



# **Online payment services for e-commerce**

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# Agenda

- ▶ The evolution of e-commerce
- ▶ The coming disruption caused by NFC
- ▶ The driving role of the digital ecosystem



# Agenda

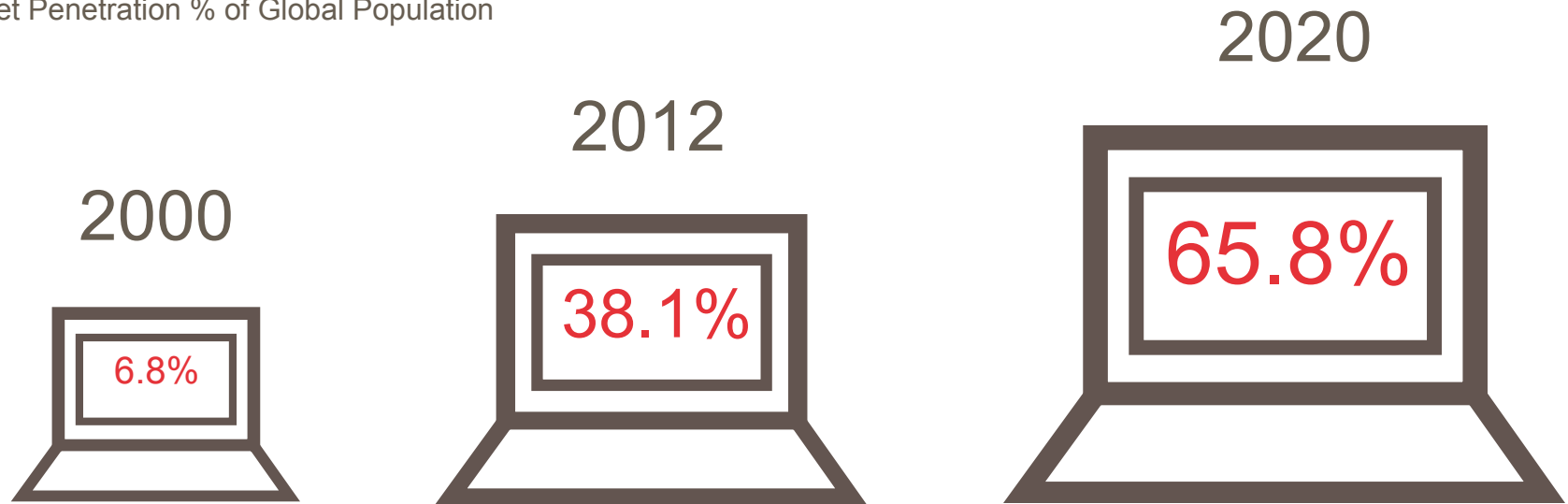
- ▶ **The evolution of e-commerce**
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# Everyone is getting connected

## The internet is expanding at unprecedented rates

Internet Penetration % of Global Population



**1/3** of the world  
is connected today

Source: World Bank, EIU UN, futuretimeline.net

# New buying power is coming from emerging economies

By 2015:

**91%** of new Internet users from emerging economies

**58%** of ecommerce growth from emerging economies

**3 yrs** China overtakes US as biggest online retail market

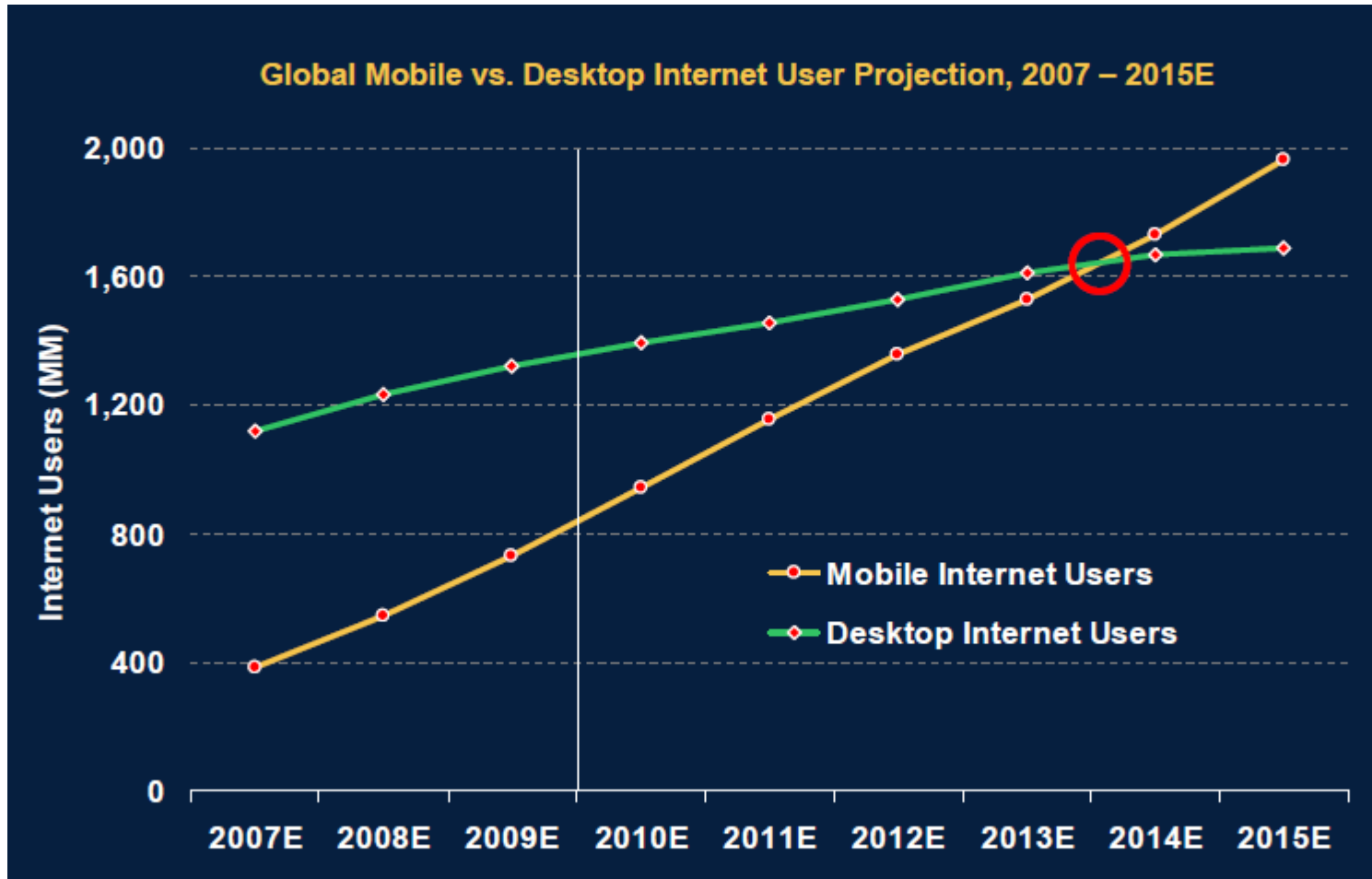
**20%** Already today 20% of eBay business is Cross Border Trade and growing

**10** fastest growing countries In ecommerce



Source: emarketer, invesp, Boston Consulting Group

# Rate of growth in mobile internet use



# Four key trends are shaping e-commerce



# Mobile is the customer's shopping assistant

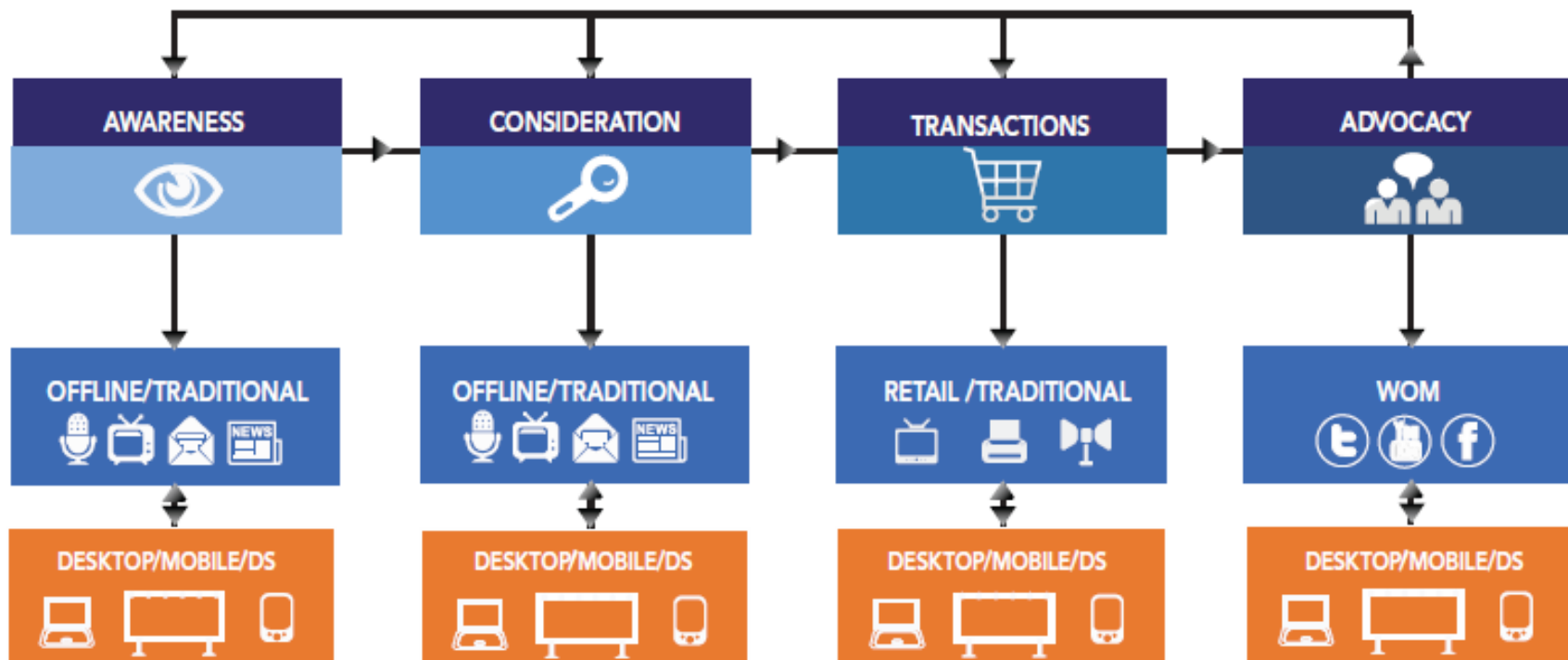




# Traditional Businesses must master technology to stay competitive

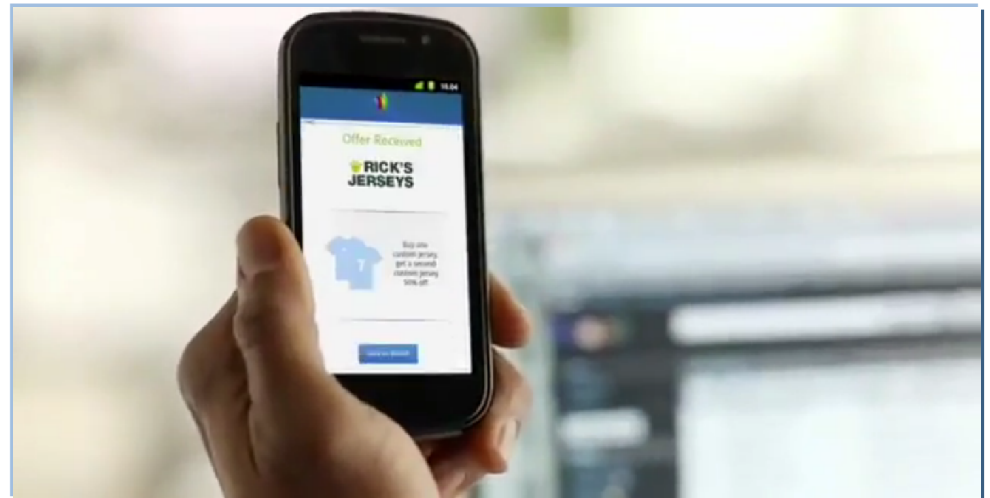


«Retail isn't broken, stores are», Ron Johnson, Former CEO JCPenny & former head of Apple Stores



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- ▶ The ecosystem



# NFC - How it works?



Transport applications



Banking Perso



Bank applications



Access applications



Loyalty applications



With mobile-NFC – All services in 1 single SIM card

# NFC – The range of applications

## Mobile Payment

- The device acts as a debit/credit payment card.
- P2P payment: Users can make payment to each other by tapping phones together and entering the amount of money to be transferred

## Mobile ticketing in public transport

- An extension of the existing contactless infrastructure, such as Mobile Phone Boarding Pass

## Loyalty & Couponing

- Delivery of in-store promotions and couponing, driving sales of products or value-added services

## Access

## Smart poster

- The mobile phone is used to read RFID tags on outdoor billboards.

## Identity documents

- Governments, employers, other organizations will use NFC to power contactless identity cards

## Travel cards

## Electronic keys

- Replacements for physical car keys, house/office keys, hotel room keys, etc.

## Healthcare

## Information collection and exchange

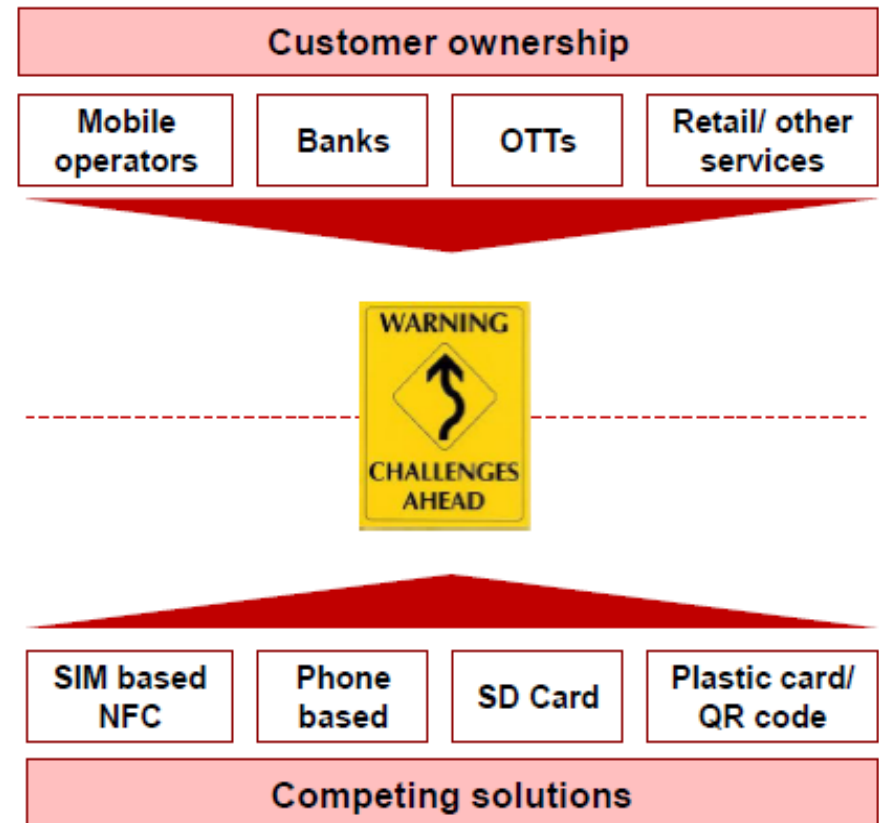
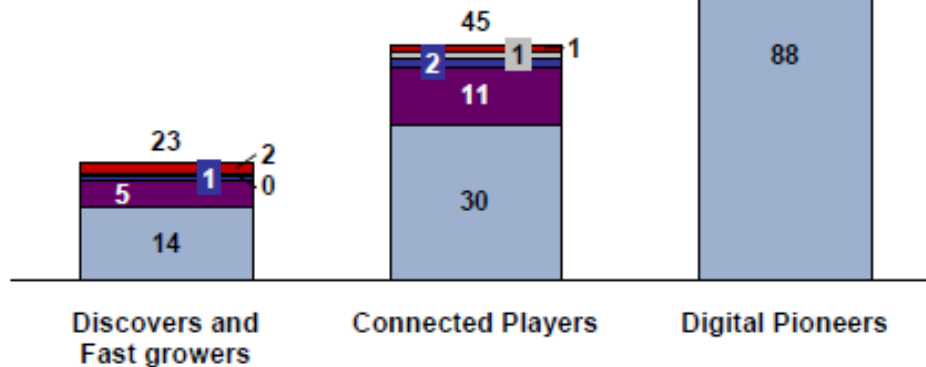
# NFC – The Business

By 2016 revenue prize could be over \$200m

Estimated size of total revenues to all players  
\$bn in 2016

2016 total  
\$204bn

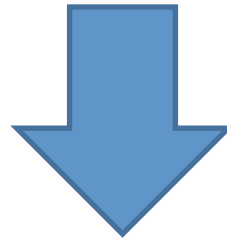
- Transportation tickets\*
- Entertainment tickets\*
- SIM license fees
- Payment transaction fees
- Marketing/ coupons/ loyalty



# NFC handset penetration to increase by 500 million units shipped in 2015 (67% CAGR)

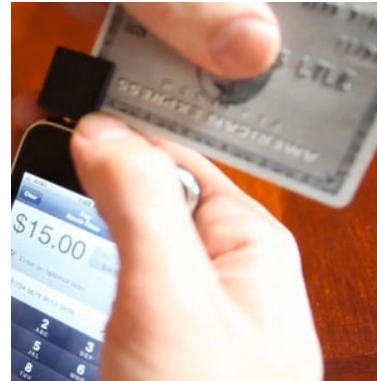
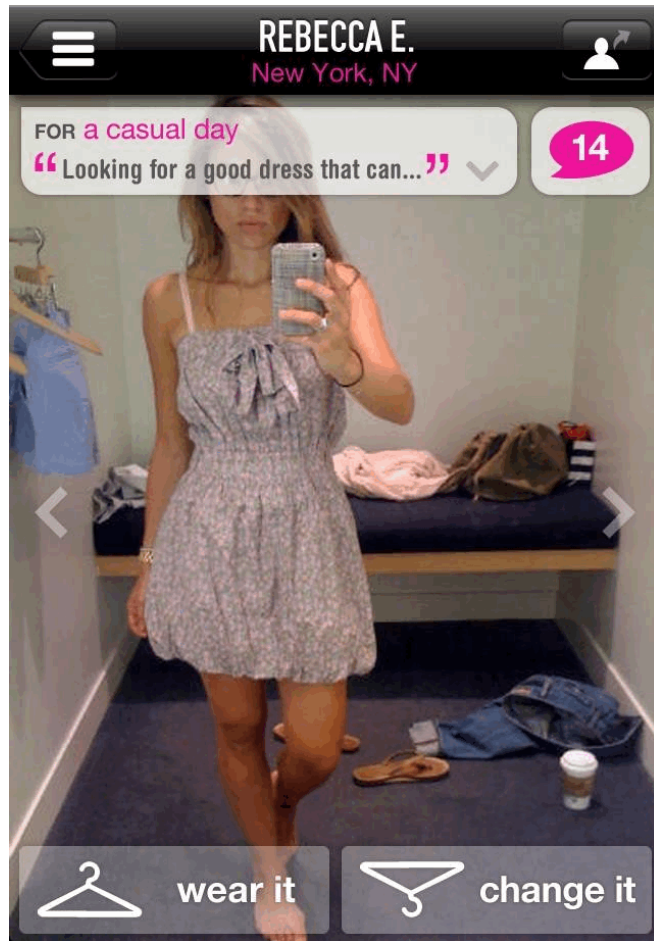
## KEY FACTS AT A GLANCE

- Total installed Base of NFC Handsets today is 120 Million
- Compounded Growth Rate of NFC enabled Handsets: 67%
- Number of Handsets projected to ship with NFC in 2015: 500 Million +
- More than 1 Billion NFC tags were shipped just by NXP alone in 2012.



**NFC technology has the potential to disrupt every industry by allowing firms to differentiate on outstanding user engagement**

# Mobile blurs the edge between online and offline shopping



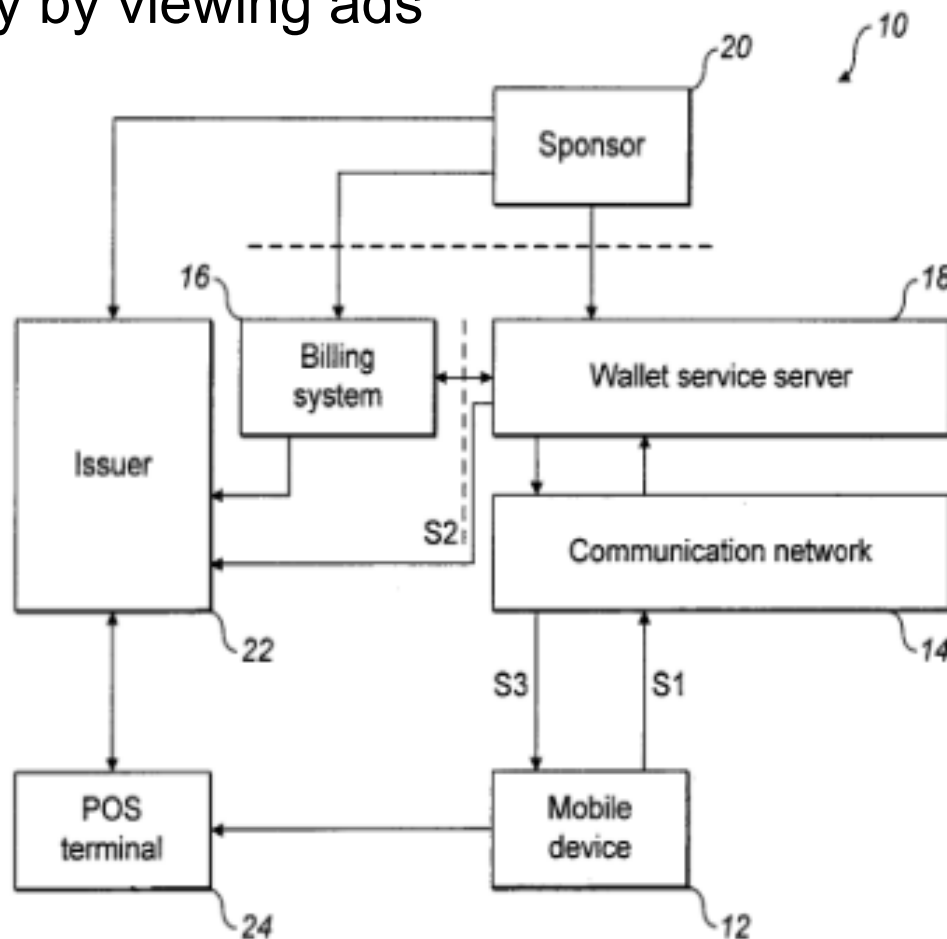
Google has dedicated hundreds of developers to Wallet and spent about \$300 million to acquire digital payment startups. **But consumers aren't sold. Wallet has been downloaded fewer than 10 million times in the two years since its launch** (*Business Week, June 6 2013*)

SEE WHAT YOUR FRIENDS LIKE ON LEVI'S!

 Connect with Facebook

# iMoney - Apple

Digital wallet technology that would allow to store money in the cloud, make payments with the iPhone, and — just maybe — communicate with point-of-sale terminals via NFC. Not to mention making money by viewing ads





# Online meets offline awareness and consideration



**Google Shopper**  
Shop smarter with Google Shopper.

## Retail groups lash out after Amazon announces Price Check app promotion

December 7, 2011 | 12:32 pm

Comments 11 | +1 1 | Tweet 87 | Recommend 86



**Price Check**  
by amazon

**ALBION**

## Albion's Oven

@AlbionsOven

*I am the Baker Tweet Box on the wall in The Albion. Every fresh baked tray of cakes and pastries gets a tweet by the baker, so you'll know when to show up*

London, UK · <http://www.albioncaff.co.uk>

Follow



1,515 TWEETS

25 FOLLOWING

2,778 FOLLOWERS

December 7, 2011

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# NFC Ecosystem

→ NFC SERVICE MGT



Mobile operator (MNO)

Service Providers (SP)  
Banks, Transit operators, Retailers



- Secure Elements
- Contactless applications
- User interface

Contactless Infrastructure



End-User & NFC Phone



# NFC - Industry perspective



**Customer education.** Demand for card-based contactless payments is low, despite heavy investment by credit card companies such as Visa and MasterCard.

**Devices & SIM.** Lack of NFC phones in the near term; even if we think most of the future smartphones will support NFC by 2015 (iOS, Android and BlackBerry, Windows Mobile), we need to work for interoperability (SIM-based!) and for 2012 availability on different target price (low, mid, high);



**CE devices.** Although mobile phones can kick start the market, mass-market uptake will only arrive when more consumer electronics — such as PCs, media tablets, TVs, game consoles and home appliances — support NFC.

**Infrastructure.** Lack of contactless interoperable infrastructure may slow the market uptake; nowadays many merchants don't have NFC-compatible POS terminals; nor do transport operators, airlines and buildings. As yet, merchants do not see a strong business case to upgrade.



# Key issues fo the development

## Interoperability

### Ecosystem development

- Standardization bodies need to define one single way of communication for each element of the NFC chain to grant technical & geographical interoperability

### Reader infrastructure

- Proliferation of contactless reader base going into a common direction
  - Number of contactless POS deployed in the market is necessary to build the ecosystem

### Device availability

- Penetration of NFC enabled devices with associated applications is key
  - NFC handset penetration
  - SIM/eSE availability





# Reimagining user experience by leveraging big data and integration



Social/Mobile/Internet



Sensors



Multichannel



Location



Customer Experience Design



Cloud / Big Data

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