Mobile Applications for RFID Technology

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SK Telecom
Wireless Data Revenue

The revenue from wireless data services has jumped three fold over the past three years and the momentum is expected to continue into the future.

- Wireless Revenue
- Wireless Revenue as % of Cellular Revenue

※ Source: Company data / AS of 4Q 2004, Unit of Revenue: KRW billion
Convergence Trend

Convergence is a trend that is being accelerated by a number of drivers and will lead to ubiquitous service environment.

Driver I: Technology
- Broadband network
- Convergence devices
- Sensor network

Driver II: Customer
- Convenience
- High quality
- Personalization

Driver III: Government
- Eased regulation
- Fostering of strategic industries

Driver IV: Corporation
- Stagnant current market
- New growth engines
- Maintaining market dominance

Convergence Acceleration

Ubiquitous Environment
SK Telecom will make strenuous efforts to identify new business models in convergence to expand the company’s scope of business.

**SK Telecom’s Business Expansion Strategy**

- **Identify new business models in convergence field**
  - Improved convergence biz model
  - Detection of new convergence areas by applying new technologies

- **Expand mobile core business**
  - Personalization, Context-aware
  - Integrated services
  - Provide Higher service accessibility

**Expansion of Mobile Core Biz**

- Commercial services available as of now
- Commercialization underway
Scenario of Applications

1. RFID Code Scanning
2. RFID Code Transfer
3. Access to Mobile N/W
4. Select Mobile RFID Service
5. Search RFID Info.
6. Receive Search Result
7. Send Billing Info

<Movie Info.>
① Title
- Starwars: Episode III
② Nearest Theaters
- Seoul Cinema
- Korea Art Center
③ Box Office
- Ranking 1st for 2 weeks

-Mobile N/W>
<Mobile RFID Service>

SK Telecom

<Mobile Terminal>

<Mobile N/W>

RFID N/W Service

ODS
OTS
OIS
Concept of Applications

What the RFID based USN?

- **UBIQUITOUS** – Everywhere, everything with RFID tags
- **SENSOR** – Sensing ID and environmental information
- **NETWORK** – Real time management via network

Service and application

DMB DTV
Cellular PCS
IMT 2000 4G
WLAN type
Wire-line xDSL

New radio interface

Wireless Sensor Network
Opportunities of Applications

**What is ‘Mobile RFID’ Technology?**

A wireless technology that provides new valuable services to mobile phone users by integrating RFID/USN Infrastructure with mobile communication & wireless Internet

- **Create New Value for Mobile Phone Users**
- **Build New Markets and Activate Mobile Technologies**
- **Improve Quality of ‘Ubiquitous’ Life**
- **Store Know-how and Lead World Technology & Standards**
Structure of Applications

Mobile RFID Service: Hypertext Information Providing

- Usage, Distribution
- Synopsis
- Movie Trailer
- Music Video
- Bus Schedule

Wireless Internet & Mobile Communications Network

RFID Reader

CDMA2000-1X (144 Kbps)

WiBro (1 Mbps)

Service Provider
Applications-Ginseng Authentication

With product authentication service, end user can check the authenticity of products by using mobile handsets equipped with RFID readers to scan tags attached to products.
Mobile RFID service will provide ubiquitous service for mobile end users.

**Route Guidance**
- Public Transportation Route
- Road Guidance
- Return Home Route

**Leisure & Lifestyle**
- Nature Experience
- Favorite Hot Spots
- Shopping & Banking
- Promotion event

**Revolution In Ubiquitous Home Networking**
The nature experience service lets end users download information about plants and animals by reading tags attached to plants and animals in a zoo.

1. Scan RFID tags attached to plants and flowers
2. Special promotional events provided by operator
3. User requests delivery of items for sale on the promotional event
Applications-Favorite Service

Favorite service provides information about shops and restaurants. Tag containing information server address about the shop or restaurant is attached to the entrance of the business. Users scan the tags using their mobile phones to download the information and can also send it to another person.

- Recognizes tags on table top, counter or entrance to a store when in tag recognition mode
- Users select Favorite Service from the menu
- User then clicks the next button on the screen
- Screen then displays the name of the store or restaurant along with the businesses unique ID
Applications-Road Information

With the road information service, readers can receive bus and subway route information as well as all types of location services. Reading tags attached to bus station posts, users receive information about the bus route via mobile Internet or SMS.

Tags on traffic lights and other public infrastructure can be used to calculate location.

Route Guidance
Nearest store location
Location Service
Building Information
RFID technology can also be used to create promotional events involving mobile polling service.
RFID can be used to create a service where users can track down information about a taxi. This service could potentially appeal to women concerned about safety when riding in a taxi.

**Service Scenario**

- Tag is installed in the taxi – on the ceiling or under the seats
- A passenger can read the tag using his or her mobile phone
- Send information from the tag to information database on mobile network

**Benefits**

- A person who left valuables in the taxi can easily track down the vehicle
- Police can easily track down taxi when passengers end up missing