



## CAV

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### Connected Autonomous Vehicles

Communication between vehicles and Smart City infrastructure is fundamental to the CAV revolution. Around the world, governments are recognising that autonomy requires cooperation – CAVs will need to communicate with each other and with Smart City infrastructure.

In the US, the National Highway Traffic Safety Administration believes the advancement of vehicle automation depends on fusion of connectivity and onboard technologies. The European Commission Declaration of Amsterdam calls for the convergence of investments and regulatory frameworks across the EU to enable deployment of interoperable connected and automated driving by 2019.

Cohda Wireless is a global leader in the mobile outdoor communications that will realise the full potential of Connected Autonomous Vehicles. We have already solved critical issues such as CAV localisation, sensor fidelity and system cost. Our next generation of CAV application layer software is giving car manufacturers the keys to advanced CAV projects, including:

- Improved driving environment monitoring using radar
- Optimised efficiency through cooperative cruise control
- Accurate positioning to improve driving tasks
- Enhanced performance data collection.

# CAV Solutions

## CAV Apps

Cohda Wireless has overcome critical CAV obstacles, including CAV localisation, sensor fidelity and system cost. Our CAV software also ensures security, privacy and functional safety across all applications.

Our next generation of CAV application layer software solves further technical issues, allowing car manufacturers to deploy tomorrow's CAV projects today.

## V2X Stack

Cohda Wireless has a proven suite of 'Day One' applications that have become the industry standard in automotive V2X production. Our mature, hardware agnostic V2X applications are the most widely deployed in this rapidly evolving sector, including major commuting projects, pioneering truck platooning initiatives and collision avoidance systems.

Cohda's V2X solutions are already making cities safer, smarter and greener, and setting the benchmark for the industry worldwide.

Both Development Licenses and Production Licenses are available to developers of automotive V2X equipment.

## V2X-Locate

Typically, GNSS positioning performance degrades in areas such as urban canyons, tunnels, parking garages, and any other compromised sky views, resulting in

unpredictability in determination of vehicle position. The utility of V2X-Locate is particularly evident in such GNSS challenged locations.

V2X-Locate uses ranging measurements to fixed RSUs to enable enhanced positioning accuracy. The ranges from spatially separated RSUs are fed into Cohda's enhanced V2X-Locate positioning engine to accurately position vehicles equipped with OBU's. Through the advanced processing capabilities of Cohda's software designed radio, the V2X-Locate solution is able to calculate a true line-of-sight path regardless of the existence of multipath signals, allowing the vehicle to know its position with accuracy.

*\*Based on recommended deployment set-up*

## V2X-Radar

Cohda's V2X-Radar system overcomes the limitations of current sensors that hamper a CAV's ability to identify and assess hazards, especially in rain, snow and fog, and where there is no line-of sight.

V2X-Radar transforms a V2X system into a 360° radar system with no additional hardware. It uses standard V2X transmissions from multiple sources, such as other equipped vehicles and RSUs, to illuminate the world and distinguish between static and dynamic objects, identifying their position, velocity and direction of movement.

As well as helping CAVs identify and assess potential hazards, V2X-Radar can be used in plausibility checking and positioning.

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