Urban Development Strategy through
Busan U-City Project
1. THE BACKGROUND OF THE PROJECT

2. THE STRATEGY OF THE PROJECT

3. THE RESULT OF THE PROJECT

4. FUTURE PLANS & DEVELOPMENT STRATEGIES
I. THE BACKGROUND OF THE PROJECT
I. Background

2005 APEC Leader’s Meeting
Cutting edge Technology
International Convention
Film & Visual Cultural

Turning Point

- Decrease in Population
- Firms and brain drain to other areas
- Insufficiently competitive

- More competitive among neighbor cities such as Shanghai, Hong Kong & Singapore
- Magnification of Capital area

2000
- The best film festival in Asia
- ITU held successfully
- BPA Established
- Gwangan Bridge Opened
- Asian Games
- Korea Exchange established

2005

2020
- Summer Olympic Games
- North Port to be redeveloped
- Eastern and Western Busan to be re-developed
- New port to be opened completely
- To be raised as marine special city

Advanced Busan, Open to the world

u-City project as 21st Century New city development strategy
II. THE STRATEGY OF THE PROJECT
The priorities of the project

1. The strategy of the project

- Impeding businesses to **improve urban competitiveness**
  - Harbors, Tour/Convention

- Businesses to directly **improve quality of citizens’ life**
  - Health, Transportation, Disaster prevention

- Businesses to easily draw government’s assistance and **private investment**

- Businesses having **core-technology within the district**
Northeast Asia Logistics "3 Hub Port" that revitalizes Busan's economy

Development of tourism & convention industries with tailored U-SVCs

Development of advanced wide-area urban safety network

Autonomic Network

Health Enhancing Network reaching the public

The strategy of the project
III. THE RESULT OF THE PROJECT
III. The result of the project

Providing the successful project basis of Busan U-city

- Establishing the master plan of U-city
- The first commercialization in South Korea

The first commercialization of U-city

- 16 business projects in 2006-7
  - City tour service
  - The remote operation of medical service
  - The efficient port logistics businesses.
  - U-PIFF service

Securing Private/Governmental investment

- Governmental support of business project (20.3 billion won)
  - The efficient U-Port logistics businesses of the Ministry of Maritime Affairs and Fisheries
  - U-PIFF, U-health etc. seven cases of the Ministry of Information and Communication
  - u-Tourpia of the Ministry of Culture & Tourism
- Attracting private investment
  - Participation of KT, SKT, etc. (3.7 billion won)
  - In-house infra investment (140 billion won)

Fostering local IT business

- Local companies’ participation in U-city business
  - 56% participation in Tour-convention, medical service, transportation, disaster prevention business
  - Relatively low rate of participation in Ports, education, etc
- Joint development between Local University and company
III. The result of the project

- Single-deck buses (2),
  Double-deck buses (2)
- U-tour guide service by using RFID-GPS
- The service of bus arrival
- HSDPA wireless internet service

- Triple increase in the number of users (daily average count of 183)
- Add two more tour buses (09.2007)
• u-exhibition, u-convention, u-advertisements, u-facilities maintenances

• Contributing to Strengthening the competitiveness of Exhibition/convention

- UFI approved, Becoming a member of UIA in South Korea
- The rank of Convention: 8th in Asia, 41st in the world.
- Contribution to the invitation of the General Meeting of Lions Club International, and the general meeting of 2012 World Water
u-Tour

- Wi-Fi, GPS, RFID Reader
  - The free service of wireless internet
  - Finding location, information retrieval
- Private Tour-Guide
  - Providing the information of tour, lodging, and famous restaurants
  - The function of Walking Tour Navigation
- Story telling
  - Story telling system of main tour courses in Busan (Haeundae, City tour attractions)

III. The result of the project
Free Internet Zone
- Free Internet service provided

Service of searching for missing children
- Haeundae Beach (Active RFID)

Environment Monitoring
- Real Time Information of Environment Monitoring (Water temperature, wave weight, ultraviolet etc.)

UCC Event Zone
Welfare facilities/ Public health centers

- Home-visiting service for nursing care of public health centers
  - The first stage (’06), the second stage (’07) of 16 centers
  - Annual service for 15 thousand people
- Health monitoring & telemedicine of Welfare facilities
  - The first stage (’06), the second stage (’07) of 15 centers
- The telemedicine center of Busan Medical Center
  - The telemedicine check-up to help the associated welfare centers
  - Service of issuing written prescriptions through telemedicine
- 78 times medical check-ups for 188 people
u-Health

u-Emergency service establishment

- u-119 remote emergency medical advice service
  - Medical specialists’ instruction service through bio-signals during the transfer
  - Related services of 119 ambulance, fire station, 1339 local hospitals for emergency
- Related services of 119 ambulance, fire station, 1339 local hospitals for emergency
  - Data base management system for Chronic patient records
  - In emergency, alarm system to call in 119 first aid corps & automatically report medical history to the hospital
- u-remote first-aid instruction service for ships
  - Merchant ship, Pelagic-fishing vessels, 1339, associated hospitals for medical check-ups
  - First aid & health care for seamen
- Results
  - Remote first aid treatments: 150 cases
  - Busan u-119 service to expand throughout the country

III. The result of the project
RFID system helps Busan ports
- Gate automatization
- RTLS (real-time locating service system) of containers
- Locating service system of the containers loading things dangerous

Reducing processing time & logistics cost (25% by the time of completing u-port)
II. The result of the project

- Installing RTLS at two terminals of Busan Port
  - Locating containers & cargo gear within the port
  ⇒ Locating containers & cargo gear within the port
III. The result of the project

- Bus information system establishment
  - 134 bus lines for 2,573 buses
- ETCS (Electric Toll Collection System) installation for Dong-Seo toll gates
  - Beginning April 30th, 2008.
- Maintenance of traffic report sign of Traffic Information Center
- Taxi information system establishment
  - 5,550 Brand Taxies
Comprehensive traffic information service establishment
- Providing information through Cell phone, internet, electronic devices for automobile, Cable TV, electric signs

u-traffic basis & practical designs

Providing real time transport information through realizing intelligent traffic system

Holding 2010 ITS(intelligent transport system) world competition
The result of the project

- Goopo Bridge, safety monitoring service by use of USN (ubiquitous sensor network)
- Man-doeck Tunnel, safety monitoring service by use of USN
  - 7 men → 4 men of maintenance crew
  - Detecting a fire or cracks inside of the tunnel
- u-Urban disaster prevention system outsourcing
  ▪ Installing a disaster-predicting system including 11 objective systems
u-Safety service

- CCTV comprehensive system installation
  - Practical Use of urban control
  - Additional installation for environmental surveillance, mountain fire, crime prevention, Hwangryung mountain, Seunghak mountain, Jang mountain, etc.

- u-Safety service for children
  - Children, having GPS devices
  - Guardian/police, location tracking surveillance
  - Establishing cooperation relationships among City, police, city offices of education, private institutes, and each related office
Establishing local cooperation system for Busan u-city

**School**
- Local universities
- Research institutes

**Government**
- Busan city
- Public administration
- Special district
- Administration offices

**Industry**
- Local companies
IV. FUTURE PLAN & DEVELOPMENT STRATEGY
IV. Future plan & development strategy

**u-infra establishment**

- Information high-way establishment
  - BTL projects of 319 city administration offices, the scale of 365 million won
  - Optical cable 1,278 km, total security control system, network control centers
  - The second stage completed on May, 2008

⇒ Securing independent network
⇒ Using u-City infra

- Projects to advance wire networks
  - 119 security center’s information network for fire fighting Increasing 48 nodes
  - The practical use of installed CCTV networks
Free Internet Zone
- Wireless communication technology: WiFi MESH
- Location: beaches, BEXCO (Busan exhibition & convention center), 10 major tourist attractions
- Working expenses: One billion won

Wire & wireless Convergence network construction
- The u-pole use of urban control AP networks
- Mesh Network infra expansion

Wibro Hot Zone
- KT: Dong-A university etc installed (Jan. 2008)
- Project additional installment to Haeundae areas
- (Expanding to the whole area of Busan city in 2009)
IV. Future plan & development strategy

Realizing u-unified Model Service

- **u-Street(Shelter)**
  - Unified service by use of street electric-sign board
  - News, weather information, emergency, and crime prevention etc

- **u-Mobile service**
  - Busan city cell phone Wap portal establishment
  - Service: Information of City-policy, News, Traffic info. etc

- **u-Tour Board**
  - Nurimaru, Haeundae beach, Yongdusan park tower,
  - Photo mail, media board, Image media information service
Unified operation center establishment

- **Project directions**
  - Establishing cooperation with central government agencies
  - Preparing total standard system
  - Preparing maintenance system
  - Establishing the data-exchanging system for related objects and seeking data maintenance plan

- **Project plans**
  - Model service operation (2008)
  - Establishing the center (’09 – ’11)