UpTeq Multi-Tenant SIM
Secure your Digital Mobile world
The world around us is increasingly digital and the mobile is at the heart of a high number of digital interactions that consumers experience daily. The dematerialization of payment cards, transport tickets, ID cards is becoming a reality. Most services to pay for goods, access a building, use public transport or redeem coupons are available at everyone’s fingertips from the mobile phone using contactless technology. There is a real opportunity to aggregate services in mobile devices and capitalize on this inexorable shift in customer behavior.

Nevertheless, market fragmentation is introducing more complexity to service delivery, while providers’ desire is to target the high potential value experiences and remote online payment, enabling their widespread adoption. Moreover online payments through mobile devices continues to rise now accounting for 28% of the total aggregate services in mobile devices and capitalize on this inexorable shift in customer behavior.

Gemalto has the answer to all these concerns. The Multi-Tenant SIM is a unique, multi-application, flexible and secure platform that enables MNOs to drive a range of services, including contactless NFC experiences and remote online payment, enabling their widespread adoption. The Multi-Tenant SIM is a perfect solution for maximizing service revenue and securing each application in its own space. In addition to security, many mobile services require full control of applications by the service provider in a discrete space. Invaluable for NFC payments, transport, Mobile ID, online transactions and more.

The SIM that’s much more than a SIM
Much more than just a regular SIM, our high-end Multi-Tenant SIM offers:

- AG/ LTE-ready mobile communications
- HCI connectivity enabling NFC
- Secure Element for hosting multiple applications
- Moreover the Multi-Tenant is totally scalable to suit MNOs requirements

As an end-user, what can I do thanks to the Multi-Tenant SIM?

A scalable offer to fit your business needs
Gemalto has designed a comprehensive range of NFC Multi-tenant SIMs to give you the right options to meet your specific cost/opportunity challenge. Our Upsig Multi-tenant SIM complies with our Trusted Services Hub (TSH). You can extend applications on demand and get access to memory on the secure element. At the same time, your value-added applications partners can independently and remotely manage their services.

This dynamic framework helps you align your SIM infrastructure to your business strategy. It minimizes upfront investment and creates the conditions for rapid uptake of any value added secure services and applications that you deploy, now or in the future.
What’s in it for stakeholders?

For MNOs
- Utilize and leverage value from core assets such as customer base, billing relationship, customer care, and direct channel to the SIM
- Increase end user engagement, retention and loyalty by offering personalized services that add value
- Increase telecom operator revenue thanks to income generated by third party service providers hosted in the end user’s mobile

For Banks
- Replacement of cash / cheques (still 85% of transactions today)
- Increase electronic transaction frequency generated by mobile usage
- Increase cross-selling offer, by leveraging the mobile channel
- Increase stickiness and improve new customer acquisition
- Brand differentiation
- Payment data collection

For Transport Operators
Ticket issuance infrastructure
- Reduce queuing time at ticket counters
- Reduce operating and maintenance costs at ticketing machine over time
- Facilitate the use of new sales channels through web and mobile portals
Ticket life cycle
- Tickets/passes are instantly delivered anytime, anywhere
- Top-up directly from the phone
- Co-branding and promotional opportunities
- Gates
- Works even mobile battery discharged which isn’t the case for cloud-based solutions
- Reduce operating and maintenance costs over time

For end-users
- Guarantees the same level of security and certification as banking cards
- Ensures user convenience with wide acceptance at merchants.
- Fast and easy to use, tap and go
- Convenience: no need for cash, less queues
- Reliable: works even when the smartphone battery is drained
- Real-time control of finances
- Better purchasing power
- Useful information received seamlessly via reading tags
- Coupons readily available and can be picked up on the fly
- Available for ecommerce payment
- Beyond payment: provides access to a full set of additional services including loyalty, transport, access and more.

Multi-Tenant SIM’s customers benefits
Increase customer profitability
- Offer customers a wide range of new services such as mobile payments, transport, ticketing, loyalty programs, and many other innovative ideas.
- Securely host multiple applications from diverse service providers such as banks, retailers and transport operators.
- Utilize and leverage value from core assets such as customer base, billing relationship, customer care, and a direct channel to the secure element.

Retain and increase customer loyalty
- Increase customer engagement, retention and loyalty by offering personalized services that add value.
- Protect customers’ sensitive information with total security.
- Enable one-to-one personalized marketing campaigns.

Secure, certified, trusted Multi-Tenant SIM
With the most comprehensive set of certifications, and a full secure end to end remote management of each application in their dedicated domain, Gemalto’s Multi-Tenant SIM offer:

- Business opportunities with a large base of service providers
  - The EMV compliant platform enables you to bring on board any bank’s services and offer the most attractive schemes for merchants.
  - Ready to on-board all major: MasterCard, Visa, Amex, JCB
  - EMVCo and GlobalPlatform certified: Common Criteria EAL4+; Secure OS for payment.
  - Covers 99% of transport operator requirements: MIFARE Classic, DESFire, Mifare4Mobile V2 and Calypso libraries.
  - An open and secure service platform: available to provision multiple services in individual, independent security domains.

- Shorten validation time, reduce risks, deploy with peace of mind
  - The Multi-Tenant SIM is already used by hundreds of millions of customers worldwide.
  - Tested by major NFC controllers vendors and by major NFC handset manufacturers - Gemalto products are supplied and used by all major handset and chip manufacturers to support and validate their hardware (RAO).
  - Field tested & commercially used by major application providers, handset brands, infrastructure providers and TSM vendors.
  - Consulting provided by dedicated Gemalto NFC experts worldwide
  - Reduce delivery cost and timing with the advanced OTA management capabilities of an LTE/4G-compatible SIM.
Upteq Multi-Tenant SIM product overview

Our secure element is a Multi-applicative and modular JavaCard Operating System with large scalable memory.

**Key Features:**

- **Flexible memory offer**
  - High memory capacity for Mobile Network Operator and Service providers’ applications enabling combined use cases across various do

- **Network access capability**
  - 2G (SIM) / 3G (USIM) / 4G (LTE) / CDMA (RUIM & CSIM)

- **Industry-leading secure OS, certified by independent labs**
  - Secure OS and chip compliant with EMVCo and Global Platform requirement certifications
  - Secure OS and chip compliant with Common Criteria EAL4+ (PP USIM) certification
  - Cryptography support for a state-of-the-art level of security including Onboard Key Generation for RSA-512 to 2048 bits and Elliptic Curve GF(p) 112 to 384 bits key length

- **NFC capabilities**
  - Aligned with latest SWP & HCI ETSI standard
  - Battery-off support
  - Card emulation: Type A, B, B’ & F supported, MIFARE CLT mode
  - Reader Mode: Type A, B
  - NFC Multi-protocol handling
  - ETSI NFC API

- **Payment application compliancy**
  - Amex Express Pay
  - JCB
  - T-Money certified by KSIC
  - Compliant MasterCard Mobile PayPass application and previous releases
  - Compliant Visa VMPA application and previous releases
  - China Union Pay certified PBOC

- **Transport / Ticketing / Access applications**
  - MIFARE Classic 1K/4K functional certification
  - MIFARE DESFire EV1 including security evaluation
  - MIFARE Classic / MIFARE Plus Security Level1
  - MIFARE4 Mobile V1
  - MIFARE4 Mobile V2 including NXP certification
  - MDC

**Support local Transport technologies**
- Calypso
- T-Money
- Felica
- Cepas

**GSMA Mobile Connect**

- Delivery of applications in an interoperable way:
  - Java Card™ 3.0.1 Classic Edition specification
  - Global Platform 2.2.1 including Amendment A / B / C / D / E
  - UICC Configuration 1.0.1
  - UICC Configuration Contactless Extension 1.0

- **Data connectivity:**
  - SMS
  - BIP CAT-TP
  - OTA RFM & RAM over HTTPs on BIP TCP
  - ISIM & GBA
  - EAP SIM & AKA

For more information on our Multi-Tenant SIM offer, refer to:
http://www.gemalto.com/nfc