



JULY 22, 2014
New York City, NY



**Indoor and place-based
marketing**



Case study: Indoor Location Services in diverse venues

John Kim (jongminkim@sk.com)

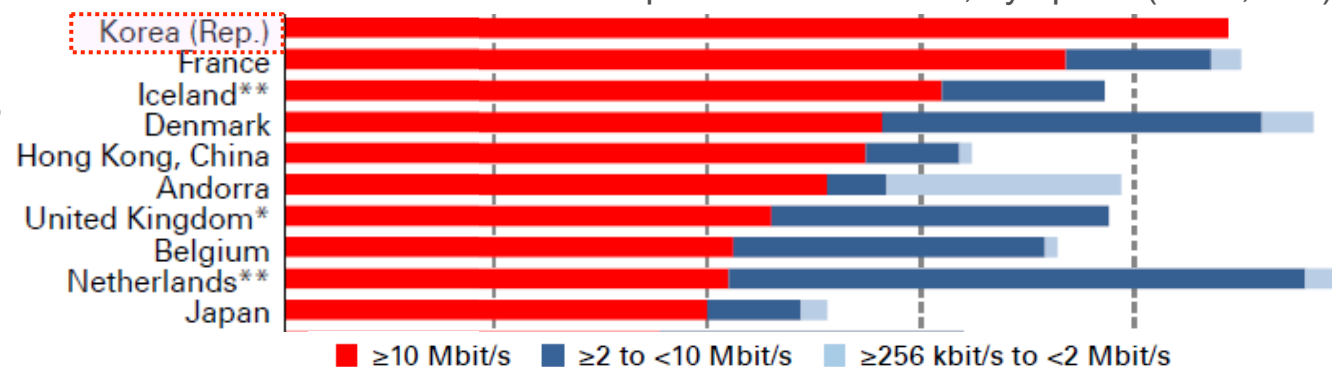
Sr. Business Development Manager
SK Telecom

Korea, Republic of

Facts & Figures

- Population: 50.4M
- GDP per capita: \$30,8
- High Speed Internet: 18.9M
- Mobile Subscribers: 54.7M
- Smartphones: 38.4M

Fixed-broadband sub. per 100 inhabitants, by speed (2013, ITU)



Recognition

- ITU ICT Development Index (2013): No. 1
- UN E-Readiness Index (2013): No. 1

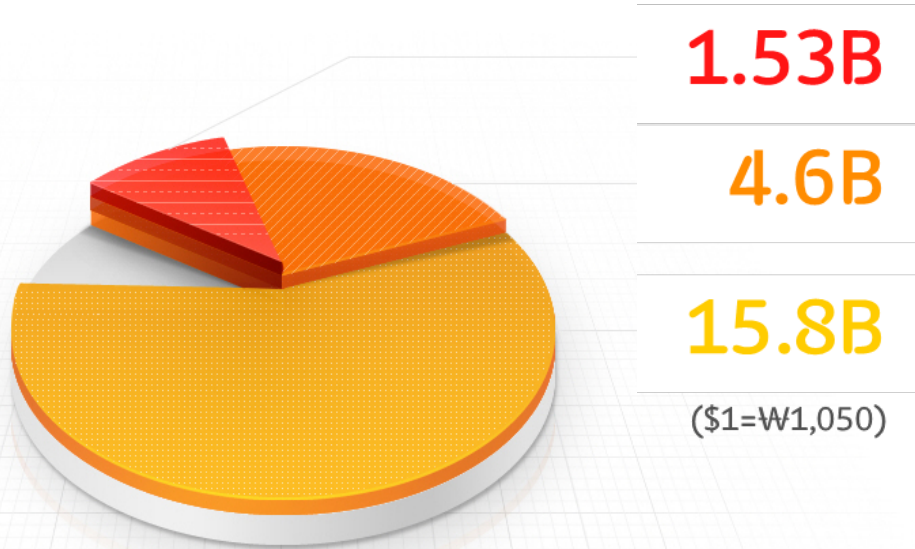
ICT Development Index (2013, ITU)]

Economy	Rank 2012	Skills 2012	Rank 2011	Skills 2011
Korea (Rep.)	1	9.86	1	9.86
Finland	2	9.80	2	9.80
United States	3	9.65	3	9.65
Greece	4	9.55	4	9.55
Belarus	5	9.48	5	9.48

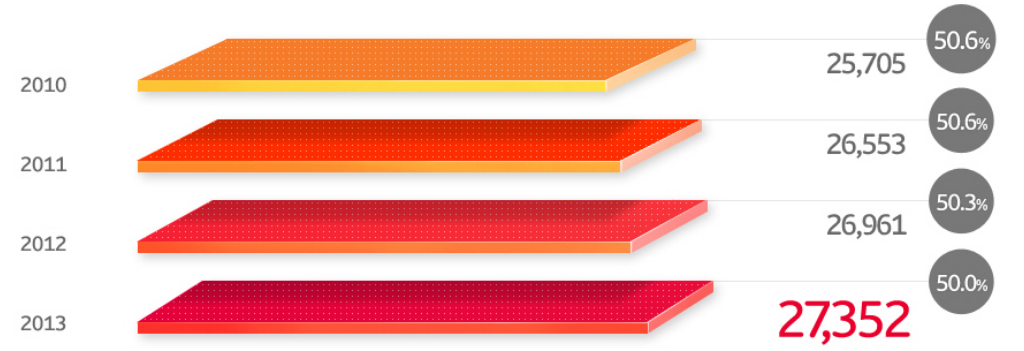
SK Telecom

No. 1 Telco in Korea

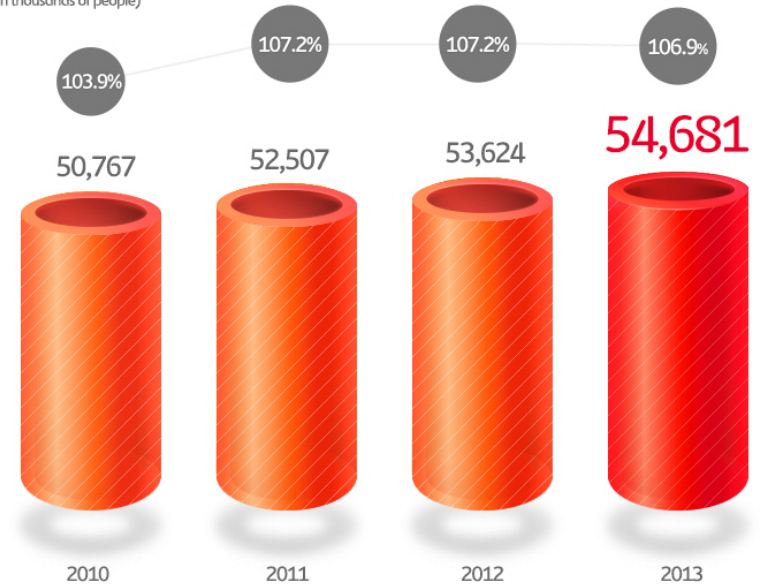
■ Net Income (Unit: in billions of KRW)
■ EBITDA (Unit: in billions of KRW)
■ Revenue (Unit: in billions of KRW)



■ Subscribers (Unit: in thousands of people)
■ Market Share(%)



■ Total Subscribers (Unit: in thousands of people)
■ Penetration(%)



LTE Contribution
Mobile Technology



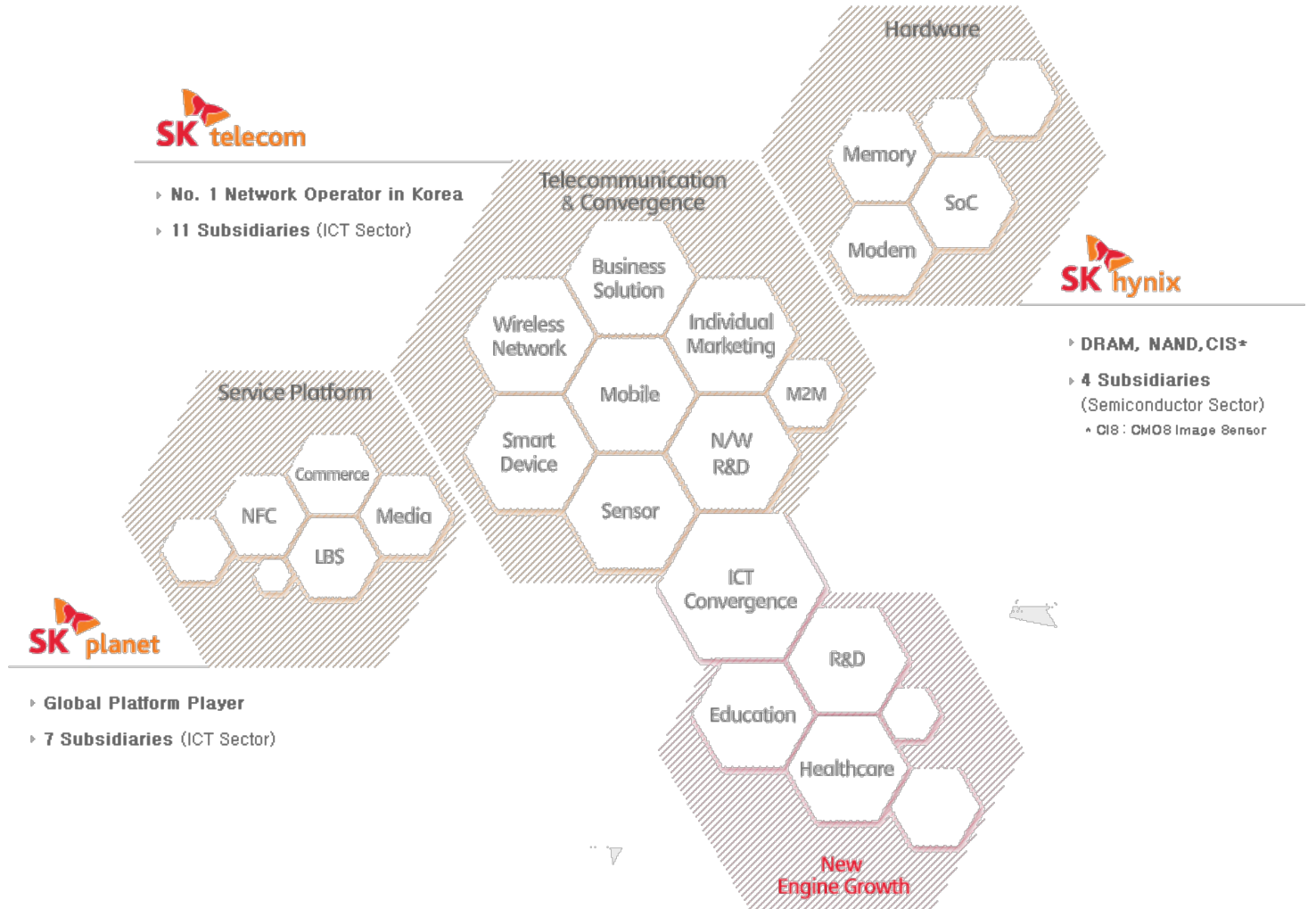
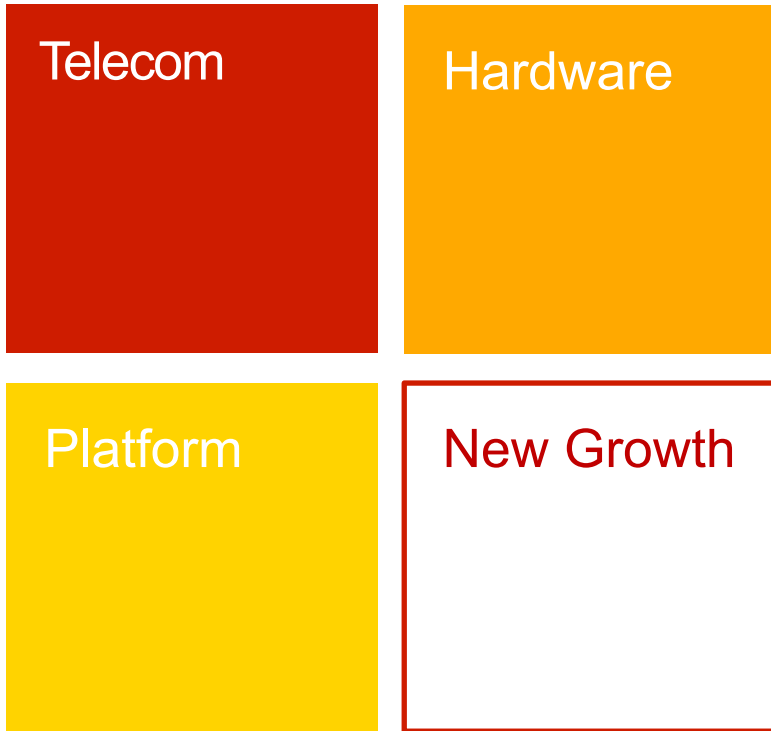
Most Significant Dev. Of
Commercial LTE Network



Top ranking - Korean Customer
Satisfaction Index (16 years)

SK Telecom

“Vision 2020: Partner for New Possibilities”



Location-based Service (LBS)

Key Service for Telecom... historically

Tracking

Friend Finder



Map & Navigation

Mobile Navigation



Information

Point of Interests



Safety & Security

Monitoring



Indoor Location-based Service





"Lost in hospital"

Patient Guide Service

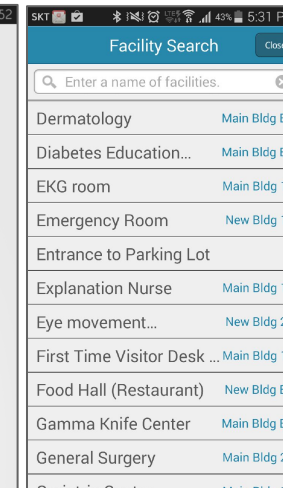
Best Guide

SNUH SEOUL NATIONAL UNIVERSITY HOSPITAL

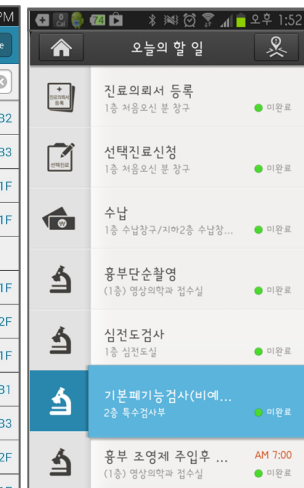
- Built in 2003 (Main) / 2012 (New)
- 210,154 m²
- B3~15F (Main) / B3~12F (New)
- 732 Doctors
- 1,360 beds



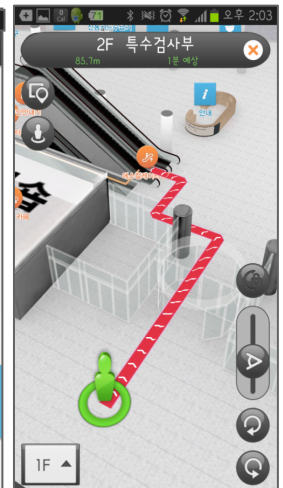
Main



POI



To-Do



Navigation

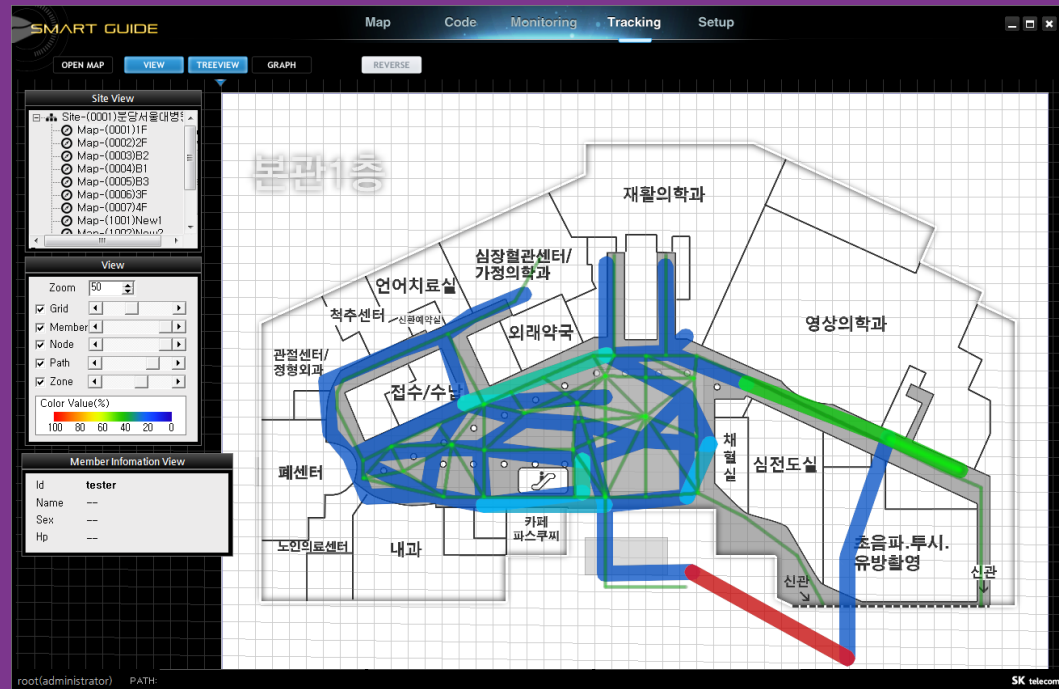


"Indoor Navigation"

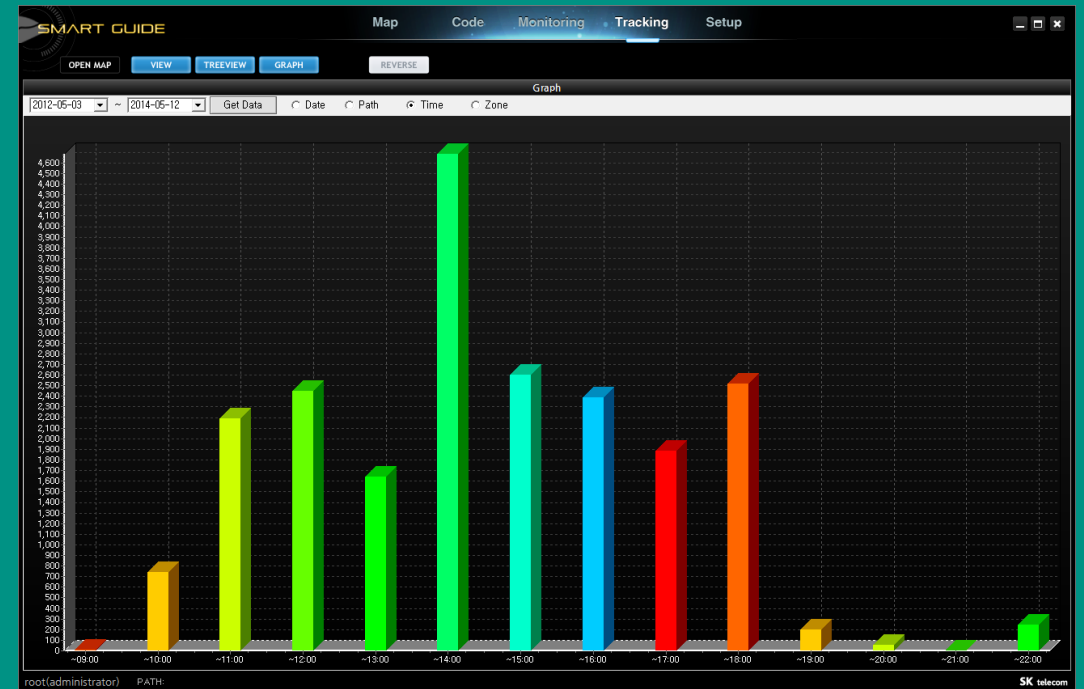
Location Analytics

Basic Stats

Heat Map



Traffic (By Hour)



Lessons Learned



- User Satisfaction ~80%
- Great Response from Young Generations
- Increased Productivity by Hospital staffs & volunteers
- Ease of Installation



- Difficult for Active Marketing
- Difficult for remote Maintenance & Support
- Longer Battery Life (Beacons)
- Start from scratch for other venues

Change of Approach

▶▶ Fast Deployment

✓🛒 Options for clients

☁️ Cloud-based

Enabler Components

BLE Beacons for diverse venues

Pervasive Design

Longer Battery Life

Temporary Usage

Durable



For Check-in

For Check-in & Navigation

For Check-in & Navigation

For Check-in & Navigation

Brick & Mortar Retail Shops

Hospitals, Airports,
Shopping Malls

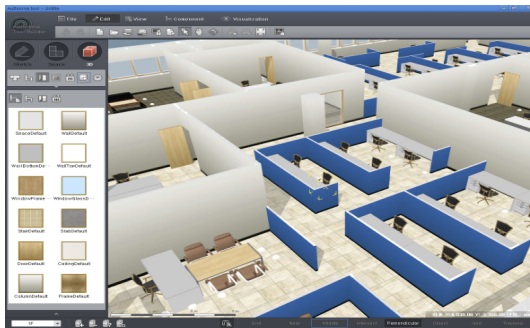
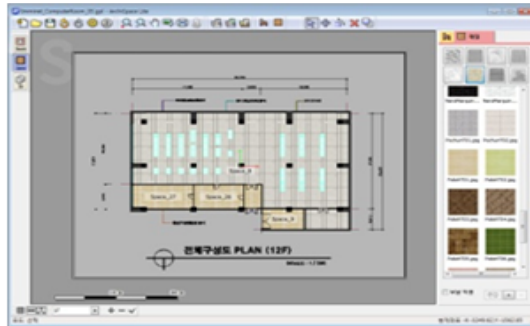
Exhibitions, Galleries

Arena, Stadium, Concert Halls

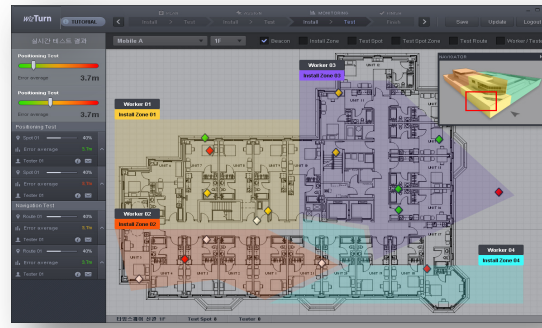
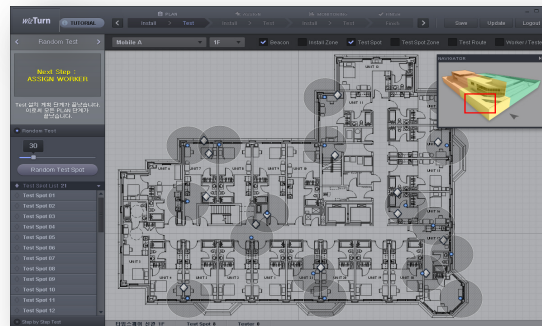
Enabler Components

Development Tools

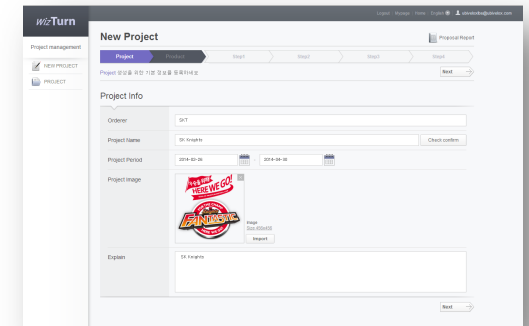
Indoor Map Authoring Tool



Cell Planning Tool



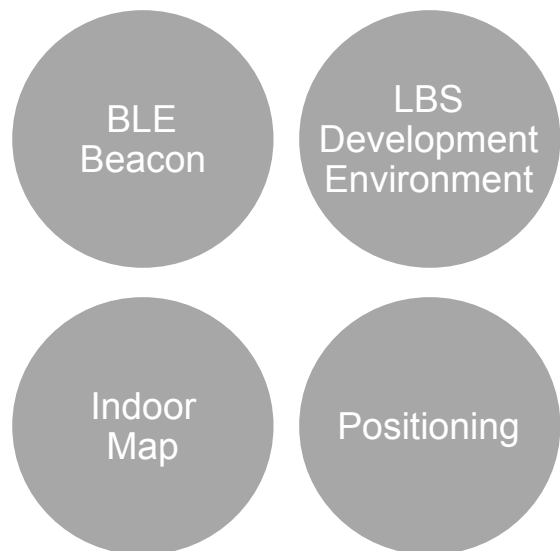
App. Development Tool



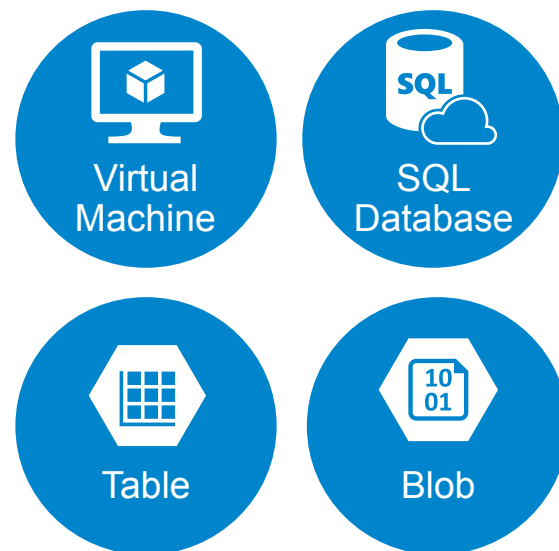
Enabler Components

Microsoft Partnership

SK Telecom WIZTURN



Microsoft Azure



Open API



Joint Efforts

- Proof of Concept (South East Asian Country)
- Microsoft Technology Center
- Joint Marketing
- And more...

Sports & Entertainment



Professional Basketball Arena



Seoul 'Jamsil' Gymnasium

- Built in 1977
- 11,471 m² (3F, B1)
- 5,400 seats



Requirements



Fan-centric



Location-based



Operational Efficiency



Tight Schedule

SK Knights Implementation

BLE Beacons



marBLE type
Hallways



treBLE type
Seating Areas

3D Indoor Map



SK Knights Application



- My Info
- Arena Info
- Player Info
- Game Schedule

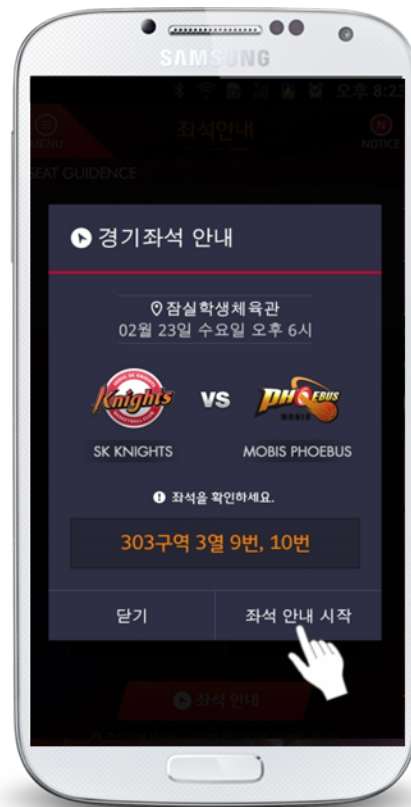
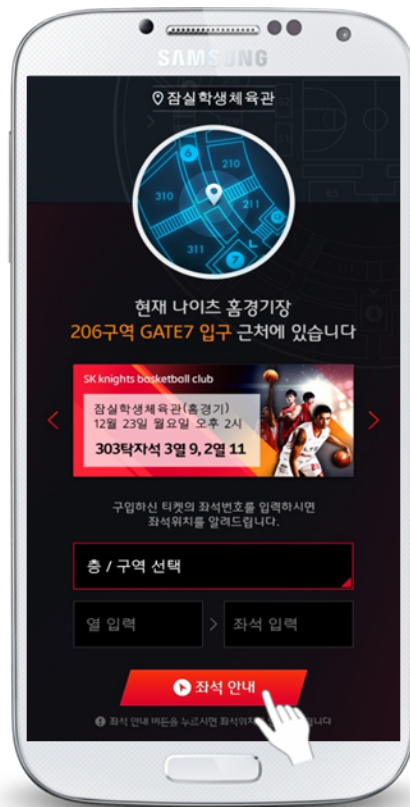
- Seat Guidance
- Live Events



Cloud (Microsoft Azure)

SK Knights

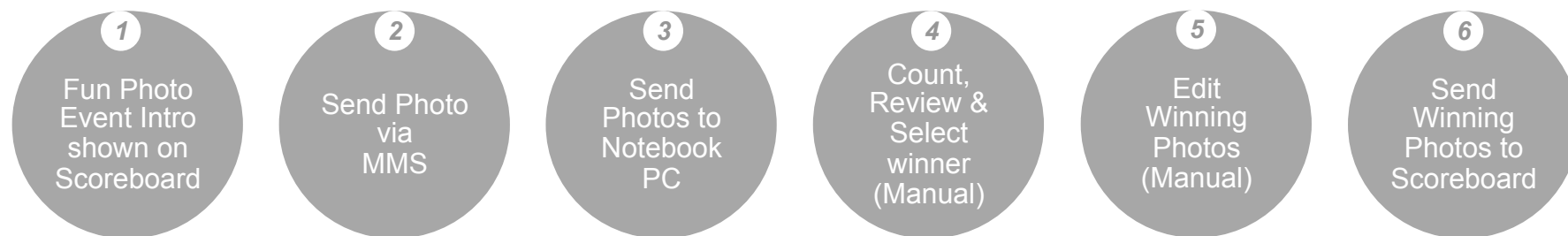
Application Images (Seat Guidance)



SK Knights

Additionally... Live Events (e.g. Fun Photo)

Before



After



SK Knights Solution

Operation Staff

Create Live Event

Start Live Event

Select Winners

Sent to Scoreboard



Live Event

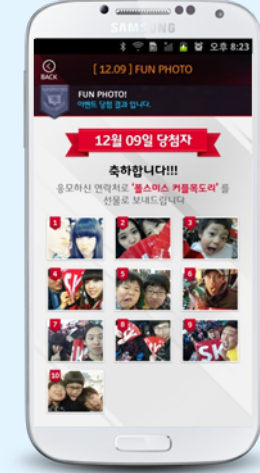
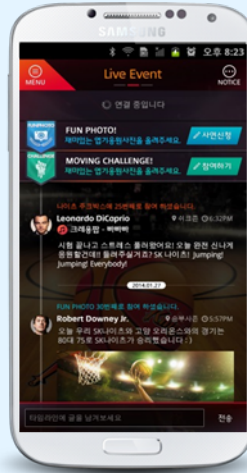
Announce Winners

Notify

Participate

Notify

Fans



Post Mortem

Requirements



Fan-centric



Location-based



Operational Efficiency



Tight Schedule

Results

- Increased Fan Participation in Live Events
- Informative → Interactive (SNS)

- Seat Guidance
- Live Events (targeting audience)

- Reduction in manual operation (cost down)
- Ease of Operation (tablet-based)

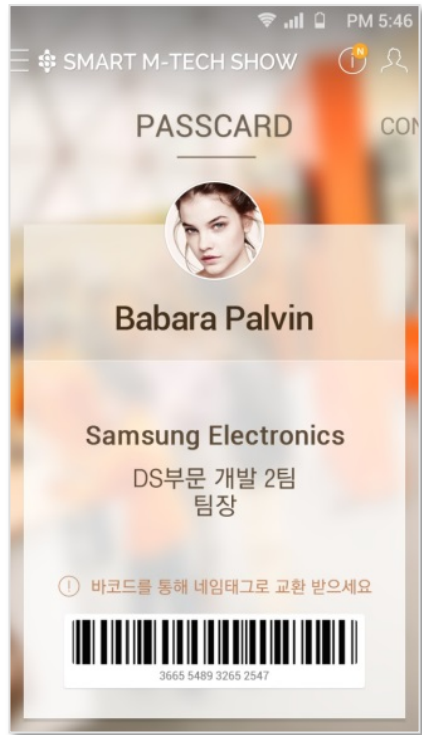
- Build 3D Digital Map in days
- More time on Planning than Implementation

Current Activities

More venues (Exhibition, Retail, Movie Theater, Bookstore)

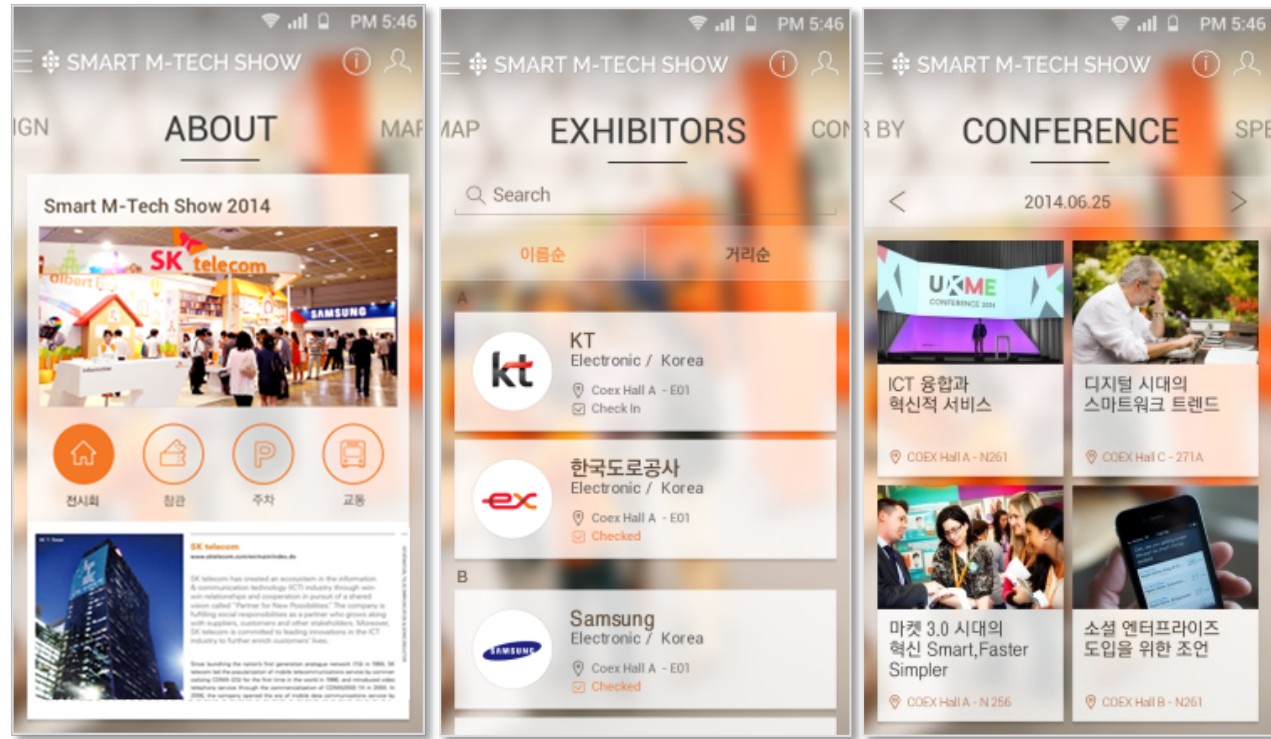
Exhibition Basic Service

Registration



Mobile Ticket, Profile

Information



About, Exhibitors, Conference/Seminar, Notification

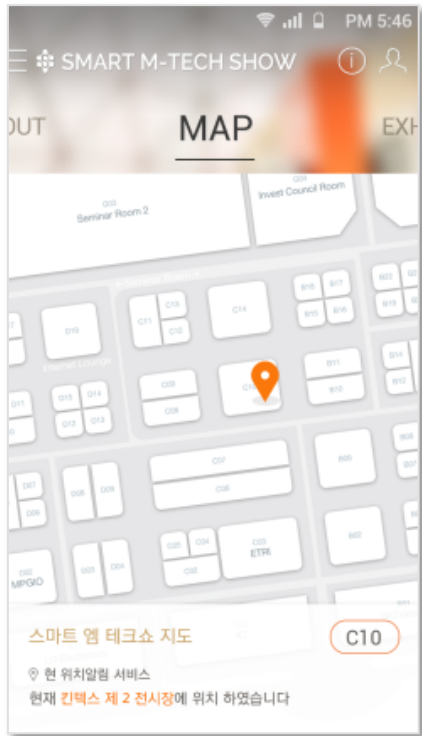
Campaign



Events, Bulletin Board

Exhibition Location-based

Map



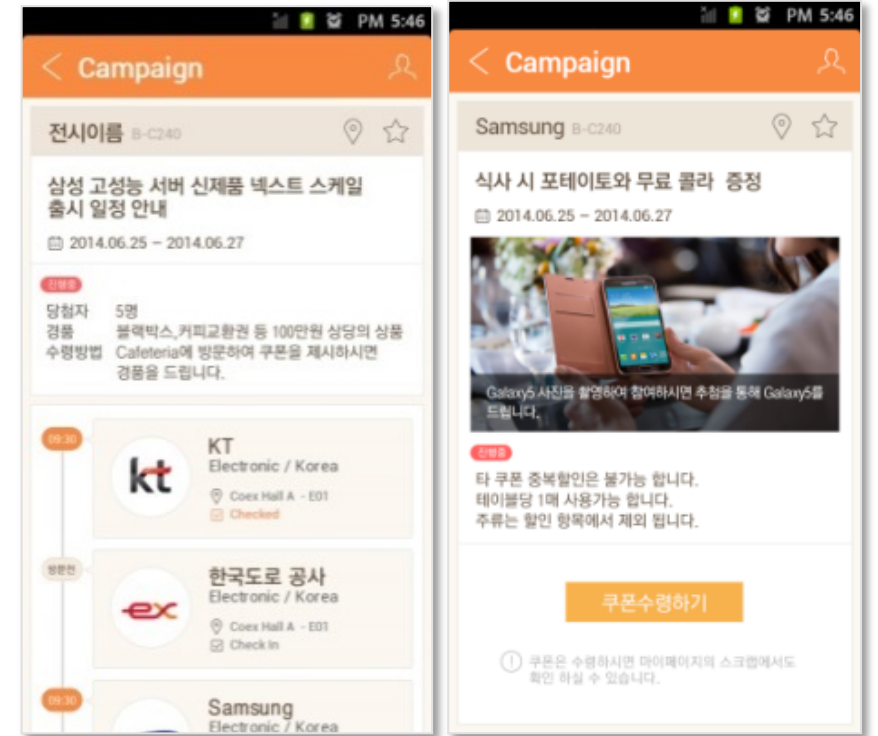
My position, POI Search
Navigation

What's Nearby



User-centric Widget, Location-based Info

Location-based Campaign

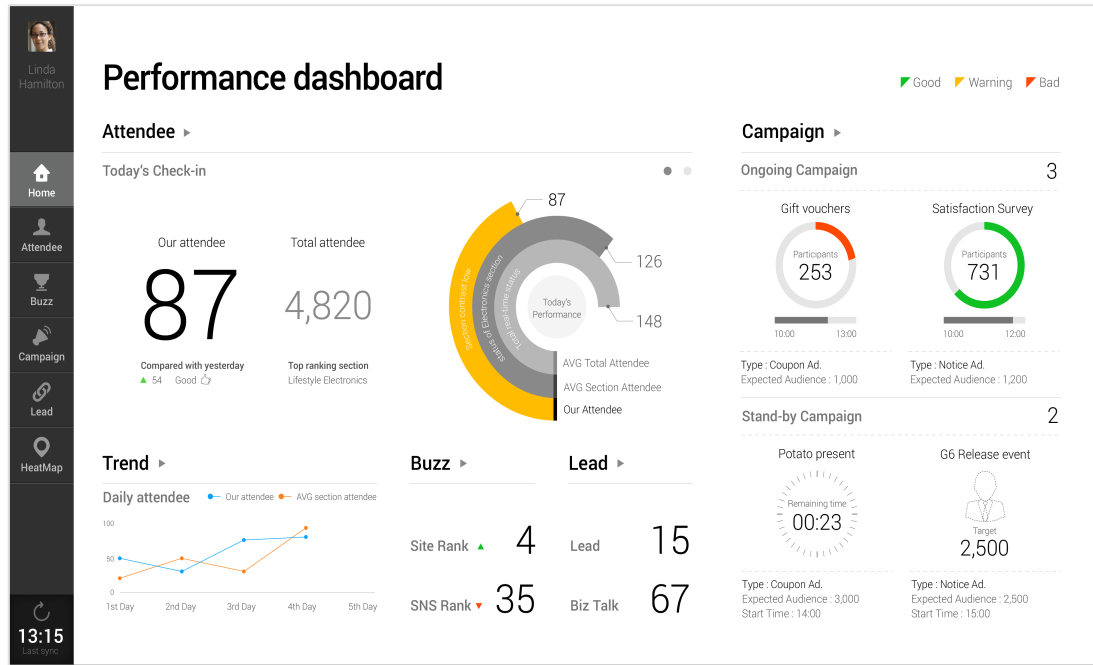


Booth Check-in, Promotion Events



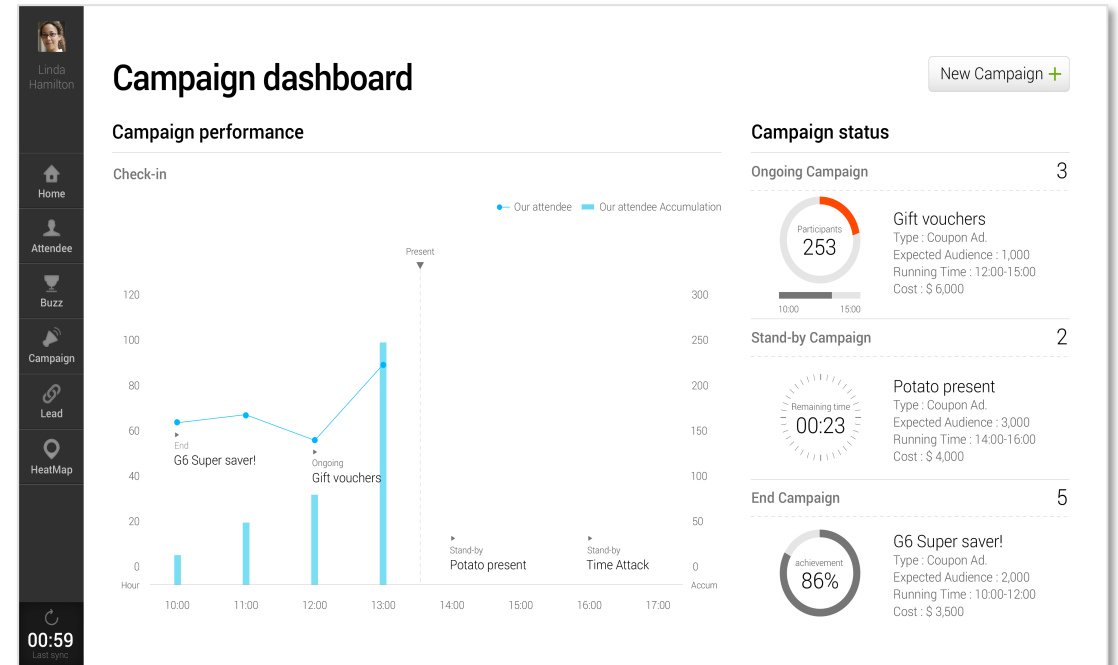
Exhibition For Exhibitors

Performance



Attendee, Heat Map, Check-In, Hold Time, Survey, etc.

Campaign Result



Performance, Status, Analysis

Retail

Check-in based Service



Membership

이전 **멤버십 카드**

이마트 멤버십카드

1234 5678 9012 3456

사용가능 포인트 **168,200**

카드안내

- 이 카드는 모바일 NFC카드로, 결제 단말기(동글)에 폰을 갖다 대면 포인트가 적립됩니다.
- 전국 이마트, 이마트몰, 신세계백화점, 신세계 등 (주)이마트, (주)신세계와 관련된 가맹점에서만 적립, 사용되는 포인트로써 회원 수수료 없이 전액 적립됩니다.

Credit Card

이전 **신용 카드**

이마트 삼성 제휴 카드

주카드 SHINSEGAE E-MART

168,200

카드 설정

이마트 혜택 안내

폰을 갖다 대면 포인트가 적립됩니다.

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혜택더보기

Coupon

이전 **찜한쿠폰**

현명한 주부의 선택

200원 할인

1kg BEEF

한양, 태봉, 보신 갈치미 100g

소고기 갈치미 200g, 500g

중 1개 구입시

5411 1111 1111 1111

1등 대한민국 양념장

청정원 고기 양념장

500원 할인

소불고기(소고기/재미 불고기)

돼지고기(삼겹살/목살) 500g

돼지고기(목살/삼겹살) 500g

중 1개 구입시

200원 할인

구운소금 500g/1kg

중 1개 구입시

유네스코(UNESCO)가 실용 문화유산으로 지정된 산양삼꽃밭에서 생산된 깨끗한 한양명

산양삼차

800°C에서 구운 전정만 말갈떡콩 소

Discount Summary

이전 **Emart SMART SHOPPING**

이 달의 총 예상 할인액

3,280,000

사용기간 2012.09.01 - 2012.09.30

이마트 쇼핑 할인

예상할인액 **800**

Christmas MY MERRY CHRISTMAS

25%

홈 이마트월렛 Emt고객센터

이전 **이마트 쇼핑 할인**

할인정책

- 가전 및 일부 카테고리 제외
- 5만원이상 구매 시 1천원 할인

11월

최종 할인액 **2,000**

총 구매액 550,000 예상할인액 3,000

구매취소액 2,000 차감할인액 1,000

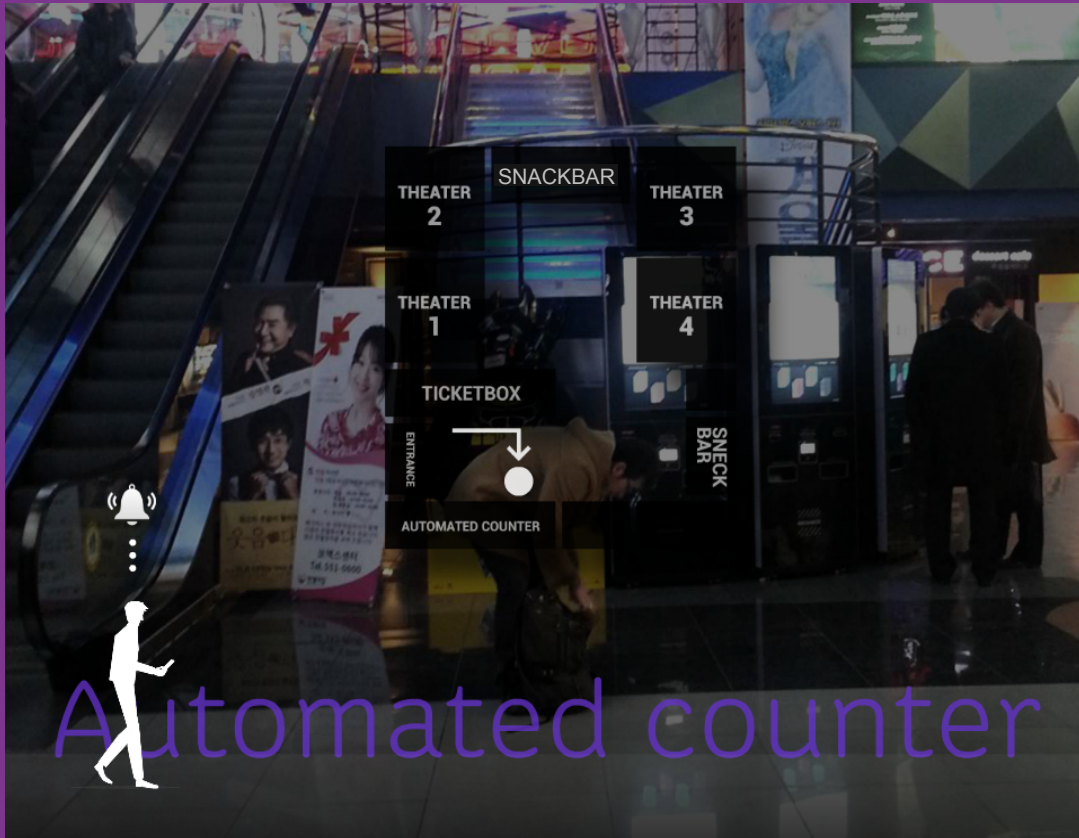
구분	카드사용액	할인액
2012.10	550,000	10,000
2012.09	35,000	2,000
2012.08	123,234,500	8,000

홈 이마트월렛 Emt고객센터

More Venues

Movie Theater

Service Scenario (Movie-going Experience)

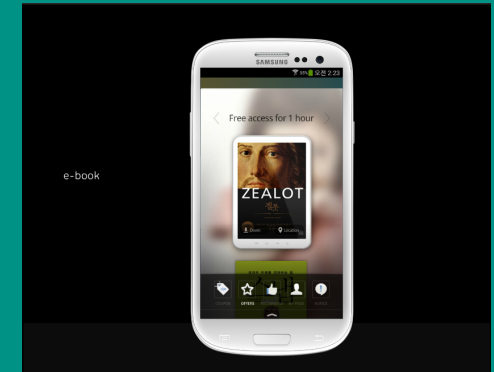


Bookstore

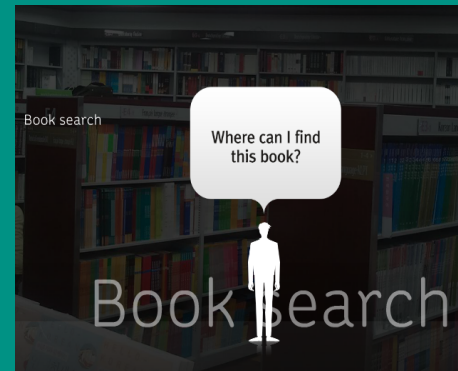
e-Book Guide



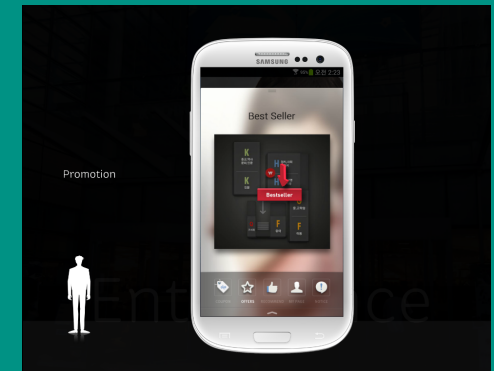
e-Book Free Trial



Book Search



Promotion



Collaboration

Global Initiatives

Wearable Device



- Headquartered in Herndon, VA (outside of Washington DC)
- Software Company specializes in Smart Glass Platform

“Skybox” (Google Glass)

- Verizon Center, Washington DC (Monumental Sports & Entertainment)
- Real-time Game Stats, Multi-camera Highlights, Social Media
- Capitals(NHL), Wizards(NBA) and more

...



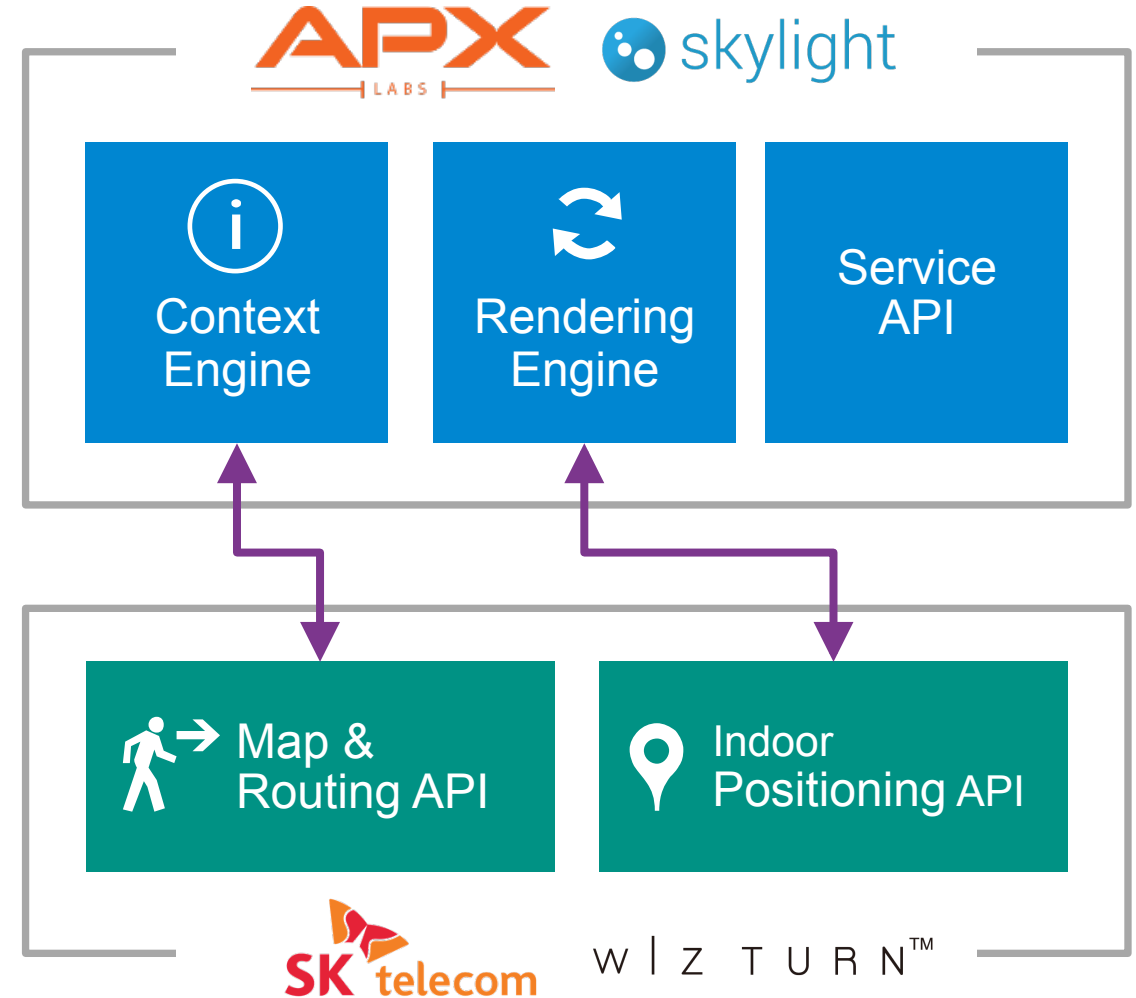
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...

Marketing Tool

L'OREAL Madrid Flagship Store (by Airtouch Media)



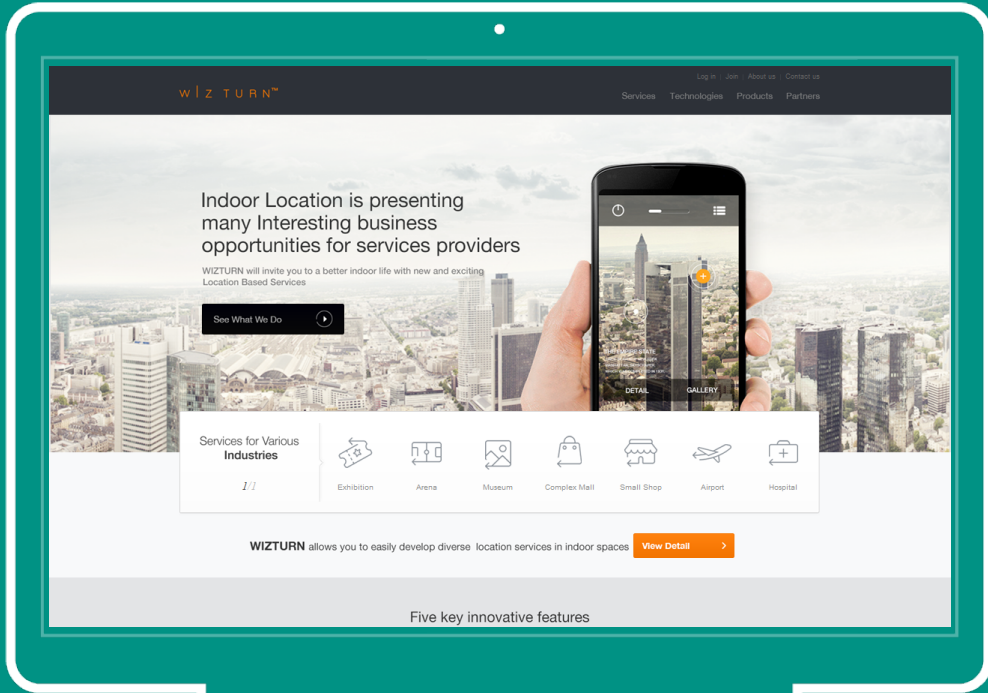
Recent News

Seoul National University Bundang Hospital and SK Telecom export medical IT worth KRW70 billion to Saudi Arabia...first large-scale export in history (2014/07/01)



Analytics & Location Intelligence





Call for
Collaboration
<http://www.wizturnhub.com>