SEQUANS + eseye

Sequans + Eseye Deliver the World's First Secure and Simple End-to-End Integrated eSIM (iSIM) Solution for IoT Ensuring Business Continuity Today and Tomorrow

Optimized Solution Enables Resilient IoT Connectivity Failover in USA and Canada

Security, uptime, and business continuity are of paramount importance to enterprises and manufacturing organizations deploying IoT devices in large regions or across disparate mobile network operators (MNOs) worldwide. These businesses are heavily dependent on their IoT networks delivering the daily intelligence needed to manage their assets and make smart business decisions. Loss of connectivity, inconsistent quality of service, or network outages and network sunsets can have a catastrophic and compounding effect on IoT businesses in many markets, including medical, utilities, financial, security, logistics, industrial, smart city and smart home.

Sequans and Eseye have joined forces to provide the first-ever simple, global, secure, end-to-end commercial iSIM connectivity solution targeting the GSMA eSIM M2M specification standard and paving the way for the integration of mobile services into IoT devices. The joint solution with Eseye's AnyNet™ Connectivity Service provides full MNO customizable connectivity over-the-air through the Remote SiM Provisioning platform empowering any IoT customer to enjoy full, operational availability of the iSIM solution. In addition it enables enterprises and manufacturing organizations to ensure that their IoT devices deployed in the field will always remain securely connected with a consistent quality of service that delivers maximum device uptime, and extends product lifespan beyond any current connectivity arrangements. Available on Sequans Monarch 2 modules, Sequans easySWAP™ with embedded Eseye AnyNet connectivity is an ultra-reliable and universal iSIM solution for the North American market.

What is the Sequans easySWAP with Eseye AnyNet Connectivity Solution?

Connectivity coverage that extends device performance and uptime

When scaling small or large IoT deployments in a territory, you may have to equip your devices with at least 2 (e)SIMs to get connectivity coverage. This solution is not optimized in cost and lacks flexibility. Thanks to easySWAP with embedded AnyNet connectivity, which is native in Sequans Monarch 2 modules and can be activated dynamically, we are able to extend the geographic reach and reconnect any disconnected asset. The joint solution also eliminates the need to add one or even two physical (e)SIMs from an additional mobile network operator. This capability not only saves physical space on the IoT device, but reduces component cost, carbon footprint, and provides full flexibility during both the initial deployment phase and after.

Maintain a local connection to future proof connectivity

Sequans easySWAP with Eseye AnyNet Connectivity future proofs the device with the option to localize the connection to regional carriers, avoiding high and variable roaming costs and solving regulatory challenges related to permanent roaming restrictions and/or data sovereignty restrictions that may be enforced, for example in the USA and Canada or in other countries in the future.

Prepare your product for the unexpected

Consider a utility company who has smart meters in the field for up to 15 years. Connectivity service and coverage is critical for the utility to be able to remotely update network subscriptions over this long period of time. The Sequans+Eseye solution allows the utility to switch from one MNO to another. In the case of an MNO network coverage outage or sunsetting a specific spectrum, easySWAP with AnyNet Connectivity enables the IoT business to extend asset lifetimes and improve its return on investment. This is achieved by providing a roadmap to a choice of over 700 alternative network providers and MNOs with GSMA Remote SIM Provisioning platform access. This allows centralized management for all global connectivity provider profiles along with the ability to dynamically provision the SIM and switch networks over-the-air.

Key Features

INTEGRATED SECURITY

The secure enclave in Sequans Monarch 2 chip enables the iSIM function to operate with no additional components, reducing complexity and total cost of ownership for customers. Sequans makes no compromise on security and certifies its chipsets and processes to Common Criteria EAL5+, the same standard met for traditional SIM cards.

INTEGRATED eSIM (iSIM) WITH REMOTE SIM PROVISIONING (RSP)

RSP enables intelligent over-the-air switching between multiple network operators. Connectivity is entirely customizable meaning that your device estate can seamlessly switch to another network's connectivity and access the best available one, anywhere, anytime using the Eseye Infinity™ IoT Connectivity Management Platform.

MULTI-IMSI FLEXIBILITY

When an LTE-M connected device powers on it will perform an authentication procedure with the network. This authentication procedure uses the IMSI (International Mobile Subscriber Identity) as the key for the network. This procedure occurs at the beginning of every data session. Sequans easySWAP with Eseye AnyNet can uniquely be pre-loaded with up to 10 IMSIs and therefore can proactively select a different network when appropriate to give maximum possible coverage anywhere in the world. Furthermore, the IMSI can also be changed remotely over-the-air.

WORKING TOGETHER WITH EXTERNAL SIM

Monarch 2 modules with pre-ordered easySWAP operates perfectly with traditional SIM cards (2FF/3FF/4FF) and or soldered SIM (MFF2). You can swap between the external SIM and the integrated easySWAP iSIM with a simple AT command.

ULTRA-LOW POWER CONSUMPTION

Monarch 2 modules deliver up to a 60 percent improvement in power consumption over first-generation solutions, thanks to Sequans' proprietary Dynamic Power Management™ and eco-Paging™ technologies, which adapt sleep and active state power consumption according to use case, thus enabling 10-15 years of battery life in some cases. The single rail power supply starting at 2.2 V allows lower voltage battery chemistries without the need for any additional components, and higher overall efficiency further optimizes the power consumption.

SUSTAINABLE IoT

The Integrated eUICC (iSIM) is an integral part of the silicon of the cellular chip, which reduces the footprint on the PCB and in addition eliminates any need for a plastic SIM, SIM slot, or soldered SIM, substantially reducing the carbon footprint.

Sequans easySWAP with Eseye AnyNet

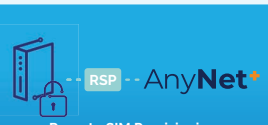
Monarch 2 GM02S with easySWAP

Customer receives Monarch 2 GM02S Integrated eUICC with bootstrap profile

STEP-1

Enable connectivity with Eseye AnyNet

Customer executes connectivity contract with Eseye



STEP-2

Activate profile or push new profile

Ability to switch between leading North American carriers

STEP-3

Global connectivity now activated

Customer can now use selected profile for operational connectivity

Solutions Characteristics

LTE MODULE

- 16.3 x 17 mm LGA GM02S module
- Single-SKU with support for LTE bands: 1, 2, 3,4, 5, 8, 12, 13, 14, 17, 18, 19, 20, 25, 26, 28, 66, 71, 85
- Cat M1: up to 590 kbps DL and 1.1 Mbps UL
- 3GPP Release 14
- SMS
- Max transmit power up to +23 dBm
- Single power supply: 2.2-5.5V
- Certifications: FCC, GCF, ISED, PTCRB, AT&T, Verizon, and more

easySWAP

- Secure Enclave integrated on chip
- High security level CC EAL5+
- ieUICC powered by Kigen eSIM OS
- Preloaded with SIM multi IMSI profile for connectivity
- ieUICC Ready for over-the-air remote SIM management (RSP) with step-2 provisioning
- Also working with any formats of external SIM together

ENVIRONMENTAL

- Operating temperature: - 40° C to +85° C
- Storage: JEDEC MSL 3
- >1M cycles Write Endurance
- Long life data retention

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