Simartis Adds eSIM Capabilities With Support From Entrust nShield HSMs

Challenge
Simartis wanted to create a secure, interoperable architecture for their Embedded SIM cards (eSIMs) that enables remote over-the-air provisioning and management for their Virtual Subscription Management (VSM) platform. They also needed to meet security requirements of the GSMA SAS audit.

Solution
Simartis turned to Entrust for the necessary hardware security modules (HSMs) to enable secure management of encryption keys and certificates. Entrust engineers worked with Simartis to ensure a smooth process through implementation, compliance, and beyond.

Results
Through their VMS platform, Simartis enables mobile and virtual mobile operators to provide global connectivity services and offers to manage their eSIM subscriptions with the highest level of security and interoperability.

- Successfully completed the GSMA RSP dry audit on the first attempt
- Began preparation for the wet audit

Customer Profile
SC Simartis Telecom SRL was created in 2004 and is an award-winning provider of telecommunication solutions for the global telco market.

- Headquartered in Bucharest, Romania
- 20 years of experience in SIM products and SIM consulting
- More than 1 billion SIM card applications installed worldwide

Entrust Technology and Services Implemented
- Entrust nShield HSMs
- Entrust training and support

Learn more about nShield HSMs at entrust.com
Simartis eSIM nShield HSM Case Study

More about the business challenge

With eSIMs increasingly being used in a wide range of IoT, corporate, and consumer products, Simartis wanted to develop a VSM platform that would enable customers to order, provision, and manage eSIMs for their users.

The use of eSIMs and the Simartis VSM solution will enable their customers to develop new revenue streams, cut logistics and operational costs, drive adoption of new digital services and devices, and enhance customer digital journeys. Plus, it’ll be more environmentally friendly than using physical SIMs.

More about the technical challenge

Because eSIMs are provisioned over-the-air, they must comply with regional regulations to ensure secure communications.

For example, to establish their new VSM tool for eSIMS, Simartis needed to attain the GSMA Security Accreditation Scheme (SAS). The GSMA SAS defines how to protect credentials that access the mobile operators network and requires use of a hardware-based HSM as the root of trust.

By certifying their eSIMs, Simartis could deliver a complete set of GSMA-certified services for mobile operators and device makers that take advantage of 4G and 5G connectivity and interoperable connectivity.

Performance, reliability, protection

Simartis developed their VSM solution following the GSMA RSP (Remote SIM Provisioning) specifications for consumer devices. They provide an integrated solution for eSIM profile creation, storage, management, and downloading onto consumer devices.

By using Entrust nShield HSMs to secure management of encryption keys and certificates, all sensitive data is protected. These HSMs also provide elliptic curve cryptography (ECC) encryption, which is used in the authentication protocol between the remote eSIM and the VSM platform.

Learn more at entrust.com

Our progress in GSMA’s SAS-SM certification was made possible with the implementation of Entrust’s products and the expertise and support of their subject matter experts.

Alex Voiculescu, CEO, Simartis