Seoul, ready to share with the world!

Seoul
e-Government

CONTENTS

*Aiming to become a mobile city,
Seoul communicates with the citizens
and shares with the world.*

Seoul e−Government

Seoul e−Government pursues drastic improvements in administrative efficiency and quality through the incorporation of advanced information and communications technologies into its public services for citizens. Thus it has realized open government, enabling citizens to have fast and easy communication with it about a wide range of issues.

Seoul
e-Government

Government

Vision

Mobile Seoul:
Communicating with
Its Citizens and Creating
a City Together

Strategy

1. Open Administration Based on
   Transparency and Communication

2. Smart Administration Based
   on Sharing and Collaboration

3. Seoul: Sharing Digital Benefits with All

4. Seoul as an Optimal, ICT–supported Smart City

Goals

Providing Citizens with Customized Public
Services; Creating Jobs; Building
New Engines of Growth

The Seoul Metropolitan Government is leading the world in smart administration through its constant efforts to make use of rapid developments in smart technologies worldwide to realize the corresponding innovations in its public services under the new paradigm of a citizen–centric administration based on communication, transparency, sharing, and collaboration. It has successfully established participatory governance with its citizens on the basis of the country's sophisticated IT service infrastructure. Citizens are not just recipients of various public services but also creators of diverse types of public in–formation for fellow citizens utilizing an entirely new type of participatory administrative platform.

Current Status of Seoul e-Government

The Seoul Metropolitan Government has appointed a Chief Information Officer (CIO) since 1999. The CIO has taken the lead in the city's efforts to establish sophisticated information systems and a network infrastructure. The Seoul e-Government currently focuses on the promotion of across-the-board mobile administrative services and the so-called big data-based municipal administration to realize a new data-centric, scientific, innovative information culture in the city.

01 Seoul e–Government Recognized Worldwide

Seoul ranked 1st in the Municipal e-Governance International Survey five consecutive times (10 years)

Since 2003, the Seoul Metropolitan Government has topped the Municipal e-Governance International Survey conducted by Rutgers University and sponsored by the United Nations(2003~2009) for five consecutive times during the last 10years Seoul has become the benchmark for many cities worldwide in terms of digital governance.

Seoul was the highest-ranked OECD municipality, and Hong Kong was the highest-ranked non-OECD in 2011. Table 3-9 presents the overall score for each municipality grouped into OECD member countries and non-OECD member countries.

[Table 3-9] Results for OECD Member Countries (2011)

| Rank	City	Country	Score
1	Seoul	Korea(Rep.)	82.23
2	Toronto	Canada	64.31
3	Madrid	Spain	63.63
4	Prague	Czech Republic	61.72
5	New York	United States	60.49
6	Stockholm	Sweden	60.26
7	Bratislava	Slovak Republic	56.74
8	London	United Kingdom	56.19
9	Vienna	Austria	54.79
10	Helsinki	Finland	54.22

1st in the 2011 survey
1st in the 2009 survey
1st in the 2007 survey
1st in the 2005 survey
1st in the 2003 survey

※ The ¨Municipal e-Governance International Survey¨ has been jointly conducted by Rutgers University and Kent State University in the USA every two years since 2003.

ITU-Technology Watch Report features Seoul as a Model Smart City

ITU (International Telecommunication Union), which is under the auspices of the United Nations, published a special report titled "Smart Cities - Seoul: a case study" as part of its technology watch report in February 2013. Referring to Seoul as one of the world's tech-savviest cities that has retained its top ranking in the UN e-Government Survey since 2003, the report cited the characteristics of Seoul e-Government along with its diverse unique digital services for its citizens. The report, which is available on the ITU website, has also been distributed to all of the organization's 193 member countries worldwide.
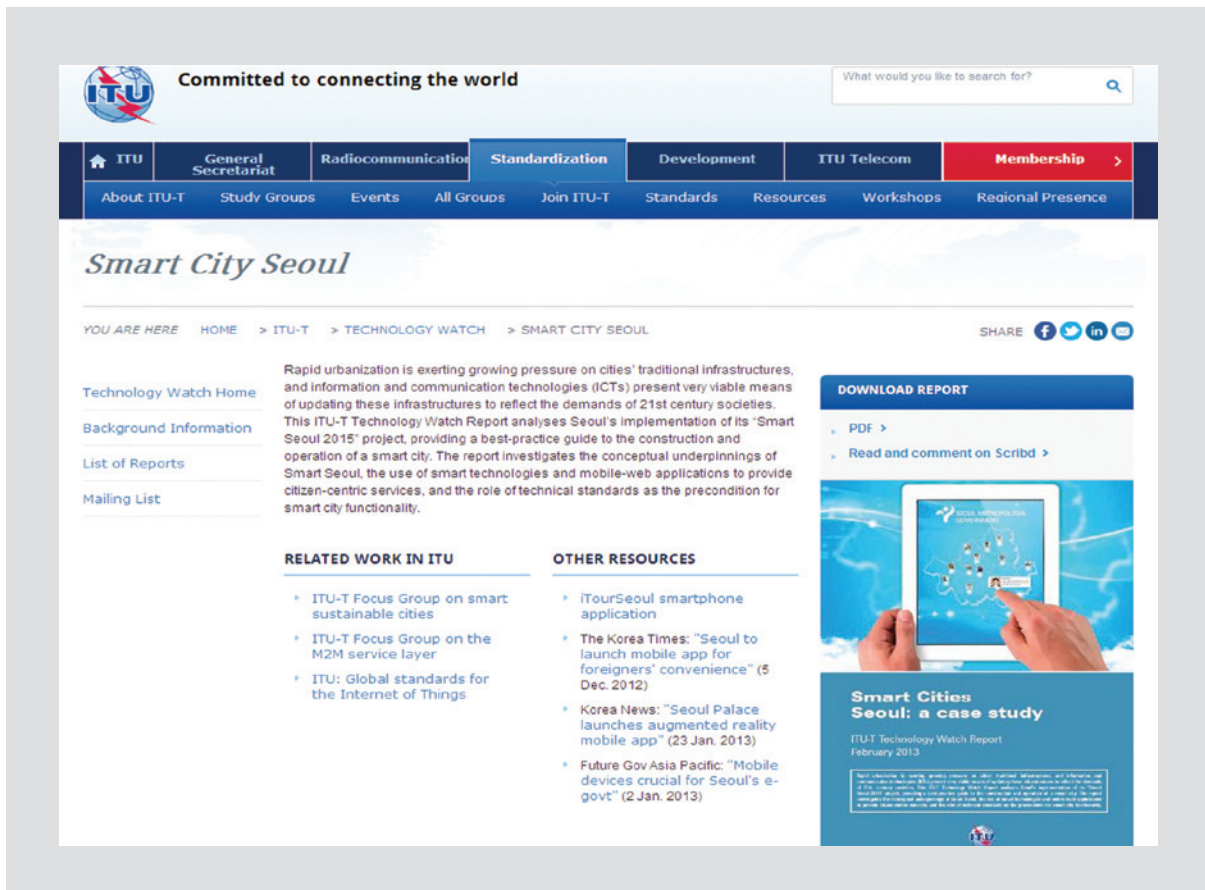
※ Smart Cities:
Seoul, a case study (ITU Technology Watch Report)
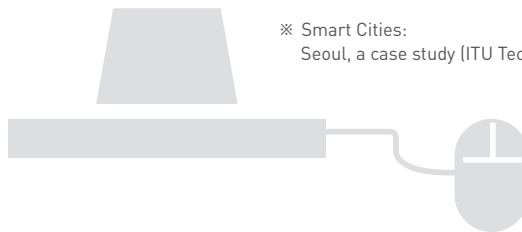
Seoul initiates WeGO (World e-Governments Organization of Cities and Local Governments)

A global leader in digital governance, the Seoul metropolitan Government initiated the establishment of WeGO (World e-Governments Organization of Cities and Local Governments) in September, 2010. Currently, WeGO has 74 member cities worldwide. As the second chair city, Seoul is now in charge of the operation of the organization's secretariat.

The 2nd General Assembly of WeGO held in Barcelona, Spain (12-13 November 2012)

<u>02</u> *Seoul's e–Government System*

The Seoul Metropolitan Government has established an array of information systems covering all of the city government's public services, built its own telecom network connecting its 16 affiliated organizations, and set up an extensive e-government promotion group headed by the chief information officer (CIO).

e-Government Infrastructure

For IT-based highly efficient city administration, the Seoul Metropolitan Government has set up a total of 477 types of information systems covering the entire range of its public services including urban planning, culture, tourism, transportation, and housing for its 127 divisions. Seoul Data Center performs integrated control of the systems through its 973 servers, 272 pieces of telecom equipment, and 89 information protection systems.

Taxes, Finances, Contracts

Planning, Audit, Education Informatization Planning, Human Rights, commuties

Construction

Welfare, Seniors, the Disabled

Transportation

Women, Childcare, Children & Youth

e-Government

Health, Food Safety

Economy, Jobs

Culture, Tourism, Sports, Design

Safety, Firefighting, Civil Defense

Environment, Parks, Water Supply

Housing, Real Estate, Urban Planning, Magok Project

Information Technology Infrastructure

In 2003, for the first time in the world, Seoul set up e-Seoul Net connecting its 36 agencies via fiber-optic cables along Seoul's subway tunnels. u-Seoul Net, a high-speed telecom network that provides citizens with audio, video, and internet services so that they can access any of the city's smart public services anytime, anywhere including mass transit information, and CCTV video data was completed in 2011.

Seoul City Hall Namsan Building
TBS (Seoul Traffic Broadcasting System)
Seoul Metropolitan Fire & Disaster Headquarters
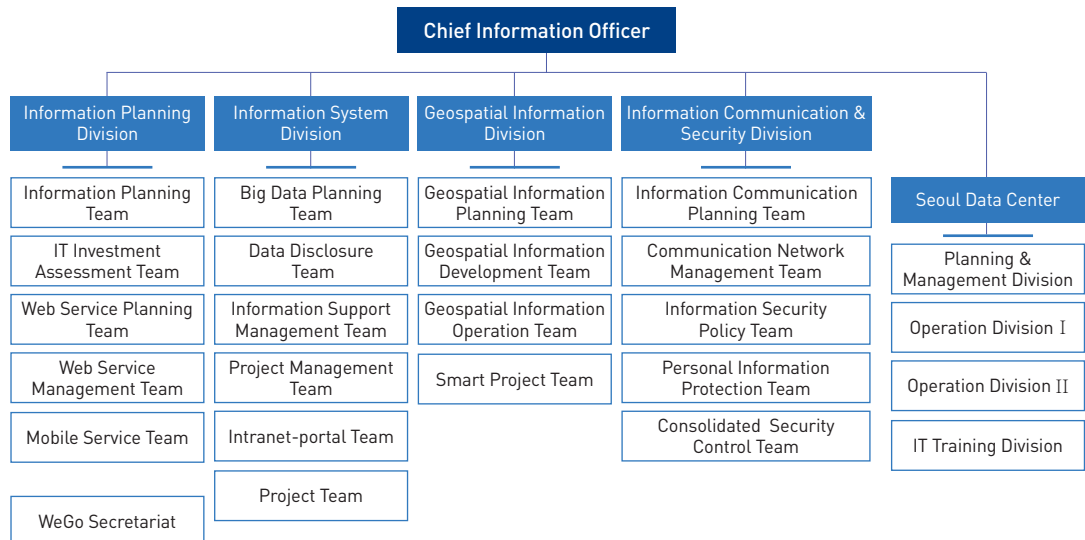Seoul Emergency Operations Center
Seodaemun-gu
Eunpyeong-gu
Yongsan-gu

Seoul City Hall Seosomun Building

Gangbuk

Dobong-gu
Seongbuk-gu
Jungnang-gu
Nowon-gu

Songpa-gu

Gangdong-gu
Seongdong-gu
Dongdaemun-gu
Gwangjin-gu

Yangcheon-gu
Gangseo-gu
Guro-gu
Geumcheon-gu

Yeongdeungpo-gu

Seoul Data Center

Seoul Human Resource Development Center
Seocho-gu
Dongjak-gu
Gangnam-gu
Gwanak-gu

Seoul Waterworks Authority
Seoul Metropolitan Council
Mapo-gu
MOSPA (Ministry of Security and Public Administration)
Jongno-gu
Jung-gu

Seoul City Hall

※gu : District

e-Government Chart Organization

In 1999, the Seoul Metropolitan Government appointed a CIO to effectively incorporate ICT into its public services. Under the Vice Mayor I office, the CIO has taken the lead in the city's various ICT projects with 195 employees in 4 divisions and 1 data center as shown below.
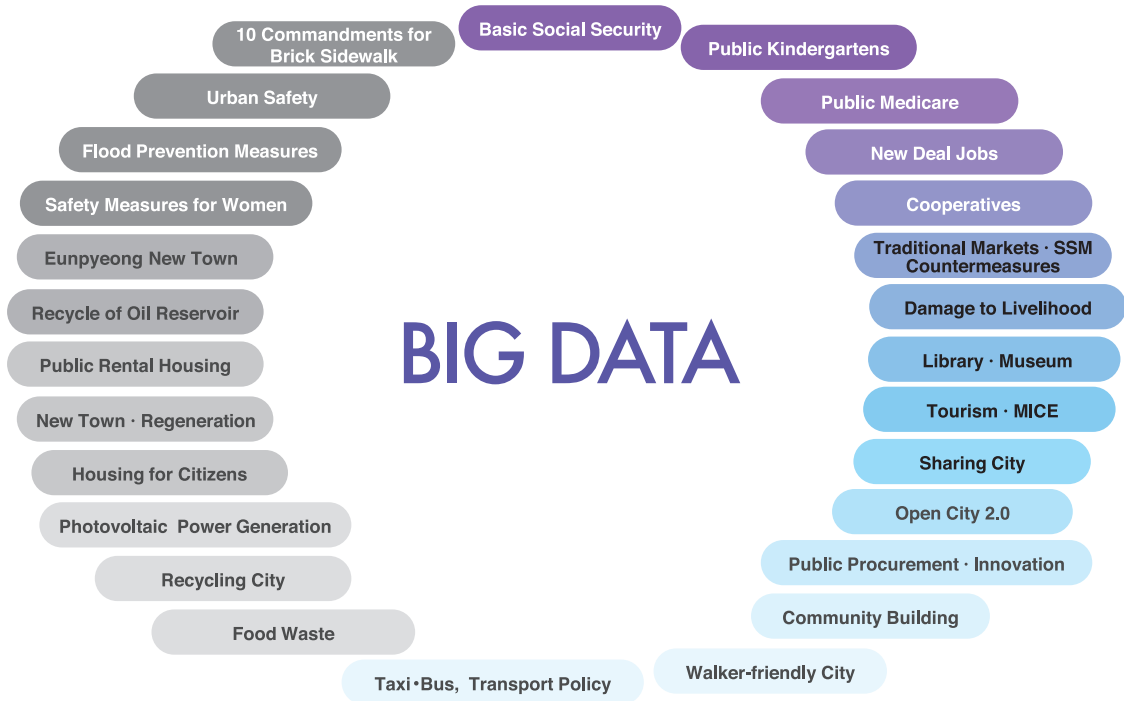
Chief Information Officer

Information Planning Division	Information System Division	Geospatial Information Division	Information Communication & Security Division	Seoul Data Center
Information Planning Team	Big Data Planning Team	Geospatial Information Planning Team	Information Communication Planning Team	Planning & Management Division
IT Investment Assessment Team	Data Disclosure Team	Geospatial Information Development Team	Communication Network Management Team	Operation Division I
Web Service Planning Team	Information Support Management Team	Geospatial Information Operation Team	Information Security Policy Team	Operation Division II
Web Service Management Team	Project Management Team	Smart Project Team	Personal Information Protection Team	IT Training Division
Mobile Service Team	Intranet-portal Team		Consolidated Security Control Team	
WeGo Secretariat	Project Team			

03 Seoul's e–Government Strategies

The Seoul Metropolitan Government is implementing new strategies designed to promote data-centric, innovative types of administrative services that can meet citizens' increasingly diverse demands for sophisticated public services.

Utilize Big Data to offer scientific and innovative, new administrative services

Under the slogan "Big data solves even the smallest grievances," the Seoul Metropolitan Government integrates diverse data collected through its various e-government functions with those collected by the private sector to create new values and realize citizen-centric municipal administration.

BIG DATA

- 10 Commandments for Brick Sidewalk
- Basic Social Security
- Public Kindergartens
- Urban Safety
- Public Medicare
- Flood Prevention Measures
- New Deal Jobs
- Safety Measures for Women
- Cooperatives
- Eunpyeong New Town
- Traditional Markets · SSM Countermeasures
- Recycle of Oil Reservoir
- Damage to Livelihood
- Public Rental Housing
- Library · Museum
- New Town · Regeneration
- Tourism · MICE
- Housing for Citizens
- Sharing City
- Photovoltaic Power Generation
- Open City 2.0
- Recycling City
- Public Procurement · Innovation
- Food Waste
- Community Building
- Taxi·Bus, Transport Policy
- Walker-friendly City

Pursue mobile-centered innovations in City administration

Citizens' main medium of communication is rapidly changing from computers to mobile devices. The Seoul Metropolitan Government is proactively promoting across-the-board, mobile-oriented administrative services to provide citizens with real-time public services anytime, anywhere on their mobile devices while increasing its public service efficiency. In November 2013, Seoul announced the "Mobile Master Plan" with the aim of building a mobile platform wherein everyone can share information and collaborate with anyone to create new values. The following are the strategies for the realization of mobile-based municipal administration in the city:
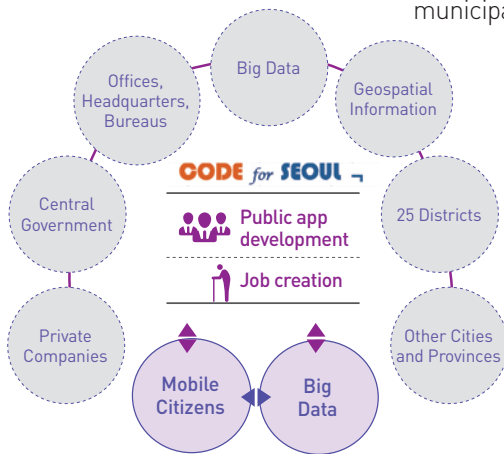
1. Mobile infrastructure designed for collaboration and sharing
2. Mobile-based city administration led by citizens
3. Mobile-based, customized aggressive welfare
4. Mobile-based economy pursuing balanced growth
5. Mobile culture available in the palm of your hand
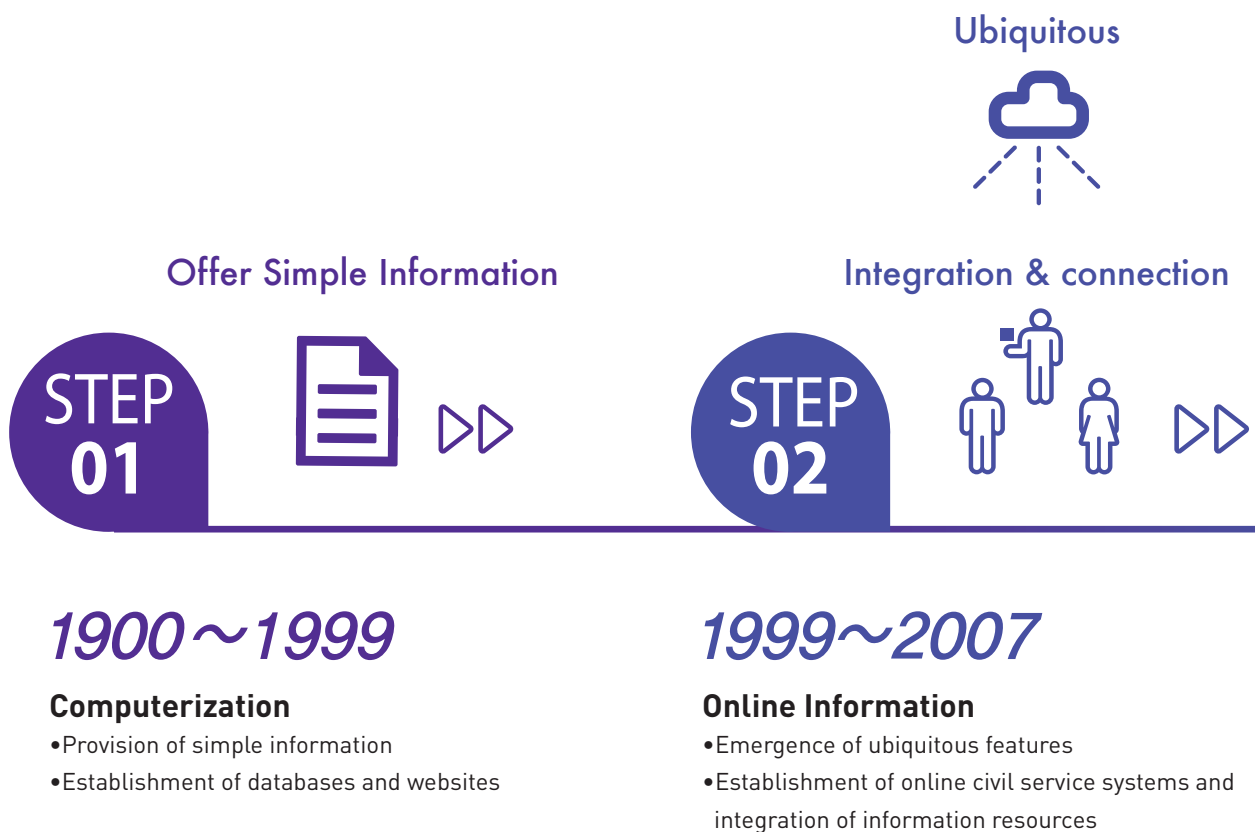6. A safe, smart mobile city

The Seoul Metropolitan Government plans to gradually implement a total of 39 tasks in the entire range of its administrative services including welfare, health, safety, transportation, and environment.

CODE *for* SEOUL ¬

Public app development

Job creation

Offices, Headquarters, Bureaus · Big Data · Geospatial Information · Central Government · 25 Districts · Private Companies · Other Cities and Provinces · Mobile Citizens · Big Data

Export Seoul-type e-Government to overseas cities

The Seoul Metropolitan Government is striving to introduce the Seoul model of e-Governance to various overseas cities within the framework of WeGO. In 2011, it signed an MoU with the World Bank to join hands in developing the "City e-Government Diagnostic and Solution Framework." WeGO member cities can use the tool kit to establish their respective e-Governments in the mid-to long-term.

CITYNET · United Nations Public Administration Network · metropolis · WeGO World e-Governments Organization of Cities and Local Governments · THE WORLD BANK · I·C·L·E·I · NIA

04 *History of Seoul's e–Government*

Ubiquitous

Offer Simple Information

Integration & connection

STEP 01

STEP 02

1900～1999

Computerization
- Provision of simple information
- Establishment of databases and websites

1999～2007

Online Information
- Emergence of ubiquitous features
- Establishment of online civil service systems and integration of information resources

SNS, Safety

Smartphones

Online Participation

Value Creation through
New Business Models

STEP 03

STEP 04

Paradigm shift toward smart environment

2007~2011

Networking
- Emergence of smartphones, active use of SNS
- Online participation, ubiquitous civil services

2011~2015

Smart Technologies
- Mobile-based city administration
- SNS-based interaction with citizens
- Big data and open platform

Seoul e–Government's Accomplishments

The Seoul Metropolitan Government discloses all of its administrative information to citizens and shares public data with them, offering citizens with employment opportunities. It provides citizens with useful everyday information such as bus and subway arrival times, cultural events, job opportunities, and real estate transactions and rentals as well as the entire range of city administrative services accessible via mobile devices and public apps. Citizens can access the information anytime, anywhere. On the other hand, through the e–voting system, the Seoul Metropolitan Government encourages citizens to participate in the policymaking process. In order to close the digital divide, SMC supports the disadvantaged to boost their information literacy.

01 / **Open Administration Based on Transparency and Communication**
Seoul Metropolitan Government website/Mobile Seoul/M-Voting/
Information Open Plaza/Public data disclosure

02 / **Smart Administration Based on Sharing and Collaboration**
Big data administration/Administration portal/
Seoul-type map tagging/3D indoor space services

03 / **Seoul: Sharing Digital Benefits with All**
Free Wi-Fi/Free mobile recharging service/Seoul App Center/
Narrowing the information gap

04 / **Seoul, an Optimal, ICT-supported Smart City**
Seoul Data Center/Quality control for ICT businesses/Information security

<u>01</u> *Open Administration Based on Transparency and Communication*

Renewed Seoul Metropolitan Government website in collaboration with the citizens

In March 2012, the website of the Seoul Metropolitan Government was completely transformed to a state-of-the-art content management system (CMS), enabling its employees to post their blog-type writings on the site. It has also developed its other websites into open, participatory web pages so that the information on each site can be scrapbooked to social networks and citizens can make comments directly on each site.

Open-type Seoul Metropolitan Government Website

"Mobile Seoul": Experience Seoul on smartphones

On Mobile Seoul (m.seoul.go.kr), the Seoul Metropolitan Government offers 60 services in 11 categories such as bus and subway arrival information, culture, employment, real estate, and other diverse types of municipal administrative information. In March 2013, using GPS embedded in smartphones, the Seoul Metropolitan Government began to offer "Information around myself on maps," a feature that provides information on locations of free Wi-Fi zones, disabled-friendly facilities, unmanned certification-issuing equipment, restrooms, and construction sites. In July 2013, it improved the website design and reorganized the menu structure so that citizens could access the most frequently visited services and post their opinions more easily.

Major Features
–Daily information on transportation, culture, employment, real estate, and safety
–GPS-based "Information around myself"
–Welfare information by types and degrees of disability
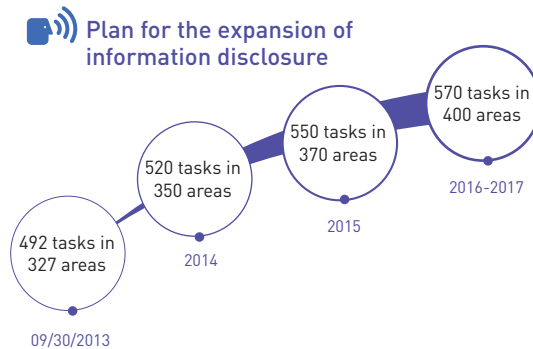–Seoul smart complaint report

M-Voting: Participatory Democracy

In December 2013, the Seoul Metropolitan Government launched M-Voting, an electronic voting system, to gather citizens' opinions and allow citizens to share their opinions on the city's diverse policies by using mobile devices.

▶ **City government asks the citizens**
To hear citizens' voices on the ground when setting up, implementing, or evaluating various policies related to a whole array of municipal services

▶ **Citizens ask other citizens**
To find out what other citizens think of particular issues concerning the city

## Information Open Plaza: Disclosing all administrative information to citizens

The Seoul Metropolitan Government has launched Information Open Plaza (http://opengov.seoul.go.kr) for the one-stop provision of all of the city's administrative information to the citizens. Through this mechanism, the city government discloses administrative documents including work in progress, policy data, financial information, meeting minutes, and conference videos. As of September 2013, it has disclosed information on a total of 429 kinds of tasks in 327 areas to citizens and plans to expand the scope of disclosure by stages until 2017 as shown below.

Plan for the expansion of information disclosure

- 492 tasks in 327 areas — 09/30/2013
- 520 tasks in 350 areas — 2014
- 550 tasks in 370 areas — 2015
- 570 tasks in 400 areas — 2016-2017

Public data created by the citizens: Seoul Open Data Plaza

The metropolitan government plans to increase its public information disclosure to cover a total of 150 systems including transportation, environment, and facilities by 2014 through "Seoul Open Data Square." The already disclosed public data have motivated the private sector to develop new public services and create jobs. The data have become public properties with new economic values. Seoul National University estimated in 2012 that the disclosure of the city's public data would create an economic value of 2.1 trillion KRW.
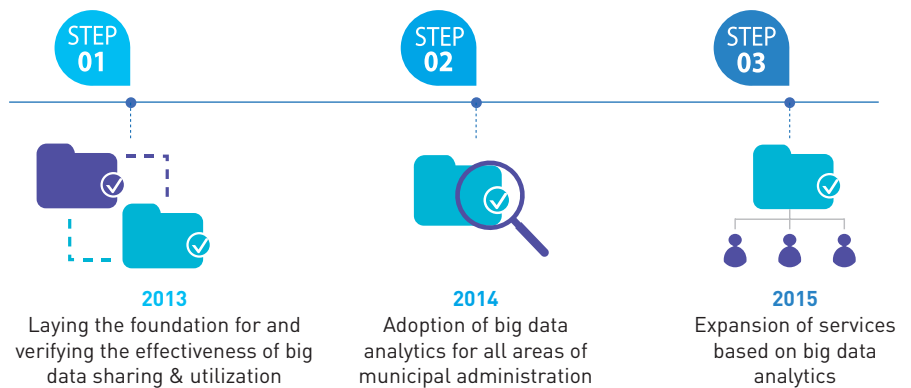
Expansion of public data disclosure

- 80 systems (92 databases including affiliates) — 09/30/2013
- 150 systems — 2014
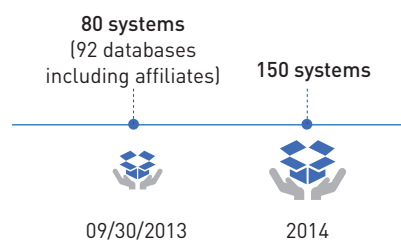
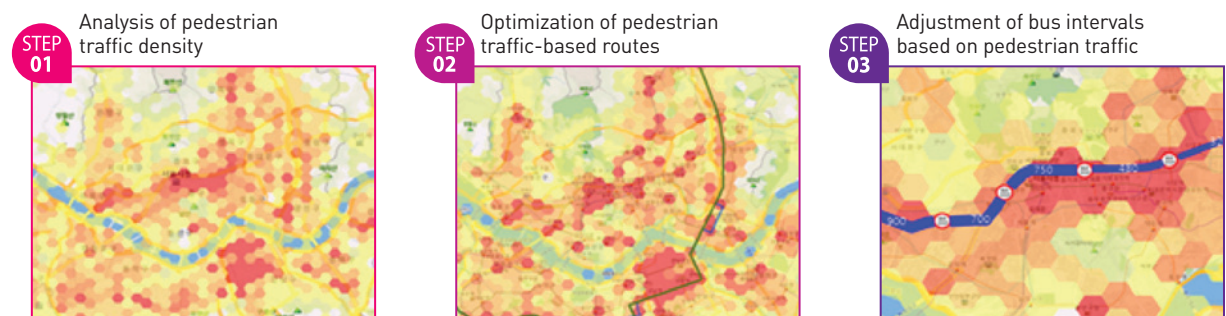# *02 Smart Administration Based on Sharing and Collaboration*

Realization of New City Administration through the Settlement of Administrative Issues with Big Data

The Seoul Metropolitan Government is implementing big data utilization policies to address diverse complex administrative issues. In April 2013, it set up strategies for active big data utilization along with a development roadmap until the year 2015. In August 2013, it used big data to work out the best routes for night buses as a pilot project on big data utilization.

STEP 01
2013
Laying the foundation for and verifying the effectiveness of big data sharing & utilization

STEP 02
2014
Adoption of big data analytics for all areas of municipal administration

STEP 03
2015
Expansion of services based on big data analytics

The Seoul Metropolitan Government determined the routes of night buses after analyzing KT's mobile phone calls as well as its own transportation data.
This was the result of innovative collaboration between the private and public sector.

Big Data Utilization to Determine Night Bus Routes

STEP 01 Analysis of pedestrian traffic density

STEP 02 Optimization of pedestrian traffic-based routes

STEP 03 Adjustment of bus intervals based on pedestrian traffic

In 2014, the Seoul Metropolitan Government plans to use big data to analyze and evaluate the locations of the city's diverse public facilities including welfare facilities for senior citizens. It will also use big data to fine-tune its publicity materials by gender and age. In addition, through an analysis of the travel pattern of foreign tourists, Seoul will present the best tour and accommodation options to international tourists.

Communication and Collaboration based Internal Administration Portal

Knowledge administration based on communication and collaboration has emerged as a critical factor in improving public servants' work efficiency. The Seoul Metropolitan Government has transformed its internal administration portal (intranet) into a user-oriented communication portal that enables information delivery, collaboration, and content use and disclosure. Specifically, employees have opened their own home pages in the portal so that they can communicate directly with citizens. Through alerting services, they now provide information to citizens proactively. Also, through individual bulletin boards, group members can share information among themselves. Furthermore, through the realization of a mobile office, employees and citizens can make use of the administration portal system to share information round the clock.

"Seoul-type Map Tacking" offers Convenient Map-based Administrative Services

Map-based spatial information is much easier to understand and use than text-based information. Thus, the Seoul Metropolitan Government is fully using "Seoul-type Map Tacking" services for a whole array of its public services to enhance its citizens' convenience. Toward the end of 2012, it began to provide map-based information on disabled-friendly facilities, current status of new town and redevelopment projects, free Wi-Fi, etc., to smartphone users. In 2013, it launched mobile location-based services for the 12 parks along the Han River to inform citizens of the diverse events and facilities there, such as information on shelters from the summer heat for children and senior citizens. Citizens can also participate in the map tacking services. They can make proposals for new services or create and register their own content for new services.

"Smart Seoul Map App"
Administrative services available on maps

"Yeouido Camping Site"
Information on an event in HanRiver Park

3D Indoor Spatial Information

Demand for information on indoor space has continuously increased. Thus, in May 2013, the Seoul Metropolitan Government began the 3D modeling of indoor environments. In September 2013, it launched a pilot project for web services in three subway stations and three public buildings. It plans to make data available to citizens as Open API(Application Program Interface) for the full utilization of information in developing various applications. In the future, SMG will encourage the private sector to proactively utilize the collected data through open API. It is also planning to develop diverse contents on indoor facility directions and on major cultural & tourist facilities and make them available on mobile devices.

Time Spent...
Most of Communications
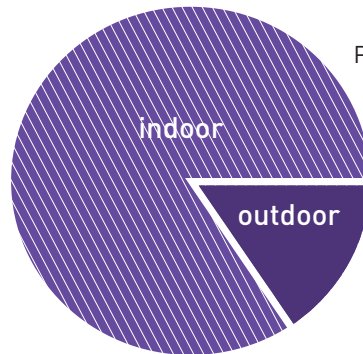
indoor
outdoor

People spend 80~90% of their time indoors. 70% of cellular calls and 80% of data connections originate from indoors. (NOKIA Source Strategy Analytics)

Public building modeling

Subway station modeling

03 Seoul: Sharing Digital Benefits with All

Building Free Wi-Fi Networks in Key Locations

As of the end of 2012, the Seoul Metropolitan Government has built 1,057 access points (AP) in 185 locations including parks, traditional markets, plazas, main streets, and tourist attractions for free Wi-Fi services. It expanded the service to an additional 288 locations by the end of December 2013.

Installation
(number of access points)

~2012	2013	2014	2015
1,057	1,717	2,377	3,377
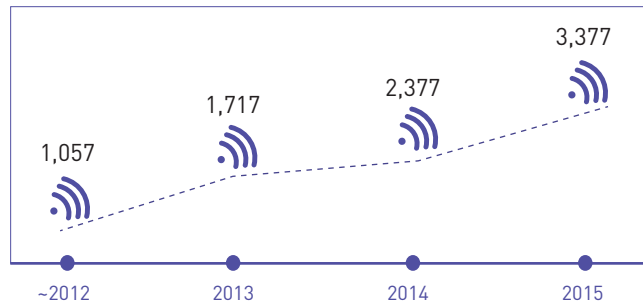
Emblem

Wi-Fi location information (installed location)

Wi-Fi location information (image)

Free Mobile Recharging Service

The Seoul Metropolitan Government regards mobile recharging as public service. Thus, it began to offer the service in April 2013 on the occasion of Gwanghwamun Hope Sharing Flea Market. It subsequently expanded the free service to HanRiver Ttukseom Outdoor Swimming Pool, Yeouido and Ttukseom Camping Sites, and Seoul Open Night as well as the city government's policy listening workshops. As of the end of October 2013, a total of 2,573 citizens are estimated to have extended their cell phone usage by 11,579 hours through the service. Seoul will continue to expand the service to various even venues and to public transportation such as buses and subways in the long run.

"Seoul App Center" fosters IT startup dreams

The Seoul Metropolitan Government runs the "Seoul App Center," which offers office space, education and training courses, and consulting services to potential app developers so that they can concentrate on their development activities. The center contributes to job creation while boosting the city's knowledge-intensive creative industry.

Seoul App Center

Education on Smart ICTs and Donations of Second-hand PCs for the Vulnerable to Narrow the Information Gap

The Seoul Metropolitan Government offers IT welfare services to the vulnerable so that they can adapt themselves to the rapidly evolving smart device technologies and increase their participation in social activities in the digital age. It provides diverse smart devices to the disabled depending on their disability along with courses on ICT and smart devices and prevention of Internet addiction. It also supplies 3,000 second-hand PCs to the disadvantaged free of charge every year after repairing the machines donated by private companies as well as various city departments.
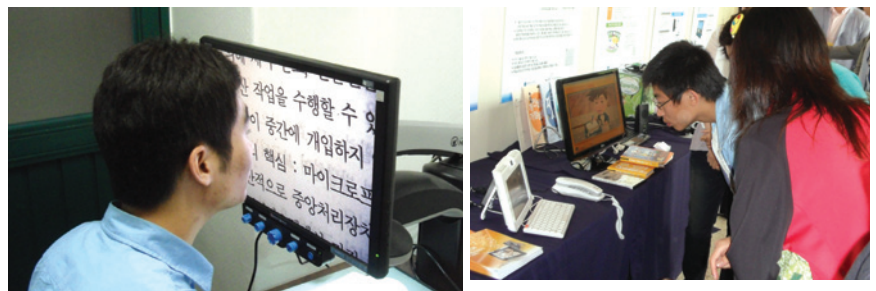
04 Seoul, an Optimal, ICT–supported Smart City

Seoul Data Center: The heart of Seoul's e-Government

Seoul Data Center which plays a central role in Seoul's e-government runs and manages almost all of the city's information systems. Currently, it has more than 1,400 machines and facilities including servers, storage devices, network equipment, information security systems, and accessory facilities. For more efficient operation, the center has adopted integrated technologies such as virtualization and blade technologies. The center operates on a low-energy, high-efficiency, eco-friendly infrastructure. It has opened a new chapter not just in the sharing of information resources but also in cost-effective scalability and energy conservation.

Overall Control of the City Government's Diverse ICT Projects

The SMG's IT business is promoted through pre-consulting procedures instead of individual departments' sporadic promotion. To launch an information technology project, one must do so through continuous pre-consultation with Information System Planning Bureau from planning to contract awards to the supervision of the project progress. Information System Planning Bureau (IT Investment Review Team) controls all the SMG's information technology projects through budget feasibility evaluations, redundancy checks and project proposal evaluation.

Feasibility study » Redundancy reviews » Proposal reviews » Supervision » Evaluation
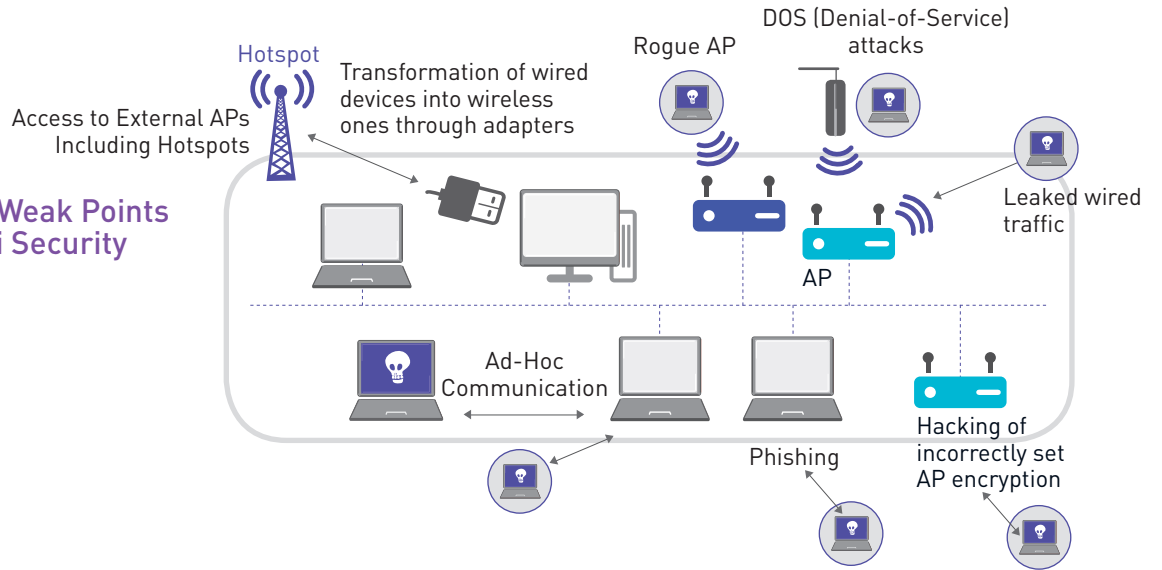
To enable related businesses to better prepare for the bids, Seoul Data Center holds an orientation meeting at the beginning of each year regarding the city government's plan for new IT projects throughout the year.
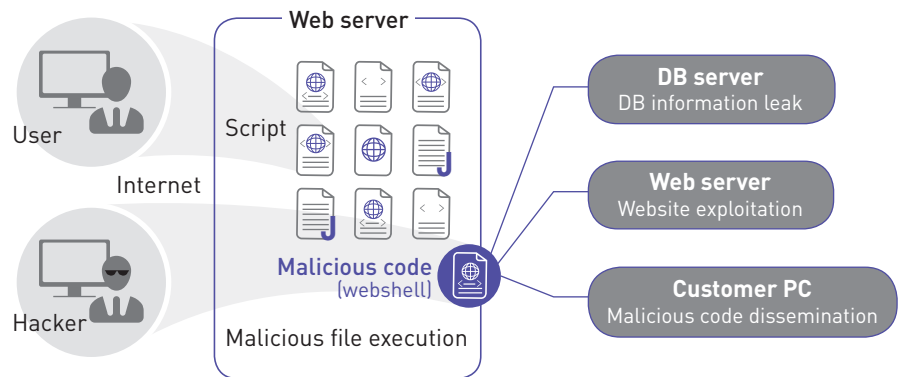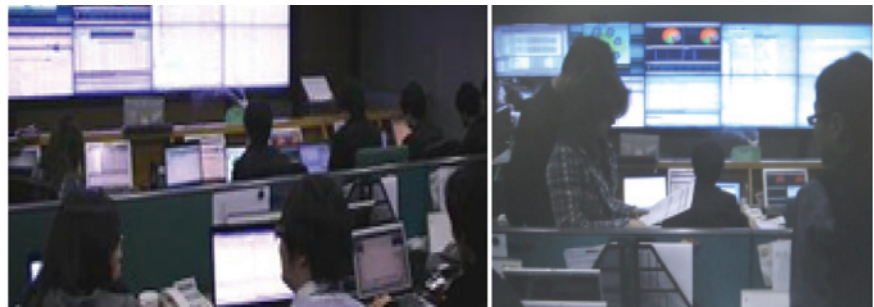
Seoul's Information Security

Seoul Data Center launched 24/7 integrated information security control in 2010. On average, it detects and repects 770 cyber attacks a day. As the security control tower of Seoul, the center continues to reinforce its information security system and launches drills against cyber attacks and malicious emails on a regular basis.

Major Weak Points in WiFi Security

Hotspot

Access to External APs Including Hotspots

Transformation of wired devices into wireless ones through adapters

Rogue AP

DOS (Denial-of-Service) attacks

Leaked wired traffic

AP

Ad-Hoc Communication

Phishing

Hacking of incorrectly set AP encryption

Seoul Integrated Security Control Center

Web server

User

Internet

Hacker

Script

Malicious code (webshell)

Malicious file execution

DB server
DB information leak

Web server
Website exploitation

Customer PC
Malicious code dissemination

The 2nd General Assembly of World
12-13 November 2012 | Ba

Agenda 5

Appointment of
Vice President Cities

About WeGO
World e-Governments Organization
of Cities and Local Governments

WeGo (World e−Governments Organization of Cities and Local Governments) is an international organization which aims to pursue the sustainable development of cities worldwide through the promotion of exchanges and cooperation to develop their respective electronic governments. As of the end of 2013, 72 cities worldwide have joined the organization.

<u>01</u> *International Body Initiated by Seoul for the Development of e-Governments Worldwide*

The inaugural general assembly of WeGO was held in Seoul on September 6-8, 2010. The Statute of WeGO was determined, and Seoul was elected as the first president city. A total of 8 cities constituted the presidency and vice presidency with 15 making up the Executive Committee. Barcelona, Spain played host to the 2nd general assembly held on November 12-13, 2012. Seoul was reelected as the president city, with 8 president/vice president cities and 20 Executive Committee cities elected. The 3rd general assembly is scheduled to be held in Chengdu, China in November 2014.

**3rd WeGO
General Assembly**

Period I 3-6 November 2014
Place I Chengdu, China
Attendees I Member cities, non-member cities, and representatives of international bodies
Program I Opening ceremony, awards ceremony, agenda discussions, workshops
Meeting Agenda I Election of president city and members of Executive Committee, decision on the next assembly venue, approval of new member cities, and other pending issues

<u>02</u> *WeGO Member Cities by Region*

- 74 cities in 47 countries across 6 continents

Asia (26 cities) — Agra, Bangkok, Batam, Baubau, Chengdu, *Da nang, Dhaka North City, Dhaka South City, Galle, Hong Kong, Hunan Province, Islamabad, Jakarta, Kathmandu, Manila, Nanjing, Ningbo, Quezon, Saga Prefecture, Seberang Perai, Seoul, Sri Jayawardenapura Kotte, Thua Thien Hue, Zhejiang Province, Ulan Batur *Birganj

Oceania (2 cities) — Suva, Mosman

America (6 cities) — Buenos Aires, Caracas, Edmonton, Mexico City, San Francisco, Sao Paulo

Europe (18 cities) — Ankara, Antakya, Astana, Baku, Barcelona, Berlin, Bucharest, Frankfurt, Helsinki, Issy-les-Moulineaux, La Manche, Lisbon, Minsk, Paris, Rotterdam, Tashkent, Ulyanovsk Region, Vladivostok

Middle East (4 cities) — Abu Dhabi, Hebron, Muscat, *Erbil

Africa (18 cities) — Addis Ababa, Dakar, Dar es Salaam, Elkhawai Locality, Gauteng, Harare, Hasahisa Locality, Kassala State, Khartoum State, Maputo, Nairobi, North Kordofan State, Sennar State, Shaikan Locality, Tunis, Umelgoura Locality, *White Nile State, *River Nile State

* : associate member

03 What is WeGO?

Official Name

World e-Governments Organization of Cities and Local Governments

Goals

Exchanges & cooperation on e-government among cities worldwide

Narrowing of the digital divide among cities worldwide

Establishment of an e-government cooperation model for cities worldwide

Dissemination and sharing of e-government best practices

Member Cities

69 full member cities, 5 associate member cities

Progress

2014 3rd WeGO General Assembly
venue : Chengdu, China

2012 2nd WeGO General Assembly venue : Barcelona, Spain
Attendees : About 500 including mayors and delegations from 52 cities worldwide
Outcome: Selection of chair, vice chair, and other executive cities, organization of the awards ceremony, determination of venues for the 2013 Operations Council Meeting and 2014 General Assembly

2010 WeGO Inaugural General Assembly venue : Seoul, Korea
Attendees: About 1,000 including mayors and delegations of 50 cities worldwide
Outcome: Selection of chair, vice chair, and other executive cities, approval of rules, and determination of venues for the 2011 Operations Council meeting and 2012 General Assembly

2009 World Cities CIO Forum venue : Seoul, Korea
Attendees: About 1,000 including CIOs of 42 cities worldwide
Outcome: Reconfirmation of WeGO's establishment and agreement on the venue of Inaugural Assembly(Seoul) in 2010

2008 World e-Government Mayors' Forum
venue : Seoul (July 7-9)

Attendees: 1,070 including mayors and delegations of 33 cities worldwide
Outcome: Adoption of "Seoul e-Government Declaration"

Edmonton

San Francisco

Mexico City

Caracas

Sao Paulo

Buenos Aires

<u>04</u> *Major Projects and Programs of WeGO*

IT Consulting for Overseas Cities on e-Government Feasibility Studies

Contents | Building action plans, development of information technologies, conducting technical and economic feasibility studies - then analyzing the expected effects based on the relevant rules and regulations - and surveys of current technical competencies in connection with the establishment of e-Government and IT systems in the public sector

Target | WeGO member cities

Goals | ▶ Share Seoul City's experiences and know-how in the development of e-government
▶ Boost international recognition of Seoul City through the successes of WeGO and the city's expanded roles in the organization
▶ Promote domestic IT companies' overseas advancement

Procedures | ▶ Submission of candidate cities' application to the secretariat
▶ Selection of cities and service provider companies
▶ Implementation of projects in selected cities ▶ Presentation of F/S outcomes

Progress

Year	Project	Cities	Period
2007	e-Government Consulting (F/S)	Hanoi, Nairobi	'07.9~'07.12
2009		Kathmandu	'09.6~'09.8
2010		Dar es Salaam	'10.10~'11.1
2012		Ulaanbaatar, Buenos Aires, Dar es Salaam	'12.7~'13.1
2013		Maputo, Addis Ababa	'13.1~'13.12

WeGO-World Bank Joint Projects

Since the signing of an MOU in June 2011, WeGO and the World Bank have jointly carried out the development of e-Government Diagnostic and Solution Framework. WeGO member cities can utilize the toolkit to establish their own e-government system in the mid-to long-term.

e-Government Training for WeGO Members

Venue ｜ Seoul Human Resource Development Center

Frequency ｜ Once or twice a year

Target ｜ Public officials from WeGO member cities

Curriculum ｜ Lectures on e-governments, field trips, Korean traditional culture experience programs

- Introduction of Seoul e-Government and WeGO, Seoul u-city, Seoul City ITS
- Field trips to Eunpyeong-District Office, Cyber Terror Response Center, and Seoul TOPIS

Year	Participating Cities	Person	Period	Place	Curriculum
2011	(9 cities) Batam, Jakarta, Mexico City, Muscat, Nairobi, Dar es Salaam, Chengdu, Hunan Province, Bucharest	13	9.4~9.10	Seoul Human Resource Development Center	Lectures on e-governments and field trips
2012 (session 1)	(5 cities) Mexico City, Nairobi, Maputo, Hasahisa, Dares Salaam	7	5.29~6.6		
	(11 cities) Mexico City, Bucharest, Nairobi, Muscat, Hunan Province, Addis Ababa, Maputo, Ulaanbaatar, Dar es Salaam, Khartoum, Um El Gura	19	7.1~7.7		
2013 (session 2)	(12 cities) Barcelona, Chengdu, Muscat, Maputo, Seberang Perai, Ulaanbaatar, Khartoum, Hebron, Shaikan Locality, Ankara, Ulyanovsk Region, White Nile State	18	6.23~6.30		
	Total number of trainees	57			

WeGO Awards

Application Period ｜ (1st) Feb. ~ Nov. 2011 (2nd) Nov. 2013 ~ Nov. 2014

Eligibility ｜ Any cities as well as public organizations and agencies around the world

Award Areas ｜ Ten prizes in five categories

(Best e-Government Prize and Outstanding e-Government Prize per area)

※Five categories include Services, Efficiency, Open City, Urban Management, and Digital Divide.

Award Ceremony ｜ Every two years at the WeGO General Assembly

Privilege ｜ Award plaque and PR on awardees' cities

1st WeGO Awards' recipient cities

Category	Prize	Winner	Winning Project
Services	Best e-Government Prize	Surrey, Canada	Mobile Building Inspections
	Outstanding e-Government Prize	Taipei, Taiwan	Taipei 1999 Citizen Hotline
Efficiency	Best e-Government Prize	Bangalore, India	GIS Based Property Tax System
	Outstanding e-Government Prize	Uskudar, Turkey	Super Service System
Open City	Best e-Government Prize	Helsinki, Finland	Open Helsinki – Accessible Services
	Outstanding e-Government Prize	Abu Dhabi, UAE	Abu Dhabi Spatial Data Infrastructure
Urban Management	Best e-Government Prize	Sabadell, Spain	Sabadell Ciutat Intelligent, Smart City
	Outstanding e-Government Prize	Malatya, Turkey	Malatya Municipality Infrastructure Information System
Digital Divide	Best e-Government Prize	Buenos Aires, Argentina	Wi-Fi in Public Spaces
	Outstanding e-Government Prize	Gyeongsangbuk-Do, Korea	Bridging th Digital Divide

[1st WeGO Awards Ceremony in Barcelona on November 12-13, 2012]

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Q&A

Q1. Many cities are faced with diverse obstacles in their efforts to establish and implement reasonable e-Government development policies. How has Seoul overcome its difficulties and proceeded with its policy establishment and implementation?

In just 30 years, information technology has become inseparable from all facets of our lives including politics, economy, industry, and culture. In fact, information technology is now the biggest driving force behind the rapid changes and innovations in all sectors across the world. The citizens of Seoul have accepted the new technology probably more enthusiastically than those of any other city in the world. They use the latest digital devices with the support of the fastest Internet services almost round the clock. Over the years, the Seoul Metropolitan Government (SMG) has had to meet citizens' demand for increasingly complicated digital services in all areas of its public services ahead of any other city in the world. SMG has worked diligently to meet the challenges; it now interacts with many of its citizens in real time. It has digitalized almost all of its public services, and the efficiency in public services has remarkably improved through the incorporation of information communications technology into the city's public services in recent years. SMG is striving to upgrade its digital public services through the use of big data, delivery of public services on mobile devices, development of spatial information-based, tailored public services, and sharing of data with its citizens as much as possible based on the principle of "Open Data."

Case 1 Lack of communication network infrastructure → Establishment of fiber optic networks

In 2003, SMG expanded the Seoul Data Center, its IT service headquarters, and began to integrate the vast number of information systems. Currently, 477 information systems in all of its public service areas including urban planning, culture, tourism, transportation, and housing are strongly interconnected and well-orchestrated into a single system. To connect the 35 major institutions across the city, SMG has built "e-Seoul Net," its own fiber-optic communication network, through the city's well-connected subway networks, the first in the world. For citizens to use its public services anytime, anywhere, SMG has established "u-Seoul Net" as its backbone for the further integration and convergence of its public information, providing convenient access to Internet, audio, and video services.

Case 2 Demands for information disclosure from the civic society → Disclosure of information based on the principles of engagement, communication, and sharing

SMG pursues "open government" based on the principles of engagement, communication, and sharing. Through its "Open Data Plaza," it has disclosed almost all of its information systems - more than 400 - except a few legally banned disclosure cases. It makes information on its policymaking processes available to citizens, including text and video information on its meeting discussions in all of its public service areas such as transportation, public facilities, and environmental protection efforts. SMG runs a website titled "Ten Million Oasis Imagination" wherein ten million citizens are invited to express their views or make suggestions to make Seoul an oasis in a desert when it comes to citizens' engagement in municipal governance. SMG has restructured its website into a CMS-based one - an open site encouraging citizens to participate actively in municipal governance. Any city official can post his/her blog message on the website and its web pages are spread through SNS enabling citizens to directly make comments on them.

Case 3 IT environment changes -> Realization of mobile Seoul

SMG has created free WiFi zones in key public places such as plazas, parks, markets, and shopping districts. It has also provided free battery charging services in its key public facilities and during periods of major events and festivals so that citizens can access mobile services without interruption. SMG runs the "120 Dasan Call Center" which offers assistance to citizens in virtually any area they want by phone, computer, or mobile device round the clock. On the average, the center deals with 34,000 calls a day.

Q2. Compared to other cities in the world, does Seoul have its own, unique e-Government development model? What innovative policy or technology does it have that deserves global attention?

The SMG focuses on the promotion of an information and data-centered scientific, innovative new city information culture, moving a step beyond the establishment of traditional information technology infrastructures, and promotes new strategies to meet citizens' diverse demand.

Case 1 Big Data-based Public Service

SMG signed an MOU with KT, one of the country's three mobile carriers, in April 2013 to use the company's huge mobile phone call data for its new night bus services in combination with its own transportation data. It divided Seoul into 1,252 one-kilometer-diameter cells and analyzed the distribution of a total of 3 billion phone calls over the areas between midnight and 5 am and came up with the visualization of the density of floating population in the areas during such hours. After carefully analyzing the data, SMG was able to come up with optimal routes for the city's first night bus services. SMG also used the data to decide different bus operation intervals depending on the days of the week. It calculated the exact number of bus riders for each bus stop and reflected the difference on the thickness of lines on a map. It is a practical and innovative example of using scientific and reliable big data provided by both private and public sector and shows how big data can be used to solve urban issues.

Case 2 Mobile Seoul

SMG provides 60 real-time services in 11 categories such as bus and subway operations, cultural events, employment opportunities, real estate information, and public services at Mobile Seoul (m.seoul.go.kr). In 2013, SMG upgraded the website to enable citizens to easily access the most frequently used services and to engage in and suggest opinions on municipal governance. Citizens can check GPS-linked information of their neighborhoods wherever they are, including free WiFi, handicapped-accessible facilities, unmanned certificate-issuing equipment, and construction sites on "administrative maps."

Case 3 Spatial Information Services

Approximately 80 percent of administrative information is deemed related to space. Citizens' demand for location-based services kept rising in line with the developments of ICT. Based on its accumulated GIS data, SMG is promoting the "Seoul-type Map Tagging," which incorporates location information into its existing public information. SMG is working on "Spatial Data Modeling for 3D GIS" for all of its subway stations, public buildings, and key private facilities. Such information is critical to its efforts to make the city much safer by helping citizens escape from disasters in advance and enabling rescuers to make wiser decisions in critical moments.

Q3. What are some examples of promoting communication with citizens through utilizing the world's best information technologies?

As one of the most advanced digital governments in the world, SMG has been making its efforts to create more advanced IT environment which is citizen-oriented and civic life-centric.

Case 1 Operation of the Seoul Social Media Center

SMG runs the Seoul Social Media Center (SMC) on an SNS-integrated platform. Through citizens' engagement via social media like Twitter and Facebook, the city of Seoul has seen a paradigm shift in the municipal government's public services. The center has integrated a total of 44 social media accounts including that of the mayor so that citizens' opinions and requests on the center website can be delivered to and acted upon by the relevant departments as soon as possible. All the details of interaction between the citizens and public servants are disclosed to the public. Furthermore, the center sends out emergency messages - including weather and transportation alerts -to citizens in emergency situations. It plays a role of a communication window between the city and its citizens.

Case 2 M-Voting for Citizens' Mobile Engagement

SMG launched M-Voting, a mobile voting system, in February 2014 to hear citizens' voices on its diverse policies and reflect them in the policies more systematically. Citizens can vote on major policy issues anytime, anywhere within a given period of time using computers or via their cell phones. SMG will continue to expand citizens' engagement in municipal governance on a scale never before seen through the implementation of its M-Voting platform.

Q4. What are some examples of Seoul's collaboration with overseas cities in the area of e-Government. What type of technologies and/or policies have Seoul shared with them?

SMG has worked hard to share its e-government experiences and know-how with overseas cities on a bilateral and multilateral bases.

Case 1 Bilateral Cooperation

SMG has signed memoranda of understanding with the following cities, institutions, and multinational organizations regarding cooperation on e-government: Moscow (Russia) and Ulan Bator (Mongolia) in 2005; Ankara (Turkey) and Nairobi (Kenya) in 2007; Astana (Kazakhstan) and Taipei (Taiwan) in 2008; Barcelona (Spain), La Manche (France), and Kathmandu (Nepal) in 2009; Dar es Salam (Tanzania) in 2010, and; EAC (East African Community), United Nations, and NCDG (National Center for Digital Government) of the USA in 2011. Representatives of the aforesaid city governments and organizations have visited Seoul to learn all about Seoul's e-government systems and practices.

Furthermore, SMG has expanded its services to feasibility study for overseas cities. Specifically, it conducted e-government feasibility studies for Ulan Bator, Buenos Aires, and Dar es Salam in 2012 and Maputo (Mozambique) and Addis Ababa (Ethiopia) in 2013. Through an MoU with the World Bank, SMG began to develop the "E-Government Self-Diagnosis Toolkit" in 2013 as a joint project between the bank and the city government. Once completed, the kit will be instrumental in the building of e-governments by many cities around the world, improving their public services to people.

Composition of the Self-Diagnosis Toolkit

Sheet #	Composition	Name of sheet	Function/composition
Sheet 1	Introduction	Introduction	Full concept of the toolkit with chart
Sheet 2	Investigation of city e -Gov.	6 dimensions maturity analysis	Investigation of internal capacity & external environment of city e-Gov.
Sheet 3		System analysis	Investigation of e-Gov. system in 4 main categories of city
Sheet 4	Diagnosis of city e-Gov. (Result & Analysis)	City e-Gov. Maturity model	Final Outcome of overall city e-Gov. maturity score and level.
Sheet 5		Specific level by 6 dimensions	Final Outcome of 6 dimensions of city e-Gov. maturity score and level.
Sheet 6		Progressive system map	Final Outcome of city e-Gov. system's existing and utilization.
Sheet 7		Gap analysis	Final Outcome of city e-Gov. system's Gap of existing and utilization.

Case 2 **Multilateral Cooperation: Its initiative for WeGO**

SMG took the lead in the adoption of "Seoul e-Government Declaration" for the establishment of WeGO (World e-Government Organization) at the "E-Government Mayors' Forum" held in Seoul in 2008. In 2009, SMG presented specific plans for WeGO at the "World City CIO Forum" held in Seoul. In 2010, WeGO held its inaugural conference in Seoul. WeGO has a total of 72 city governments across the world as its members as of the end of 2013. The second biennial conference was held in Barcelona, Spain in 2012, and the third meeting will be held in Chengdu, China in November 2014. WeGo works hard to bridge the gap in e-government services across the world by sharing leading cities' experiences and know-how with others.

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