Embedded World Conference
Day 2 - 12 March 2025

12:45 PM - 2:30 PM

SESSION 1.14 IOT & CONNECTIVITY

Cellular IoT: Emerging Technologies – powered by GCF

12:45 PM - 1:15 PM
Information

Carlos Pedraz Rodríguez
Global Certification Forum

GCF Certification for Emerging IoT Cellular Technologies: 5G RedCap and NTN NB-IoT

GCF certification is effectively needed to launch cellular mobile devices and be successful in many countries, as key mobile operators, service providers and complex IoT projects have it as a requirement when supplying devices or providing them access to their network.

GCF Conformance and Field Trial testing criteria are updated quarterly to incorporate new technologies and optimize existing ones at industry level, in a cooperative effort between Mobile Operators and Service Providers, Device Manufacturer and the test industry. GCF has been working closely with the industry to introduce 5G NR Light (known as 5G RedCap - Reduced Capability) in multiple markets and frequency bands with a focus on simplified devices for IoT services on 5G Networks, and, including satellite operators, to activate a certification program for direct connection of devices to satellites using 3GPP-based NTN NB-IoT. In both cases, with the goal of providing assurance to network operators, consumers and industrial users when connecting GCF-certified products to networks and IoT services based on these technologies.

1:15 PM - 1:45 PM
Information

Bertrand Moussel
Trusted Connectivity Alliance

SGP.32: Advancing Remote SIM Provisioning for the IoT

A key benefit of eSIM is that it is supported by an advanced, mature infrastructure that promotes interoperability and security.

Yet the growth of the IoT presents unique considerations. Network and User Interface (UI) constrained devices, for example, cannot be optimally managed using the existing GSMA Consumer and M2M Specifications for Remote SIM Provisioning (RSP).

In recognition of this challenge, a dedicated eSIM architecture for the IoT has been developed. SGP.32 simplifies the remote provisioning and management of constrained devices at scale, helping accelerate IoT deployments, while promoting the simple, reliable and secure connectivity that is needed.

In this presentation, TCA will explain the new components and features introduced by SGP.32. Attendees will learn they can be used to simplify the deployment and management of IoT devices across various IoT use-cases. TCA will also outline the specific testing and compliance procedures for SGP.32 and how they promote trust and confidence in IoT products and solutions. As the first SGP.32-compliant solutions come to market, ensuring deployments are underpinned by a strong foundation of interoperability and security must be a priority.

1:45 PM - 2:15 PM
Information

Lars Skjold Nielsen
Global Certification Forum

GCF Certification of Remote SIM Provisioning for Devices with IoT eSIM

GSMA Consumer SIM technology enables consumers to simply and securely download SIM profile information, for an operator of their choice, directly to their eSIM-capable device. GSMA has been working with the IoT industry to release a new eSIM standard for IoT that leverages the existing capabilities of Consumer eSIM infrastructure, while being optimized for remote management of unattended IoT devices.

This standard, published as GSMA SGP.32 IoT eSIM, delivers the opportunity to simplify the manufacturing, distribution, activation and operation of IoT devices in the field.
GCF is working with the industry to release during 2025 a certification program for Remote SIM provisioning for IoT eSIM-capable devices, in order to provide assurance to network operators, consumers and industrial users when connecting and provisioning IoT eSIM-capable GCF-certified products to networks and services based on this technology.

2:15 PM - 2:30 PM
Discussion/Q&A