



Smart Cities

A common dilemma with revolutionary technology such as CAV and V2X is how to deploy the infrastructure necessary for it to work, before it becomes available. Cohda's Smart City Architecture solves this dilemma for cities preparing for a CAV future with a range of applications that can be deployed today, providing immediate benefits while preparing for tomorrow.

Green Wave and Signal Priority are applications that directly and measurably improve the functioning of cities, delivering efficiencies not only to heavy vehicles, public transport and emergency services, but to all road users and the environment.

Signal Priority and Green Wave are applications that give preference to freight vehicles, buses and emergency services, and offer heavy vehicles the opportunity to request a green light extension for up to three seconds as they approach an intersection.

Analysis shows an immediate benefit when this system is deployed along freight corridors. In trials involving three major corridors, 120 traffic signals and 115 freight vehicles, travel times were reduced by 25%. It's not about giving trucks preferential treatment – cars on these routes actually saw an even bigger improvement with travel times cut 27%.

Reducing stoppages for the heaviest and slowest vehicles on the roads reduces congestion for everyone, saving time, improving air quality and reducing fuel usage. This simple application makes our Smart City Architecture worth doing now, with the bulk of the benefits still to come as CAVs become widespread.

Cohda's Smart City solutions make sense now, offering devices for intelligent transport systems of the future no matter the technology choice.

Cohda Wireless is a global leader in the development of Connected Vehicles and Connected Autonomous Vehicle software with proven applications for Smart City, Mining and other environments.

Cohda Wireless' V2X technology is proven with inclusion in the first two production vehicles giving Cohda Wireless practical experience in bringing automotive ITS solutions to industry.

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Smart City Solutions

MK6 RSU & OBU

Cohda Wireless 6th-generation Road-Side Unit (RSU), and On-Board Unit (OBU) are the most advanced V2X units on the market with dual V2X technology using the latest connectivity with:

- DSRC with 2x NXP RoadLink® SAF5400 chipset
- C-V2X with Qualcomm SA515 chipset supporting 3GPP R15, 5G
- Cellular 5G NR with fallback support for 4G (LTE Cat 19)/3G/2G
- Wi-Fi 802.11 a/b/g/n/ac
- Bluetooth v5.1

MK6 offers a robust, secure foundation for intelligent transport systems of the future no matter the technology choice



MK5 RSU & OBU

Cohda Wireless' 5th generation Road-Side Unit (RSU), and On-Board Unit (OBU) are proven ready for DSRC large scale field trials, aftermarket deployments, or to serve as a reference design for developers of Smart City infrastructure.

The MK5 exchanges data at high speeds over extended distances, providing class-leading reaction times to potential hazards and safety-critical scenarios. In challenging outdoor conditions where no line-of-sight is available, its radio performance is unmatched.

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 RSU's 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 <1m 95% of the time.

**Based on recommended deployment set-up*

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