

GIVING TECHNOLOGY A HEARTBEAT

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Safe mobility with T IoT and Spoke

Greater safety for vulnerable road users with C-V2X and LTE/5G



“I didn’t see them” – this is the cause of most accidents involving bicycles and road vehicles.

Powered by global T IoT, Spoke is on a journey to reduce the number of accidents by ensuring that bicycles can “digitally” detect cars and, more importantly, that cars can detect bicycles.

In addition to 10 times per second direct, Cellular Vehicle to Everything (C-V2X) communications between cars and vulnerable road users, Spoke and Deutsche Telekom IoT are partnering to provide advanced contextual awareness and safety information delivered via the LTE and 5G networks to improve safety for vulnerable road users (VRUs).

Key facts

- With C-V2X and LTE/5G technology provided by T IoT, the road will be a safer place
- Vulnerable road users are protected by T IoT and Spoke through connected technology
- Cars will be able to “digitally” detect bikes and bikes cars – significantly reducing the number of accidents
- T IoT will connect Spoke’s innovative integrated hardware and software solutions
- T IoT supports the low-latency and quality requirements needed to connect the global network
- The technology allows for the integration of other digital services on bicycles





Spoke and T IoT, the global connectivity service with joint transatlantic networks provided by Deutsche Telekom and T-Mobile US, will help bolster safety for cyclists, motorcyclists, and other light mobility users.

The main reason for accidents involving cars and vulnerable road users (VRUs) such as cyclists and motorcyclists is their lack of awareness of each other. Nearly two thirds of all bicycle-related road deaths in 2019 were a result of crashes with motor vehicles. Timely safety alerts will help cyclists and motorists alike share the road more safely. The innovative Spoke hardware and software solutions, along with the global T IoT service, are optimized to help deliver immediate rider and driver connectivity – at scale.

Using LTE- and 5G-enabled connected computing hardware, cameras, and lights, Spoke's mobility platform delivers near real-time information, alerts, and rider connectivity to cyclists, motorcyclists, and motorists to help them reach their destination safely. In combination with T IoT's transatlantic network and excellent 4G and 5G coverage, road users traveling both short and long distances can be included in this ecosystem. Even retrofitted cars can be enabled to use the Spoke solution, enlarging the ecosystem of connected road users and improving road safety going forward.

T IoT delivers network connectivity spanning the full range of technologies to support nearly every possible IoT scenario both today and tomorrow – including NB-IoT, LTE-M, LTE, and 5G – optimizing it to help deliver near real-time connectivity at scale for 188 destinations worldwide.

With T IoT, innovative partners such as Spoke will have one team and one solution to manage all their connections around the world.



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