G+D Mobile Security and Sony Semiconductor Israel launch first solution for remote SIM provisioning of iSIMs

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The integrated SIM (iSIM) is an important evolutionary step in SIM technology, empowering simple and cost-efficient connection, deployment and go-to-market for Internet of Things (IoT) devices. G+D Mobile Security (G+D) is playing a key role in shaping this development and, together with Sony Semiconductor Israel (Sony), is launching the first commercial iSIM solution that supports remote SIM provisioning.

The iSIM, or integrated Universal Integrated Circuit Card (iUICC), has the potential to revolutionize IoT and makes devices more flexible and efficient. It is cost-optimized, smaller, more adaptable and sustainable than previous generations of SIMs and will complement established solutions such as the pluggable SIM and eSIM. As the world's first providers, G+D and Sony are now taking iSIM development a step further by introducing a secure solution that is specifically designed for remote SIM provisioning (RSP), enabling seamless over-the-air activation and management of SIM profiles. This allows for high flexibility to choose the respectively preferred cellular network throughout the long lifespan of an IoT device, while also offering the most cost-effective solution over its lifetime, according to a recent whitepaper from Transforma Insights ■. The capability to set profiles depending on the device's location simplifies the global scaling of deployments. Additionally, RSP helps streamline production, storage, and logistics processes, to enhance operational efficiency.

The new solution is based on the iSIM-enabled ALT1350 chipset by Sony, which now supports standardized and future-proof RSP. G+D Mobile Security's secure SIM operating system (OS) is stored in a tamper-resistant element (TRE) within a system-on-a-chip (SoC), unlike insertable SIM cards or soldered eSIMs. It acts as an isolated hardware component that is combined with a baseband chipset to form a single connectivity module.

The iSIM offers numerous advantages: Less hardware comes with minimal footprint and enables the production of small, lightweight and therefore cost-effective devices, and the optimized energy consumption increases device efficiency. High security is provided by the isolated hardware in combination with G+D Mobile Security's secure and certified SIM OS. Production and warehousing processes can be optimized because there is no need to solder different hardware components or plug SIM cards into the device. Finally, iSIMs also support higher sustainability requirements, with the absence of slots, additional housings or plastic.

Due to its low power consumption and small size, the iSIM is an ideal choice for battery-constrained IoT devices operating in low-power wide-area networks (LPWANs) through Narrowband IoT (NB-IoT) or Long Term Evolution

for Machines (LTE-M) technologies. Wearables are also among the potential areas of application. Typical use cases can be found in market segments such as smart metering, agtech, smart health, tracking and tracing or the entire spectrum of massive IoT.

With the AirOn360 central SIM management solution, G+D Mobile Security provides a comprehensive service for over-the-air administration of iSIMs. It supports both remote SIM provisioning of network operator-specific data and update management. The solution complies with GSMA RSP specifications for consumer, M2M and IoT applications and helps Original Equipment Manufacturers (OEMs) or device owners manage the iSIM lifecycle efficiently and securely. RSP in accordance with the new GSMA SGP.32 standard for M2M/IoT use cases empowers IoT device operators with maximum flexibility in their choice of mobile network operators. This allows them to choose the optimal provider in terms of cost, service quality or network coverage, for example.

"As market leader in eSIM, G+D Mobile Security has been investing in the research and development of iSIM technology for a long time. Together with industry partners, we want to accelerate SIM innovation. A good example for this is our cooperation with Sony, under which we are now announcing the industry's first commercial iSIM with remote SIM provisioning. This pioneering achievement empowers our customers to unlock the full potential of the IoT with flexible and cost-optimized connectivity. We are convinced that this will be another important milestone in the iSIM evolution," explains Bernd Müller, Head of Technology and Strategy at G+D Mobile Security.

"This solution marks another joint success between Sony and G+D. The iSIM is poised to reshape the future of IoT in which everything is connected," added Dima Feldman, VP Product Management & Marketing at Sony Semiconductor Israel. "Our ALT1350 baseband chipset combined with G+D's SIM operating system and management solution, has led to a powerful, simple, and secure IoT connectivity management system that will drive the market forward."

About Giesecke+Devrient

Giesecke+Devrient (G+D) is a global security technology group headquartered in Munich, Germany. As a reliable partner for international customers with the highest standards, G+D's solutions safeguard the essential values of this world. The company develops customized technology with passion and precision in four core areas: Payment, Connectivity, Identities and Digital Infrastructures.

G+D was founded in 1852. In the fiscal year 2022, the company generated with more than 12,600 employees a turnover of 2.53 billion euros. G+D is represented by 103 subsidiaries and joint ventures in 33 countries.

Further information: www.gi-de.com.