I·SEOUL·U

SUSTAINABLE SEOUL SMART CITY

: Seoul e-Government

SUSTAINABLE
SEOUL
SMART CITY

: Seoul e-Government

CONTENTS

PREFACE

Seoul, located in the center of the western part of the Korean Peninsula, is a metropolitan city with excellent natural environment with 41.5km of Han River passing through the city. Seoul has been the Korean capital for 600 years and the center of politics, culture and economy of Korea, accounting for 23% of the Gross Domestic Product (GDP). Just merely 60 years ago, Seoul was in the ruins and ashes of war. It was one of the poorest cities, as the GNP per capita was only 82 dollars. However, Seoul has risen from the ruins of the war, and went through rapid urbanization in an extremely short period of time. Now the city became a world-class metropolitan city where over 10 million people call home. The city has now become a sustainable smart city with the ability to solve diverse urban problems such as housing, water and sewage, garbage, transportation and welfare.

Seoul has won the first place seven years in a row in a "Global e-Government Survey", sponsored by the United Nations and ranked by Rutgers University. According to the UIA (Union of International Association), Seoul holds the third largest number of international conferences in the world and sixth place in the Global Power City Index. In addition, Seoul is the founding and President city of the World Smart Sustainable Cities Organization (WeGO) and a member of OGP (Open Government Partnership). Seoul is leading the global smart cities based on state-of-the-art IT environment, infrastructure and solid administrative system, providing citizens with participation, communication and sharing−oriented public services.

Efficient and convenient urban & ICT infrastructure is the basis for building Smart Cities. The Seoul Metropolitan Government(SMG) built the world's first e-Seoul Net, which uses the subway tunnels in 2003. This enabled the SMG to expand the administrative information distribution system and provide transparent and rapid public services to Seoul citizens. In 2011, the SMG built a high speed communication network (u-Seoul Net) to efficiently operate data networks such as the internet, traffic and CCTV. The SMG provides the citizens with CCTV for safety, Public WiFi for network connectivity and various wired and wireless services based on the ICT infrastructure.

The SMG places great importance on communication, openness, sharing and cooperation. SMG's administrative philosophy is "Citizens are the mayors." and it tries to design and implement all policies based on civic participation. IT technology has served as an important means to implement this administrative philosophy. In particular, a high penetration of smart devices (over 90%) as well as rapid expansion of social media has made a great contribution to improving civic access to policies.

The SMG has achieved cooperative governance that solves urban problems with citizens by laying a framework that encourages citizens to express their opinions and participate in public administration more actively. Seoul citizens have participated in public administration more actively than in any other city across the world, through various on/offline channels such as mVoting, 120 Call Center, Seoul Smart Complaint Report and Democracy Seoul. Citizens present the SMG with as many as 25,000 submissions of opinions or suggestions a day through phone calls, social network, homepages, smart phones, etc. The SMG now utilizes the data as a basic material for determining a policy direction and setting priorities.

The SMG has disclosed and shared all its information through an information disclosure platform called "Information Communication Plaza (http://opengov.seoul.go.kr)" since 2013 and supported private sectors in developing new services that citizens want by disclosing 4,500 highly usable public data sets in the form of excel, chart, API and graph through the "Seoul Open Data Plaza (http://data.seoul.go.kr)" since 2012.

Also, the SMG has managed various big data for city management through 490 administrative systems including transportation, safety and welfare. It has integrated and analyzed its own data and civic and private enterprise data in order to set rational, evidence-based policies. For example, the SMG planned out late-night (owl) bus routes by collecting and analyzing 3 billion call data in cooperation with telecommunication companies in 2013 and built speed bumps and set up no jaywalking signs as well by analyzing 140 billion traffic data.

As cities around the world have embarked on a journey of creating smart cities that maximize efficiency and effectively tackle urban challenges, we hope that this booklet which contains Seoul's smart city strategies can contribute to developing sustainable smart cities in the world and give a direction for the development of other cities.
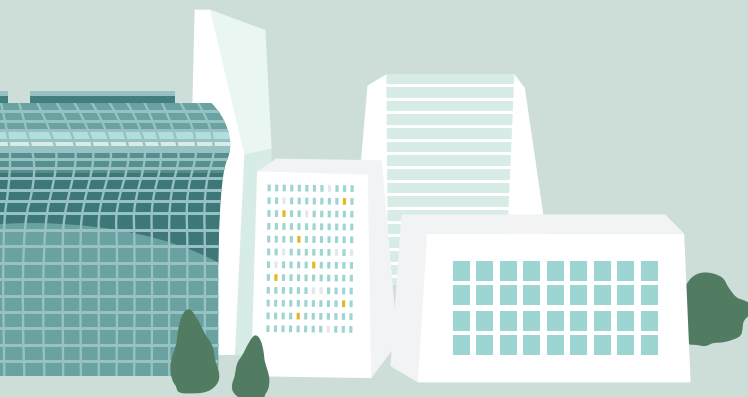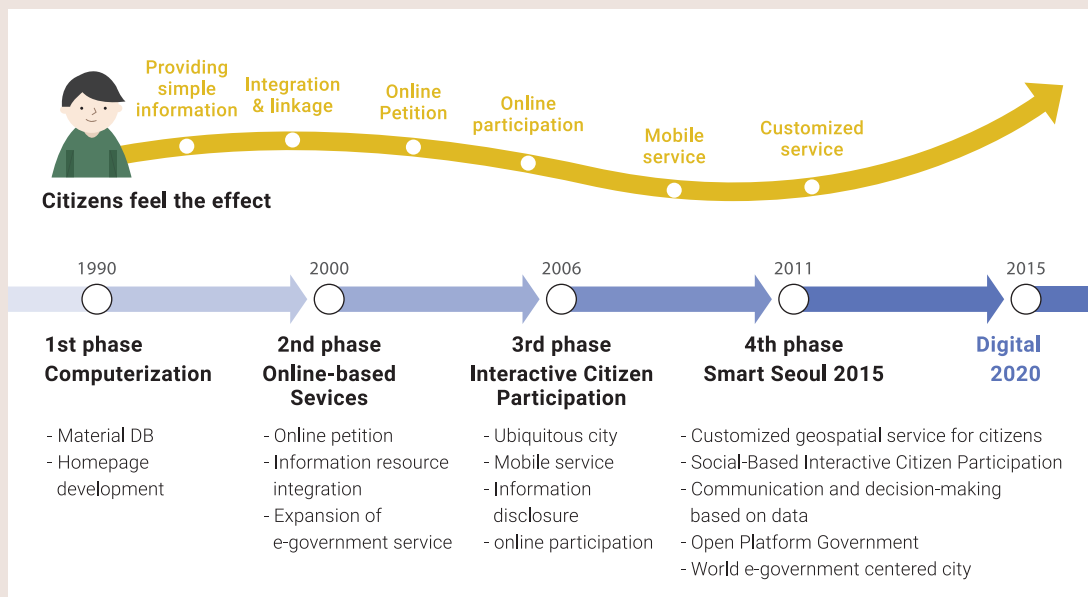
History of Seoul Smart City

The Seoul Metropolitan Government(SMG) has now established numerous projects to pave the way in becoming a Smart City, but it was not the concept the SMG pursued right from the beginning. However, thanks to the initially adopted ICT infrastructure, the SMG has put various efforts based on the municipal philosophy, such as citizen's participation through communication channel and public-private governance led Seoul to become a world-class Smart City.

From the perspective of using digital technology to improve the quality of life of citizens and to make the city and citizens smarter, Smart City Seoul started with e-government development in the 1990s. Since the 1990s, the demand for computerization (digitalization) of the Seoul Metropolitan Government administrative affairs has increased steadily. Therefore, e-government development has progressed at the national level. In particular, the central government designated information and communication business as the new generation of national growth power. In 1995, as the Basic Informatization Promotion Law passed the National Assembly, the Seoul Metropolitan Government could accelerate the development.

Under this background, the Seoul Metropolitan Government established "Regulations on Seoul City Basic Information" and the "Seoul Digital Administrative Promotion Ordinance". Every five years, the Seoul Metropolitan Government has established the digital master plan, reflecting and developing the city's digital smart city policies. With the enactment of the laws, the Seoul Metropolitan Government has gone through the rapid process of informatization, providing the citizens with more abundant services, leading them to participate and achieve e-democracy. The following is a description of the gradual process of informatization of Seoul in the last two decades.

1990	2000	2006	2011	2015
1st phase **Computerization**	**2nd phase** **Online-based Sevices**	**3rd phase** **Interactive Citizen Participation**	**4th phase** **Smart Seoul 2015**	**Digital 2020**
- Material DB - Homepage development	- Online petition - Information resource integration - Expansion of e-government service	- Ubiquitous city - Mobile service - Information disclosure - online participation	- Customized geospatial service for citizens - Social-Based Interactive Citizen Participation - Communication and decision-making based on data - Open Platform Government - World e-government centered city	

1st phase(1990-1999) : Computerization (Seoul Informatization Basic Plan)

With the introduction of computerized equipment, we have established a foundation to utilize information technology. We made a database of administrative documents and created homepage to provide administrative information and public services.

2rd phase(2000-2005) : Online-based Services (Seoul Informatization Master Plan)

Various information resources were integrated and provided online. City homepages were integrated into a single interface base in the viewpoint of the citizens. e-Seoul Net which connects the Seoul Metropolitan Government and 35 related organizations with high-speed optical cables was established in 2003. By opening the Seoul Data Center in 2004, a project for establishing an integrated infrastructure for the Seoul information resources that unifies the computer rooms scattered across the organization was pursued.

3rd phase(2006-2010) : Interactive Citizen Participation (U-Seoul Master Plan)

Web2.0, which aims at participation, sharing, and opening, was introduced.. Online citizen participation through '10 Million Imagination Oasis' and the like, was innovatively expanded. By linking with the mobile environment, the mobile portal m702, with which one can participate at anytime and anywhere, was established. And, for the safety of the city, the administrative services based on space information and intelligent city management was pursued. The Seoul Metropolitan Government created a wireless infrastructure and the Security Control Center.

4th phase(2011-2015) : Smart Seoul 2015

As the development stage of smart administration, 'Smart Seoul 2015' has begun. ① World-best smart technology using city ② Smart administration communicate with citizens ③ Future city life infrastructure ④ Creative Smart economy ⑤ Various smart city projects aiming to become global culture city. As the result, the public WiFi has been expanded and geospatial information on mobile has been grown. The Love PC donations, education on smart information and services are continuing to reduce the information gap between socially vulnerable, such as the elderly, handicapped and housewife.

5th phase (2015-2020) : Digital 2020

The five-year plan for Seoul to become the "Global Digital Capital" has been established. The followings are the efforts being made by the Seoul Metropolitan Government to cover all the areas of municipal administrations together with citizens through the digital technology.

① 'Social Seoul City', communicate and create with citizens
   Achieve 50% of digital project led by citizens. Established Big Data Campus in 2016 and cooperate with private sector.
② Invigorating the digital economy by supporting the digital industry
③ Realize a golden hour in disaster response and establish integrated service linking with "Visiting Community Service Center"
④ 'Global Digital Leader', leading and the best in utilizing the cutting-edge IT technology
   Create 50 IoT testbed areas and realize living-lab city by connecting the whole city by 2020.
   Establish Cloud Center in 2016, finish the public WiFi network installation and enhance overseas exchanges and cooperation with other cities by 2018.

Principles for Sustainable Smart City

I·DIGITAL·U
SEOUL

LED BY CITIZEN

1 Citizens imagine services and Seoul delivers them
The development of digital services should start from the need of the citizens and the services should be easy to understand and use.

2 Abide by principles of openness, sharing and communication
The SMG opens all possible public data, share administrative information with citizens and drives better outcomes based on communication.

3 What private companies can do better, let them do it
Instead of getting involved in areas that private sector can make profits and do well, the SMG focuses on doing things that public sector must do such as supporting underprivileged groups.

DIGITAL ECONOMY

4 Improve the economy of Seoul through digital technology
The SMG develops a new growth engine by promoting interdisciplinary approach between different areas based on digital technology and supports the sustainable digital ecosystem for fostering creative minds.

INNOVATIVE SOLUTION

5 Adapt new digital tech preemptively
The SMG tries and applies new digital technologies to each field of city administration before any other cities in the world.

6 Act logically based on data
The SMG makes plans and decisions based on data and even evaluates the results based on data.

7 Collect, fuse and develop digital experiences
The SMG makes and implements digital policies based on the collected knowledge of its people and accumulates the policy results to further improve the policies.

GLOBAL LEADER

8 Share Seoul's digital experiences with the world
The SMG shares knowledge and cooperates with global cities around the world for sustainable development of cities.

Seoul Metropolitan Government's
Main Policies and Projects
for Sustainable Smart City Implementation

Convenient and Safe Seoul with Cutting-edge IT infrastructure

High Speed Communication
   Network System
Seoul Public WiFi
TOPIS
CCTV Integrated Control Center

The city of Communicating, Sharing and Participating, Seoul

Eung-dap-so
Democracy Seoul
Seoul Smart Complain Report
120 Dasan Call Center
mVoting
Seoul Geospatial Platform
   - Seoul's Map-tagging
Seoul Information Communication Plaza

Seoul is Adapting the Cutting-edge technology to solve urban problems.

Open Data Plaza
Big Data Campus
Evidence-based Governance
   Utilizing Big Data
   : Late Night Bus (Owl Bus)
The Commercial Area Analysis Service
Digital Civic Mayor's Office
Seoul IoT Project

Improve with the world. Cooperate with Seoul.

WeGO
Seoul Digital Summit

01

SEOUL HIGH SPEED COMMUNICATION NETWORK
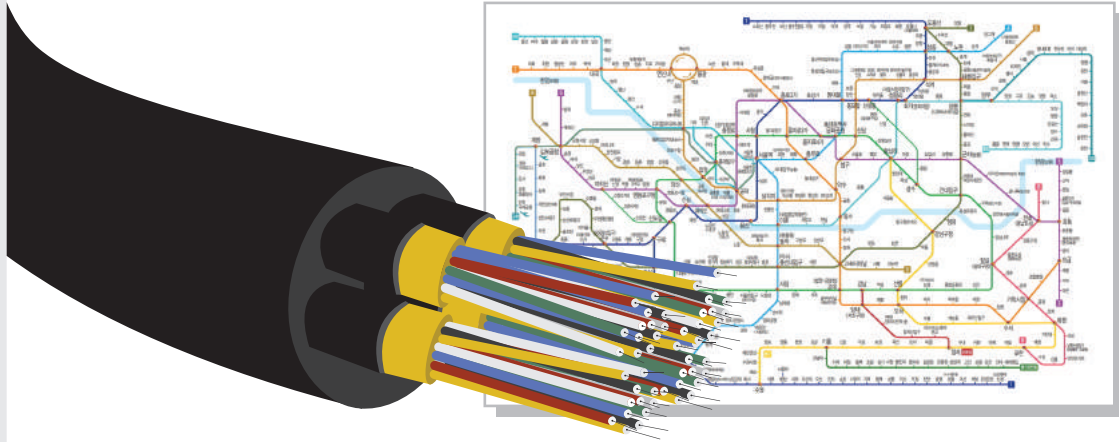
INTRODUCTION

The Seoul Metropolitan Government's own exclusive ultra high-speed communication network was built to connect the city hall, related administrative agencies, and 25 district offices for stable administrative communication and provision of public services.

DETAILS

BACKGROUND

Prior to the operation of Seoul high-speed communication network, it was costly to lend the fiber optical cables from the telecommunication companies and difficult to cope up with security issues and the increasing data transmission. In order to solve these problems, the Seoul Metropolitan Government has built an ultra high-speed communication network and it has served as an essential infrastructure for the Seoul Metropolitan Government to implement robust smart city projects.

MAJOR FEATURES AND FUNCTIONS

The Seoul high-speed communication network consists of e-Seoul Net and u-Seoul Net.

e-Seoul Net is an administrative communication network using subway tunnels, the first of its kind in the world, which delivers administrative services and civil complaints information such as e-approval, labor affairs, etc. 180-kilometer fiber optic cable was embedded along Seoul's subway tunnels for the operation of e-Seoul Net.

u-Seoul Net is a comprehensive service network that provides various public services. It consists of the u-Service network which connects the websites of SMG public offices, u-Wireless network for free public WiFi services and CCTV network for transmitting CCTV feeds. 192-kilometer fiber optics were laid in 2011 for the operation of u-Seoul Net.

1 Reduced costs for network operation

The cost for using network systems such as the internet and dedicated circuit is reduced.

2 A cost-friendly network system with subway tunnels

The Seoul Metropolitan Government was able to embed 115-kilometer optical cable out of a total of 180 kilometers utilizing the subway tunnels at a mere 500 million won. The ground section was also laid with minimum digging. A total of 31.2 billion won was saved; 29.7 billion won of land excavation cost, and 1.5 billion won of cable burial.

3 Advanced Multimedia Work System

Realtime video transmission enabled by the high-speed communication network allows urgent meetings to be held and shared through video and civil complaints to be handled anytime anywhere. It is also used to provide GIS, traffic, and culture-related information as well as metropolitan city governance live streaming and disaster prevention.

e-Seoul Net

u-Seoul Net

10G
10G
10G
10G
20G
10G
10G
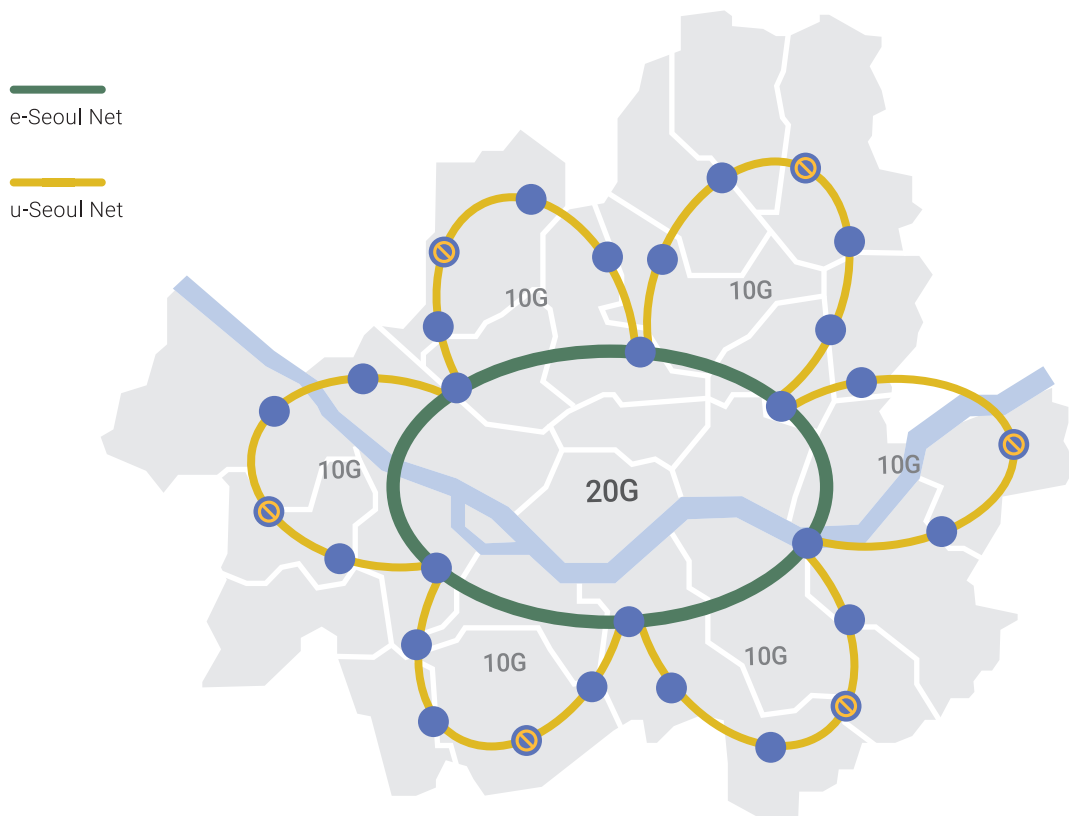
DIRECTIONS

As we greet the Smart Age, Seoul Metropolitan Government will provide stable civil services by developing further the high-speed communication network infrastructure.

SEOUL PUBLIC WIFI

INTRODUCTION

The Seoul Metropolitan Government(SMG) offers free public WiFi in major public places such as subways, parks, open markets, tourist places and public facilities.

DETAILS

⬡ BACKGROUND OF THE SERVICE

As the internet era in which everyone is connected for 24/7 has come, the SMG decided to provide free WiFi atmosphere to ensure citizens' connectivity and accessibility to information and bridge the digital divide among citizens.

⬡ METHODS

The SMG selects areas with huge floating population for WiFi installation based on big data analysis and cooperates with three major mobile carriers of Korea to provide WiFi services.

Regions with Seoul's communication networks
Seoul's communication network + AP installation and management by mobile carriers
▶ Seoul's budget is spent for operating its own communication network and providing facilities for AP installation.

Regions without Seoul's communication networks
Administrative help from Seoul + Using communication network and AP of mobile carriers
▶ Mobile carriers offer their communication network for free that Seoul's budget is not spent.

✓ **Check for Seoul public WiFi areas**
The areas where Seoul Public WiFi are available can be found on "Seoul Smart Map"

✓ **How to access public WiFi in Seoul**
① Search for Seoul WiFi signals in wireless network settings
② Select "PublicWifi@Seoul' SSID and connect to the WiFi main page
③ Click the WiFi emblem in the middle

RESULTS

There are 10,559 AP (Access Point) installed in Seoul. At 3,584 areas such as large squares, parks, libraries, convention centers are providing public free WiFi. (As of Dec. 2017)

Unit
Number of areas
Number of AP

Year	Number of AP	Number of areas
2011	327	36
2012	730	149
2013	935	288
2014	1,598	499
2015	1,630	660
2016	3,459	1,062
As of 2017 DECEMBER	10,559	3,584
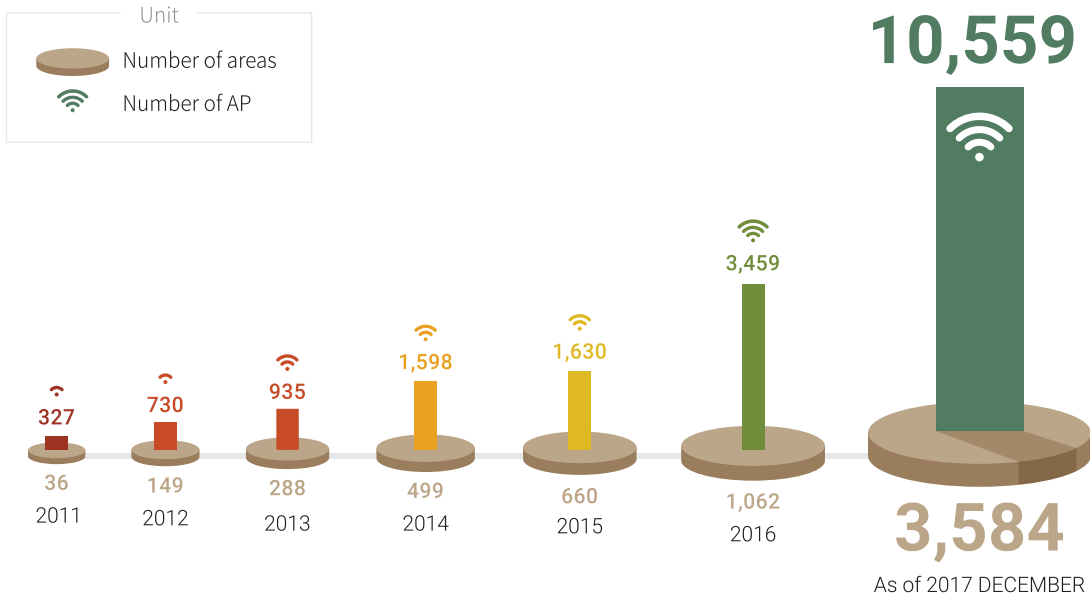
DIRECTIONS

The SMG will make public WiFi available to everyone including domestic and oversea visitors in major public areas and running buses for their digital welfare.

TOPIS

: Seoul Transport Operation and Information Service

INTRODUCTION

Seoul TOPIS (Seoul Transport Operation and Information Service) is the name of an intelligent transportation system, introduced in 1998 by the Seoul Metropolitan Government to solve the urban transportation problems efficiently. TOPIS manages the emergency situations such as disasters and wartime as well as traffic as a center for the 'Smart City Management'.

DETAILS

BACKGROUNDS

As the income has increased since the 1980s, the number of cars and various public transportation in Seoul has increased rapidly. The Seoul Metropolitan Government needed to create the convenient and safe traffic environments in order to manage the complicated traffic systems systematically.
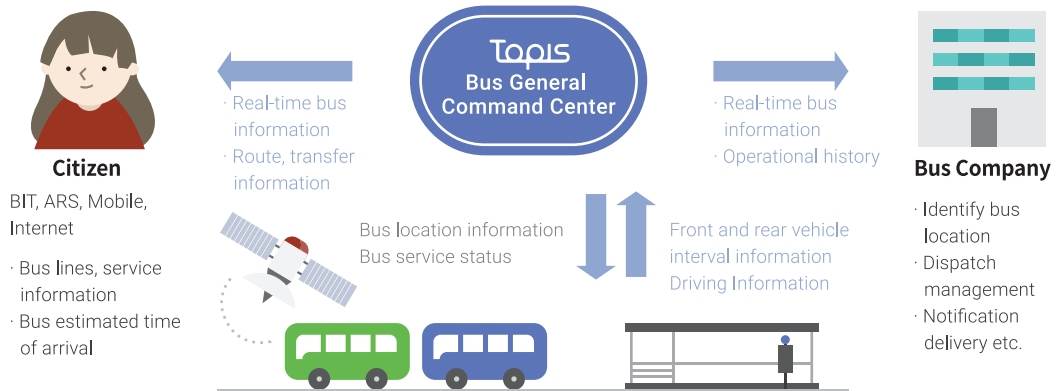
MAJOR FEATURES AND FUNCTIONS

24-hour Transportation, Disaster & Security Integrated Management
With the cutting-edge devices, TOPIS monitors the traffic, disaster and safety-related signals 24/7, minimizing the secondary damages with prompt reactions.

Real Time Bus Operation Management
TOPIS can manage the intervals and bypass of buses based on bus operation information and traffic card data. Citizens can find where the bus is located, the estimated time of arrival and the information on the congestion from Bus Information Terminal (BIT) installed at the bus stop, web and smartphone app.

Citizen
BIT, ARS, Mobile, Internet
· Bus lines, service information
· Bus estimated time of arrival

· Real-time bus information
· Route, transfer information

TOPIS
Bus General Command Center

· Real-time bus information
· Operational history

Bus Company
· Identify bus location
· Dispatch management
· Notification delivery etc.

Bus location information
Bus service status

Front and rear vehicle interval information
Driving Information

Real Time Road Traffic Management

TOPIS provides the traffic information in real time with the traffic information collecting system all over the road of Seoul. It automatically detects abnormal conditions such as vehicle speed change, congestion, etc.. It guides the detour road to prevent congestion in advance with scientific analysis.

Traffic Forecast Using the Big Data.

TOPIS is forecasting the traffic volume and speed with more than 10 years of accumulated data. Citizens can check and plan the best routes with the forecasts on TOPIS homepage or app. Companies are using the open data to create and improve the map and navigation service.

✓ **There are field tour on TOPIS twice a day.**
You can apply for the tour here
: http://topis.seoul.go.kr:8081/renewal/nn2search.html

RESULTS

1 The Real Time Traffic Informations with Various Channels
Daily Users of TOPIS : 2.2 Million per day
- 1.59 Million with 702 BITs, 600,000 with internet, smartphone portal, etc..
- 10,000 Followers on Twitter

2 Integrated Transportation Information
Provides optimized routes with various transportations such as car, bus, subway, bicycles, etc.. Guide the fastest combination of transpotations by comparing time between the routes.

3 Creating Private Service with the Open API
Provide traffic information in a form of open API, thus helping private sector to create various transportation services.

DIRECTIONS

The Seoul Metropolitan Government will keep integrating various kinds of traffic system with TOPIS and converge the information. With the integrated system, we will keep providing the citizens with convenient information from scientific administrative transportation support.

04

# SEOUL CCTV INTEGRATED CONTROL CENTER
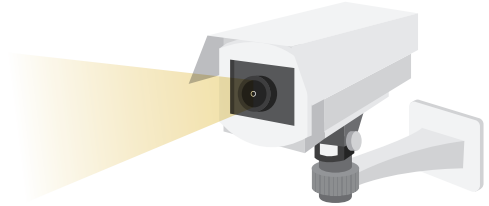
INTRODUCTION

The Seoul Metropolitan Government has a set CCTV integrated control center on every 25 district office to watch crime-prone and vulnerable areas, making a rapid reaction to emergency situations. The real time video information is offered to departments like the fire stations and the police. Thus, the proper departments can make a rapid move for accidents.

DETAILS

⬡ BACKGROUNDS

Raising crimes and accidents are also raising public anxiety. Therefore, the Seoul Metropolitan Government has set a CCTV Integrated Control Center to prevent crimes and make a rapid reaction to emergency situations like disasters.

⬡ MAIN FEATURES AND FUNCTIONS
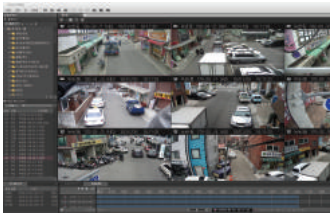
Integrated Surveillance System
The system is instrumental in surveillance operation by monitoring natural disasters like heavy snow and rain, crime prevention, illegal waste dumping and children's protection zones and elementary school zones through 40,000 CCTV cameras all over Seoul and allowing search in the recorded video contents.

GIS system
Since the CCTV cameras are linked to the GIS system, the locations on the video feeds can easily be identified. If a citizen pushes an emergency bell, the alarm bell rings and the CCTV video of the location pops up, allowing quick response.

Parking enforcement
The CCTV camera detects the number plate of an illegally parked car and saves the image, which is later used to mail a parking ticket to the car owner.

✓ Composition of the Integrated CCTV Control System
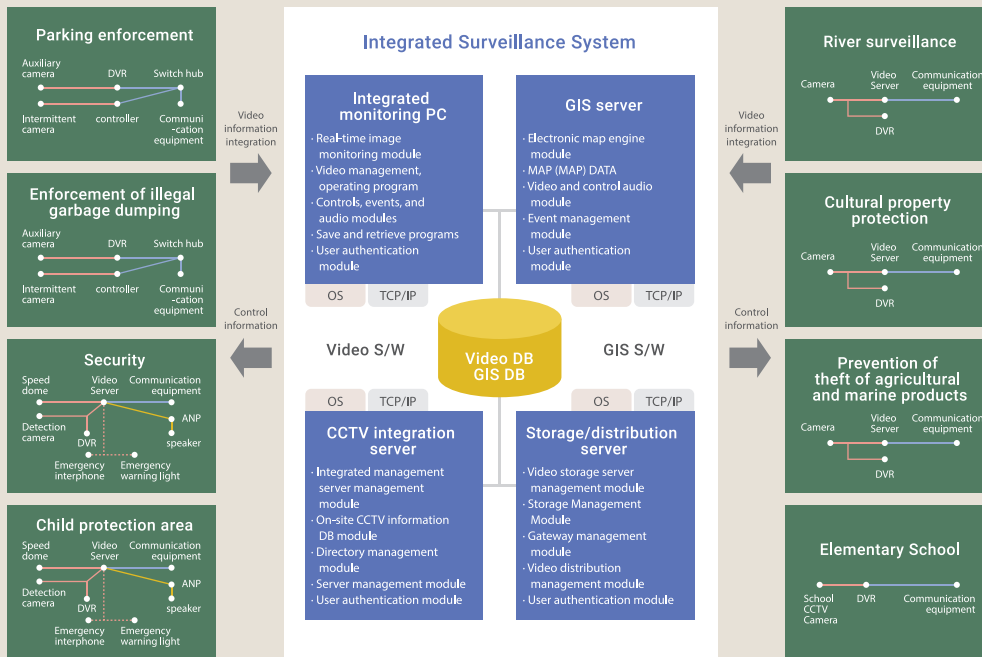
RESULTS

1 Enhance Social Safety Net

With the integrated surveillance system, the Seoul Metropolitan Government has enhanced the social safety net by securing the residential environment and protecting citizens' life and property. From 2013 to 2017, 3,612 video were given to law enforcement and more than 20 violent criminals were captured during real time surveillance. Also, announcements against littering and disorderly behaviors in the parks are provided as well as reinforcing citizen safety measures.

2 Reducing CCTV maintenance costs

Integrated management of CCTVs at the control centers reduced the overall cost by sharing equipment, enhancing operational efficiency, reducing maintenance cost and redundant investment.

Integrated CCTV Control Center for Jongro-gu district, Seoul

DIRECTIONS

The Seoul Metropolitan Government will closely cooperate with the district offices, the police and fire stations to respond quickly to accidents and incidents. CCTV operators will receive continuous training to enhance their capacity. The Seoul Metropolitan Government will make sure that the operation of the CCTV Integrated Control Center will not in any way jeopardize the Personal Information Protection Act.

EUNG-DAP-SO,

An Integrated Civil Complaints Managing System
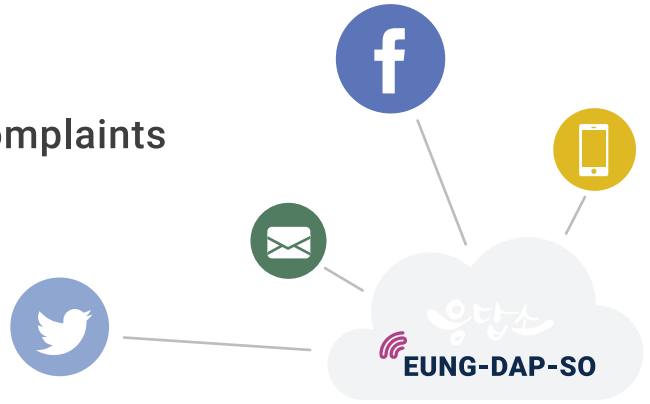
INTRODUCTION

Eung-dap-so, with the aim of enhancing transparency and efficiency in handling civil complaints, has integrated into a single channel, multiple online civil complaint/proposal submission sites that varied by function and by department.

DETAILS

BACKGROUNDS

The Seoul Metropolitan Government is running various civil complaints interface on both online and offline. However, the windows are scattered and incompatible, causing delays, redundancies and omissions. The Seoul Metropolitan Government, having listened to the citizens who wished to file and monitor complaints and suggestions in one system, opened Eung-dap-so, a civil complaint and proposal integrated system in March 2014.

MAJOR FEATURES AND FUNCTIONS
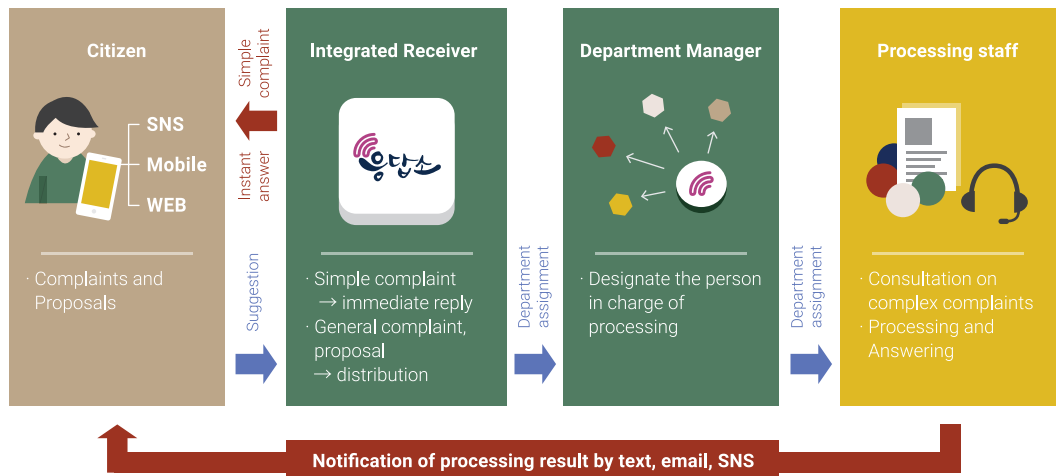
Submitting Complaints and Proposals: Citizens may file complaints and suggestions, report public official corruption, public right violation, human rights violation, raise welfare issues, etc.

Monitor the process

As a general rule, simple complaints are resolved on the day that they were filed. If the complaints need further counsel and advice, the petitioner will be notified with the due date and department in charge. Relevant departments in the City Hall, affiliated offices, and 25 district offices will be routed with the proper complaints and they are required to appropriately respond to the petitioner. The whole process is made transparent on Eung-dap-so and social media.

Visiting Eung-dap-so

From 2015, the Seoul Metropolitan Government has been running the Eung-dap-so Bus which travels through Seoul. The schedule is on the homepage. Citizens can use on-site services such as 1-on-1 expert counseling and issuing various kinds of certificates.

Urgent Message via Social Media

Eung-dap-so sends official messages about the status and response measures taken in emergency situations including disasters to all the citizens who have subscribed to the Seoul Metropolitan Government social media accounts.

Integrating other Systems

Eung-dap-so is a citizen-friendly window for civil affairs. It offers other services like filing a formal objection to the local tax authority, reporting cases of subcontractor irregularity, violation of public welfare, violation of human rights, signing up for a weekend date with the Mayor and Mayor hotline (corrupt officer report).

✓ **Eung-dap-so Homepage**
http://eungdapso.seoul.go.kr

No membership is needed,
can be used on both mobile and PC.

RESULTS

1 Shorten the processing time.
In average, the processing time is reduced by 1.1 days.
(3.8 days ⇒ 2.7 days)

2 Economic, Social Cost-Reduction effect
Annual cost savings are as follows: operational cost of 240 million won with the system integration, social cost of 14.4 billion won by reducing complaint processing time from 3.8 days to 2.7 days, and economic cost of 1.1 billion won by reducing the public officials' workload.

3 Awards
- 2014 KMAC Excellent Cases
- 2015 MOI Government 3.0 Excellent Cases2015)
- MOI Administration Improvement Exhibition Minister Prize
- Daegu City and Dubai also adopted the system

DIRECTIONS

The Seoul Metropolitan Government is increasing the immediate response ratio, by making a database of the complaints. It will resolve repetitive complaints by implementing policies to address the issues and make continuous improvement on customer-friendly services.

DEMOCRACY SEOUL

**Suggested
by Citizen**
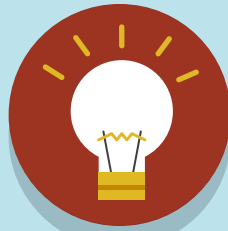
**Decided
by Citizen**

Done by Citizen and Seoul

A Democratic Platform of Seoul

INTRODUCTION

"Democracy Seoul" is an open platform for gathering public opinion on the policies of the Seoul Metropolitan Government. The whole process from suggestion, policy decision to policy implementation is open to the public. The role of the citizen is expanded to the actual administrative executions.

DETAILS

BACKGROUNDS

'Oasis of 10 Million Imagination', the former body of 'Democracy Seoul', which started in 2006, had received 167,000 civil suggestions. However, the citizens could not easily monitor whether and how their suggestions were implemented. To raise the transparency, the Seoul Metropolitan Government moved one step forward. 'Democracy Seoul' was opened in October 2017, allowing visibility into the whole process from suggestion, policy decision to implementation.

Citizen's Suggestions

Suggestion

There are two kinds of suggestions: 'General Suggestion' and 'Dong (Village) Suggestion.' Citizens can either make general suggestions about the overall Seoul Metropolitan Government's policies or they can make specific suggestions about the villages they live in. The suggested policy goes through a 10-day deliberation period after which if the suggestion received many 'likes', it will be transferred to the department in charge. The department in charge spends 20 days to review whether to fully adopt, partially adopt, or reject the suggestion in question. Then, the Seoul Metropolitan Government holds a "meeting for selecting good suggestions" to make a final assessment on whether to adopt it and how viable its implementation would be.

Decision

The "Committee of suggestion execution", composed of citizens, experts and public officers writes an "Execution Report" on the top 10% suggestions collected in three months. This helps the departments in charge prioritize in choosing a project. The final suggestions will be executed together by the Seoul Metropolitan Government and citizens of Seoul.

Execution

It is made public how the adopted suggestion is being implemented. "Democracy Seoul" is not only a window for public suggestions, but a platform for citizens to vote, make policies and perform monitoring.

Questions from Seoul

It is a window for the Seoul Metropolitan Government to ask opinions of citizens. The yay and nay on the policies of the government is publicized in real time, and the government makes its decisions based on the citizens' opinions.

✓ **Democracy Seoul Homepage**
http://democracy.seoul.go.kr

Anyone can propose policies after signing in via mobile and PC.

RESULTS

On average, 240 suggestions are registered a day and debated online. They are expected to go through the selection process and be duly reflected in the policies. 'Oasis of 10 Million Imagination' had reflected the following citizen suggestions in Seoul government policies:

· Development of Discover Seoul Pass
· Han River Park Forest Trails
· Air Quality Signboard at Subway Stations
· Braille Notice of Road Name Address for Visually Handicapped Person

DIRECTIONS

The Seoul Metropolitan Government will share administrative authority with citizens by leading citizens to participate in city governance and decision making. The innovative policies will be introduced and discussed at offline forums such as 'Seoul Policy Expo' engaging the citizens further.

07

SEOUL SMART
COMPLAIN REPORT

Seoul Smart Complain Report is a civil complaint managing system that helps citizens to report the inconveniences on the smartphone app or the homepage.

DETAILS

⬟ BACKGROUNDS

The citizen inconveniences such as parking violations, illegal advertisements and broken concrete pavers are easily found by the locals. These kinds of inconveniences are needed to be fixed immediately. This is the reason why the Seoul Metropolitan Government has adopted the Smart Complain Report system from August 2012.

⬟ MAJOR FEATURES AND FUNCTIONS

Location Based & Photographic Reports

The reporters can upload photos on the app or homepage, or point the location of the inconvenience on the map.

❶ Register Report Location
Need location information agreement in case of find smartphone's location

❷ Upload Photo / Video
Three photos or one video file can be uploaded

❸ Write the Details

❹ Send to report

| App loading screen | Report | Processing result check |

Complaint Result Inquiry

By clicking the Report List, the submitted contents and the results can be checked.

Report on PC

Citizens can easily report inconveniences with the Smart Complain Report homepage.

Sending Text Message of Result

Once the complaint is received, a text message will be sent. After the problem is solved, a message with the photo will be sent.

The Seoul Metropolitan Government also adopted 'Safety Report Reward System' for compensating the citizen's effort to make Seoul safe and clean. The Seoul Metropolitan Government gives rewards for those who reported signs of disaster and negligent accident issues. Every four reported cases are considered one hour of volunteer service (four hours per day maximum).

✓ **Smart Complain Report App**
Available on Google Play Store and App Store

✓ **Report in Smart Complain Report Homepage**
http://smartreport.seoul.go.kr/#page1
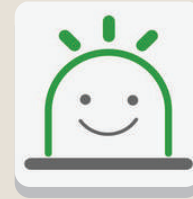
RESULTS

1 **Local environment improvement by the citizens**
Daily reports are more than 1,000. Citizen-found inconveniences are reported, resulting in local environment improvement. Citizens can participate the city governance.

2 **Convenient User Experiences and Increased Users**
The reporters can report at any time and any place with thier smartphones. The convenient experience leads to high satisfaction rate, the number of user is increasing.

3 **Expanding Overseas**
Mumbai, India has adopted Smart Complain Report app in 2014.

DIRECTIONS

The Seoul Metropolitan Government will keep encouraging to use the Smart Complain Report app to make Seoul more convenient and cleaner city through online and offline media.

120 DASAN CALL CENTER

<INTRODUCTION>

120 Dasan Call Center is an integrated civil complaint and question managing system deals with all kinds of problems close to the citizen's life. It is open 24 hours. Citizens can use it via a phone call, text messages and social media. For handicapped people, online chats and sign language counsel is available. The counsel is offered in five languages for foreigners.

<DETAILS>

● BACKGROUNDS

The various phone numbers of Seoul city hall and district offices made it hard for citizens to ask questions or make proposals to the Seoul Metropolitan Government(SMG). The SMG made 120 Call Center so citizens can use a unified phone call number, which is 120, and make various inquiries about Seoul.

● MAJOR FEATURES AND FUNCTIONS

The Seoul Metropolitan Government made a database with over 13,000 data, so that even a non-expert on the problem can answer by searching the standard counseling database.

120 Dasan Call Center has eight major functions

Telephone Counseling
Call 120 to ask questions or submit complaints.

Text Message Counseling
Send text message to 120 to talk to a counselor.

Online Chat Counseling
For those who with hearing problems. A counselor will answer via an online chat.

Sign Language Counseling
For those with hearing problems. A counselor will answer via video chat and sign language.

Foreign Language Counseling
Five languages are available;
English, Chinese, Japanese,
Vietnamese and Mongolian.

Foreigner Happy Call Service
An expert offers counseling service
for foreigners living in Korea.

Twitter Counseling
Counseling service via twitter
available 24 hours.

120 다산콜센터

✓ **120 without dialing an area code** (Outside of Seoul: 02-120 / Overseas: 82-2-731-2120)
✓ **120 Dasan Call Center App -** Available on Google Play and App Store.
✓ **120 Dasan Call Center Homepage -** http://120dasan.seoul.go.kr
   Online chat, foreigner happy call and sign language service are available
   on the homepage and app.

RESULTS

1 **High utilization rate and satisfaction level**
  - The number of counseling : 23,000 per day
    (Sign Language service: 70 per day /
    Text message service: 2100 per day,
    Foreign Language: 93 per day)
  - Satisfaction rate: 96.0% (Primary Counselor
    Processing Ratio: 84.2%)

2 **Pass on know-hows to domestic and overseas organizations**
   120 Dasan Call Center is running a '120
   on-the-spot study program' every week. Until
   now, 50 countries and 800 organizations have
   participated the program, including the Korean
   central government, local governments, US,
   China, France, Sweden, Russia and Singapore.

DIRECTIONS

The Seoul Metropolitan Government is expanding the channels from twitter and Korean internet portals such as Naver and Daum to meet the demands of increasing online media usage. The Metropolitan Government is trying not only to offer quick and accurate counsel, but to protect counselor's human rights from malicious appeals.

mVoting

INTRODUCTION

mVoting is a participatory voting app that anyone can ask questions -on policy and also on any real life issues- or vote on it. The Seoul Metropolitan Government communicates with citizens, collects citizen opinions and incorporates them into policy implementation through mVoting.

Mobile + Voting
mVoting

Public opinion
Policy vote
General vote

DETAILS

BACKGROUNDS

Over 90% of Seoul citizens use a smartphone and they continually create and consume content through smartphone. As a tool to collect citizen opinion in this "mobile" era, the Seoul Metropolitan Government has developed mVoting. Through mVoting, the SMG tries to stimulate direct democracy and incorporate citizens' opinions into city policy implementation.

MAJOR FEATURES AND FUNCTIONS

mVoting has four types of voting.

Policy Votes	On-Spot poll	Employee Votes	General Votes
Votes by the Seoul Metropolitan Government (City Hall, District offices, Education offices, etc.)	Only the people who are on-spot can vote; festivals, meetings, education, etc. (Using GPS information).	A vote by the Seoul Metropolitan Government to city employees and officials.	Citizens ask the others about policies and daily lives.

The mVoting offers diverse voting specimens.

Open-to-Public votes	A poll open to public	A designated votes	**Only for designated people** in certain spot, residential district, current location (GPS), people on a list (Excel) and cell phone contract list, etc.

✓ **The mVoting App -** Available on Google Play Store and App Store
The mVoting Homepage https://mvoting.seoul.go.kr

Access with a mobile phone or PC, participate votes
with a simple registrations with cell phone or social media.

RESULTS

1 **Current Conditions of Operation (as of Dec. 2017)**

+ 1,374 Policy Votes
+ 3,297 Citizen's Votes
550 Policy-accepted Votes

Presented Votes
4,671

Registered Members
620,000

Voted
1,670,000

2 **Citizen Participatory Budget Project through mVoting**
The Seoul Metropolitan Government is running the "Citizen Participatory Budget Project". About $50 million dollars of the budget is annually decided by the citizens from 2015 through mVoting. About 100,000 people participated in voting and the SMG could choose the city projects that the citizens want the most.

3 **Domestic and overseas evaluations**

Selected as the representative and leading project of Governance 3.0 (Dec. 2014)

Grand Prize on Public Services, Digital Chosun "App Award Korea 2014" (April 3, 2014)

Selected as the finalist of Barcelona "Smart City Expo Awards" (Nov. 19. 2015)

3 **Other achievements**
Registration of the trademark and design of mVoting (Aug. 5 2016)

DIRECTIONS

The Seoul Metropolitan Government will promote mVoting as an opinion-accepting channel for encouraging citizens to participate in establishing policies. The Seoul Metropolitan Government will also improve mVoting to encourage departments of government, district offices and schools to use mVoting actively. By running "mVoting Citizen Council" which consists of citizens and IT experts who have experience on promotion, app development, cooperative governance and education, the SMG will further improve mVoting as a direct democratic platform.

SEOUL GEOSPATIAL PLATFORM

- Seoul's Map-tagging

INTRODUCTION

Seoul Geospatial Platform is a standard development environment for developing an infrastructure for transforming the 'text' information into the 'spatial' information. Seoul Geospatial Platform is open for everyone from city officals to citizens offering the map-tagging.
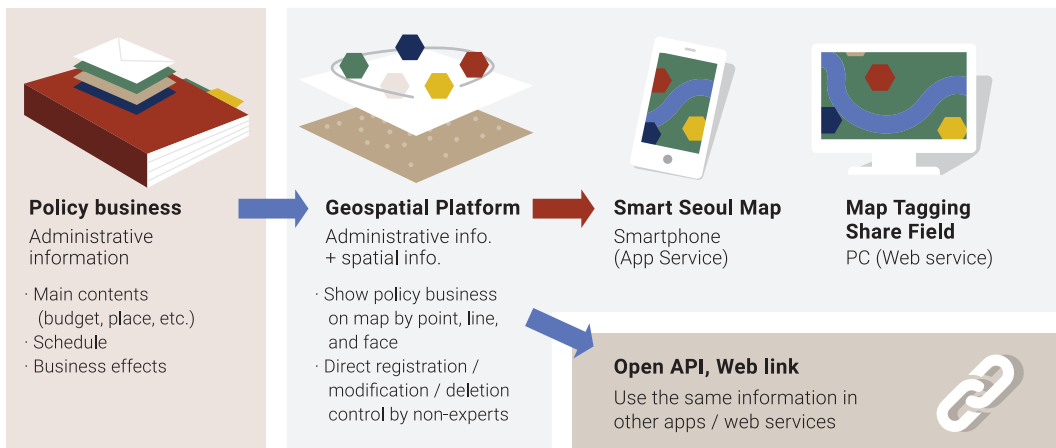
DETAILS

⬡ BACKGROUNDS

More than 80% of administrative information relate to spatial locations. The Seoul Metropolitan Government has established the Seoul Geospatial Platform in 2013. It transforms 'documented' administrative information to 'map' data. Ordinary maps show objects from everyday life like pharmacy, hospital and restaurants. However, it doesn't show the locations with certain purposes like facilities for the handicapped and locations of major policy projects. This is the reason why the Seoul Metropolitan Government created Seoul Geospatial Platform, which enables citizens to create the map they need easily.

⬡ MAJOR FEATURES AND FUNCTIONS

· It is easy, fast and affordable for non-experts to create and share their own maps.
· Since the map information is shared with citizen developers as the Open API, it can be reprocessed as a new citizen service.

Policy business
Administrative information

· Main contents (budget, place, etc.)
· Schedule
· Business effects

Geospatial Platform
Administrative info. + spatial info.

· Show policy business on map by point, line, and face
· Direct registration / modification / deletion control by non-experts

Smart Seoul Map
Smartphone (App Service)

Map Tagging Share Field
PC (Web service)

Open API, Web link
Use the same information in other apps / web services

✓ **The Seoul Geospatial Platform** is available on 'Smart Seoul App' and 'Seoul Map-tagging Share Plaza (http://map.seoul.go.kr/).

RESULTS

The Seoul Metropolitan Government created more than 160 city maps from various departments and used for promotions and public works. For example, the Seoul Metropolitan Government selects the Spring Blossom Roads, Summer Breeze Paths and Autumn Leaves Walks. It was documented before the Seoul Geospatial Map-tagging, but now it is displayed right on the citizen's smartphone or PC since the person in charge point the location directly. This enables citizens can find the way to the location actively, rather than read the 'names' such as "Hyoja-ro' and 'Keunumul-ro'. Moreover, various life-friendly maps such as AED (Automated External Defibrillator) locations, Seoul Nightview map, Seoul history map and traffic accident occurrence in a children's protection area map are produced.

DIRECTIONS

The Seoul Metropolitan Government provides the citizens with not only the creation guides, but also the autonomous Gu-office oriented education programs, supporting the citizens to create their own maps with Seoul Geospatial Platform. The Seoul Metropolitan Government will create citizen-friendly maps with useful information to solve current local issues with the citizens.

SEOUL INFORMATION COMMUNICATION PLAZA

INTRODUCTION

Seoul Information Communication Plaza is an information sharing window that discloses documents and administrative information of the Seoul Metropolitan Government, 25 district offices and 17 invested institutions for citizens.

DETAILS

BACKGROUNDS

Before the Information Communication Plaza, citizens could get the information when they "request" the information on the list and if the information goes through a "screening" and get the "approval". In order to guarantee the citizen's right to know and to support free policy participation, the Seoul Metropolitan Government has opened the Information Communication Plaza where all the administrative information is immediately released to citizens. Citizens can use and share the information immediately.

MAJOR FEATURES AND FUNCTIONS

Various approved documents produced by the Seoul Metropolitan Government are provided by sectors.
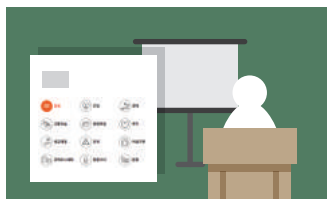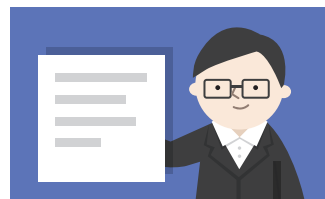
Meeting Informations
Various information about the meetings held in Seoul, including major meetings, committee meetings, meeting plans and results are open to public.

Approved Documents
The approved documents produced by the Seoul Metropolitan Government and Autonomous Gu-offices are collected and open to public by sectors.

Read Documents with the Mayor
Citizens can read the major decision making documents approved the mayor and the deputy mayor.

✓ **Information Communication Plaza Homepage**
http://opengov.seoul.go.kr

✓ You can find the documents you want faster with **"Detailed Search"** option.

RESULTS

About 15 million administrative documents (as of December 2017) have been disclosed since the opening of the Information Communication Plaza in 2013. Also, the scattered information on homepages of affiliated organizations is integrated at the Information Communication Plaza, making it easier to find the policy materials. The information related to social issue or citizen's life is selected and reproduced to making it easier to understand, increasing the degree of understating of municipal governance. The Seoul Metropolitan Government also enhanced financial transparency by disclosing the documents about accounts, expenditure status, debt status and the financial scale.

DIRECTIONS

The Seoul Metropolitan Government will continue to enhance the accessibility of information and convenience of searching with high protection of personal information of the public. Thereby, the satisfaction of the citizens will be increased. In addition, the Seoul Metropolitan Government will improve service quality and quantity by expanding the utilization of public information.

The City of
Communicating,
Sharing and
Participating,
Seoul

12-1

OPEN DATA PLAZA

INTRODUCTION

The Seoul Metropolitan Government is committed to opening up public data and has opened the "Open Data Plaza" in May 2012, the very first in Korea, to create economic and social values from the services developed by citizens, businesses and organizations. The Seoul Metropolitan Government is opening socially and economically high-value data in diverse forms such as Open API, Charts, Graphs, Excel sheets, etc.

DETAILS

BACKGROUND

The Seoul Metropolitan Government has various public data such as traffic, environment, education, culture and tourism, etc. For example, in 2009, a high school student in Seoul developed a city bus application. It was the first application to integrate various information on buses of Seoul in real time. The response on this app was hot. But there was a problem. At that time, the public data was not open to public, so some of the information that is essential to the app was blocked. The complaints of the citizens who used the app burst out. As a result, the issue of opening the public data and the necessity of "Open Data Plaza" emerged.

MAJOR FEATURES AND FUNCTIONS

Open Data
Ten major topics (General administration, culture and tourism, environment, healthcare, industrial economy, urban management, welfare, traffic, safety and education) are distributed by seven forms (Open API, LOD, Sheet, Visualization, Map, File, Link).
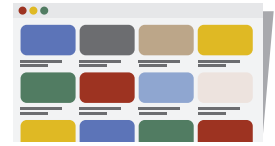
Integrated Data Search
Data and contents can be searched with keywords and related fields.

Data Visualization
This service is for creating and sharing visualized data from public and private sectors with 21 forms such as bubble, pie, tree map, etc.
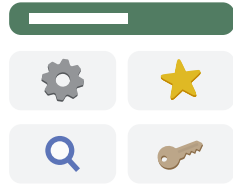
Gallery
It is where app, web and visualized contents are opened.

Data Opening Requests
Citizens can request the data from the Seoul Metropolitan Government which is not opened yet.

My Plaza
It is where the users can check and manage the Open API certification key, bookmark data, gallery and visualized data.

Open Data Plaza by District Offices
25 districts in Seoul can register and manage the data. Citizens can inquire about the data in their interested autonomous Gu.

RSS
It is a service to check opened data with the RSS reader, without visiting the Open Data Plaza.

✓ **Open Data Plaza Homepage**
http://data.seoul.go.kr

Download the data without any membership registration with mobile and PC.

RESULTS

1 **Finding and Opening Citizen-Friendly Data with High Value for Customers**
The Seoul Metropolitan Government is searching for valuable data reflecting the opinions of consumers at various levels. As of December 2017, 4,700 data sets were opened and millions of data were used. (Example : Real time subway operations, real time parking informations, information on buses and subways, etc.)

2 **Promoting convenience through the development of various citizen-led services and vitializing the digital economy**
Using the released data by the Seoul Metropolitan Government, 150 app services and about 70 infographics have been developed by the private sector (December 2017) and the number is continually growing. Many kinds of apps and visualized contents such as real-time bus arrival, parking lot information, Seoul tourist information and Seoul air quality information have been developed. It contributes to the convenience of citizen's lives and to the vitalization of the digital economy.

DIRECTIONS

The Seoul Metropolitan Government will improve the value of data by excavating citizen-oriented data and diagnosing the quality of the data to provide citizens with high-quality data. With promotions on the "Visualization Service", which users can make the visualized contents by themselves, supporting the citizens to be able to share the results within them. Also, the Seoul Metropolitan Government will continue to open the public data on GitHub, a global open source sharing site, expanding the development of user-led services by the private sector.

The City of
Communicating,
Sharing and
Participating,
Seoul

12-2

THE BIG DATA CAMPUS

INTRODUCTION

The Big Data Campus is an off-line space, supporting the data analysis program, infrastructure and education to merge and analyze the data from public and private sectors.

DETAILS

BACKGROUNDS

Seoul, a home for 10 million people, has various complicated urban problems. In order to identify the causes of complex urban problems and to find solutions, the need for data analysis has become prominent. Therefore, the Seoul Metropolitan Government has established an infrastructure to analyze the big data from public and private sectors with citizens.

MAIN FEATURES AND FUNCTIONS

Big Data Service
The big data from the Big Data Campus is unidentifiable in personal information. It can be taken out of the campus. There are big data which are hard to get from the private sectors such as 42 kinds of big data, collected by the Seoul Metropolitan Government from 2013, including credit card using status, 473 geographic data from the Integrated Spatial Information system and 4,100 data from Open Data Plaza.

Analyzing Environment Service
The Big Data Campus visitors can analyze the data using a PC with Virtual Desktop Interface (VDI) technology to protect the data ownership, privacy and prevent the source data leakage. Virtual desktops provide users with a safe and reliable big data analysis environment. The Big Data Campus offers various open source analysis tools such as Office Software, Toad, Python, etc.

Other Services.
There are big data analysis classes as a part of regular University courses and open lectures for businesses and citizens in the Big Data Campus. Also, big data experts reside to provides visitors with big data analysis technology. The results of data analysis is publicized on homepage.
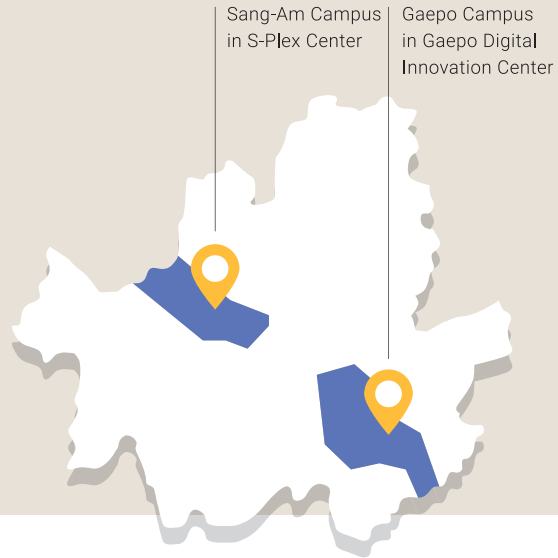
✓ **How to Use the Big Data Campus**
Register at the homepage
(https://bigdata.seoul.go.kr)
get a approval, and visit to use the
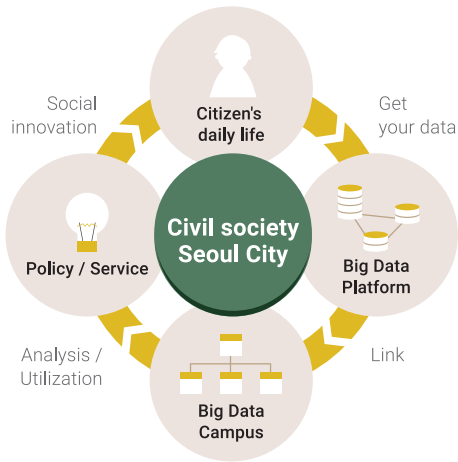campus.

✓ **Location**
Sang-Am Campus in S-Plex Center
/ Gaepo-Dong Campus in Gaepo
Digital Innovation Center.

✓ **Open**
9 A.M - 6 P.M on weekdays
(Closed on Weekends and Holidays)

Sang-Am Campus | Gaepo Campus
in S-Plex Center | in Gaepo Digital
Innovation Center

RESULTS

Social innovation

Citizen's daily life

Get your data

Policy / Service

Civil society Seoul City

Big Data Platform

Analysis / Utilization

Link

Big Data Campus

Citizen-led big data analysis to draw solutions for urban problems.
Since the opening, more than 350 big data analysis has been done in the Big Data Campus; education, traffic, healthcare, economy, safety, etc. The number of campus user is increasing continually. The major analysis cases are credit card using pattern, optimal location of the business and analysis of estimated sales, fine dust of Seoul and Seoul gentrification analysis.

DIRECTIONS

The Seoul Metropolitan Government will create a social renovation ecosystem based on data through the partnership with private, industrial and educational sectors. Also, with the education program in the Big Data Campus in order to train professional big data analysts.

EVIDENCE-BASED GOVERNANCE UTILIZING BIG DATA

: Late Night Bus (Owl Bus)

INTRODUCTION

The Late Night Bus is an intra-city bus operating after midnight for citizens' convenience and safe return to their destinations. The Late Night buses run from midnight to 5 A.M, when public transportation typically is not available. Currently, the Seoul Metropolitan Government operates 9 bus routes with bus interval of 40 minutes.

DETAILS

BACKGROUND

Seoul, a home for ten million people, never sleeps. Until a few years ago, there was no public transportations between midnight to 5 A.M and thus the only mode of transportation available was via taxis. The Seoul Metropolitan Government adopted Owl Bus runs through places with massive floating populations during night times to reduce financial burdens of citizens.

MAIN FEATURES AND FUNCTIONS

| N13 상계동 장지동	N15 우이동 사당역	N16 도봉산 온수동	N26 방화동 신내동	N30 강일동 서울역	N37 진관동 장지동	N61 신정동 노원역	N62 신정동 면목동	N65 개화동 시흥동

The nine routes are the most-utilized routes. The Seoul Metropolitan Government used big data to determine these popular routes. The Seoul Metropolitan Government cooperated with mobile carriers, collected and analyzed 3 billion call data. With the taxi on/off data, the Seoul Metropolitan Government predicted people's needs during the night. The Seoul Metropolitan Government has set 9 routes as a radial shape, crossing central districts of Seoul.

✓ People can check the information about late night bus stops, intervals, arrival time, locations and bus numbers with Bus Information Terminal (BIT) at bus stops and Transportation Information Center Mobile (http://m.bus.go.kr) and homepage (http://bus.go.kr/nBusMain.jsp).

🚌 7212	2분	🚌 270	5분	종로2가
🚌 103	10분	🚌 471	4분	01-192
🚌 260	8분	🚌 710	6분	
곧도착 : 7212, 471, 270				

RESULTS

The cheap and convenient Owl Bus is a representative instance of public-private cooperation and adopting big data analysis on city governance, receiving critically acclaimed responses and interest from cities from domestic and abroad. By using big data to predict the actual demand and adjust the bus routes based to the analysis results, it was possible for the Owl Bus to cover the most floating population with the least number of buses. The Late Night Bus has secured citizens' safe night time activities. The average passengers of the Owl Bus are up to 7,400 per day.
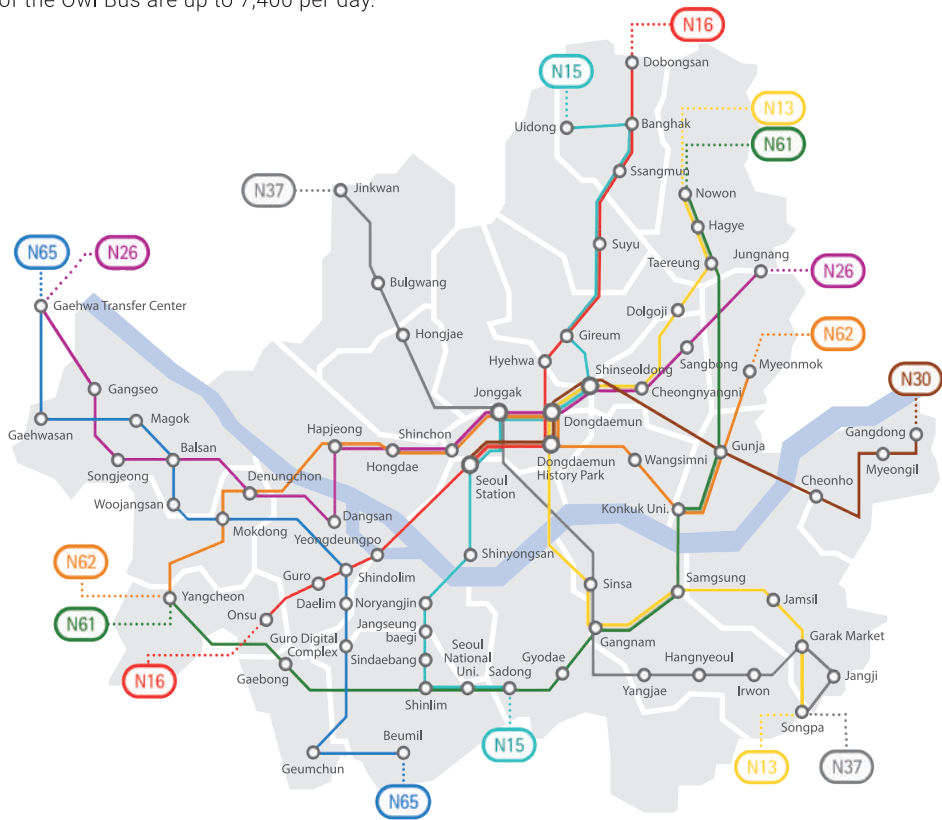
DIRECTIONS

The Seoul Metropolitan Government is planning to expand the Owl Bus routes in the crowded areas based on the data. Also, there will be temporary routes during year-ends and holidays to secure citizens' traffic convenience.

THE COMMERCIAL AREA ANALYSIS SERVICE

INTRODUCTION

The Commercial Area Analysis Service is an analyzing service to check commercial information in each district of Seoul such as monthly sales, self-employment survival rate, competition status and sales trend.

DETAILS

BACKGROUNDS

According to the Ministry of SMEs and Startups (MSS), only 29% of small businesses have lasted five years. Due to diversification of businesses by the corporations, local alley businesses are at risk of collapse and local self-employed business owners (mom-and-pop-stores) are suffering from gentrifications, the Seoul Metropolitan Government made Commercial Area Analysis Service to protect and nurture local alley commercial districts and the self-employed by providing them with scientific and objective commercial information based on big data analysis.

MAIN FEATURES AND FUNCTIONS

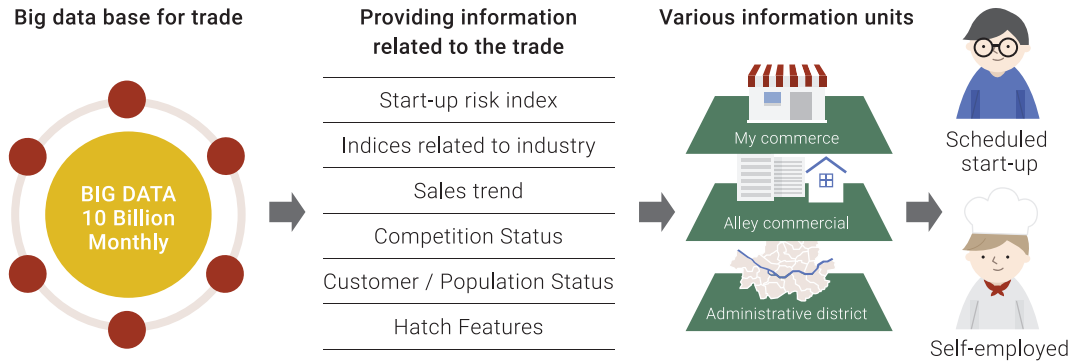**Analyzed information based on big data**

'Local Business District Analysis Report' is offering information, based on big data, for those who are opening micro businesses in crowded local business districts.

The report also provides 5 signals such as the degree of risk of new openings. It offers an opportunity of making a reasonable and considerable choice for preps. For business owners, it offers a chance to improve the business and increase sales.

Degree of risk information on new openings and entries.

Seoul provides "Crowded Index" for top 10 dining businesses, based on shutdown report rate and 3-year-survival rate, from Gu districts and Dong districts. It indicates the risk of new opening of a business, comparing demand and supply.

Seoul is now developing "Activity Index", "Growth Index" and "Stability Index" for giving more chance to notice the risk of opening a business. With the data, entrepreneurs can compare business districts easily.

Big data base for trade	Providing information related to the trade	Various information units

BIG DATA 10 Billion Monthly

Start-up risk index

Indices related to industry

Sales trend

Competition Status

Customer / Population Status

Hatch Features

My commerce

Alley commercial

Administrative district

Scheduled start-up

Self-employed

✓ **The Village Store Commercial Analysis Service Web Page**
http://golmok.seoul.go.kr

RESULTS

The Seoul Metropolitan Government provides objective commercial information based on 200 billion data points of big data from transportation card, Shinhan Card, BC card, Korean Appraisal Board, licensing records of public institutions and sales consumption data received from the private sector. The Commercial Area Analysis Service received a huge favorable response from many preliminary founders and self-employed people. The service helps the self-employed to make reasonable investment decisions and the Seoul Metropolitan Government to monitor and establish the long-term policy for revitalizing the local economy and analyze the effect. The Commercial Area Analysis Service was exported to Buenos Aires, Argentina in 2016.

DIRECTIONS

The Seoul Metropolitan Government will analyze and identify the difficulties of the self-employed from the alley commercial district with Big Data and reflect the results on its policies. Based on the service data, the Seoul Metropolitan Government will support the self-employed and provide start-up consulting services, cooperating with more private companies to secure meaningful data for commercial analysis.

DIGITAL CIVIC MAYOR'S OFFICE

TRENDING NEWS OF SEOUL

REAL-TIME STATUS OF SEOUL

2,946   0

100   15
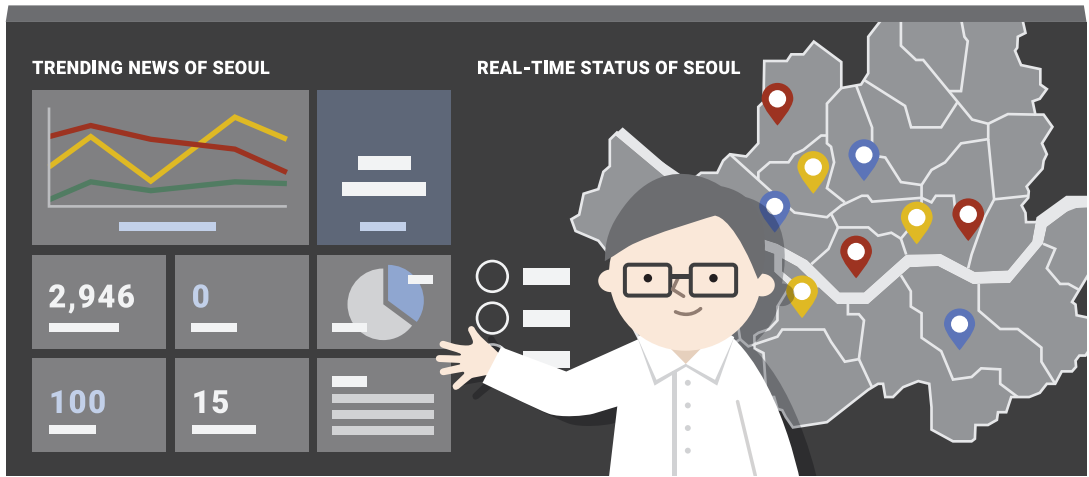
INTRODUCTION

Digital Civic Mayor's Office is a system offers a visualized data from 167 systems from the departments of Seoul, with about 10 million data, 800 CCTV in real time. Thus, users can check the main policies and promotion projects in real time.

DETAILS

BACKGROUNDS

Before the development of the Digital Civic Mayor's Office, Public information which includes main policy indexes and progress on city projects is provided to citizens partially and separately, making it difficult to understand it in a comprehensive and holistic way. So The Seoul Metropolitan Government aggregated administrative data that was fragmentarily scattered across departments, and then it structuralized and visualized the data to help its citizens to understand the work of the Seoul Metropolitan Government better, thus increasing its transparency and accountability.

MAIN FEATURES AND FUNCTIONS

The Digital Civic Mayor's Office is set up at Seoul Mayor's Office. It is an interactive touch screen that integrates, visualizes and provides key information in traffic, disaster safety, city projects, civil complaints and so on. Through this screen, Mayor of Seoul can also check the 800 CCTV camera feeds in real time to offer commands in case of disaster and incidents while not being on site. It helps Mayor to make quick situational analysis, timely response and data-based decision.

✓ **Screen : Visual motive via the characters of information, simplify the complexed data.**
(Composition of the main screen: Informations on disaster, safety, traffic, air quality, waterworks, main city projects and startup ecosystem, etc.)

RESULTS

1 Visualizing and integrating major public data to support policy-making
The Digital Civic Mayor's Office structuralizes and visualizes public data to help the decision maker(The mayor) to understand the overall work of the Seoul Metropolitan Government better and support the evidence-based decision making.

2 Sharing public information with citizens in a timely and swift manner
Many public data used to be provided in simple numeric and text forms, so many of the citizens with no background knowledge couldn't understand them easily. With "Digital Civic Mayor's Office", the Seoul Metropolitan Government can share important public data with its citizens in a timely and swift manner.

DIRECTIONS

The Seoul Metropolitan Government will continue disclosing valuable public data through online Digital Civic Mayor's Office to enable the sharing of urgent and important data with citizens in a timely manner and increasing accountability, thus contributing to making a safer and happier city.

SEOUL IoT PROJECT
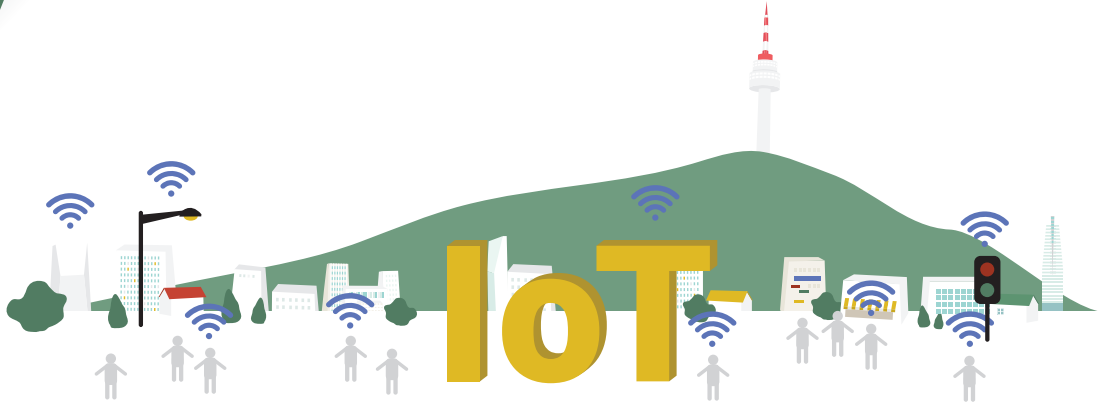
INTRODUCTION

IoT(Internet of Things) is a network of physical devices, vehicles, home appliances and other items embedded with electronics, software, sensors and network connectivity which enables these objects to connect and exchange data. As the IoT era in which people, things and spaces are all connected has emerged, the Seoul Metropolitan Government is implementing the Seoul IoT Project based on public-private cooperation to resolve various urban problems concerning safety, environment, welfare, etc.

DETAILS

BACKGROUNDS

As urban problems get complicated and diverse, the public-led problem solving method were eventually faced with limitations. The Seoul Metropolitan Government started the Seoul IoT Project in 2015 to resolve an urban problem based on public-private cooperation.

MAIN FEATURES AND FUNCTIONS

**Creating a self-sustainable ecosystem for IoT service development
based on public-private cooperation**

Seoul IoT project provides a self-sustainable ecosystem to the service providers and consumers in which services can be continually tested and improved. This project is also based on an innovative model that resolves urban issues through IoT technology in cooperation with public-private-people.

Level 1(2015)
Establish Bukchon as the first IoT pilot zone. Draw out urban problems and the development directions through the pilot project.

Level 2(2016-2020)
Expanding the number of IoT testbeds in all over Seoul area (50 areas).

The Seoul Metropolitan Government is running the Seoul IoT Center to support IoT service and start-up businesses to secure self-sustainable business model and grow further.

✓ **Seoul IoT Center**
· Location: Guro-Gu Digital-ro 26-Gil
  (Seoul Startup Supporting Center 4F)
· Function : Support technology test, commercialization
  and foreign market penetration and provide consulting.
· Supported Equipments : Electromagnetic wave measuring
  instruments, 3D printer, CNC, Router, etc.
· Facilities : RP Space, meeting room, network / cooperation places.

Creating and managing data for public good
The SMG only provides vital infrastructure such as free Wi-Fi, sensors, public contents in Korean and foreign languages and open API so the private sector can develop IoT services by using the available infrastructure.

RESULTS

Urban problems are being alleviated while many startups are expanding their business to the global market based on their initial success from the Seoul IoT Project. Additionally, the sensors installed in Seoul for the project generates a large amount of data for future service development.

1 Smart Tourism

2 Hanok Fire Detection

3 Smart Garbage Can

4 Parking Lot Sharing

5 Child Location Tracker

6 Mission-Type Tour Service

DIRECTIONS

The Seoul Metropolitan Government will improve the lives of the citizens in the most effective way by resolving the real life issues of the citizens through the application of IoT. The SMG will expand the scope of the IoT project to the entire city, and by 2020, all of Seoul will be equipped with IoT technology.

17

WEGO

: World Smart Sustainable Cities Organization

WeGO
130+
members

INTRODUCTION

WeGO (World Smart Sustainable Cities Organizations, formerly known as the World e-Governments Organization of cities and Local Governments), is an international organization of cities and local governments that pursues sustainable urban development based on e-Government, ICT and Smart City initiatives, improving administrative efficiency and transparency, advancing online public services for citizens, increasing civil involvement, and bridging the digital divide through ICT.

DETAILS

⬡ **BACKGROUNDS**

Seoul has won the first prize in 'World Municipal e-Governance Awards' seven years in a row. The Seoul Metropolitan Government is leading the smart cities with cutting-edge IT infrastructure, participation, communication and share-oriented public services. As the leader of smart cities, the Seoul Metropolitan Government aware of the need to fulfill its international role. That is the reason why the Seoul Metropolitan Government established WeGO in 2010, to share the smart city experience and know-how with global cities.

⬢ The Role and Goal of WeGO

The goal of WeGO is encouraging world cities' exchange and cooperation for sustainable smart city improvement. WeGO is creating a cooperative model in the fields of e-governance and smart city to resolve the information gap between cities. WeGO contributes to build effective smart city by sharing best practices of global e-government and smart city.

⬢ WeGO Program and Benefit

1 Opportunity for cooperation with global smart government and city networks
· Network of 130+ member cities and organizations
· Information exchange and cooperation opportunity with the 17 global partner organizations such as the UN, World Bank, ITU, ADB and UCLG-ASPAC, etc.
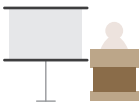
2 International conferences and conventions (Including WeGO events) for presentations and promoting opportunities
Provides keynote speakership, networking and promotional opportunities for member cities in international conferences and conventions.

3 Oversea consulting, export & cooperation opportunities with global organizations and companies
· IGB Consulting in Seoul and Gabo Tech Consortium in Seongnam City built the "Streetlight and Traffic Light Monitoring System" using IoT and mobile technology in Seberang Perai, Malaysia in 2016.
· In Smart City Expo World Congress 2016, Seongnam and Moscow participated in WeGO pavilion and ran a promotional booth.

4 Sthrengthening ICT Ability Program
① e-Government education program ② Strengthening e-Government Ability Program (NIA Global Academy) ③ eGovFrame technology education ④ Local Offices (ChengDu, China and Ulyanovskaya, Russia) Development Program ⑤ CeDS online platform and Smart City Maturity & Benchmark Model for evaluating e-government and smart city maturity of member cities.

5 Participation in the WeGO General Assembly and Executive Committee with decision-making opportunities on major agendas
WeGO held its inaugural General Assembly in Seoul in 2010. WeGO also held its General Assembly in Barcelona, Spain (2012), Chengdu, China (2014) and Ulyanovsk, Russia (2017). WeGO also holds an Executive Committee Meeting every year to discuss major agendas on WeGO programs and governance.

DIRECTIONS

WeGO was established in 2010 with 50 inaugural members. Currently, there are 130+ cities and ICT government agencies and partners such as the UN, World Bank, ITU, UCLG-ASPAC and ADB, making WeGO as a well-established international organization of cities and local governments. WeGO is expanding its membership to companies from 2017 to provide more benefits and technical support to its members. WeGO will continue to provide opportunities for corporate members to participate in global smart city development using WeGO as a platform.

SEOUL DIGITAL SUMMIT

INTRODUCTION

The Seoul Metropolitan Government(SMG) has been holding the Seoul Digital Summit anually since 2016 to exchange ideas and discuss joint projects between the SMG and global IT companies. This event aims to foster collaboration between the SMG and Global IT companies to make Seoul as the center of high-tech digital technology application.

DETAILS

BACKGROUNDS

Since Seoul has gone through a rapid urbanization and population expansion, the city has created diverse and complex problems such as social, economic and environmental problems. The Seoul Metropolitan Government is working with private sector companies from various fields to overcome the limitations of resources and technology to provide the citizens with a high quality of life. The Seoul Metropolitan Government is building and expanding the ongoing partnership with the promising technology start-ups and global corporations

MAJOR FEATURES AND FUNCTIONS

Global digital corporations in Seoul suggest and review cooperative undertakings at Seoul Digital Summit, sharing consultations and opinions on directions of digital policy development.

The Seoul Metropolitan Government is making a cooperative relationship at Seoul Digital Summit and sharing the new digital technologies and innovation examples through digital. Seoul Digital Summit is also an opportunity for the domestic start-ups to grow.

✓ **Global digital corporations participated in Seoul Digital Summit 2017**

11 Corporations from overseas
: AWS, AIG, ARM, CISCO, MicroSoft, Intel, IBM, SAP, ZTE, ORACLE, Siemens

8 Domestic corporations
: SKT, KT, LG U+, Interpark, Woo-ri Bank, Ahnlab, HanCom, SK C&C

RESULTS

1 **A Public-Private Cooperation to Solve the Urban Problems.**
Through the Seoul Digital Summit, more than 20 collaborative projects have been proposed by global digital companies every year. The Seoul Metropolitan Government is applying the core technology of the 4th Industrial Revolution such as the Internet of Things (IoT), Cloud computing, Big Data and Artificial Intelligence (A.I) from the participating companies.

2 **Sharing Global Innovation Examples by 4th Industrial Revolutions Core Technology with Citizens**
By running a conference where participating companies can give the innovation examples, the companies can share the new technologies and innovation examples with citizens.

DIRECTIONS

The Seoul Metropolitan Government will take a preemptive action on the rapid digital innovation, making Seoul as a field of sharing with citizens and a win-win for all corporations from start-ups to major companies.

DIGITAL 2020

The Seoul Metropolitan Government(SMG) has planned "Seoul Digital 2020 (Five-year master plan of Seoul Digital)" to gain a competitive edge and have the leadership in digital area, leading to the citizens to become a world-best users of digital and turn Seoul into a smart city.

FEATURES

- The SMG makes policies based on the basic informatization ordinance. Every five years, the city government renews and improves the digital policies.
  Informatization Basic Plan(Computerization) → Seoul Informatization Masterplan(Online-based service) → U-Seoul Masterplan (Citizen participation) → Smart Seoul 2015 (Smartization)

- The main keynote of the policy is 'lead by citizen'. The plan is for adapting digital technology as a 'problem-solving tool' and establishing the city as 'leading city of digital in the world'.

- The Seoul Digital Master Plan aims to digitize all governing areas such as safety, economy, welfare, traffic, environment to improve the lives of the citizens and share Seoul's good smart city solutions with the world.

- Before the 'Seoul Digital Masterplan' was established, Seoul held public hearings, interviewed citizens, employee and professionals. Seoul also held online/offline survey of 1% of Seoul citizens(100,000 people) to establish detailed strategies and action plans.

VISION

GLOBAL DIGITAL SEOUL 2020

| by Citizen | → DIGITAL SEOUL 2020 → | to Citizen | → | Global Digital Leader |
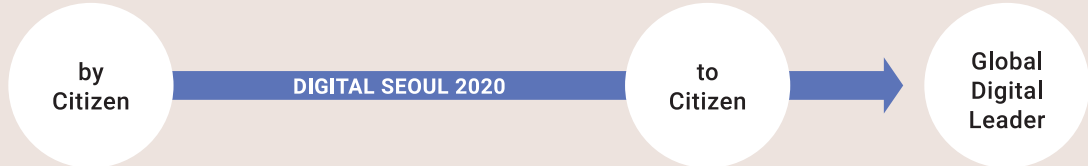
GOAL

- **Digital policies driven and made by the citizens**
  Accomplish 50% of digital projects driven and made by citizens

- **Improving Citizen's life by digitizing city governance.**
  Applying digital technology to the field of economy, tourism, traffic, safety, welfare and environment, etc.

- **Creating Jobs by digital technology, the new growth power**
  Supporting 645 companies in Digital Industry

- **Sharing Seoul's ICT solutions with the world**
  Contributing to the development of world smart cities

FEATURES

Social Seoul City (By Citizen)

1-1 Digital Governance, led by citizens
1-2 Improving Communicating channel with Citizen.
1-3 Cooperate with private sectors.

Diginomics (Growing Economy)

2-1 Activate Venture incubating.
2-2 Integrated digital economic platform
2-3 Fusing traditional and digital industry

Digital Social Innovation (Changing Citizen's life)

3-1 Solving city problems with digital technology
3-2 Improve citizen's life value through digital technology

Global Digital Leader (Leading the World)

4-1 Adapting cutting-edge technology preemptively
4-2 Establish world-best digital infrastructure.
4-3 Enhance digital business capability.
4-4 Share the digital experience with citizens in the world.

Social Seoul City   ■ New Action Plans

1-1 Citizen-Driven Digital Governance

| 1-1-1 | Establish the digital governance led by citizens | ■ |

1-2 Strengthening the Communication Channel with Citizens

1-2-1	Effective management of social media	
1-2-2	Offer Citizen-centered digital service	
1-2-3	Expand Citizen's participation with M-Voting	
1-2-4	Reflecting citizens' opinions in policy making through online	■
1-2-5	Encourage employees to use social media	■
1-2-6	Strengthening communication with SNS opinion leaders	■
1-2-7	Network with SNS experts home and abroad	■

1-3 Cooperate with private sectors.

1-3-1	Create data-based social innovation basis (Set/run the Big Data Campus)	■
1-3-2	Encourage Private and Public to use open data to achieve open-governance.	
1-3-3	Strategic partnership with global digital enterprises.	■

Diginomics

2-1 Activate Venture Incubating.

2-1-1	IoT Incubation Center	■
2-1-2	Open and run Gaepo Innovation Park	■
2-1-3	Set up the Seoul App-Business Center	■
2-1-4	Set a supporting system to cultivate FinTech industry	■

2-2 Integrated Digital Economic Platform

| 2-2-1 | Establish/Run the Seoul DIgital Foundation | ■ |

2-3 Fusing Traditional and Digital Industry

| 2-3-1 | Support IoT technology to accelerate G-Valley industry | |

Digital Social Innovation

■ New Action Plans

3-1 Resolve urban problems with digital

3-1-1	Establish Smart Emergency Rescue System	■
3-1-2	Disaster Response System using high technology	■
3-1-3	Upgrade Fire Fighting Safety Map	
3-1-4	Emergency Mobile Video Service	■
3-1-5	Enhance Emergency Alert via Social Media	■
3-1-6	Integrated Management System for Bridges and Tunnels.	■
3-1-7	Customized Services for the disadvantaged groups	
3-1-8	Advanced Safe Guard CCTV	
3-1-9	Efficient Usage of Parking Area	■
3-1-10	Intelligent Traffic Safety System based on C-ITS	■
3-1-11	Establishment of the AMI (Advanced Metering Infrastructure)	■
3-1-12	Advanced Air Quality Information	

3-2 Improve citizen's life value through digital technology

3-2-1	Set up a life-welfare integrated information system (BIGCARE).	■
3-2-2	Set up a welfare facility management system	■
3-2-3	Expand Online community for over 50, "50+ Portal".	
3-2-4	Reduce information gap for information have-nots.	
3-2-5	Advance Lifelong study portal system	
3-2-6	Enchance digital social ability of SMG and its Citizens	■
3-2-7	Set up cooperative system for privacy protection together with citizens	■
3-2-8	Offer Customized cultural information by Integrated culture information managing system.	
3-2-9	Provide user-led on/offline tour information	

Global Digital Leader

4-1 Adapting cutting-edge technology preemptively

4-1-1	Expand IoT testbeds	■
4-1-2	Branding Seoul as a global IoT city	■

4-2 Establish world-best digital infrastructure.

4-2-1	Establish a futuristic Data Center that enables cloud service	■
4-2-2	Advanced IoT Platform	
4-2-3	Advanced Big Data Sharing/Using Platform	
4-2-4	Sharing/Using Space Information	
4-2-5	Advanced High-Speed Internet Infrastructure	
4-2-6	Public Free WIFI Infrastructure	
4-2-7	Construct an Integrated Control System for City Infrastructure	■
4-2-8	Integrated Control System for every Department of Seoul	

4-3 Enhance capability to implement digital projects

4-3-1	Driving innovation with citizens based on public smart services	
4-3-2	Establish Smart Administrative Portal	■
4-3-3	Improve the performance assessment for Information operating systems	■
4-3-4	Advanced Digital Organization Capacity	■

4-4 Share the digital experience with citizens in the world.

4-4-1	Reinforce Overseas Exchange	
4-4-2	Expand Seoul's e-government services to other countries	

SUSTAINABLE
SEOUL
SMART CITY

: Seoul e-Government

지속가능한
서울
스마트시티