Mobile Wallets – eine Nutzenperspektive

Dr. Danny Fundinger
Agenda

1. What is the Mobile Wallet – Concept and value proposition
2. What does this mean for my business – Market trends and opportunities
3. How to get my business ready – Challenges in transformation
4. Building a Smarter Wallet – generating business value with IBM Mobile First
## Agenda

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Mobile Wallet is all about saying goodbye to the physical wallet
The Mobile Wallet concept – the mobile interface to your identity

Services
Trusted mobile services and card applications can be issued and connected in a wallet

Payments & Cards

Identity & Keys

Tickets & Access

Coupons & Loyalty

... and many more

Mobile Wallet
Container on a mobile device for high-secure storage of personal identification and authentication data for mobile services

Access
Several options for interaction, issuance and access of services

Digital, Integrate & Connect

NFC card emulation
QR code
User interface
Mobile network

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The Mobile Wallet value proposition is...

... a strategic business opportunity and game changer for service providers

... mobility and convenience for the consumer
The Mobile Wallet main technology components

Mobile Wallet App
User interfaces for Mobile Wallet and service

Required smart phone hardware components

Secure Element
Chip for secure storage of smart card application

NFC interface
For data transmission and card emulation

Acceptance Terminal
Contactless/NFC-capable acceptance terminal for smart cards/card emulation

Trusted Service Manager
Remote and secure lifecycle management of services (issuance, blocking, deletion, etc.)

Services
Service application and personalized customer data
Trusted Service Manager (TSM) architecture – a question of ecosystem complexity

**Challenge:**
There are business, regulatory and technical reasons for favouring a Multi-TSM approach though it significantly increases the ecosystem complexity in comparison with a Single TSM approach.

**Single TSM approach**
- SP 1 ➔ WP 1
- SP 3 ➔ WP 2
- SP 3 ➔ WP 3

**Multi-TSM approach**
- SP 1 ➔ WP 1 ➔ SP 3 ➔ WP 2 ➔ SP 3 ➔ WP 3

**SP** = Service Provider  |  **WP** = Wallet Provider
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The Mobile Wallet market – the „war of wallets“ has already begun

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<tr>
<th>In development</th>
<th>Piloted</th>
<th>Launched</th>
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<tr>
<td>(Announced)</td>
<td>(Pilot or regional launch)</td>
<td>(Commercial/large-scale launch)</td>
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- **In development**
  - Vodafone
  - Deutsche Telekom
  - Telefonica
  - Orange
  - ... and almost all other MNOs

- **Piloted**
  - ISIS (US MNOs)
  - Cityzi (in Poland)

- **Launched**
  - Full wallets
    - Google wallet
    - TURKCELL
    - SK telecom
    - SMARTWALLET
  - Light wallets (no NFC)
    - Passbook
    - MasterPass
    - V.me by Visa
Mobile Wallet market approach – start small, grow big

Stage 1: Mobile Wallet launch with one payment card as core product

Stage 2: Increase customer base with more payment card products/issuers

Stage 3: Strengthen mobile commerce value proposition with couponing and loyalty services

Stage 4: Widen business field with ticketing services for public transportation and access solutions for companies

Stage 5: Increase business opportunities with new service offerings

Exploitation of full mobile wallet potential
Mobile Wallet ecosystems – every country differs but most will have a high complexity

Example of a future mobile wallet ecosystem

Services
- Payments
- Identity
- Transport & Mobility

Multi-TSM Infrastructure
- Bank TSM
- Transport TSM
- MNO TSM
- Neutral TSM

Different Secure Element options

Several M-Wallet Brands
- Google wallet

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Example payments in MNO wallet - connecting highly complex and very different industries

Key Topics
- Standardization
- Business models & costs
- Security
- Usability
- Customer Care
- Usage patterns
- Marketing
- Availability & acceptance
- Infrastructure
- KPIs & SLAs
- Integration

Mobile wallet ecosystem – managing different stakeholder interests
Overlapping topics to define clear responsibilities – the major challenge for mobile wallet provider and service providers
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Deep Set of Services Expertise for Smarter Mobile Wallet services

IBM MobileFirst - Strategy & Design Services

IBM MobileFirst - Development & Integration Services
IBM Mobile First addresses all parts of the value chain in order to build the future mobile wallet ecosystem.

**Extend & Transform**
- **Extension** of your value proposition to the customer and of your business opportunities
- **Transformation** of your business model in the new Mobile Wallet ecosystem

**Build & Connect**
- **Build** mobile wallet services components
- **Connect to** mobile wallet service components like TSMs
- **Integrate and adapt** mobile wallet services in your business and IT infrastructure

**Manage & Secure**
- **Management** of mobile wallet services and backend infrastructure
- **Security** of mobile wallet services
IBM’s Mobile First Value Chain is focused on customer requirements and ensures rapid service provisioning. It has been successfully applied for mobile wallet projects.
Example project: NFC Mobile Wallet & Payments for global MNO

The Need
- Development of NFC Mobile Wallet & Payment solution
- Set up of organizational, process and IT infrastructure for global commercial launch
- Scalability and high-quality support for all parties from day one of launch

The Solution
- End-to-end review of value proposition, business processes and IT architecture
- Identification and closure of gaps to provide a consistent user experience
- Definition of business processes required for the commercial global rollout
- Support in implementation of the processes.

The Benefit
- Reduced time to market
- Significantly increased service quality for the first roll outs in Europe
- Standardized solution approach for efficient and cost-saving roll out
- Standardized processes for a smooth integration of service providers on a large commercial scale
Mobile Wallet solution building blocks (IBM framework)
(for Payment Service Providers)

- **Certification**
- **External components**
  - Device
  - Wallet
  - UICC Profile
- **SP App**
  - User Interface
- **UICC**
  - Cardlets
  - Personalization
- **SP Wallet Business Services**
  - Service Lifecycle Management (TSM)
  - Application Lifecycle Management
- **Payments & Cards Business Services**
  - Data
  - Business Logic
  - 3rd Party Services
- **IT Infrastructure**

**Service Development**

**Governance & Operational Model**

**Security**

**Business Processes**

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Structured reference model for payment service lifecycle process

- New customer
- Existing customer
- KYC (Full/simple)
- Identification for M-Wallet (over MSISDN)
- Personalisation (on UICC)
- Installation payment app
- Usage payment service
- Payment service block
- Payment service unblock
- Payment service deletion

(Re-) Installation M-Wallet service
The Mobile Wallet value proposition is...

... a strategic business opportunity and game changer for service providers

... mobility and convenience for the consumer
Vielen Dank!

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Structure approach for SP service configuration

**SP-TSM**
- Description (SP-TSM name, OID, etc.)
  - TSD
    - Service provider
      - Description (Name, OID, etc.)

**Service**
- Service name, ID & description
- Service icons & screenshots
- SPSD (might be more than one)

**Service version**
- Version number & release details
  - T&C’s
  - Cardlet & AID
  - Midlet
  - Binding hash certificate

**Service family**
- Load file profile

**Device**
- Card vendor
  - UICC profile

**MNO**
- SP configuration

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The Mobile Wallet value proposition

For end users

Convenience
- All-in-one approach
- Get rid of the physical wallet
- Intuitive touch-based UI
- Combine & connect service usage

Mobility & Flexibility
- Service subscription-on-the-go
- Temporary service usage (e.g. car key)
- Full service access & interaction via UI

Trust & Security
- Remote deactivation when lost/stolen
- Highest smart card-based security standards

Familiarity & Acceptance
- Usage concept same as for smart cards
- Works with smart card acceptance infrastructure

Payments

Coupons & Loyalty

Identity & Keys
The Mobile Wallet lets card-based products enter the mobile age

For service providers

Know your customer better
- Direct 1-to-1 user channel
- Identification of customer
- Analytics of service usage and share of wallet

Improve service quality
- Mobile subscription to service
- Quicker response time on requests
- User interaction via UI
- Targeted marketing & offers

Extend service usage
- Mobile service access
- New service usage and business scenarios
- Combine with other wallet services

Approved technology
- Based on standardized smart card technology
- Mature and approved security concepts based on EMV card standards
- Widely accepted by customers and stakeholder
- Cost-effective re-use of established infrastructure
Structured reference model for wallet lifecycle process

- New customer
  - Installation M-Wallet app
  - Personalization
  - Installation Wallet services
- New handset
- New UICC
  - Re-installation M-Wallet app
  - Re-Installation Wallet services
  - Usage M-Wallet
  - M-Wallet deletion
  - M-Wallet block
  - M-Wallet unblock

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