Connectivity Challenges

Cellular or mobile connectivity has truly changed the global landscape. It is, today, the undisputed champion in the mode of communication for over 5.2 billion mobile subscribers. The proliferation and ubiquity of mobile networks make them an ideal medium for a large number of IoT (Internet of Things) applications from connected cars to smart watches. But due to its inherent structure, cellular technology also poses several challenges for different actors in the IoT connectivity value chain.

1. Miniaturization
   Traditional mobile devices like phones and tablets could make use of a SIM to enable connectivity to mobile networks. But in IoT, the shape and nature of devices varies significantly, so a traditional SIM card is not the best option.

2. Stand-alone Connectivity
   For IoT devices, especially consumer devices, the customers do not want to rely on tethering with their smartphones. Fitness bands, personal drones and connected cars need to rely on a smartphone for getting connected to the Internet.

3. Scalable Security
   Mobile communication technology is inherently secure. But IoT requires a more scalable security mechanism to address the needs of multiple stakeholders and geographically dispersed network of devices.

4. Evolving Customer Expectations
   Customers demand instant fulfillment of their needs through frictionless experiences. Service providers need to adapt by monitoring and managing the quality of experience.

eSIM solutions

Thales’s eSIM solutions comprise different components that address these emerging challenges for the OEM, MNO as well as end consumers.

Embedded SIM (eSIM)

A natural evolution to SIM cards, the eSIM adheres to the stringent security and miniaturization needs. Thales’s eSIM and connected embedded Secure Elements can be integrated into a wide array of consumer, IoT and industrial devices like smartphones, smart watches, connected PCs & tablets and connected cars, to name a few. The OTA (over-the-air) update capabilities in fully interoperable Thales’s eSIM allows OEM, MNO or enterprise service providers to remotely manage the subscription on these devices, and gives freedom to the end consumers to connect their devices without a smartphone.

eSIM Subscription Management

Thales eSIM Subscription Management is the world’s leading eSIM management platform with close to 200 references worldwide among MNOs, operator alliances, MVNOs, automotive makers and OEM. It works with any GSMA-compliant embedded SIM, which ensures seamless interoperability, enabling customers with multiple sourcing options. Whether in hosted or in-house modes, customers can rely on secure, high-speed profile management over HTTP, and end-to-end subscription lifecycle management for multiple industry verticals.
Thales, the world’s leader in eSIM and eSIM subscription management solutions

Thales eSIM solutions allow you to:

- Enable connectivity out-of-the-box
- Have flexibility for addressing many form factors for different IoT devices
- Ensure highest level of security and quality of service
- Manage the complete lifecycle of mobile subscriptions

Thales experience in embedded SIM and Remote SIM Provisioning stands out:

- Thales ranked N°1 provider for both hardware-based eSIM and eSIM management solutions (Counterpoint Research, 2019)
- Broadest state-of-the-art eSIM solution portfolio in the industry
- Close to 200 eSIM subscription management platforms awarded by mobile operators, operator alliances, MVNOs, automotive makers and OEM across all continents
- All Thales eSIM Solutions compliant with GSMA’s Remote SIM specifications and SAS-certified (GSMA-backed Security Accreditation Schemes), and compliant with Global Platform security domain standards for segregation of MNO profiles
- eSIM subscription management based on PKI architecture
- Largest research and developments teams for eSIM-related technologies, recognised eSIM innovation leader (multiple international awards and nominations in 2019 & 2020), and leading contributor to the eSIM standardisation & interoperability schemes
- Working with over 450 mobile network operators, Thales manages the largest base of MNO subscription profiles
- Most extensive base of SIM Over-The-Air and Device Management platforms worldwide (respectively 300+ and 100 references)
- Uniquely positioned thanks to relationship with OEMs and Operating System manufacturers, both from M2M and consumer markets
- Extensive portfolio of complementary solutions, Trusted Digital Identity, Roaming, OTA and Device Management to enrich customer experience and use cases
- 150 000 000 things connected via Thales Cinterion M2M enabled-devices