HOW NFC WILL REVOLUTIONIZE RETAIL

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SUMMARY

VeriFone
- Overview of NFC developments around the world
- How is it affecting the Retail Business
- Six steps to reimagining retail

Printec
- Enabling m-Commerce
- Printec NFC solution and approach
HOW NFC WILL REVOLUTIONIZE RETAIL

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Indirect Channels Sales Director Balkans, Russia and CIS Countries, VeriFone
VERIFONE CORPORATE - WHO WE ARE

A leading global provider of technology that enables electronic payment transactions

- VeriFone Systems, Inc. (NYSE: PAY)
- Founded in 1981
- $1.3 billion revenue in FY2011
- $1.92 billion revenue target for FY2012
- Leader in most markets
- 4800 employees worldwide
- Active in over 110 countries
- Systems installed in over 20 million locations globally
OVERVIEW OF NFC DEVELOPMENTS AROUND THE WORLD
And it’s happening now…

- 200 smartphone & tablet models are in the pipeline carrying NXP NFC chips—with about 40% of them either already in production
- NFC Transactions to reach $180bn by 2017
- 700M NFC phone shipments expected in 2016
NFC PHONES AVAILABLE

Many more expected soon...

Low-end smart phones also becoming available
Google Wallet launched on September 19th, 2011

- NFC mWallet, initially only available on Sprint with Citibank
- Cloud-based version launched to support all cards
- Millions of NFC phones expected this year

Isis (joint venture of AT&T, Verizon, T-Mobile)

- Austin and Salt Lake City by summer 2012
- Deals with issuers Chase, Barclaycard and CapitalOne
- Millions of NFC phones expected this year

PayPal “Cloud” Wallet

- Implementing in major retailers
- Touch, card input plus PIN, NFC possible in the future

Merchant Customer Exchange

- Coalition of merchants to do their own mWallet including Walmart, Target, 7-Eleven, Best Buy, Publix, Sears, Shell, Sunoco, CVS, Darden Restaurants, Lowes
Google has announced intention of bringing Google Wallet to Europe.

Mobile Phone Operators are forming joint ventures in multiple countries to roll out NFC mobile payment services:

- Austria: telenor, TDC, Telia, cityzi
- Denmark: telenor, payez, mobile
- France: mpass
- Germany: Deutsche Telekom, O₂
- Hungary: telenor, O₂
- Sweden: T-Mobile
- Turkey: O₂, Garanti
- UK: O₂

Plus multiple initiatives in several countries: Israel, Poland, Spain and more…

Fear of the “Apple Effect” a.k.a. “Over The Top” players
Japanese and Korean MNOs announce NFC roaming—rollouts expected in 2012

In China NFC payment transaction values could surpass $8 billion by 2014

China UnionPay and China Mobile cooperating to launch NFC mobile payments service in the country

In Singapore, mobile NFC service driven by iDA is scheduled to launch in August 2012, with 3 MNOs

New Zealand’s three MNOs and payments processor announced plans for JV to launch NFC services in 2012 - 2013
Rogers and CIBC announce launch of NFC mobile payments by end of 2012 using Blackberry phones.

Google Wallet and lots of unconfirmed rumors from banks and MNOs in the region have been pushing adoption of VeriFone terminals enabled with NFC technology

Brazil, Colombia and Mexico are the main markets
NFC VS. CLOUD

NFC

Tap and pay

Cloud

Enter phone number and PIN to pay

How NFC will revolutionize RETAIL
No matter which wallet is used, customer always **authenticates** in the merchant-trusted POS system.

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<th>NFC Secure Element</th>
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<td>Merchant POS</td>
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**Cloud**
THE WALLET WARS – A GLOBAL TREND:
MORE TO COME, BOTH CLOUD AND NFC

Most wallets are pursuing a hybrid approach counting on both cloud and NFC
HOW IS IT AFFECTING THE RETAIL BUSINESS
THE TRANSFORMATION OF “PAYMENTS”

Point of Interaction

- Knows who you are (opt in)
- Know where you are
- Knows your coupons
- Is trusted, safe, secure
- Single user interface
- Clean seamless experience

= Intelligent Checkout

Point of “Intelligent Checkout”

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How NFC will revolutionize RETAIL
WHAT ELSE IS CHANGING AT POINT OF SALE?

A different approach is needed to applications and transaction management at the point-of-sale

- Applications on the POS terminal are no longer exclusive
- Many transactions are not payment, and should be designated to multiple service providers
- Application updates are frequent (measured in days, not months)
How is it affecting the retail business

The first to understand that m-commerce is as much about the consumer as it is about the merchant

There is no Mobile Commerce without a Mobile Phone
There is no Mobile Commerce without a Point of Sale Device

The mobile player that first understands and engages the acceptance side of m-commerce will win the race
CONSUMER APPS MUST HAVE A CORRESPONDENT MERCHANT APP TO BE USEFUL

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<th>Consumer Enabling Software</th>
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<td>More...</td>
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</tbody>
</table>

- Consumer App Store
- Over the Air (OTA) Provisioning
- Wallet Software
- Security

✓ App Developer APIs
✓ Secure Provisioning and Storage
✓ Support for Large Number of Apps
✓ App Downloads
✓ App Updates
✓ Easy Interface of Apps on Device

- Merchant App Platform
- Secure Provisioning
- Intelligent Checkout
- Security

How NFC will revolutionize RETAIL
Most merchants are still not equipped with NFC platforms. Most will need new hardware to start accepting mobile payments.
No matter if it is a NFC or cloud wallet, the important value-added mobile offers, coupons and promotions have **no established standards** at merchants systems and **integration is needed** to establish communication standards between phone and NFC reader, NFC reader and POS and POS and host.
MERCHANT SYSTEMS NEED TO MANAGE GROWING COMPLEXITY

App updates are more frequent - measured in days, not months or years

NFC Mobile…
AND MUCH MORE TO COME…

How NFC will revolutionize RETAIL
EASY STEPS TO REIMAGINE RETAIL
TAKE FULL CONTROL OVER NFC MOBILE COMMERCE IN 3 EASY STEPS

1. Get Enabled

2. Choose Your Apps
   - Coupons
   - Loyalty
   - Others...

3. Manage It

Get Ready For ... Any Wallet ... Any App ... Any Program
1. GET ENABLED!

100% of the new terminals are NFC ready

ISO 14443 • ISO 18092 • MiFare • App agnostic • App insulation
2. CHOOSE YOUR APPS

Easy Integration with Open API Common Interface Standards:
Set of standards and SDK that ensure phone value-added app data flow seamlessly throughout the existing merchant and acceptance infrastructure.

Phone / Terminal Interaction
Generic Spec to exchange information between a NFC phone and a terminal

Terminal / ECR Integration
Abstraction layer defining standard interface between wallet data and retail systems

Retailer System

VAS Apps
Universal Spec allowing easy third party apps integration

How NFC will revolutionize RETAIL
VeriFone Estate Management:
Enables full management and secure provisioning of NFC apps on POS terminals. Full remote control over thousands of terminals:
- App management
- App downloads
- App updates
- Terminal management
- Key management

VeriFone PAYMEDIA Network Services:
Cloud-based hosted service that enables merchants to make one single integration to route transactions to multiple app providers from wallet providers to social commerce, mobile couponing, marketing and promotions, to payment networks.

VeriFone provides multiple ways for merchants, acquirers and other customers to manage their secure and value-added apps in their systems.
1. **Don’t be afraid to change**: Be prepared to exploit NFC platforms early in the adoption cycle.

2. **Remember the point of sale is not just about payments**: NFC transforms them into intelligent customer relations tools.

3. **Get creative**: Ensure marketing teams understand and exploit NFC opportunities for loyalty, promotion, brand-building, in-store tagging and incentive programmes.

4. **Think multi-channel and social**: Use NFC to create new links across your channels using digital platforms to deliver service, fine tune your offering and develop your proposition.

5. **Choose a partner with proven ability**: One with vision, experience and proven solutions you can trust.

6. **Leverage existing spend**: If upgrading your payment estate for PCI compliance, maximise your ROI by ensuring you include NFC/contactless acceptance too.
CONCLUSION

“We have never been in a better place than we are today. In terms of our worldwide expertise, our total solutions offerings and our commitment to staying ahead of the payments industry.”

– Doug Bergeron, CEO VeriFone

Thank You
What is Mobile Payments?

- A convergence of “mobile” & “payments”

- **Near Field Communication** (NFC) is an emerging short-range, wireless technology that promises to turn mobile phones into contactless devices for:

  i. Payment
  ii. Couponing
  iii. Redemption
  iv. Retrieving product information, and checking product pedigree for valuable items,
  v. Showing the total cost of the purchase together with the discounts received based on the user’s loyalty status

- From a single application to multiple applications per card

Prepared for the Future

- From Pin-and-Wait to Tap-and-Go

- **NFC**, redefining what is possible by enabling:
  - Mobile Payments
  - Personalized loyalty programs
  - Smart Posters
  - Mobile Ticketing
  - Anytime & Anywhere
Incentives

- It’s not just about payment acceptance anymore. Once consumers start making NFC payments, Printec can enable you to accept contactless coupons, loyalty, rewards and much more.

- Close integration of Loyalty programs in the Purchase Path:

  “The key to making NFC work is offering people incentive to use it:
  • targeted deals
  • coupons or rewards points all of them stored in the phone”

  Eric Schmidt, MWC’11
1. **Deregulation** (aiming to introduce competition in payment systems)
   - E-money directive 2000/46/CE - **Defines E-Money**.
   - Payment Services directive (PSD) 2007/64/CE – **Defines Payment Institute**.
   - E-Money directive 2009/110/EC - E-money & Payment Services under a single license.

2. **War on Cash**
   - An ongoing battle that plastic cards (debit & credit) haven’t been able to win (yet)
   - 85% of the world’s transactions are still in cash (**costly**).
   - The **banking industry** is changing quickly, focus on replacing **revenue streams**

3. **At the same time**, **Mobile Operators** are also looking for **new revenue streams**
   - Areas of opportunity, mobile advertising, mobile commerce, mobile payments

4. **Untapped Potential**
   - Today, globally, there are **5.5 bln Payment cards & mobile phones; 45 mln EFT POSs; 10.000+ Tier 1 Retailers, Card Issuers, Transit Operators**

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How NFC will revolutionize RETAIL
M-PAYMENTS LANDSCAPE – DRIVERS AGAINST CHANGE?

„Chicken-and-egg“:

- Handset manufacturers
- Financial institutions
- MNOs

Biggest challenges:

- Consumer adoption / critical mass
- Control over the secure element
- Working business model
- Convincing retailers to invest
- Creating profitable partnerships

Despite that 111 bln EUR NFC payments expected in 2015

Source: NFC Payments Insight Survey 2012
(participants were 200 NFC professionals)
THE AUTOMATED PAYMENTS ECOSYSTEM IN SEE – CURRENT STATUS

1. Personalized services over the acceptance network
   - Limited and segmented customer view over different delivery channels
     - Online redemption not widespread
     - Limited capability for personalized content delivery

2. EFT/PoS terminals technology
   - Dial-up connection
   - Pilot contactless terminals
   - PCI certifications driving upgrade

3. Automated transactions in Retail, Petrol, Telco
   - Cash dominated markets
     - Long queues
     - Higher cost of servicing customers
     - Risk of cash handling (fraud & crime)

4. Lack of Automated Transactions in other verticals & merchants
   - Taxi
   - Transportation
   - Insurance
   - …
Consumer spending: growth 7 – 11% p.a. in 2003 – 2008, after that decline due to economic crisis (increase of VAT 2009, 2012); in 2011 the decline stopped but pre-crisis level to be reached only in 2015

Retail sales are 60% of the consumer spending (much higher than in Western Europe) although its share in GDP fell from 11% in 2010 to 10% in 2011, negative GDP growth in 2012

Revenue dynamics per store format / merchant type: hypermarkets, discounters and drugstores/pharmacies/perfumeries growing, supermarkets and wholesalers/cash&carries stagnating/slightly declining, neighbourhood stores declining sharply

Mergers and acquisitions pending (consolidation level is still low)

source: Planet Retail 2012
HOW INTERACTIVE MOBILE COMMERCE WORKS

1. Interact with Touchpoints
   - Website
   - POS, Loyalty Systems

2. Route Requests
   - Trigger Manager

3a. Get Content
   - Web Network

3b. Far from a store

4a. Deliver Content
   - OTA

4b. Provision Redeemable Contents
   - OTA

5. Receive Content
   - Mobile Network

6. Redeem, Pay Checkout

Content Manager
- TSM-SP
  - Service Provider TSM

Content Providers, Card Issuance Systems
- Offers, Loyalty & Social Networking

Financial POS Network
- Redemption Notifications
NFC MOBILE SERVICES – EVERYTHING IS POSSIBLE

NFC Use Cases

Domain

Station Airport
- Public Transport
- Advertising

Vehicle
- Municipal Authorities
- Vehicle Services

Office
- Security
- Enterprise

Mall
- High Street
- Restaurant
- Banking
- Retail

Stadium
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MERCHANT AND END USER SOLUTIONS FOR RICH MOBILE COMMERCE CREATES MORE TOUCH OPPORTUNITIES TO INFLUENCE MORE IN-STORE PURCHASES

Many opportunities to affect purchase behavior with timely information and targeted offers

Far

- Search and Browse online for downloadable in-store redeemable coupons that can be pushed to the phone

Near

- Touch download coupons or prepaid cards by tapping at a kiosk

Enter

- Get real-time offers at a touch pad menu to order, pay, and/or identify table for food delivery

Shop

- Get product information
- Get offers
- Get Customer Reviews

Checkout

- One Tap Checkout to redeem coupons, use loyalty card, and pay.
- Get new coupons and receipt simultaneously.

How NFC will revolutionize RETAIL
CHECK-IN AT A RESTAURANT OR STORE USING NFC PHONE OR STICKER WITH EXISTING HANDSETS

Mall Check-In

- User taps the NFC phone on Mall Check In smart poster
- Wallet will connect to server and download merchant promotion
- Selected merchant promotion is displayed in wallet ready for redemption

Store Check-In

- User taps the NFC phone on check-in Kiosk at store entrance
- Wallet will connect to server and promotions fitting the customer profile
- List of personalized available promotions and coupons will be displayed in wallet
“TOUCH-TO-ORDER” FROM A NFC POSTER IN FAST FOOD RESTAURANT

- User taps the NFC phone to Smart Menu Board in Drive Through lane or Parking Spot
- Wallet will communicate with OTA server and download order
- Order is successfully downloaded, and is ready to be placed
MTOUCH – SHELF TAG

- Time-Sensitive Promotions
- Product Price, Reviews and Product Details
- Real-Time Cross-Sell and Up-Sell

mTouch Shelf Tag
• Price • Suggestions • Deals
NFC mCommerce connects the consumer, the store and the digital world through touch in all phases of in-store shopping.

**Personalized marketing**: one-touch check-in

**Interactive shopping**: one-touch shelf tag
- personalized, real time product recommendations can be made for the customers based on the product selection already in the basket

**Integrated check-out**: one-touch check-out, order
- customers simply request the invoice into their mobile handset,
- without lining up in front of the cashier customer can make their payment with their handset (this increases the capacity of the store) or by cash.

- “20% of purchases are made on impulse”
- “70% of purchase decisions are made in-store”

- P.R.I.S.M.
PRINTEC SOLUTION OFFERING

- Mobile wallet & OTA provisioning channel software:
  - Shop, pay or save with real time & personalized services from any location
  - Merchant Cards - Credit, debit, prepaid, e-cash, gift cards, and transit cards
  - Loyalty, coupons, promotions, instant rewards, digital receipt
  - Triggering & Opt-in channel: Shelf tag, smart tag poster, barcode

- Backend SW for mobile loyalty, offers, merchandizing, and prepaid
  - Personalized coupons/offers, promotions, and instant rewards
  - Push & pull marketing campaign management
  - Mobile ordering and merchandizing

- NFC-enabled POS & Universal Acceptance Platform:
  - Payment / Gift Card / Loyalty offers & eVouchers Acceptance
  - Single Tap Order & Payment; Send back coupons, rewards, eVouchers, receipts
  - Introducing the Universal Acceptance Platform (UAP), standardizing & ensuring Interoperability in the NFC Ecosystem

NFC Mobile Channel Provisioning (TSM) Software
NFC Mobile Channel Loyalty & Marketing Applications
NFC POS HW/SW & UAP

How NFC will revolutionize RETAIL
NFC BUSINESS CASE CALCULATION – SAMPLE

Takes into consideration all the players: retailer, MNO, bank and TSM

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How NFC will revolutionize RETAIL
Enabling the NFC Ecosystem

- We ensure PCI compliant solutions,
- While also defining the acceptance side in NFC ecosystem (UAP)
- Making it easier for any Service Provider to join the NFC ecosystem and preserving interoperability between Service Provider (SP), TSM, Mobile App and POS
- Printec with more than 300,000 EFT/PoS terminals deployed in the region is enabling the development of m-payment ecosystems in SEE

End-to-End NFC lifecycle

- Printec is at the center of the new landscape, providing solutions for all payment requirements and guiding businesses to a bigger world of true mobile commerce.

We offer all the components you need to enable the NFC experience:

- Provisioning Software
- Loyalty & Marketing Applications
- NFC enabled POS terminals (acquiring)
- Universal Acceptance Platform
ENABLING M-COMMERCE

Issuing Banks

Acquirers

Retailers

Mobile Operators

Content Providers

Handset MFRs

Terminal & Reader MFRs

Transport Service Providers

Printec

Enabling m-Commerce
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