, which is situated near Melbourne CBD and includes the University of Melbourne campus. The project is funded by the University and by the Victoria Department of Transport (DoT).

The purpose of the pilot project is to demonstrate how the latest Connected Vehicle technologies can reduce accident risks, speed up incident responses, and reduce congestion based on real-time traffic data and insights. The project, which is currently in its second year of operations, is currently collecting data on these key value metrics to show the tangible safety improvements that have been achieved on this section of the Melbourne road network.

The solution: An end-to-end Connected Corridor and Intelligent intersection solution from Kapsch TrafficCom

Working with the University of Melbourne, Kapsch TrafficCom has deployed the AIMES Connected Corridor solution from end to end, including solution design, deployment, and ongoing maintenance and support. The solution includes a number of key technologies from Kapsch TrafficCom, including Roadside Units (RSUs) and the software and data platforms, including the Kapsch Connected Mobility Control Center (CMCC) and EcoTrafix platforms.

Together, these technologies allow the city to fully understand current traffic conditions and congestion, accident risks, traffic violations, and incidents such as blocked lanes at intersections. It is also possible to identify and analyse accident 'near misses', and to understand demand for public services vs. the number of buses or trams available on key routes.

The Kapsch Deep Learning Versatile Platform (DLVP) provides a rich stream of data, such as the number of vehicles on the roadway or passing through an intersection, the types of vehicles, the speed of each vehicle, and more. A roadside camera is all that is needed to generate these insights, making the solution highly efficient to deploy.

The benefits: Traffic awareness and enforcement for increased road safety and reduced congestion

The AIMES solution is helping the city of Melbourne to increase the safety of drivers, cyclists and pedestrians based on increased awareness of safety risks in the area. The ability to spot and sanction traffic violations also promises to change and improve driving on the city's streets, further helping to reduce accident risks and, potentially, providing a new revenue stream for the city.

Additionally, with visibility of traffic conditions in real time, the city of Melbourne can understand the root causes of congestion and take measures to keep traffic flowing – including faster responses to incidents that block lanes or otherwise cause delays. Public transport planning can also be optimised based on an in-depth understanding of demand vs. available vehicles and services on key routes.

Finally, the pilot has been designed with ease of deployment in mind, and – based on this model – similar solutions can be rolled out across APAC quickly and efficiently. The solution can also be adapted easily to a variety of road conditions and vehicles, including motorcycles and scooters, which are much more prevalent in other parts of the region.