

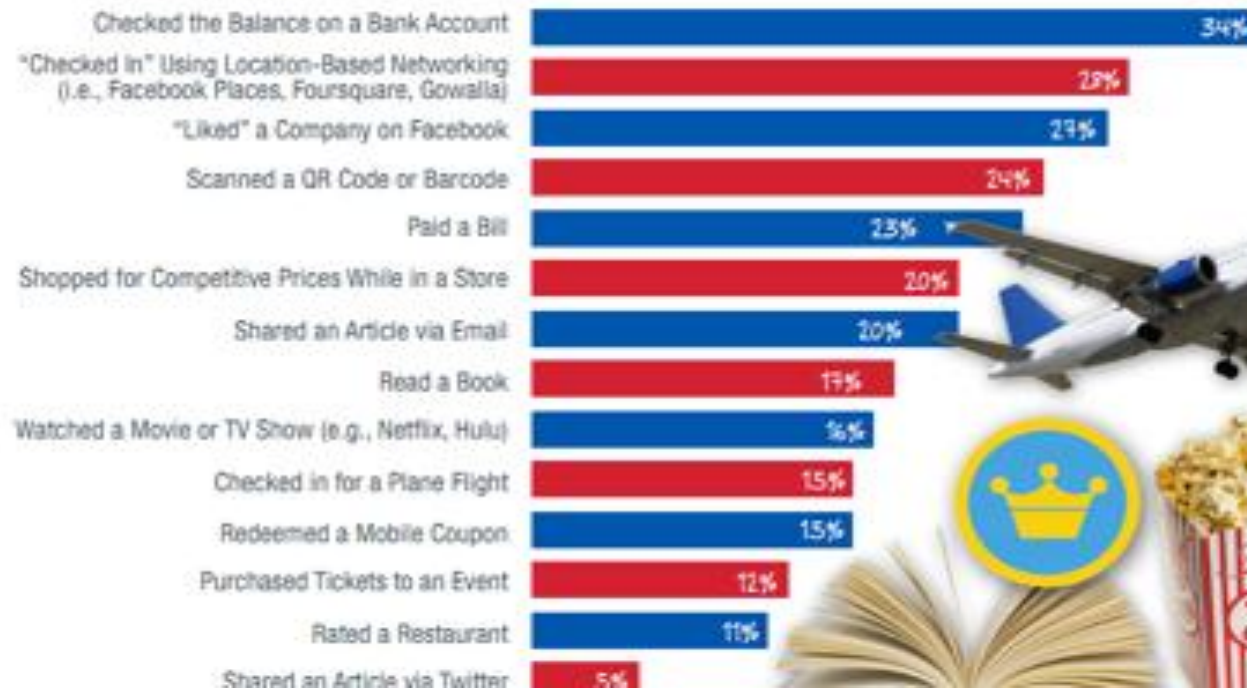


Smart Banking

*e*FOCUS

Slavomír Pšenák, slavomir_psenak@datalan.sk

Mobile banking more popular than a Facebook?



Mobile Dependence Day, ExactTarget report on mobile usage, 2012

Myslíme o krok vpred ...

Competition is heating up

- **Payment area competition**
 - Foreign banks
 - Non banks
 - Mobile operators
 - Digital payment companies
- **Deposit area competition**
 - FPM applications (financial portfolio management)
- **Channel competition**
 - Agregators/independent app providers – mostly US, cumbersome EU adoption

Mobile future looks bright

- **Increase** almost **60%** in mobile banking take-up, concluding that **mobile banking** has now moved from a "nice-to-have" to a "**must-have**".
(2011, Javeline Strategy and Research)
- Major European banks report a jump of more than **50% in banks** planning to launch some mobile banking application.
(2011, McKinsey)
- A bump of **45%** on a year to year basis of consumers using mobile banking.
(approx. **14% of all mobile users** in the US)
(2011, Comscore research)
- Starbucks (reporting 20 million mobile transactions) and Paypal (expecting \$3.5 billion of mobile transactions in 2011) with strong growth in mobile banking

Mobile banking is not Internet Banking on mobile

- Broader reach higher usage (in theory)
- Serve the needs of customers **without constraints** of time or location
 - Leveraging time/location data to tailor experience and offerings
- **Message** based transactional architecture **vs. session** based rich content service
- Different security paradigm
 - Higher levels of security can be implemented on mobile devices
- User experience **expectations are much higher** (iPhone effect)
 - The number of functionalities is less important to how usable they are
- **Easy to be ignored by clients if not done right...**

Myslíme o krok vpred ...

Utilizing unique features of mobile devices

- Internet connectivity alternatives
 - **SMS, USDD, STK, WAP**
 - Usage in mobile payments
 - Cumbersome use vs. cost
- Ideal dual authentication implementation
 - **Encryption keys distribution**
 - **OTP distribution**
- Client identification/authentication towards the bank
- Cross channel integration (mobile/branch)

Myslíme o krok vpred ...

4 key attributes of successful mobile banking application



Myslíme o krok vpřed ...

... and the 5th - Security

Security

Convenience

Authentication

Authorization

Easy to use

Simple

Good looking

Customers need to FEEL SECURE as much as possible

Myslíme o krok vpred ...

NFC – potential game changer?

- **Marginal business model** today
- **Low** NFC devices **penetration**
 - Bright future predicted (reality still lacking behind predictions)
 - GSMA promises
- **Complex** infrastructure and **changes needed** for mainstream adoption
 - Changes on merchants and bank sides
 - Devices <> client assignment
 - AML, risk systems adoption
 - HW, SW but also processes
- **Mobile banking as a preparation for NFC rollout**
 - Ideal way to ramp up for NFC wave

Myslíme o krok vpred ...

Show me the money

- **The initiative should not be started without clear strategy about:**
 - New revenue sources
 - New types of transactions
 - Protection of funds
 - Loyalty improvement and share growth
 - Mostly in non traditional segments
 - Cost reductions
 - Business process redefinition
 - Risk mitigation, fraud prevention
 - New products development
 - Partnerships, remittance, mobile operators

Myslíme o krok vpred ...

Mobile “stragedy”

- **Ad-hoc activities without clear bottom line impact**
 - Mobile initiative for 500 000 subscribers can show up to 15% ROI
(2011, US, Forrester)
 - “Nearly all the interactions on mobile so far have been checking balances”
(2011, Gartner)
- **Completeness fail**
 - downloadable apps, mobile browsers, SMS-based services, phones, tablets
(pick the ones missing)
 - Siloed applications without common direction
- **Versatility and agility**
 - Applications inadaptable to trends and needs
 - Vendors without strategy and means to deliver
- **Test, test, retest**
 - Launch untested code/ situation
 - Rely solely on internal testing resources

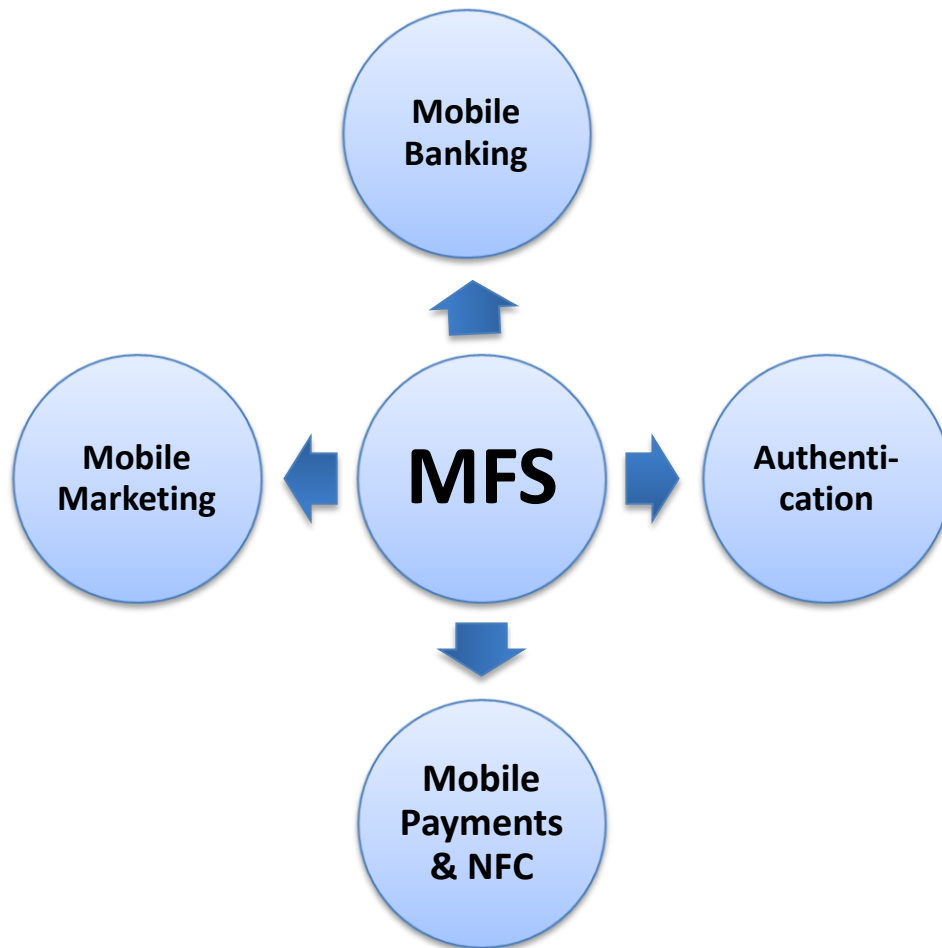
Myslíme o krok vpred ...

Datalan Smart Banking

Myslíme o krok vpřed ...

Smart Banking

Mobile Financial Services



- ✓ Servicing
 - ✓ Checking balances
 - ✓ Mini-statements
- ✓ Transacting
 - ✓ Transfers
 - ✓ Payments
- ✓ Messaging
 - ✓ Alerts
 - ✓ Notifications
 - ✓ Offers
 - ✓ Targeted
- ✓ Marketing
 - ✓ New offers
 - ✓ Promotions
- ✓ Purchasing
 - ✓ Products
 - ✓ Services

Myslíme o krok vpred ...

Initial Business Functions

Application access:

- **Registration / initialization**
 - Password registration (Web/OTP token additional authorization)
- **Login to application**
 - Application password

General functions:

- **Private mailbox**
 - List of read / unread messages from Bank
- **Application Settings**
 - User settings modification functionality

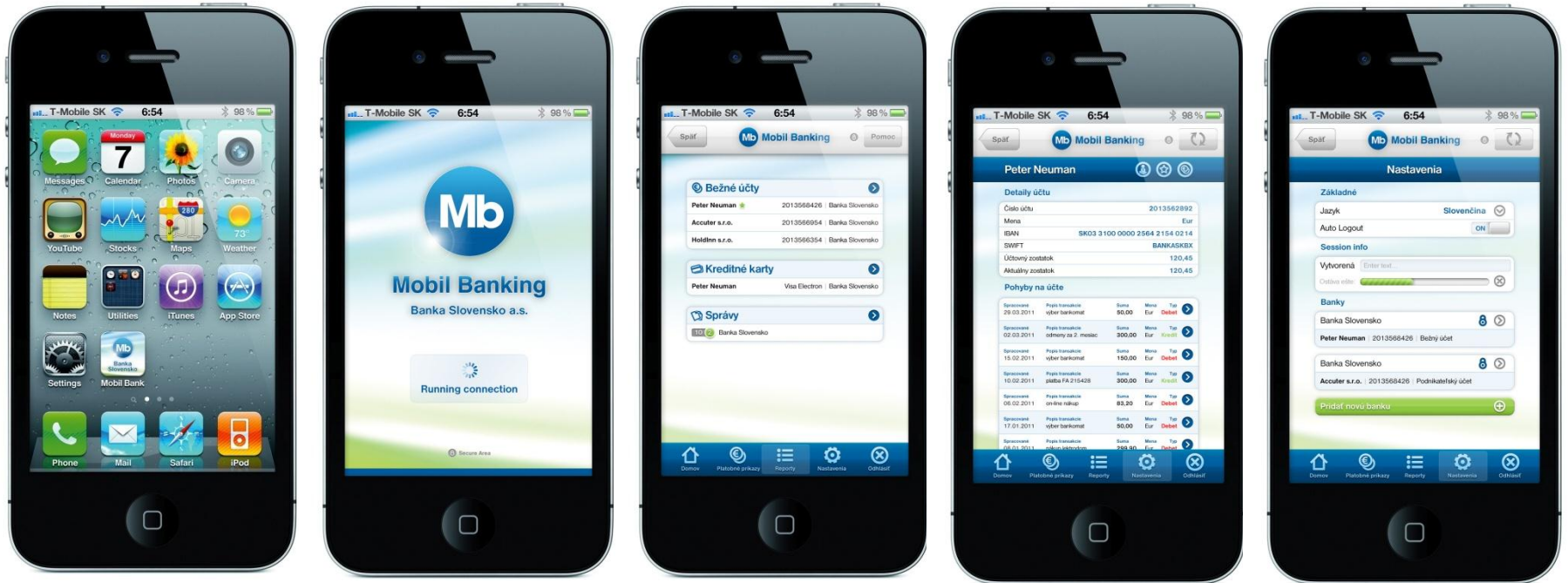
Public Zone:

- **Homepage**
 - Navigation to SmartBanking homepage (Private access)
 - Navigation to Main contact page (Public access)
- **Public/ Main contact page**
 - Bank contacts details (Main bank address/ main call-centre contact/ main email contact)

Private SmartBanking:

- **Private Homepage**
 - Navigation to SmartBanking functionality
- **List of Accounts**
 - List of Accounts
 - Account balances
 - Change of selected parameters of account
 - Account movements
 - Create payment order from selected movement
- **Payment order**
 - Create payment order
 - Payment order confirmation

Application Look & Feel



Myslíme o krok vpred ...

Application Security

- Multi-Factor authentication during registration
 - IB Name, IB Password, SMS/GRID/OTP token
- User set password for short time sessions
- **No personal data stored** on device
- Device timeout
 - Inactive user, locked device, inactive app.
- **CSR Lock-out**
 - immediately lock the app on a lost phone and reinstate it if found
- Built-In **OTP generator**
 - Can be reused for Banks internal purpose
- Communication encrypted via **TLS**
- **Message level security**
 - Token iteration for every action request
- Based on Well-Known and proven Ciphers
 - RSA 2048b, AES256, HMAC_SHA256, SHA256

Myslíme o krok vpred ...

What do I need to start?

- Integration concept and definition of interfaces
- Security integration concepts
- Application design customization
 - customization according to bank design guide (logo, colors, background, fonts, etc.)
 - promo landing page design
- App Store & Android market registration

Thank you.

Myslíme o krok vpřed ...

 **DATALAN**
IT WORKS