

An Open Secure Element Model

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Who's Inside?

Fabless Semicon company 100% dedicated to contactless chip



Leaders in NFC and Contactless Payment

Our Vision – The Open SE Model

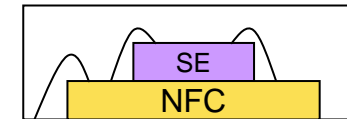
- **We believe Secure Elements (SEs) will coexist with SIM Cards to support open NFC models, structured around TSMs and Mobile Payment Service Providers (MPSs)**
 - A MPS could be a Telco, an Handset Vendor or a Payment Service Provider or any partnership of those.
 - The MPS will either partner with the handset provider on a revenue sharing model or compensate him for the use of the SE.
- **Those SE could be either embedded in handsets or added via Micro SD devices**
- **Like Wifi, Bluetooth, FM or GPS, they will be open resources for applications providers**
- **The adoption of this model will leverage on-going disruptions in both the mobile and payment industries**

SIM-SE comparative advantages

| | SIM | SE |
|--------------------------------|------------|-----------|
| Technical maturity | + | + |
| Easiness of integration | + | + |
| Enablers maturity | + | + |
| Ecosystem experience | + | + |
| Security Certification | - | + |
| Cost | - | + / ++ |
| Issuance model | ++ | - |
| Openness | + | + / ++ |

SE are ready for mass roll out

- **SE enablers have successfully passed trials**
 - Handset vendor experience in integrating SE
 - TSM / Payment association certification process / ...
- **Pin to PIN compatible stacked solution**
 - Seamless integration in handsets
- **Standard interfaces to the Wallet application and TSM**
 - Compliant with JSR257 & JSR177 interfaces (Java Mobile)
 - Global Platform compliant for TSM provisioning
 - Convergent framework for SIM and SE
- **Flexible range of price points**
 - From payment-focused to application-flexible SE
 - Payment could be made pervasive with a low price point

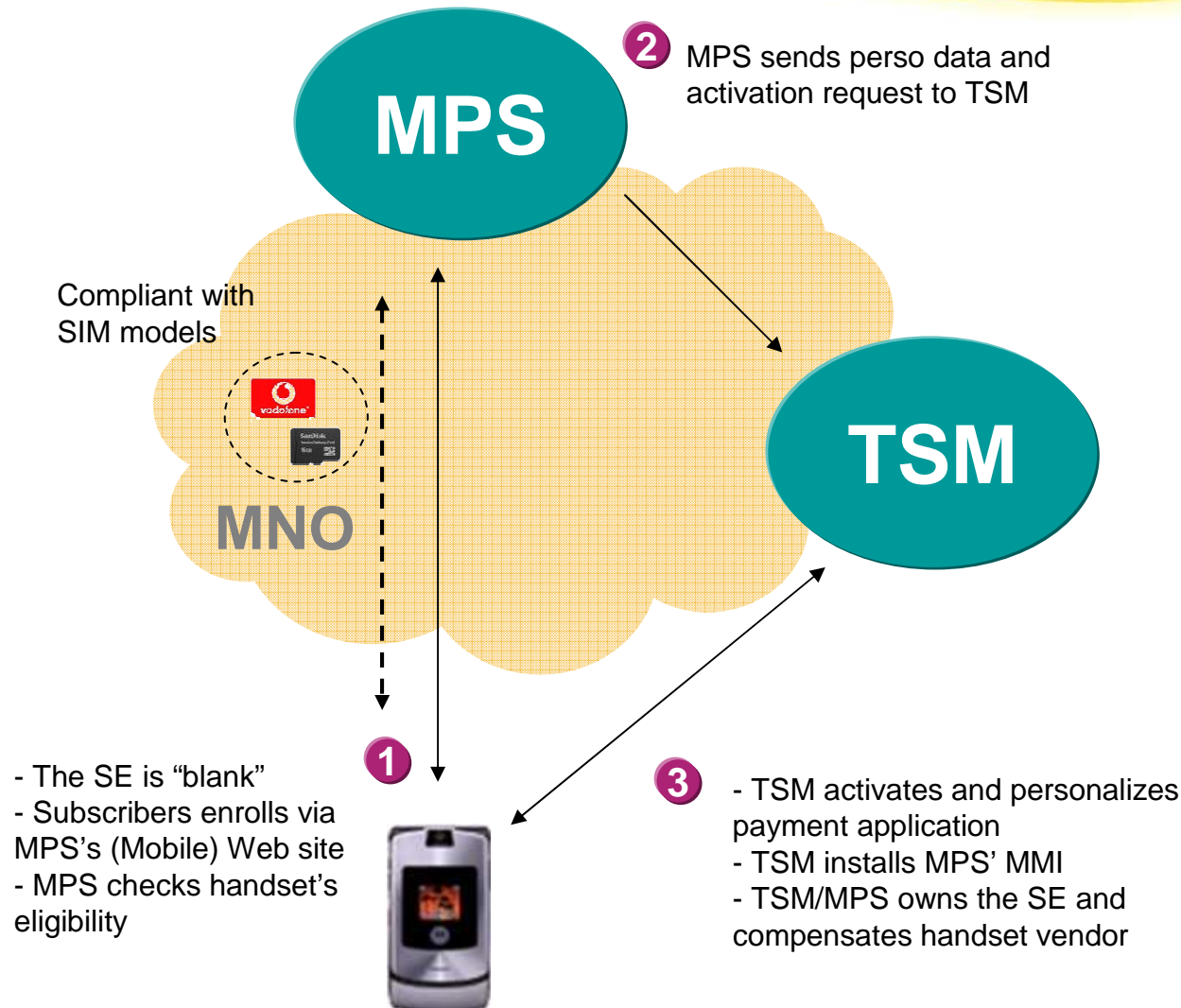


SE do not prevent cooperation with MNOs

- **The SE could be activated/deactivated by the SIM**
 - Enables all business models options
- **SE transfers liability issues to the Payment provider**
 - Relieves smaller players from significant liabilities burden
- **SE frees the SIM from certification issues**
 - Isolate the payment function in a dedicated component

**SE enable optimal cooperation models
allowing a mix of innovation and disruption**

Open Enrollment Process



SE architectures

- SE is embedded in the handset
- SE is inserted in a micro SD device

Ownership rule

SE ownership is transferred to MPS on a first activation basis.

What does it require?

- Enrollment and provisioning models
- Easy to integrate, cost optimized SEs
- Integration of SEs in mobile phones
- Mobile payment standards from payment associations

- Payment Services attractive to the consumer
- Large scale launches from mobile payment providers
- ...and more sexy phones

Leveraging Mobile Disruption

- **The iPhone effect is pushing handset vendors to develop their own services enablers**
 - From Application Stores to Payment Services?
 - 50%+ of handsets are distributed independently of MNOs
- **25%+ of Mobile subs are engaged with Tier 3 MNOs or MVNOs**
 - Ready for partnership & innovation with Payment Providers
 - Require turnkey payment services
- **Key retailers are engaged in Payment and/or MVNO Services and want to grow their services portfolio**
 - Up to 25% of handset distribution
 - Up to 33% of card-based payment acquisition in EU countries

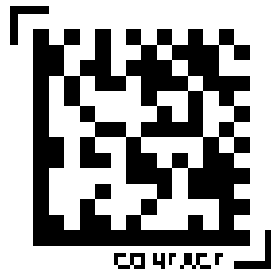
Play Services Innovation!

- **Current trends in the payment industry push for disintermediation of the deposit account (DDA)**
 - Prepaid, Decoupled Debit, open loop retailer cards, ACH-based payment models, co-branding, super merchants, ...
 - Decouple handset vs. payment service vs. distribution
- **Innovative payment services create mobile services opp'ies**
 - Don't focus on plain old debit/credit card payment models but on targeted customer segments / handset models
 - > Prepaid for Teens
 - > Corporate cards on Smart Phones
 - Greater co-marketing opportunities
 - > MPS with Handsets vendors / Retailers / MVNOs / ...
- **Open SE model will foster Innovation to support:**
 - Activation rate maximization
 - Customer willingness to pay for the service



Thank You For Your Attention!

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Mobile Payment Opp'ies

- **Don't focus on plain old debit/credit card payment models**
 - Disrupt and dematerialize the banks and DDA stickiness
 - Phone vendor branded Decoupled Debit
 - Co-branded phones with Retailers Card or major bank
 - The world is your oyster...
- **Segment payment services vs. phone category**
 - Prepaid for Teens Phones
 - Corporate Credit for SmartPhones
- **Focus on service marketing & handsets distribution, partner with an experienced Service Provider partner managing the “plumbing”**
 - The Payment service and associated processes
 - The Service provisioning (with a TSM)

Next steps to enable an open SE model?

- **Get closer to the handset industry**
 - Develop marketing liaisons with handset vendors for mutual education and work on cooperation schemes
 - Clarify issuance & liability models
- **Issue SE requirements for handset vendors**
 - Create a sound/clear Payment Industry demand
 - The voice of the payment industry has to be heard!
- **Liaise with financial regulation bodies to ensure an equitable SIM-SE market framework**

Working Group to be created in Mobey Forum?

I had a dream...

SE-based NFC Payment roll outs in 2010

- **SE enablers are ready for prime time**
 - Handsets to be available Q4 '09 upon customer commitment
- **Partnership between Payment service provider and disruptive Handset vendor or Mobile SP will facilitate SE integration**
- **Innovative payment services will create SE preference**
 - Attractive to enable customer funding / better activation rate
 - Focus on targeted customer segments

**Few roll outs in '10 will set the pace
and kick start SE integration in Handsets**