



# PAYBUYMOBILE

GSMA: Pay-Buy-Mobile Initiative  
Presentation at NRF/ARTS Conference  
La Jolla, California

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Nav Bains/GSMA

# Trends in the Mobile Phone evolution

- Processing power and sophistication of the mobile phone is growing
  - Analogue voice only
  - Digital voice and data
  - High speed data
  - Internet enabled
  - Cameras
  - Music
  - Touch screen
  - Application stores
  - Mobile Wallets
  - Spectrum of NFC services (payments, loyalty, access, transportation etc)
  - Location based services (personalised advertising)
  - What next ?



# What is NFC?

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- Near Field Communications is a suite of transmission technologies
- Short-range (<10cm) RF communications (13MHz)
- NFC is an **ENABLER** -> **MANY** Potential Uses:
  - Public transport (compare with “Oyster” card in London)
  - Ticketing (compare with FIFA-World Cup 2006)
  - Loyalty (compare with Tesco Club card points)
  - Access control (control entry to cars/homes/offices)
  - Payment** (compare with Contactless payment cards)
  - Etc.

# GSM World Today

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## Global Choice

*Over 4.1 billion  
GSM/3GSM users  
connected*

## Global Growth

*1 million new  
connections every day*

## Global Data

*Nearly 7 billion text  
messages are sent every  
day*

## Global Reach

*All 219 countries served  
by GSM or 3GSM  
networks*



# The GSMA

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- Represents the interests of the Mobile Communications Industry Worldwide
  - Approx 800 Operators Members across 219 countries/territories
  - Over 200 Associate Members (Manufacturers & Suppliers)
  - Founded 1987
  - See [www.gsmworld.com](http://www.gsmworld.com)
- GSMA is helping to create new business opportunities for its members
- GSMA is working to ensure that mobile and wireless services work globally

## 2. Current Status and Overview

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PAYBUYMOBILE



# Pay-Buy-Mobile: Concept

- **Common global approach** : use of SIM (UICC) based credit/debit card applications and Contactless/ NFC contactless technology
- **Avoid fragmentation**, ensure global interoperability between handsets, chip cards and point of sale terminals, regardless of manufacturer
- Embedding mobile contactless payments e.g. credit/ debit transactions in the UICC/SIM card will **extend the role of mobile** phones in users' everyday lives.
- Effectively, **putting your credit/debit cards in your phone** for simple and easy payment



Provision Credit  
Card Application  
into the UICC/SIM

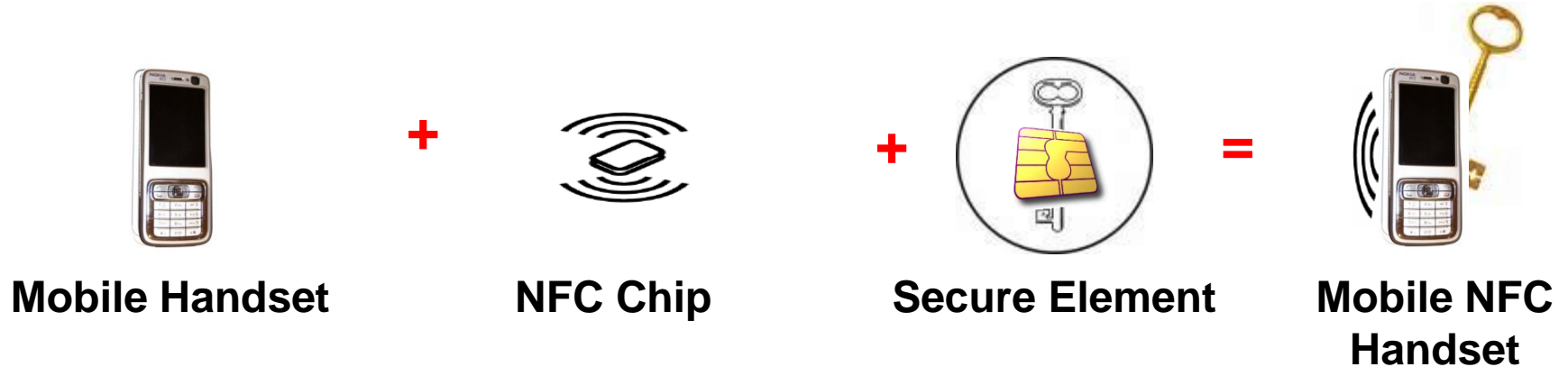


Tap and Pay

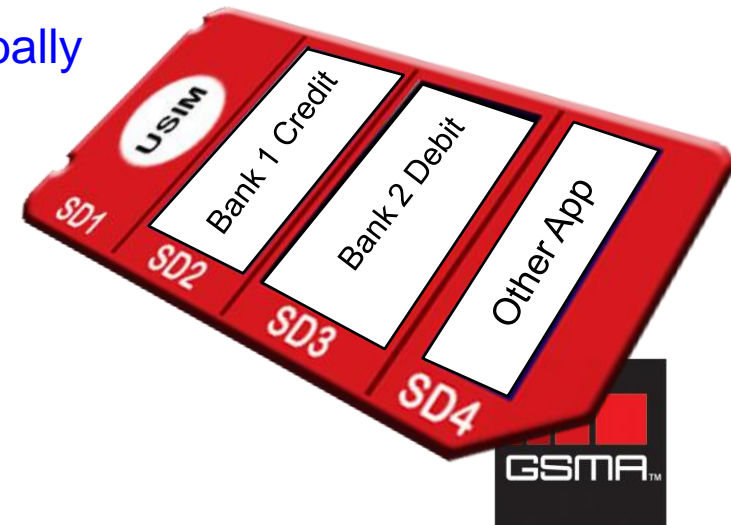


Goods  
Purchased

# The Handset is the next logical step

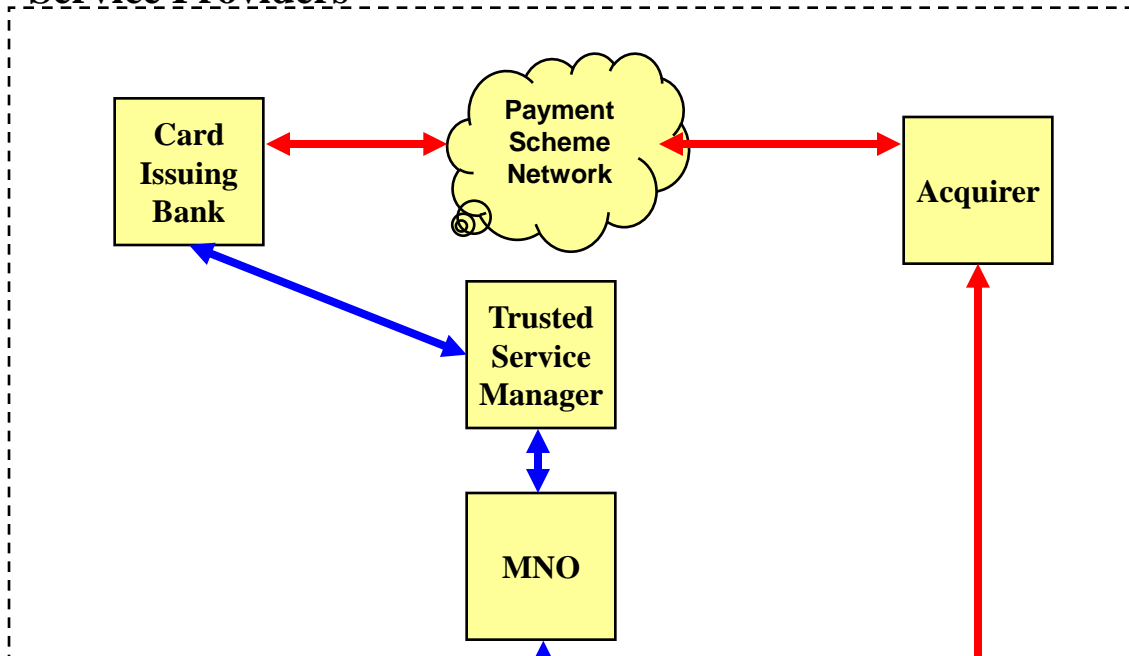


- GSMA-EPC initiative will be based on the use of the UICC (“SIM Card”) as the secure element for the mobile phone. The UICC/SIM offers:
  - Presence in more than 85% of phones, globally
  - Portability
  - Security
  - Standardised interface to NFC chip
  - Over-The-Air management capability



# Pay-Buy-Mobile Architecture

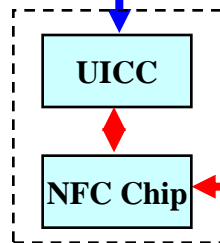
## Service Providers



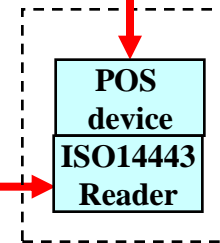
LEVERAGING  
EXISTING  
BANKING  
INFRASTRUCTURE

Provisioning  
Transaction,  
Clearing &  
Settlement

\*Not Shown:  
UICC/NFC Chipset/Handset/POS  
Manufacturers and Suppliers



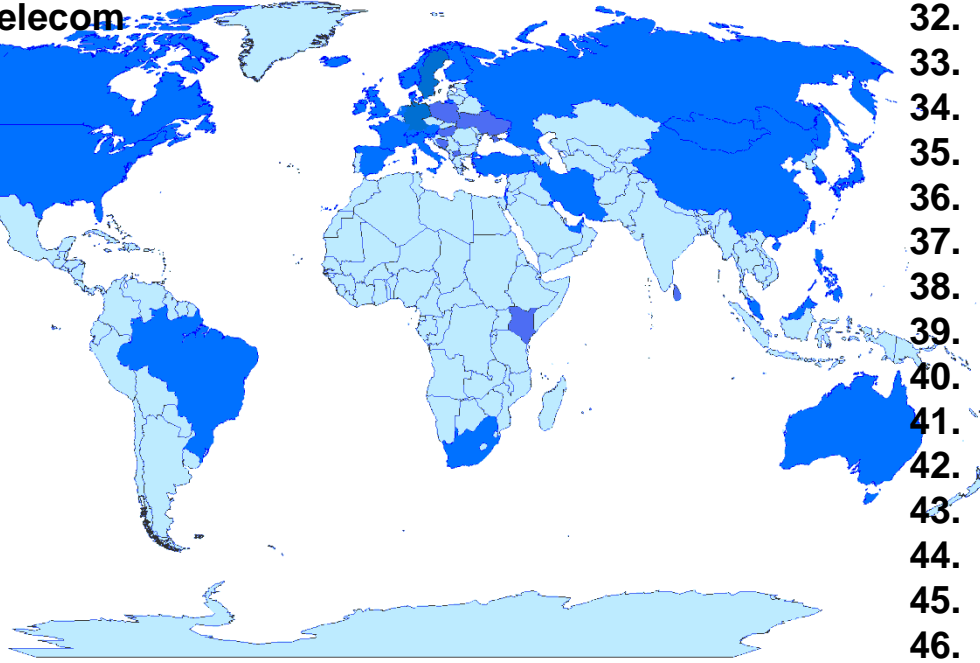
Customer



Retailer

# 52 Participating/supporting MNOs

1. AT&T (Phase 2 co-lead, Phase 3 Lead)
2. KTF (Phase 1 Lead, Phase 2 co-lead)
3. Astelit
4. Brazil Telecom
5. Celcom
6. Chunghwa Telecom
7. CMCC
8. Dialog
9. Econet
10. EITC
11. Etisalat
12. FarEasTone
13. GlobeTel
14. IMC Island
15. Kall
16. KPN
17. Maxis
18. MCI
19. Meteor
20. MobiCom
21. Mobilkom Austria
22. Mobitel d.d.
23. MTN
24. MTS
25. NTT DoCoMo
26. Orange
27. Partner
28. Pelephone
29. Rogers
30. SFR
31. SINGTEL
32. SINGTEL OPTUS
33. SK Telecom
34. SMART
35. Softbank Mobile
36. Starhub
37. Swisscom
38. Taiwan Mobile
39. TDC
40. Telefonica-O2
41. Telenor
42. TeliaSonera
43. Telecom Italia
44. Telstra
45. Telus
46. Turkcell
47. T-Mobile
48. Vimpelcom
49. Vodafone
50. Wataniya
51. Wind
52. Zain



Current subscriber base 1.7 Billion



# Pay-Buy-Mobile initiative: Pilot status

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- Pilots underway in 11 out of 14 planned countries

1. **Australia**
2. **Canada**
3. **France**
4. **Ireland**
5. **Japan**
6. **Korea**
7. **Malaysia**
8. **Norway**
9. **Philippines**
10. **Singapore**
11. **Switzerland**
12. **Taiwan**
13. **Turkey**
14. **USA**

## Legend

- Pilot underway
- Pilot to be launched



# Current Activities

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- Working with EPC on
  - TSM Requirements
- Need to work with Key Ecosystem Players on:
  - UICC Certification Requirements
  - IOT Requirements

# GSMA Collaborative activities

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- ETSI-SCP: Established
- EMVCo: Established 5<sup>th</sup> September 2008
- EPC: Established 30<sup>th</sup> June 2008
  - see: [http://www.gsmworld.com/news/press\\_2008/press08\\_45.shtml](http://www.gsmworld.com/news/press_2008/press08_45.shtml)
- MasterCard and Visa: Established and on-going
- Retailers: In progress
- Others:
  - E.g. dialogue underway with key industry players
  - Handset, Chipset, UICC manufacturers, Industry Forums

# Thank You!

# References

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- **Pay-Buy-Mobile Website** <http://www.gsmworld.com/pbm/index.shtml>
- **Pay-Buy-Mobile Business Opportunity Analysis Public White Paper**
  - See [http://www.gsmworld.com/documents/pbm/gsma\\_pbm\\_wp.pdf](http://www.gsmworld.com/documents/pbm/gsma_pbm_wp.pdf)
- **NFC Technical Guidelines V2 White Paper**
  - See [http://www.gsmworld.com/documents/nfc/gsma\\_nfc2\\_wp.pdf](http://www.gsmworld.com/documents/nfc/gsma_nfc2_wp.pdf)
- **NFC Mobile NFC Services White Paper**
  - See [http://www.gsmworld.com/news/press\\_2007/press07\\_22.shtml](http://www.gsmworld.com/news/press_2007/press07_22.shtml)
- **GSMA Requirements for SWP NFC Handsets V2**
  - [http://www.gsmworld.com/documents/reqs\\_swp\\_nfc\\_handsets\\_v2.pdf](http://www.gsmworld.com/documents/reqs_swp_nfc_handsets_v2.pdf)
- **Press Release 18 November Macau**
  - <http://www.gsmworld.com/newsroom/press-releases/2008/2090.htm>

# Backup Slides

# Achievements

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## Phase 1

- Published Business Opportunity Analysis White Paper  
[http://www.gsmworld.com/documents/pbm/gsma\\_pbm\\_wp.pdf](http://www.gsmworld.com/documents/pbm/gsma_pbm_wp.pdf)
- Launch of 5 Pay-Buy-Mobile pilots
- Live demonstration of OTA blocking/unblocking
  - PR: <http://www.gsmworld.com/newsroom/press-releases/2081.htm>
- Trebling of the number of participating MNOs (from 14 to 44)
- Pushed for standardisation of the Single Wire Protocol within ETSI

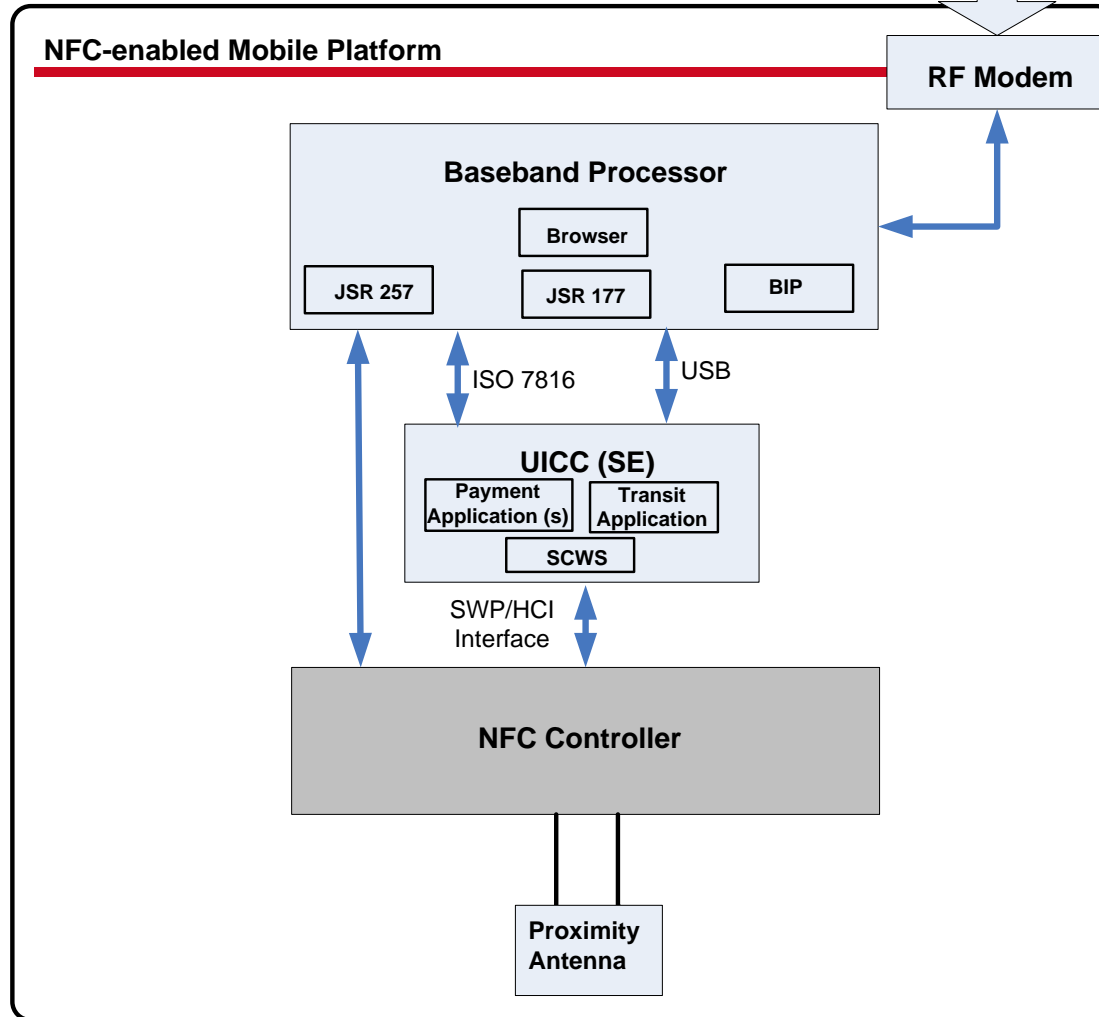
## Phase 2

- SWP/HCI standardised in ETSI (Feb 08)
- Launch of 10 Pay-Buy-Mobile pilots as at April 2009
- Established liaisons with EPC, EMVCo
  - PR: <http://www.gsmworld.com/newsroom/press-releases/2008/1122.htm>
- Published GSMA Requirements for SWP NFC Handsets v2  
[http://www.gsmworld.com/documents/reqs\\_swp\\_nfc\\_handsets\\_v2.pdf](http://www.gsmworld.com/documents/reqs_swp_nfc_handsets_v2.pdf)
- PR calling for SWP NFC Handsets
  - <http://www.gsmworld.com/newsroom/press-releases/2008/2090.htm>

## Phase 3

- 52 MNOs participating
- Telenor Pilot launch
- Work underway on UICC Certification and IOT requirements

# SWP NFC Handset Architecture



Mobile NFC Standards are done