



# Qualcomm/NXP

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**Liliane GIARDINO-KARLINGER**

Economic Analyst

DG COMP/Chief Economist Team

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# The Qualcomm/NXP Transaction

- Deal value: **\$ 47 billion**
- announced 27 October 2016
- Cleared with remedies in Phase II by EC
- **Cancelled** on 26 July 2018 because approval of Chinese merger authority still outstanding



## The Acquirer: QUALCOMM

- Leader in **cellular and wireless technologies**
- Leader in **baseband chipsets**, "fabless" model (about 2/3 of revenue from chipset sales, EBT = 12% of rev.)
- Significant **cellular IP portfolio**, SEPs and non-SEPs (about 1/3 of revenue from royalties, **EBT = 85% of rev.**)

## The Target: NXP

(ex Philips Semiconductors)

- Global provider of semiconductor products
- Leader in **NFC/SE** products (encryption technologies, used e.g. in passports, bank cards, access and hospitality, but also smartphones)
- **MIFARE** - fare collection technology

## Product Market

## Competitive Assessment

### A. Semiconductors for mobile devices:

1. Baseband chipsets by cellular standard (GSM, UMTS, LTE)
2. Near Field Communication (NFC) chips
3. Secure Element (SE) chips
4. NFC/SE combined solutions
5. Transit service technologies (e.g. NXP's MIFARE)
6. IP related to related to cellular and NFC technology (SEPs and non-SEPs)
7. Mobile audio products: (i) *speech enhancement software*, (ii) *smart amplifier chips*

### **A.1. to A.6.: Conglomerate non-coordinated effects:**

- Pure/Mixed bundling: baseband chipsets, NFC and SE chips, MIFARE+ degradation of interoperability
- IP licensing of NFC technology

### **A.7.: Horizontal non-coordinated effects**

No concerns for mobile audio products

### B. Semiconductors for automotive applications:

chips for infotainment applications, for automotive safety (vehicle-to-everything - V2X) etc

### **B. Horizontal non-coordinated effects**

No concerns for automotive chips

### C. Semiconductors for Internet of Things (IoT) applications:

e.g. Bluetooth connectivity chips

### **C. Horizontal non-coordinated effects**

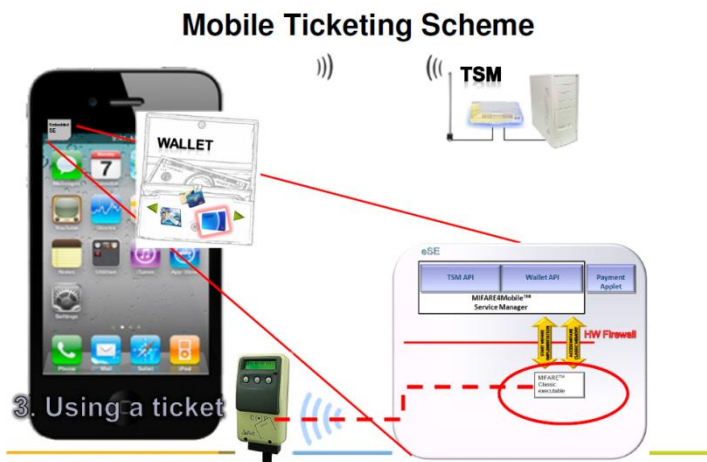
No concerns for IoT

# Conglomerate Concerns (1): Products

**Baseband chipsets** (standalone or integrated with an application processor) enable mobile connectivity of mobile devices. Various technology standards: LTE, UMTS, CDMA, GSM.

**NFC** is a short range wireless technology that enables **mobile transactions (thus complementary to baseband chipsets)** by tapping the smartphone to the Point of Sales terminal, and is/will be used for mobile payments and mobile transit applications: e.g., Apple Pay, Samsung Pay. The NFC communication is secured using an embedded **SE**.

**MIFARE** is a trademark covering proprietary solutions for chips used in contactless smart cards and proximity cards. Applications include **mobile ticketing**, whereby customers can order, pay for, obtain and/or validate tickets using mobile phones.



## Conglomerate Concerns: Main Product-related Theories of Harm and Remedies (1)

- **Mixed bundling** of Qualcomm's baseband chipsets with NXP's NFC/SE chips vis-à-vis mobile phone OEMs; raising royalties/denying access to **MIFARE**; degrading interoperability
- Decision concludes that Qualcomm has **ability and incentive** to pursue a mixed bundling strategy including MIFARE:
  - first through commercial offer (discounts), later through technical integration
  - Reasoning à la ***Choi (JINDEC, 2008)*** on merger with complementary goods
  - Received economic submissions from CRA extending Choi to allow for licensing stage where competitors have to choose whether to license merged entity's IP or invent around it at fixed R&D cost
  - Model predictions inconclusive, but internal docs and market investigation pointed to likelihood of mixed bundling + MIFARE withholding

## Conglomerate Concerns: Main Product-related Theories of Harm and Remedies (2)

- Decision concludes that despite ability and incentives to bundle, **foreclosure effects** on baseband and NFC/SE competitors **unlikely** to arise
  - sophisticated OEM customers partially self-supply, mix-and-match, and have an interest to keep their options open
- But **customers' options** would be **significantly reduced** if Qualcomm restricted access to MIFARE and degraded interoperability. Strong feedback from market investigation
- **Product-related Remedies:**
  - MIFARE license – 8 years
  - Interoperability between baseband/NXP products and third parties' NFC/SE products (and vice versa) - 8 years



European  
Commission

Thank you!