Even though 5G standardization should only be finalized in 2020, at IDEMIA we are actively preparing for its commercial roll-out. Always staying one step ahead, we can already support you with the next SIM card evolutions.

5G by IDEMIA
Secure and enable next generation network services

5G: “a real game-changer”
Driven by enhanced mobile broadband, massive IoT and critical communication requirements, 5G is not only expected to offer higher throughput and lower latency but also to be much more flexible and configurable in order to offer efficient support for a wider and disruptive range of services. From ultra-high definition broadcast and multi-user interaction to smart cities, remote surgery or vehicle-to-everything (V2X) communications, 5G comes with a lot of promises.

An important evolution of 5G to address this challenge is the introduction of the network slices concept. It allows to dynamically balance resources depending on the level of service required by each service segment.

As pressure on the network keeps growing, the secure authentication of mobile devices and new connected objects accessing the network will be of paramount importance - even more than before.

5G SIM by IDEMIA: the next evolution of SIM cards
In all its form factors (UICC, eUICC or SSP*), the SIM remains the key solution to provide this secure authentication and to protect user credentials, leveraging on tamper-resistant hardware. At IDEMIA we make our SIM evolve to answer the new security and performance demands of all 5G service segments.

Why IDEMIA?
Trusted by the largest operator groups worldwide, IDEMIA offers a full range of 5G enabling solutions such as quality of service monitoring and security services for the Internet of Things for critical and massive communication.

* Smart Secure Platform: a security enclave in the mobile chipset (still under specification by ETSI & 3GPP)

Enhanced subscriber privacy
With IMSI encryption our 5G SIM allows MNOs to better protect end-users against location tracking and interception of mobile communications.

Fast access to 5G services
With properly configured 5G SIM we ensure that subscribers immediately get access to 5G services.

Better usage of radio resources
Thanks to our 5G SIM MNOs can now redirect their subscribers to another network layer when the one they are using is overloaded.
IDEMIA, the partner of your 5G deployment success

Providing maximum user experience with higher data rate even in challenging network conditions remains the first priority of 5G deployment. However, even with a 5G capable device users may not enjoy 5G service straight away if their SIM does not have the 5G radio identifier. At IDEMIA, with factories across the globe we are ready to support our mobile operator clients for the rapid distribution of 5G SIM to their subscribers. We can also help accelerate the transition by deploying over-the-air the necessary 5G parameters in 5G-ready SIM cards already in the field.

Moreover, to help efficiently measure the end-user quality of experience on brand new 5G networks our SIM cards include a monitoring agent. This solution is agnostic of the device OS and can provide information even when the device is not active, to monitor coverage for example. This may prove particularly relevant as coverage and quality of service may not be optimal at launch.

5G - Different forms of SIM cards

- **Removable:**
  - the UICC or the removable SIM as we know it today

- **Embedded:**
  - the eUICC or eSIM, a reprogramable SIM card already available

- **Integrated:**
  - the iSSP, a new platform under specification

CUTTING-EDGE TECHNOLOGY

- Fully compliant with latest 5G standards
- Support of all 5G network segments:
  - Massive IoT
  - Critical communication
  - Enhanced mobile broadband
  - Vehicle to everything (V2X)
- Highest level of security leveraging on tamper-resistant hardware
- Dedicated algorithms for all use cases
- IMSI privacy
- On-board quality of service and quality of experience monitoring

And tomorrow?

Extended UICC functionalities and platform will include:
- Support of asymmetric key cryptography
- Verification of multiple users of a device
- Remote update of long term secret keys