Soracom Announces Connected Car Strategy

Building secure cloud highways for autonomous vehicles

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Las Vegas (October 8, 2024) – Soracom, Inc., a connectivity solution that offers a global IoT platform with full MVNO capability, today announced its global strategy for the connected car industry by addressing connectivity and cloud management challenges faced in the journey to put more connected cars on the road. The company hopes to empower its automotive customers with the flexibility and freedom of choice to decide how they want to roll out connected car services. With experience supporting secure, cloud-native, global-scale cellular IoT connectivity, Soracom can play an important role in helping the connected car ecosystem manage a simple, secure, and scalable highway to the cloud.

The connected car ecosystem has encountered roadblocks raised by the numerous backend processes and relationships automakers, dealerships, connectivity providers, and consumers must navigate to bring connected cars up to speed. These challenges include the process of activating and managing SIM profiles on end devices; supporting flexibility in establishing and managing connectivity at the local level; ensuring end-to-end security; and efficiently integrating with connected car clouds to support the various features and infotainment content waiting to be unlocked.

These obstacles mirror those faced by the global IoT ecosystem, where Soracom's cost-effective, cloud-native cellular core supports global multicarrier coverage, private fiber peering, VPNs, and integration with various cloud services without the need for SDKs.

"The connected car journey has been like a long family road trip, with the kids continually asking, 'Are we there yet?' The good news is *we are almost there* - but for connected car services to succeed, the process of enabling them needs to be simple, secure, and scalable – for automakers, for dealerships, for connectivity providers, and most of all, for consumers," said Kenta Yasukawa, Ph.D., CTO and co-founder of Soracom, Inc.

Since 2015, Soracom has grown beyond a mere MVNO by providing a full infrastructure approach for connected carriers that is:

- Simple. Soracom offers a software-based, globally distributed infrastructure through Amazon Web Services that provides a direct link from the connected car to the cloud through its cloud-native cellular core and an on-demand virtual private gateway. As an

MVNO, Soracom is a major provider of both SIM cards and eSIMs, the embedded SIM chips that will likely be deployed in the next generation connected cars.

- Secure. Soracom's cloud-native, cloud-agnostic cellular core and virtual private gateway tool mean that connected vehicles won't have to operate on the public Internet when communicating with their backend systems, keeping network hops and data exposure to a minimum. Unlike a traditional private APN that takes months to set up and comes with operational burdens, Soracom users can set up their own fully managed virtual private gateway in a matter of minutes.

- Scalable. Soracom's ability to serve IoT customers worldwide allows it to support the connected car market with a connectivity platform offering access to 417 carriers across 182 countries through virtualized cellular cores deployed in multiple AWS regions. This eases the backend complexity that automakers otherwise encounter as they negotiate with different carriers and dealerships in different countries as they set up connected car services from their clouds.

A key aim of Soracom's Connected Car strategy is to support the GSMA SGP.32 eSIM remote provisioning and management standard. This IoT eSIM standard, which is expected to be completed this year and available in products starting in 2025, allows automakers, dealerships, and consumers more flexibility in activating connected car connectivity.

Before SGP.32, even if each car was equipped with an eSIM and a modem, the automotive manufacturer had to work with a different connectivity provider in each country where its vehicles were sold, and ask their primary carrier to integrate with their remote subscription management server to facilitate localization of eSIMs, requiring time-consuming negotiations and a complex backend integration process with each carrier.

"This is hard enough to do with one carrier in one country, let alone with every carrier for every vehicle model and every model year in every country," Yasukawa said. "All the negotiations and backend integration required can take months to set up and years to manage."

Integrating an eSIM with SGP32 embedded Universal Integrated Circuit Card (eUICC), into a vehicle modem makes it work as originally expected without complex backend carrier integration. While keeping secure, private connection to their backend systems, automakers gain the flexibility to push eUICC profiles for infotainment and in-car WiFi down to vehicles with their preferred carrier already in place. Alternatively, they can allow dealerships or connected car users to pull the carrier profile of their choice from the manufacturer's cloud. In either case, the automotive manufacturer is relieved of a costly and laborious process.

"As a vehicle manufacturer or buyer, you should drive your own car's connectivity, not be driven by a connectivity provider," Yasukawa said. "With flexible SGP.32 eSIM provisioning and management, you are no longer captive to negotiating pre-market integrations with carriers that are difficult to change or update."

Soracom can issue an eUICC profile compatible with SGP.22 and SGP.32 via API, and is ready to support SGP.32-compatible eSIMs. With the ultimate goal of empowering its automotive customers with flexibility and freedom of choice, Soracom can provide the SGP.32-compatible eSIM and network-side enablers so that automakers can download their own carrier profiles or set up a portal to allow dealerships or car buyers to do so. If eSIMs are obtained elsewhere, Soracom can still provide global network connectivity, including cellular and satellite leveraging their 3GPP NTN capability to vehicles.

Soracom is working aggressively to get involved in the automotive sector's new product cycles at an early stage. The company has conducted proof-of-concept projects with automotive manufacturers, and is a member of the Automotive Edge Computing Consortium (AECC), the global industry body helping to define the converged computing and network architecture to support a new generation of connected car capabilities.

"Enabling connected cars is a team sport," Yasukawa said. "Working together, we can build a simple, secure, and scalable cloud highway for connected cars."

About Soracom
Soracom is a technology partner to more than 20,000 startups, SMBs and enterprises, connecting more than 6 million IoT devices globally. Soracom offers robust solutions specifically designed to make it easy to build, operate, and scale IoT deployments. Customers trust Soracom for affordable, reliable connectivity that accelerates speed to market, makes it easy to connect to any cloud, and offers access to a worldwide partner ecosystem. More information is available at www.soracom.io.

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