ABI INSIGHT

G+D CONTINUES TO LEAD IN SIM INNOVATION AS IT PARTNERS WITH SONY TO DELIVER FIRST COMMERCIAL iSIM WITH REMOTE PROVISIONING

Security technology firm Giesecke+Devrient (G+D) and Sony Semiconductor Israel announced the industry's first commercial Integrated SIM (iSIM) solution with remote SIM provisioning. The partnership represents iSIM's growing importance in the IoT market and is the latest effort from G+D in its journey toward becoming a leading iSIM innovator.

NEWS

G+D AND SONY SEMICONDUCTOR ISRAEL INTRODUCE FIRST COMMERCIAL ISIM WITH REMOTE PROVISIONING

Security technology firm Giesecke+Devrient (G+D) and Sony Semiconductor Israel announced this fall the industry's first commercial Integrated SIM (iSIM) that supports remote SIM provisioning. The solution represents a new step forward for the iSIM, a form factor expected to be a significant SIM innovation following the introduction of eSIM technology.

Remote SIM provisioning is transforming the IoT market, freeing customers from vendor lock-in and enabling global connectivity. iSIMs rely on remote provisioning and are smaller and more power-efficient than previous SIM generations. iSIMs are integrated into the existing chip hardware on the device, freeing up valuable design space in constrained devices often found in prominent IoT applications.

The new solution from G+D is built on Sony's iSIM-enabled ALT1350 cellular chipset. The product is emblematic of G+D's longstanding competence in SIM technology and its recent leadership as a connectivity provider after its acquisition in 2021 of Pod Group, a U.K.-based Mobile Virtual Network Operator (MVNO).

IMPACT

G+D'S HISTORY OF iSIM INNOVATION

Remote SIM provisioning has become a growing area of interest in the IoT market since it was first developed by the GSMA in 2012. IoT MVNOs heavily invested in eSIMs, knowing the technology would create a market for global, carrier-agnostic connectivity. Remote SIM provisioning has become even more relevant to the IoT world with the ongoing development of the SGP.32 specification, which addresses several complexity concerns IoT customers had with the previous Machine-to-Machine (M2M) remote provisioning specification SGP.02.

The previous M2M specification required a complicated interaction between different operators' Subscription Manager-Data Preparation (SM-DP) and Subscription Manager-Secure Routing (SM-SR) servers to accomplish profile switching. This cumbersome integration process prevented many customers from switching carrier profiles and ultimately negated the primary benefits of remote provisioning. Profile switching under the consumer specification SGP.22 was easier, requiring only user consent. However, the consumer specification was not applicable to most IoT use cases, as IoT devices do not typically have users or a user interface through which users can consent to the switch. The SGP.32 specification simplifies remote provisioning for IoT customers by combining the best of both specifications. It incorporates the flexibility of the previous consumer specification while ensuring the new specification is still relevant to IoT devices that do not

typically interact with users. Once fully developed by the GSMA, the SGP.32 specification will allow remote provisioning technology to find an even greater foothold in the IoT market.

Though the company did not have a cellular connectivity offering until recently, G+D has a long history of supporting SIM technology. The company developed the world's first commercial SIM card and has since developed a comprehensive suite of IoT offerings and a remote SIM provisioning management platform called AirOn360®. G+D's involvement in iSIMs is a natural evolution for the company, particularly as it coincides with its entrance into the connectivity space. In 2021, G+D finally bridged the gap between its eSIM competency and connectivity when it became an IoT MVNO with its acquisition of POD Group.

Since that acquisition, the company has made several moves to solidify its place in the MVNO market. In May of 2023, the company acquired MECOMO, a telematics solutions supplier that provides fleet logistics software. G+D believes this move strengthened its position as an IoT MVNO, knowing that mobile IoT applications such as fleet management are an ideal opportunity for the company given its expertise in Over-The-Air (OTA) SIM provisioning and iSIM management.

Preceding its partnership with Sony, G+D also announced in June 2023 a collaboration with Sateliot in which the companies released the first iSIM with cellular and satellite connectivity. Perhaps more so than any other virtual operator, G+D is leading the charge on iSIM adoption, applying some of the most innovative trends in the MVNO industry, such as satellite connectivity, to the new integrated form factor.

RECOMMENDATION

MVNOs MUST CONTINUE TO INVEST IN REMOTE PROVISIONING AHEAD OF iSIM ADOPTION

ABI Research recommends that MVNOs continue to master remote SIM provisioning as iSIMs develop. iSIMs rely on remote provisioning technology, and virtual operators like G+D that are already proficient in OTA SIM provisioning will be more prepared for a future when iSIMs are more popular. While iSIM is in its infancy stage, MVNOs should swiftly adopt the new SGP.32 specification once finalized. The old SGP.02 specifications were too inconvenient or incompatible with IoT devices, and the new specification, when fully developed, will allow many more IoT users to experience the benefits of eSIM technology.

Some IoT MVNOs like G+D quickly adopted remote provisioning technology, knowing that it would help global IoT customers avoid international roaming charges and vendor lock-in. iSIM will be similarly beneficial for IoT users—its small size and power efficiency make the technology ideal for the small, power-constrained IoT devices in applications such as asset tracking and connected agriculture. iSIMs are also well-suited to the lifecycle of the average IoT device, particularly when compared to consumer devices. Consumer devices have a high replacement rate and typically require a new System-on-Chip (SOC) with every new release. iSIMs, which are embedded in devices' SOC, would need to be recertified with every new consumer upgrade. IoT devices, on the other hand, stay in the field unchanged for years or even decades and would therefore not need to be continually recertified, making these devices more practical for iSIMs.

Just as IoT MVNOs recognized the benefits of eSIM technology, so too do they see that iSIMs are the new SIM frontier for IoT devices. Forward-thinking IoT MVNOs like G+D have already invested in eSIMs and have grasped that iSIM will only accelerate the value and use of remote provisioning technology in the IoT domain.