Mobile Proximity Services

Market & Technology Trends

Mobile Proximity Definition

- A transaction between a Mobile Device and a local terminal or machine in exchange of goods and services.

The 2 Faces Of Mobile Proximity

- **Connectivity**
  - Infrared
  - ISO/IEC 14443, type C — **Today's subject**
  - ...

- **Application**
  - Transaction flow
  - Security of the transaction
  - Multi-issuer card security scheme

Natural role for the card

Some Applications Examples

- Payment
  - Magnetic stripe, EMV, Purse
- Physical access control
  - Transportation
  - Event ticketing
  - Corporate (access + time stamping)
- Mobile workforce
  - Tracking
  - Logical access control
- Handset as Universal control object
  - Network services access facilitator
  - 0 Configuration

Service Appealing To End User

- **Simple & convenient**
  - 'Touch & Go'
- **81% of users said they are interested in performing proximity transactions via their mobile phone !**
  - 46% are very interested, which is particularly high
  - 30% prefer their phone bill as payment means
  - Most appealing services: event and transport ticketing

Source: Gemplus/TNS Sofres survey (2004)

Integrating Contactless In Handsets

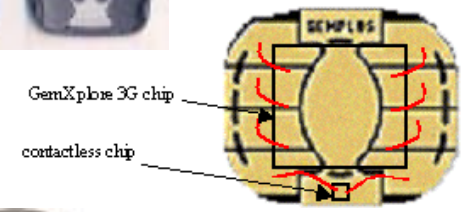
Smart Card Requirements

- ‘Sellotape effect’: form factor change → no value add
  - Value add is memory sharing
    - Remote management (load, personalisation, top-up…)
    - Local redeem
  - Dual interface microprocessor chip
    - → Concurrent execution platform
- Fragmented market
  - Multi-type silicon is a trend and is required

Integrating Contactless In Handsets

Various Options …

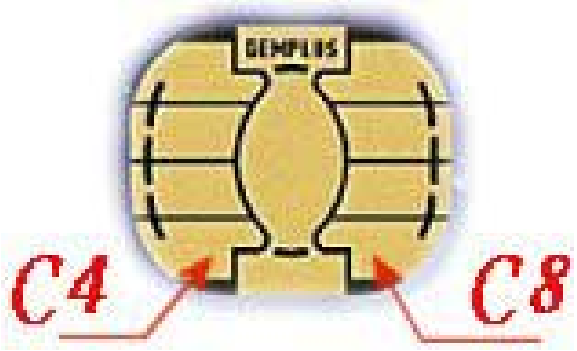
- 2-chips solution
  - Tag
  - Twin or (hybrid)
  - Dual slot (STK or SFMC)



- 1-chip solution
  - Chip in handset
  - Dual interface banking card (non-GSM networks)
  - Dual interface (U)SIM card

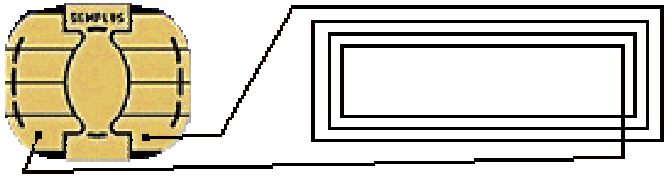
Integrating Contactless In Handsets

What About The RF Coil?



- **Plug-in → externalize the coil**
  - Small
  - Variable position in handset

- **Externalizing the coil using C4/C8**
  - Contacts left free by ISO/IEC
  - No redesign of existing chips



- **Issue**
  - Chip capacitance standardisation

Integrating Contactless In Handsets

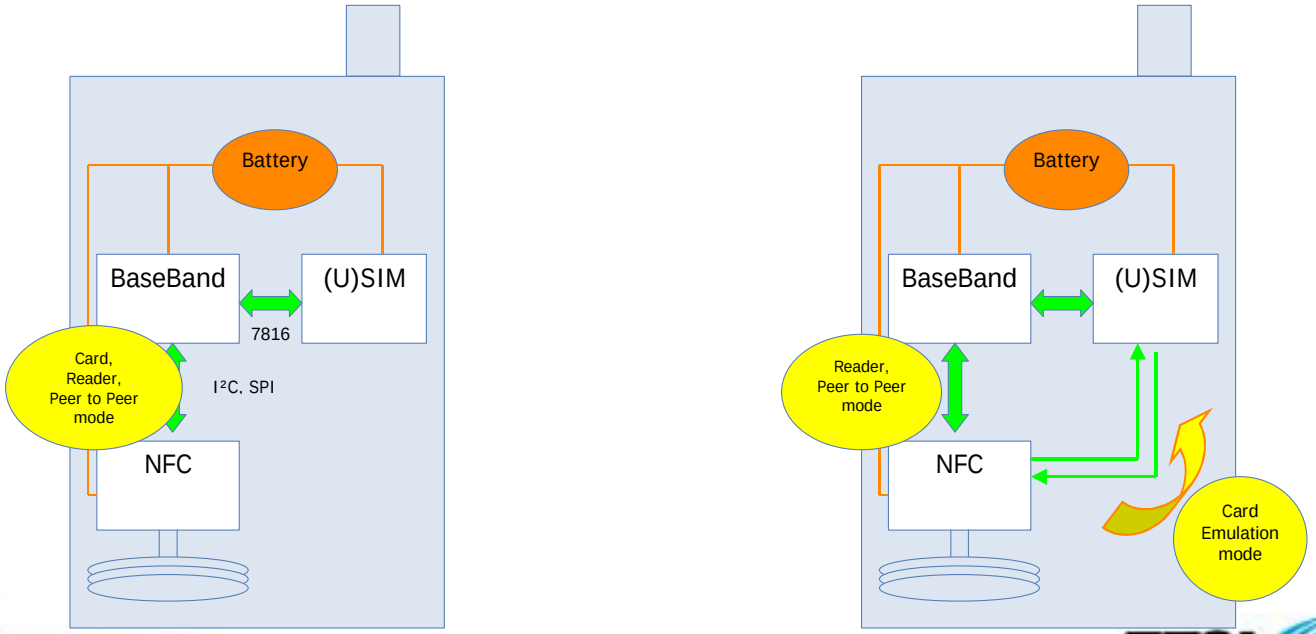
What About Handset Manufacturers?

- **Why should handset manufacturers integrate only an RF coil?**
  - Business model?
  - Interoperability issue
  - Case by case → South Korea projects
  - Accessory approach still possible

Integrating Contactless In Handsets

The NFC Concept…

- **An important trend…**
  - Multi-standards → lacks type B today though
  - Radio issues concentrated in one place
  - Major actors involved
  - Enabler for large range of applications



Conclusion

- Appealing Services
- (U)SIM combi deployment difficult
  - Handset support
  - Antenna tuning
- NFC will most likely happen
  - Rational way of integrating RFID connectivity in a handset
  - Opportunity for (U)SIM in card mode
- (U)SIM combi or (U)SIM + NFC? → same work on card side!

Issues are more business than technical

Thank You For Your Attention!

Jean-François Durix

Product Marketing Manager

Gemplus, Telecom Business Unit

jean-francois.durix@gemplus.com