

PHILIPS

Near Field Communication (NFC) Marketing Introduction

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What is NFC

- **Near Field Communication (NFC)** represents the second generation of the proximity contact-less technology, which supports peer-to-peer communication, and enables consumer access to aggregated services, anytime, anywhere, with any type of consumer stationary and mobile devices.
- NFC is jointly developed by **Philips** and **Sony**, two leading players in consumer market.

NFC Key Points



NFC

- Based on RF technology at 13,56 MHz
- Standard ISO 18092 and backward compatible with ISO 14443
- Typical Operating distance of up to 10 cm/4 inches
- Data exchange rate up to 424 kbit/sec (1 Mbit planned)
- Easy and intuitive to use

psa1128max



Portable Sport Audio by PHILIPS



Target markets for NFC

- **Mobile Business**
 - NFC in the mobile phones
- **Consumer Electronics**
 - NFC in all DVDs, TVs, cameras
- **Computing**
 - NFC in all laptops, printers
- **Entertainment, logistics and retail**



NFC Strategic Partnerships/Announcements

SONY



NOKIA
CONNECTING PEOPLE



Basic use cases

- Smart Media
 - Posters, magazines, prepaid cards for ring-tones and Java apps
- Smart Ticketing
 - Movie theaters or theme parks
- Peer-to-Peer Communication
 - Transfer digital rights from one personal device to another
- Contact-less mobile Payment
 - Use the mobile phone as a contact-less credit card or POS



Smart Media

Posters, magazines, prepaid cards for ring-tones and Java apps



Smart Ticketing

Movie theaters or theme parks



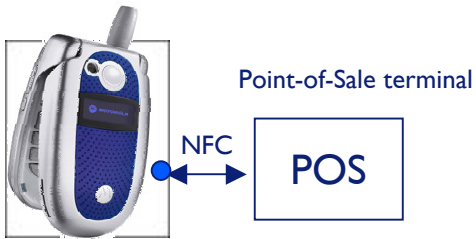
Peer-to-Peer Communication

Transfer digital rights from one personal device to another



Contact-less mobile Payment

Use the mobile phone as a contact-less credit card or POS



NFC-enabled mobile phone with contact-less payment



NFC-enabled mobile phone as acceptance device (POS)

... other **NFC** applications



Building access
Mobile phone = key

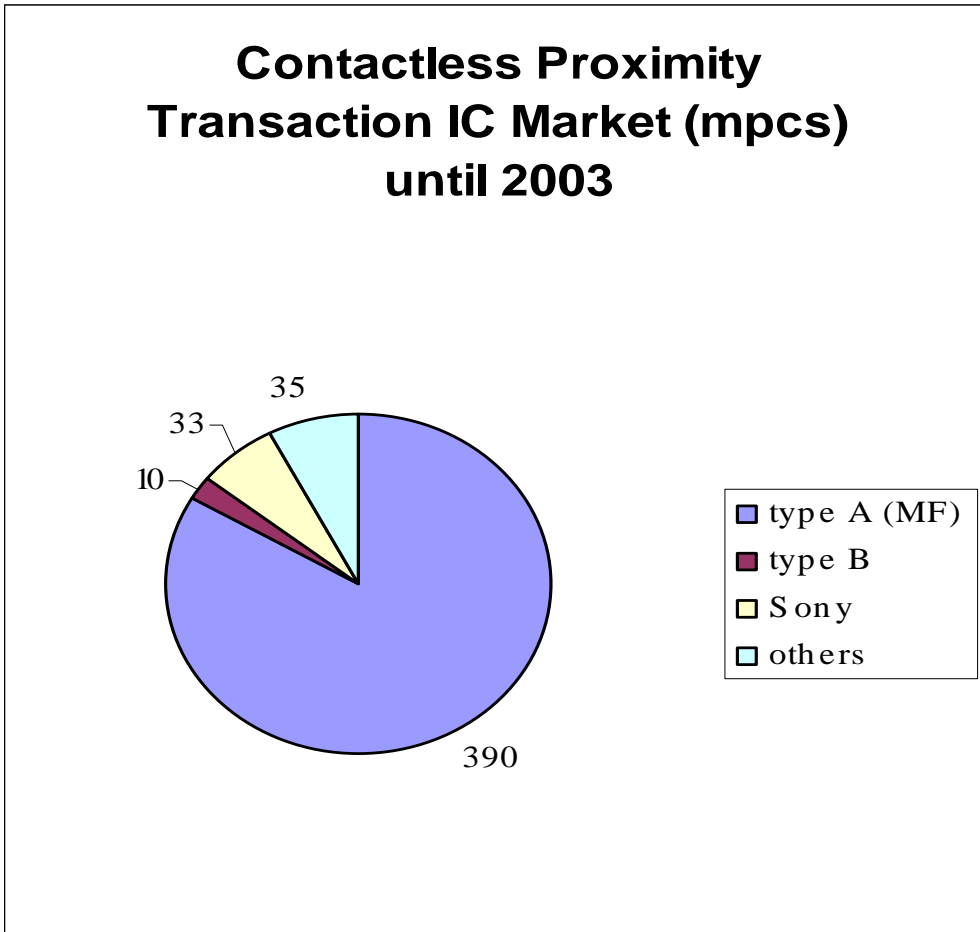


Exchange digital rights
Mobile phone = digital rights' holder



Access to
public transport:
Mobile phone
= transport card

Contact-less Proximity Transaction IC Market 2003



- 473Mpcs in the field, 405Mpcs of which are ISO14443 compliant
- With 390Mpcs delivered, Type A (Mifare) covers about 84% of the contact-less proximity IC market

Contactless Penetration: Growth for cards

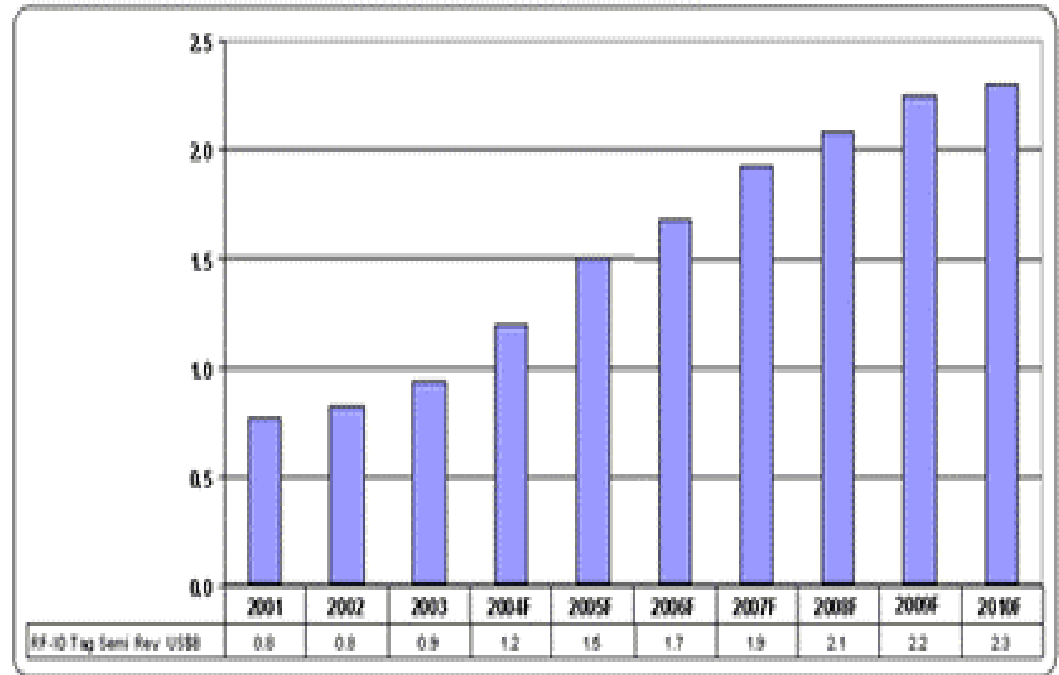
- **Segments**

- Banking, Ticketing, e-Government, Logistics, Asset Management, Access control, Immobilizer

- **Growth**

- RFID tags is set to soar from 473Mpcs shipped in 2003 to 65 billion units by 2010

RFID Tag Semiconductor Market, 2001-2010
(Billions Of US\$, All types Of Tags, Worldwide)



Source: Future Horizons – Key Market Drivers Report - 2004

Philips is #1 with 1 Billion units already shipped

