

# RFID and New Opportunity

## *(Mobile RFID)*

June 4, 2007

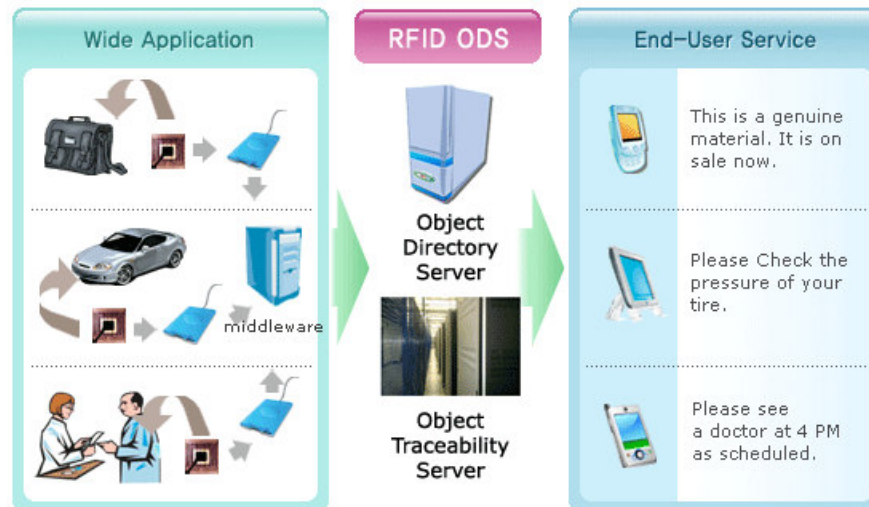
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KRNIC, National Internet Development Agency of Korea

# NIDA's Activities on RFID (1)

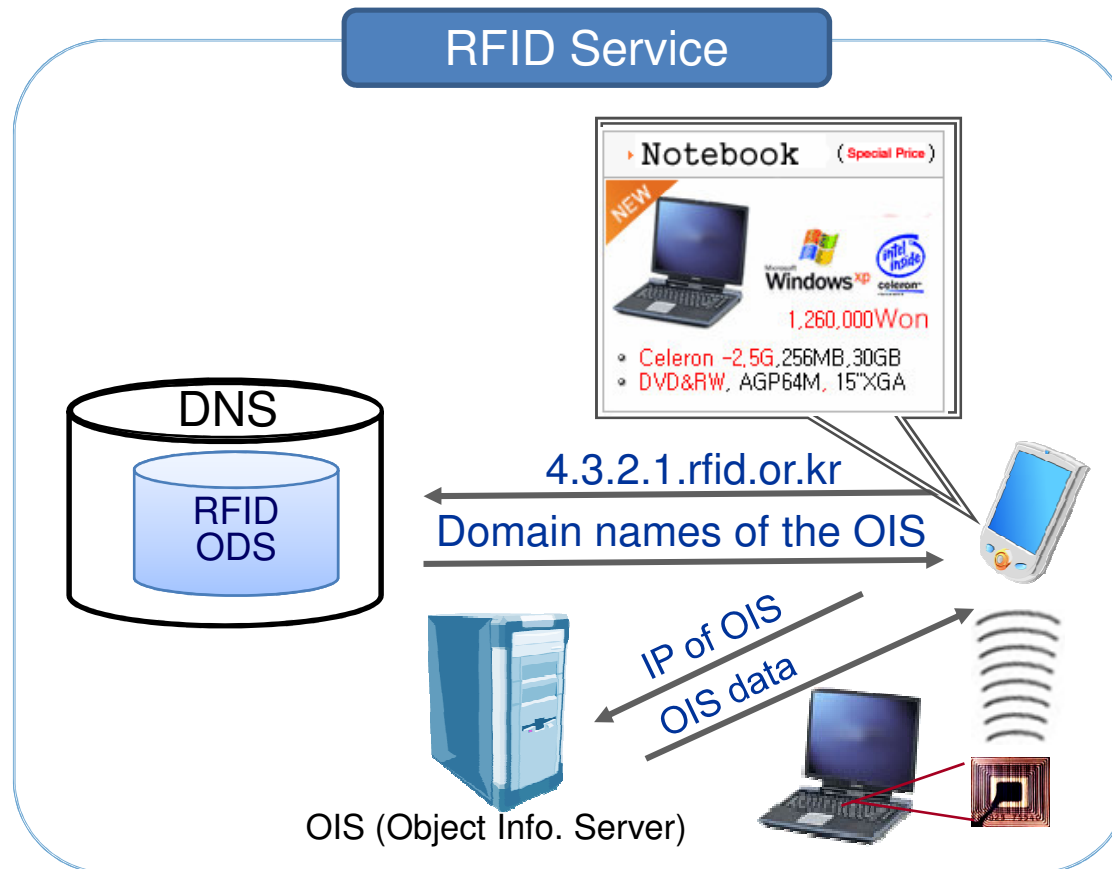
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- Main Role
  - Manages RFID national code system and provides a Mobile RFID Code Registration Service
- R&D Activities
  - Developed an integrated RFID code search system
    - Multiplex Directory System (MDS ): Can read any RFID code info.
  - Operating RFID ODS(Object Directory Service) :Trial Service since 2004



# NIDA's Activities on RFID (2)

- RFID ODS (Object Directory Service)
  - Provides the location of server containing product information related to RFID Tag by using DNS Technology



1. PDA with RFID reader read RFID tags on object and fetches code stored in it
2. PDA queries the location of server with code to ODS server then ODS server replies with the location of the service.
3. Finally, PDA request contents or services to the designated server acquired from ODS server



# Mobile RFID Trial Service

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- Goal: Create a big demand for the RFID product
- Schedule: June 2006 ~ Present
- Operator: SKT, KTF
  - SKT
    - Medicine Authenticity Verify Service
    - Trustable Taxi, Food Product Record Service
  - KTF
    - Wine Information & Genuineness Confirmation Service
    - Movie Information Service
    - Bus Route Search, etc
- The mobile RFID technologies of Korea was adopted as an international standard by ISO. (April 2007)



# Trustable Taxi & Bus Route Search

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- Trustable Taxi (SKT)
  - Passenger read the RFID tag of the taxi and send a short message containing driver's information and any necessary information to parents, friends, or someone else.
  - In case of a stolen taxi, an automated message is sent to the police.
- Bur Route Search (KTF)
  - Passenger read RFID tag attached to direction board at the bus stop, and then input the destination.
  - Mobile phone shows the bus routes and numbers to passengers.
  - If a passenger is at a wrong place to take proper transportation, he/she will be informed to move to right location.

# RFID Touch Bookstore

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- Service Provider : SKT (Since Jan. 2007)
- Service Overview
  - Combines a radio frequency identification-based electronic tagging system with mobile phones
  - Retrieve information on books such as authors, book reviews, summaries by putting their mobile phones' RFID tagging system near RFID recognition bars on the books
  - Purchase books through mobile phones at discounted prices and have them delivered to home

# Touch Bookstore (1)

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Available at three branches  
of the **Kyobo Book Center** in Seoul  
(will be expanded to 13 branches soon)



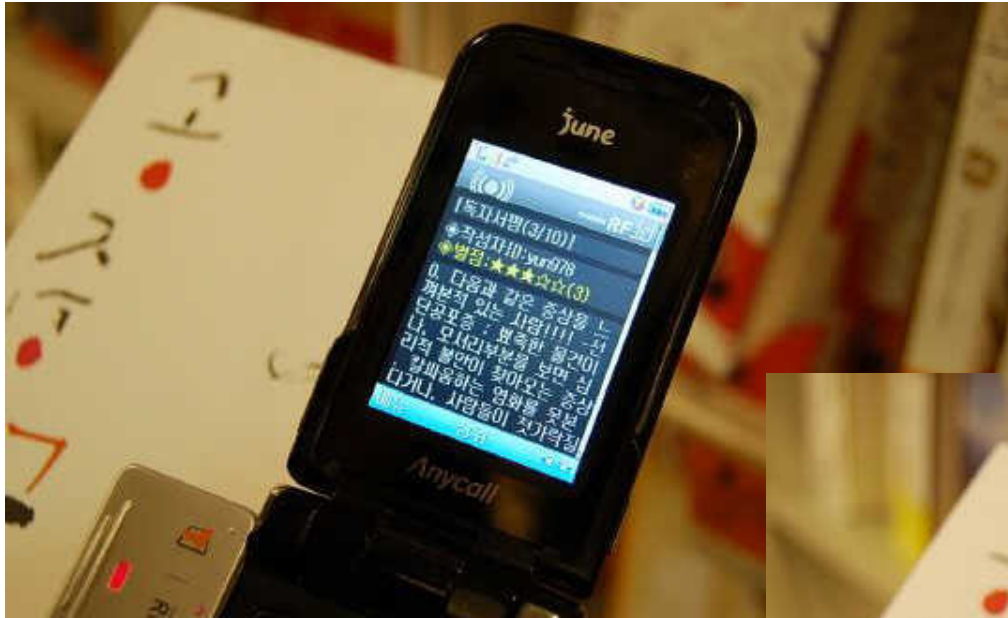
# Touch Bookstore (2) External Reader

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- Need to rent external RFID reader for mobile phone (Free of charge!)
- Free for wireless Mobile Internet Service Subscribers
- Around 5 cents service charge per view for non-Mobile Internet Service Subscribers

# Touch Bookstore (3) Book Info



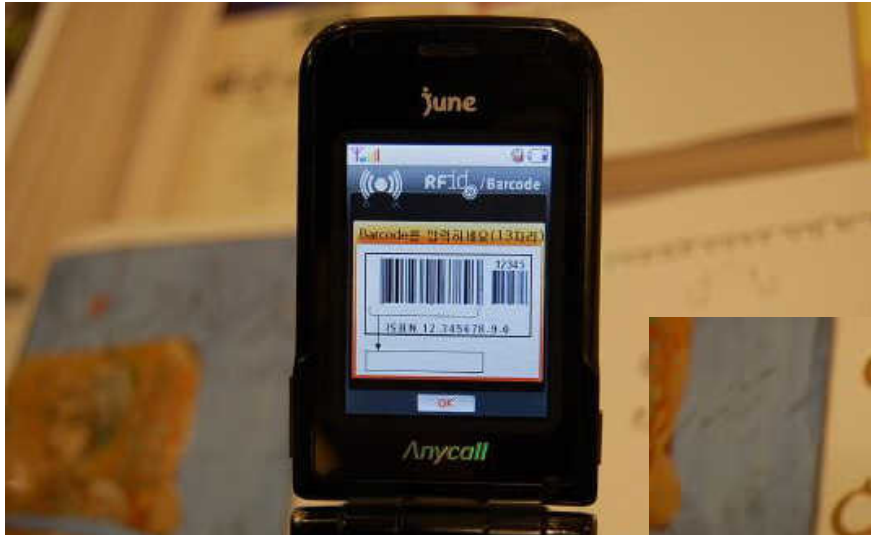
Book Review



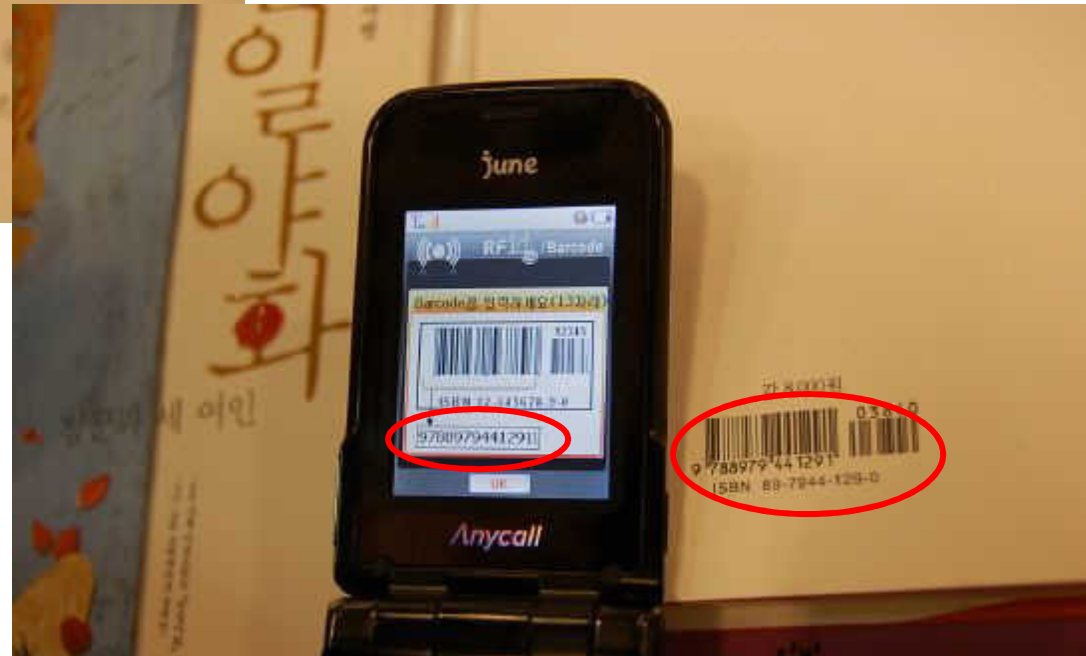
Book Summary

# Touch Bookstore (4) Barcode

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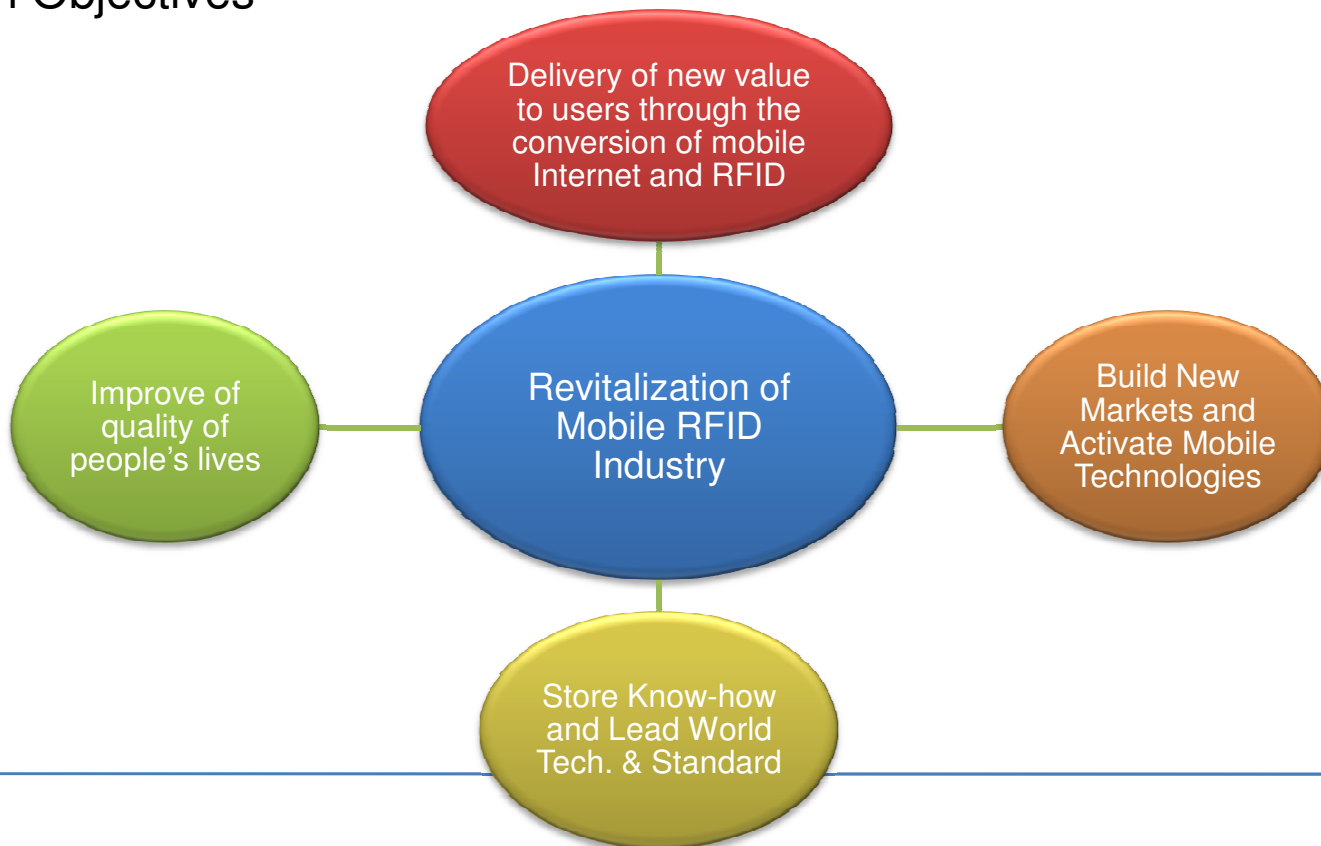
Barcode search is also available



# Mobile RFID Forum in Korea (1)

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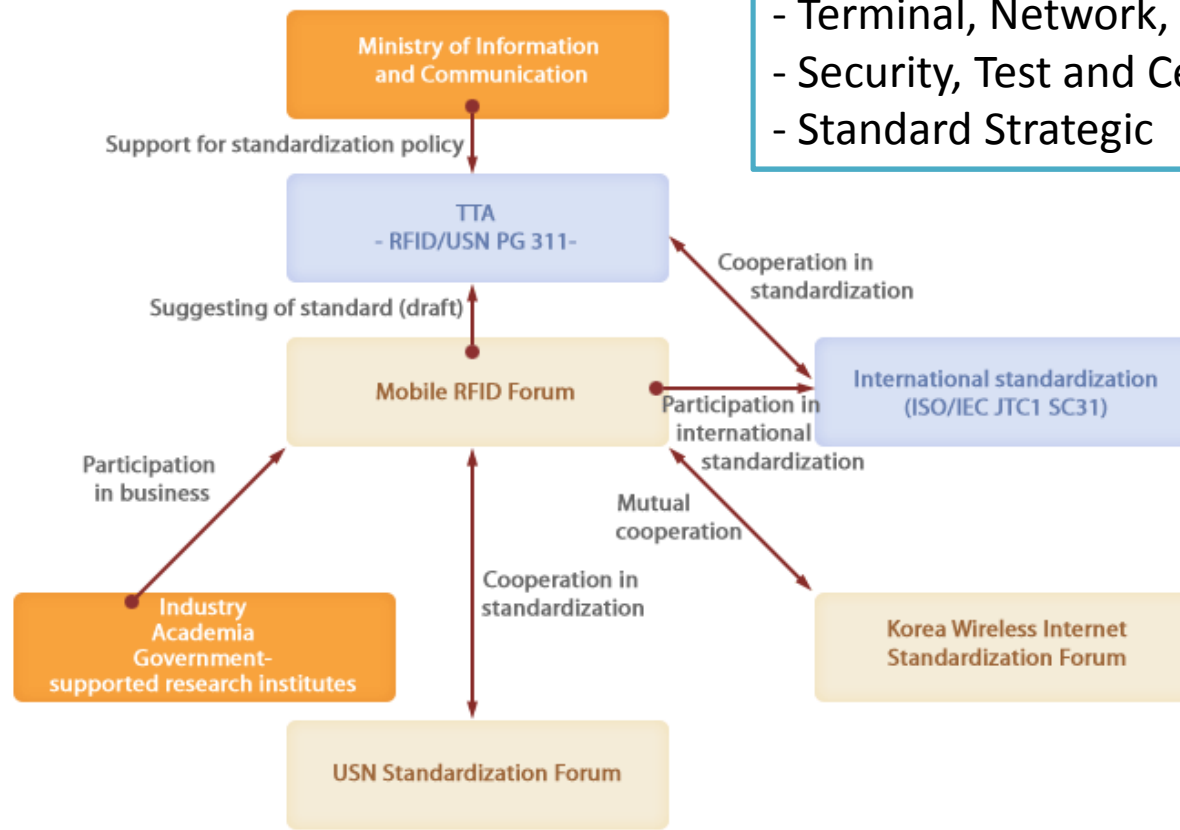
- Overview
  - Founded in Feb. 2005 to promote the incorporation of RFID in mobile phones
  - Launched pilot mobile RFID services in 2006 and going to commercialize services in 2007
- Main Objectives



# Mobile RFID Forum in Korea (2)

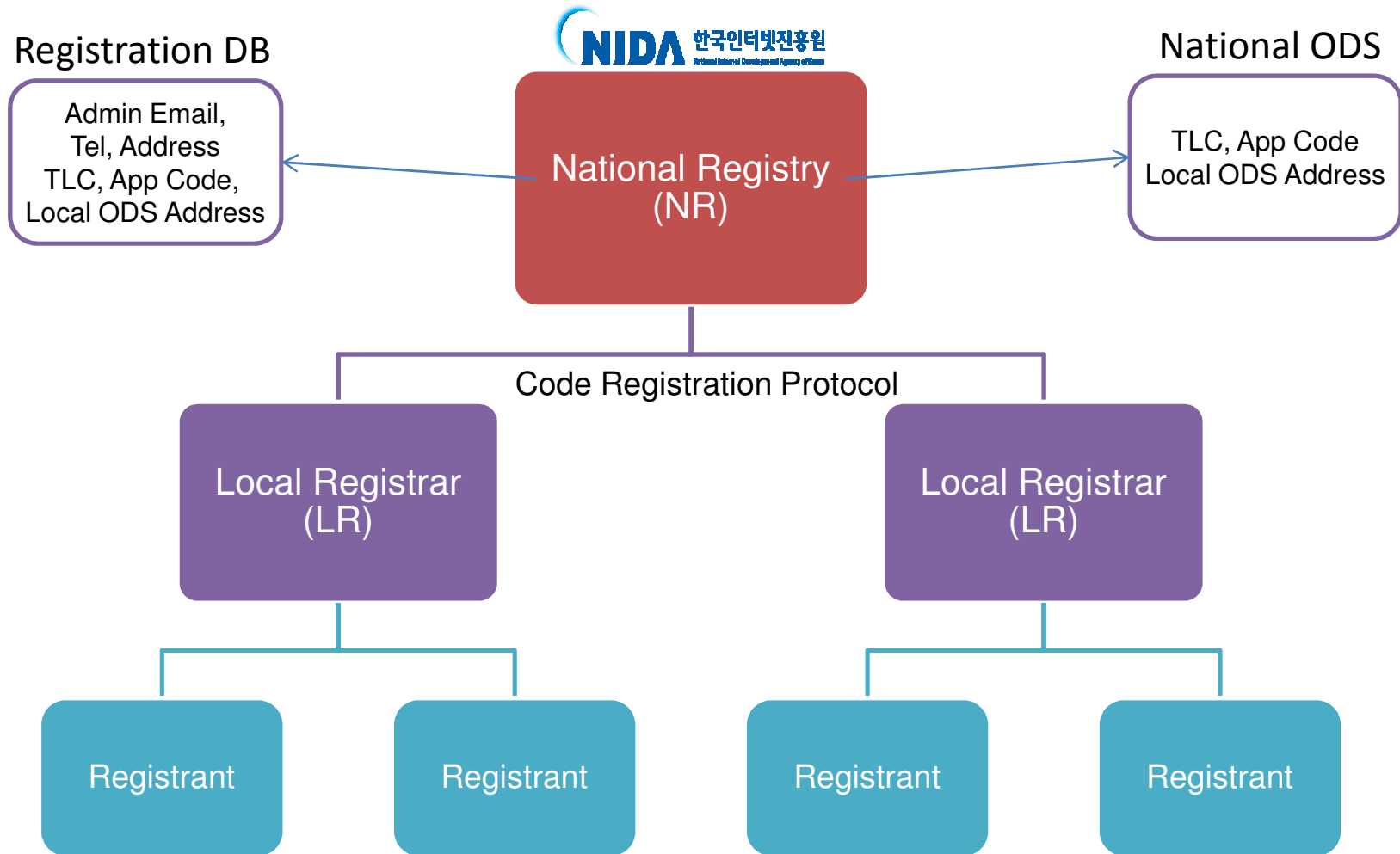
- Standardization System

Standardization system



- \* Consist of Six sub-committees(SC)
  - Terminal, Network, Application
  - Security, Test and Certification
  - Standard Strategic

# Mobile RFID Code Management Structure (1)



# Mobile RFID Code Management Structure (2)

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## National Registry (NR)

- NIDA

- Develop Mobile RFID Code Allocation Policy
- Operate National ODS & Registration System with DB
- Accredite Local Registrars
- Develop Data Communication Protocol between NR & LR

## Local Registrar (LR)

- Mobile Service Company

- Operate Local ODS & Registration System with DB
- Allocate Class/CC
- Use IC/SC

## Registrant

- Contents Service Provider

- Use Mobile RFID Code (CC/ICC/IC/SC IC/SC, etc)
- Operate Local ODS

# Mobile RFID Registration Service

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- Service Overview
  - Registration service for mRFID code
    - mRFID Code(mCode+micro-mCode) : Qualified for the standard by TTA(Telecommunications Technology Association) in 2005
- Schedule
  - Present: Temporary Registration Period
  - October : Launch Official Registration

# Thank you.

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