

Master Plan  
for the Next Generation  
*e*-Government  
in Korea

Digital Government Inside the People

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# Foreword

Beginning with the construction of the National Basic Information System (NBIS) in the 1980s, the basic infrastructure for Korea e-Government was established through the key e-Government projects (2002 ~ 2003). On the basis of this infrastructure, the "Participatory Government" (led by President Roh Moo Hyun) has accomplished innovative performances through 31 e-Government roadmap projects (2003 ~ 2007).

The successful implementation of many innovative systems like the On-Nara Business Processing System has fundamentally changed the way how civil servants work, and revolutionized civil service including G2C (Government to Citizen) and G2B (Government to Business). In particular, Korea's G4C (Online Civil Services Portal), Information Network Village, e-Procurement, e-Customs and Home Tax Services are now globally recognized as best practices and have been benchmarked by many countries around the world.

However, in order to address new challenges, arising from the needs of citizens and businesses and environmental changes such as low-birth rates and aging population, Korea formulated a future strategy in 2007: "VISION 2030 : Hopeful Korea in Harmony". One of the core driving forces for VISION 2030 is e-Government, which is an important tool to support the 'Construction of a Hopeful Korea'.

As our society is increasingly becoming ubiquitous in nature, and thus creating new administrative demands, the government of Korea is faced with the need to establish a new direction and role for e-government in the context of the future administrative environment. To meet these demands, a new strategy for e-government, "Master Plan for the Next Generation e-Government (2008 ~ 2012)", was prepared through consultations with relevant stakeholders and experts, including administrative agencies, industry representatives, academia, and the general public.



Through implementation of the Master Plan, we expect to accelerate government innovation and furthermore greatly contribute to improving national competitiveness by offering a demand-based vision and action plans utilizing ubiquitous technology.

As part of the Master Plan, we set up our vision to build the “World’s Best Digital Government inside the People”, and established aims to offer responsive, efficient, and customer-friendly services to the public. The vision consists of five strategies and four specific tasks that will realize four goals: customer-centric customized citizen services, system-based government innovation, preventative system for a safer society, and sustainable advancement of e-government.

The Ministry of Government Administration and Home Affairs will lead Korea’s e-government efforts to become the world’s best, and fully commit itself to the successful implementation of the Next Generation e-Government Master Plan. By 2010, we expect to reach a stage where the digital divide and income gaps will be further narrowed, overseas expansion of Korean industries enlarged, while decentralization is further promoted and value-creating services revitalized.

We hope the contents of this overview on our next phase of development in e-government to be undertaken by the Government of Korea for the next five years will be both useful and informative for those interested.

*December 2007*

*Ministry of Government Administration and Home Affairs*



*Master Plan  
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# Introduction

Major Milestones and Key Achievements  
Changes and Implications

# Introduction

Since the 2000s, the world has faced diverse vexing problems such as low birth rates, increased aging population, and the acceleration of globalization. In addition, there is a need to create a forward-looking administration environment that can meet future administrative challenges of the 'ubiquitous' society which interconnects cyber space and the real world. Like other developed countries, the Korean government has actively pursued government innovation as a means to improve administrative efficiency since the late 1980s. E-Government has been used as a key strategic means to achieve government innovation.

The Korean government has established the "U-Korea Master Plan (2006-2010)" in March 2006 as a framework plan for promoting 'digitalization' across the nation, and formulated the "VISION 2030 : Hopeful Korea in Harmony" in August 2006 as a national future plan. On the basis of these plans, the "Next Generation e-Government Strategy" has been set up to contribute to accelerating government innovation and to establish the practical groundwork for accomplishing VISION 2030 in conformity with future administrative paradigms.

## Major Milestones and Key Achievements

Historically, the development of Korea e-Government has undergone three phases.

The first phase was the "Pioneer Days for Foundation of e-Government ('87-'00)". In this time period, the Korean government built databases for key administrative information such as resident registration real estate and vehicles under the National Basic Information Systems Project, constructed the e-government communication infrastructure through the Korea Information Infrastructure (KII) Project ('94-'97), and established integrated infrastructure among government agencies by focusing on task units (only in limited areas).

The second phase is called the "Full-Fledged Implementation of e-Government ('01-'02)". During this time period, the Korean

government implemented 11 Key Initiatives, including the Single Window for Online Citizens Service (Government for Citizen: G4C), e-Procurement Service (G2B), and National Finance Information System (NAFIS), and set up institutional arrangements such as the legislation of the e-Government Act (March 2001).

The final phase is "Advanced Development of e-Government" ('03-'07). Key attention was placed on the implementation of the e-Government Roadmap Project as a strategic vehicle for government innovation. 31 Roadmap Projects in 4 Key Areas (High priority areas: Innovating Civil Services, Innovating the Way Government Works, Innovating Information Resource Management, and Reforming the Legal System) were identified. At the same time, 'Consolidated Administrative Information Sharing System', the realization of an 'Online Participatory Democracy', and

the consolidation and connection among public institutions both vertically and horizontally were also driven.

The strategic and gradual progress of e-government initiatives enabled the Korean government to establish the technical and institutional foundation for implementing e-government, in addition to establishing the infrastructure for sustainable government innovation, and improving services for citizens (G4C) and businesses (G2B).

Currently, Korea e-Government, together with U.S., Denmark, and other countries, is recognized as one of the world's best e-government. The UN e-Government Readiness Index ranked Korea fifth in the world in both 2004 and 2005 and sixth in 2007. Also, Korea ranked second in the e-Participation Index in 2007. Korea has promoted national informatization through these e-government initiatives and provided the foundation to become a world class IT country by enhancing the competitiveness of its IT industry.

### Key Achievement 1:

#### Preparing the Infrastructure for Sustainable Government Innovation

- » Promoted administrative transparency and cooperation through the development of On-nara (meaning 'nation-wide online') Business Processing System for all public institutions including local governments (January 2007).
- » Launched a real-time consolidated national fiscal management system (Digital Public Budget and Accounting System) which is based on advanced accounting systems and fiscal administration (such as double-entry bookkeeping, program budgeting, etc.) beginning with fiscal year 2007.
- » Strengthened the vertical and horizontal linkage of work between central government and local governments by expanding and improving the standardized administrative system.

### Key Achievement 2:

#### Improving e-Government Services for Citizens (G4C)

- » Reduced red tape through information sharing among public agencies and private institutions (e.g. banks) for more than 40 types of requested documents – thus reducing 67% (two billion and ninety million documents) of current requests for civil documents through sharing administrative information among government agencies by 2007).
- » Launched e-government services accessible at home for requests and issuance of civil service through the Internet at home without the need for physical visits to government offices.
- » Launched the "Ombudsman's Portal" and increased online civic participation for civil complaints, policy proposals, and forums.
  - Reduced the processing time of multiple civil complaints from 44 days (2004) to 14 days (2006) and held online hearings (595 cases), online forums (376 cases), acceptance of citizens' policy suggestions (467 cases) in 2006.
- » Through e-taxation services (Home Tax Service) citizens can file and pay taxes at home using the internet
  - Online tax filing rates: income tax (81.2%), corporate tax (96.9%), online certificate issuance (60%)



### Key Achievement 3:

#### Improving Support Systems for Businesses (G2B)

- » Since the launch of the G2B system, integrated (from start-up through closedown of businesses) industry-specific information services have been provided.
- » Simplification of national logistics and related processes such as standardized import/export forms and one-time submission requirements has enhanced the competitiveness of companies.
  - Decrease in number of approval forms for import/export processing from 21 kinds of forms (2003) to 8 kinds of forms (2004)
  - Reduced time of submission required for the import and export of goods from 4 times of submission (2004) to single-time submission (2005)

### Key Achievement 4:

#### Reinforcing Technological and Institutional Infrastructure for e-Government

- » Construction of two National Computing and Information Resources Administration (NCIRA) Centers and consolidation of the information resources of 48 governmental ministries in order to achieve an efficient management system of government information resources.
  - Korea's initial NCIRA center was the first organization to be certified by ISO20000, the international standard for IT Service Management.
- » Improved the basic legal foundation for digitally improved administrative processes, civil participation, and information resource management
  - Improving legal systems: Amended 143 statutes (5 laws, 27 presidential decrees, 111 ministerial ordinances)

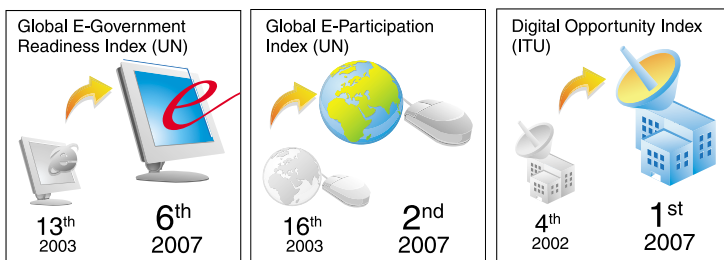
### Key Achievement 5:

#### Realizing World's Best e-Government

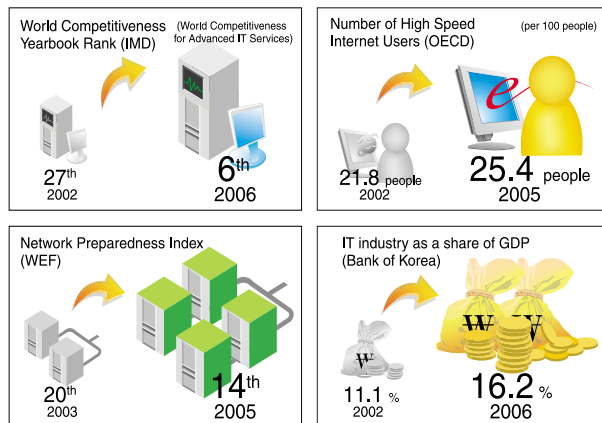
- » "Narajangteo", or Korea's e-Procurement System, is a world recognized standard - the value of goods purchased is USD 47 billion and the number of daily site users is 18 million with an e-bidding rate of 92.3%.
  - Awarded the UN Public Service Award (PSA) in 2003
  - Selected as the "Best Practice Model" in electronic procurement by the UN (2004) and as a benchmarking case of transparency improvement by the OECD (2004)
  - Awarded the Public Sector Global Excellence Award by the World Congress on Information Technology (WCIT) in 2006
- » Korea e-Government has the fastest electronic customs service (e-Customs) system among 169 member countries of the World Customs Organization (WCO).
  - Takes less than 2 minutes for exports and less than 1.5 hours for imports
  - The world's first 100% electronic declaration system for exports and imports
  - Selected as the best practice model at the UN Anti-corruption Forum in 2001 and awarded WCO Trophy in 2006

## Current Status of e-Government of Korea

Korea has one of the world's best e-government, comparable to those of the U.S. , Sweden, and Denmark



Promotion of national informatization through e-government initiatives and establishment of foundation to become a world-class IT country by enhancing IT industry competitiveness



## Major Milestones



※ NBIS(National Basic Information Systems)

## Changes and Implications

The “Master Plan for the Next Generation e-Government in Korea” was formulated in response to changes in both domestic and international areas, and increasing needs. It is also focused on solutions for resolving issues related to changes in the societal, administrative, and IT environment.

In terms of changes in the societal environment, the Korean society is also experiencing the typical socio-structural problems of the 21st century. These include negative inertia in the old system, lack of an effective negotiation mechanism to resolve conflicts among stakeholder groups, and socio-economic polarization due to the lack of capacity to adapt to environmental changes such as globalization and technological advances. In addition, there is a strong need to rapidly adapt in a new global environment resulting from the breakdown of trade barriers due to the international Free Trade Agreements (FTA) for sustained development.

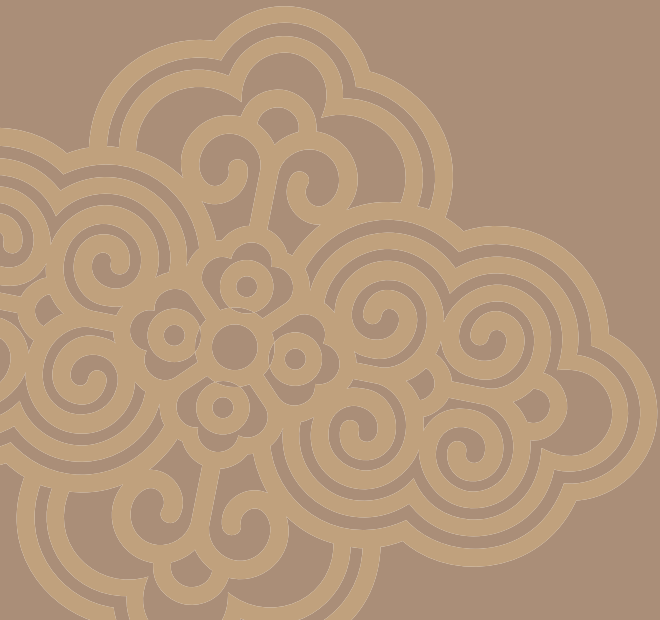
In response to changes in the administrative environment, the augmentation of partnerships among social members, ministries, and between central government and local governments, to help solve social problems arising from complex, fragmented, and other unique attributes of the modern society, has emerged as a key issue. There is the growth of desire for public participation and freedom of expression in the governmental policy decision making and implementation processes resulting from the diversification of communication channels such as the Internet and mobile communication technologies. In addition, there is a demand to expand the commitment to balanced national development through policies such as decentralization of government functions, construction of multifunctional administrative cities, and relocation of public agencies from the capital to other provinces. The demand for expanding the role of government for social safety - the core function of government regarding protection from various societal problems resulting from natural disasters, new high-tech crimes as well as the threat of mass terrorism is also increasing.

Along with these changes in societal and administrative environments, rapid changes in IT environment is accelerating. Digital convergence is creating the new value through Web 2.0 and UCC (User Created Content). They are changing the way how people use the Internet. Already in the U.S., there is the fast diffusion of mash-up (web application hybrid) in public information for public and private sector cooperation.

The Korean government is building a new administrative capital for diversified and balanced development to meet new administrative and public demands. Also, this new capital can be used to address the changing roles of the government in a rapidly evolving society and technology environment. In addition, the Korean government is pursuing customer-centric service for targeted clients rather than a standardized one-size-fits-all approach, connecting public and private services, and integrating back offices with customer-centric services. Through these efforts, the Korean government will provide an administrative infrastructure that will serve as a solid function for successfully achieving the objectives of VISION 2030, and at the same time, meet the needs of the marginalized class to enjoy the benefits of informatization.



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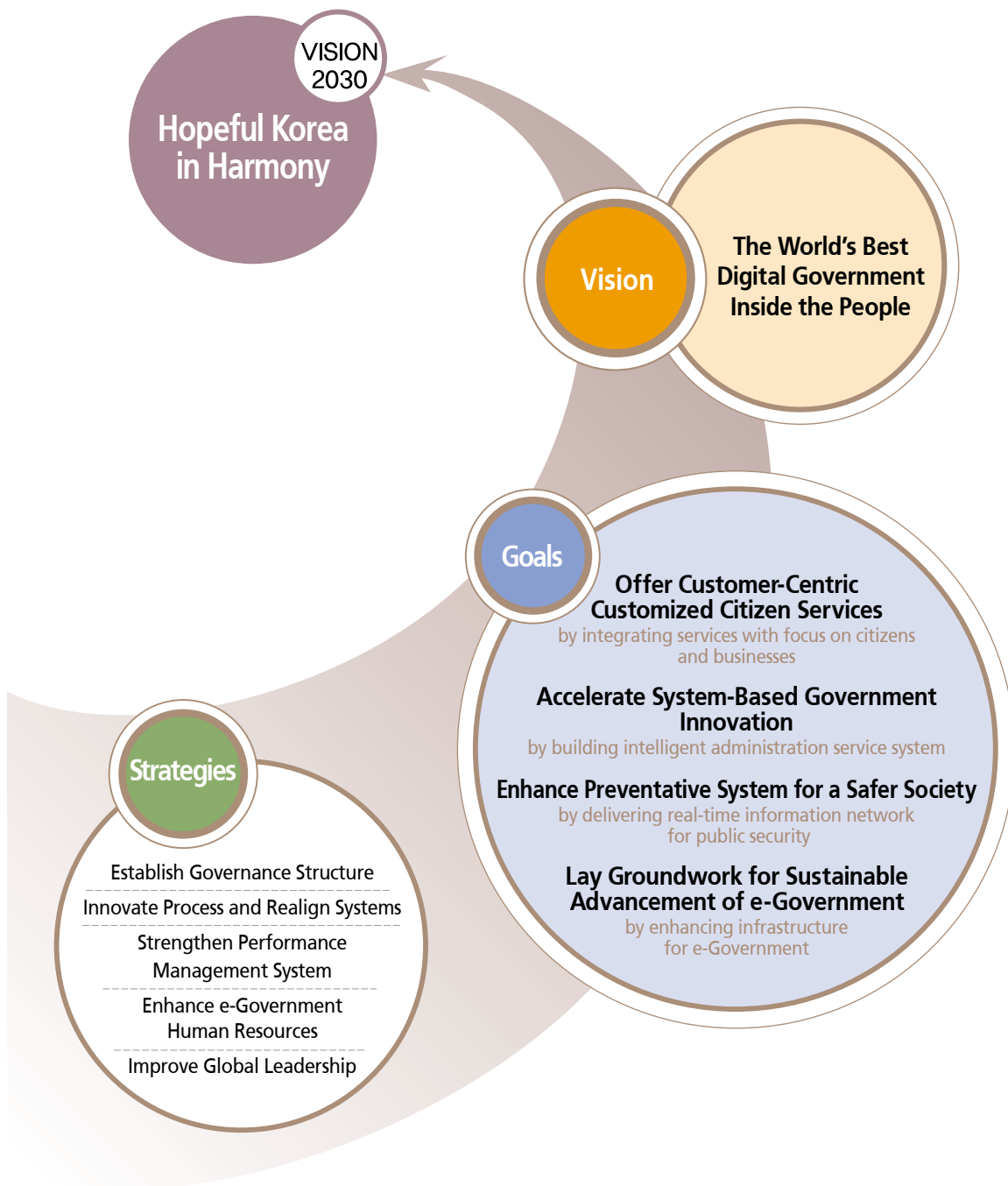
# **Vision and Strategies**

Vision and Goals

Implementation Strategies

# Vision and Strategies

## Vision and Goals



## Implementation Strategies

### 1) Establish Governance Structure

- Establish a system where all stakeholders including industrial players, academia, research institutes, and government can participate
- Strengthen partnership between central-local governments and establish a system for compromise and mediation centered around the CIOs of each government entity
- Establish processes for collecting citizens' consensus on all the procedures in digital government projects, operating policy-client group (users' group for verification)

### 2) Innovate Process and Realign Systems

- Reform legal system and innovate work procedures that are used as preconditions for the development of inter-ministry processes
- Improve regulations suitable for electronic public administration and public-private partnership

### 3) Strengthen Performance Management System

- Establish performance management processes such as setting measurement criteria and goals, regular performance measuring, and evaluation-feedback, introduce contract system based on performance evaluation between supervising and commissioned agencies, and investment on the basis of 'selection and concentration' methods
- Introduce Project Management Office (PMO) and develop PMO training programs
- Establish e-Government service quality management system such as quality management, change management, and measurement of service and operation levels.

### 4) Enhance e-Government Human Resources

- Train IT experts specializing in such sectors as project management and security and develop careers for IT experts.
- Provide IT-oriented training programs customized for CEO, CIO, and staff.

### 5) Improve Global Leadership

- Enhance e-Government cooperation with international organizations and foreign countries and expand global presence
- Strengthen support for international standardization, international authentication and promote the Korean Model of e-Government

In 2007 (Phase 1: Preparation), the Korean government formulates the master plan and action plans for Next Generation e-Government as well as the principles to realize long term plans for the successful achievement of the 31 Roadmap Projects of the "Participatory Government".

In 2008 (Phase 2: Formation for Foundation), the Korean government plans to carry out Business Processing Reengineering (BPR) and Information Strategy Planning (ISP) on new e-Government projects. Preliminary review on the feasibility of new e-Government projects is to be strengthened. In this phase, capacity building will also be undertaken for the implementation and managing of organizational structure.

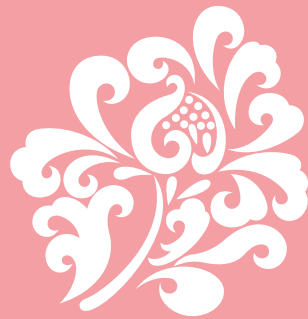
From 2009 up to 2011 (Phase 3: Establishment of System), the Korean government will commence full scale rollout of systems developed.

In 2012 (Phase 4: Integration), the Korean government will enhance performance by integrating systems and focus on delivering higher quality services





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4 Goals	9 Agendas
1) Offer Customer-Centric Customized Citizen Services by integrating services with focus on citizens and businesses	① Integration of Services Delivery System enabling easier public access ② Integration of Business Information Services for enhanced corporate Competitiveness
2) Accelerate System-based Government Innovation by building intelligent administration service system	③ Digital Government Network for facilitating multi-agency collaboration ④ Transparent Policy Decision Making Systems and enhanced sharing of administrative information
3) Enhance Preventative System for a Safer Society by delivering real-time information network for public safety	⑤ Enhanced National Defense and Safety Management Systems ⑥ Intelligent Public Order Management System
4) Lay Groundwork for Sustainable Advancement of e-Government by enhancing infrastructure for e-Government	⑦ Stronger Information Security and Privacy Protection for enhanced public trust in e-Government ⑧ Universal e-Government Services ⑨ Enhanced Sharing of Information Resources for stronger e-Government infrastructure



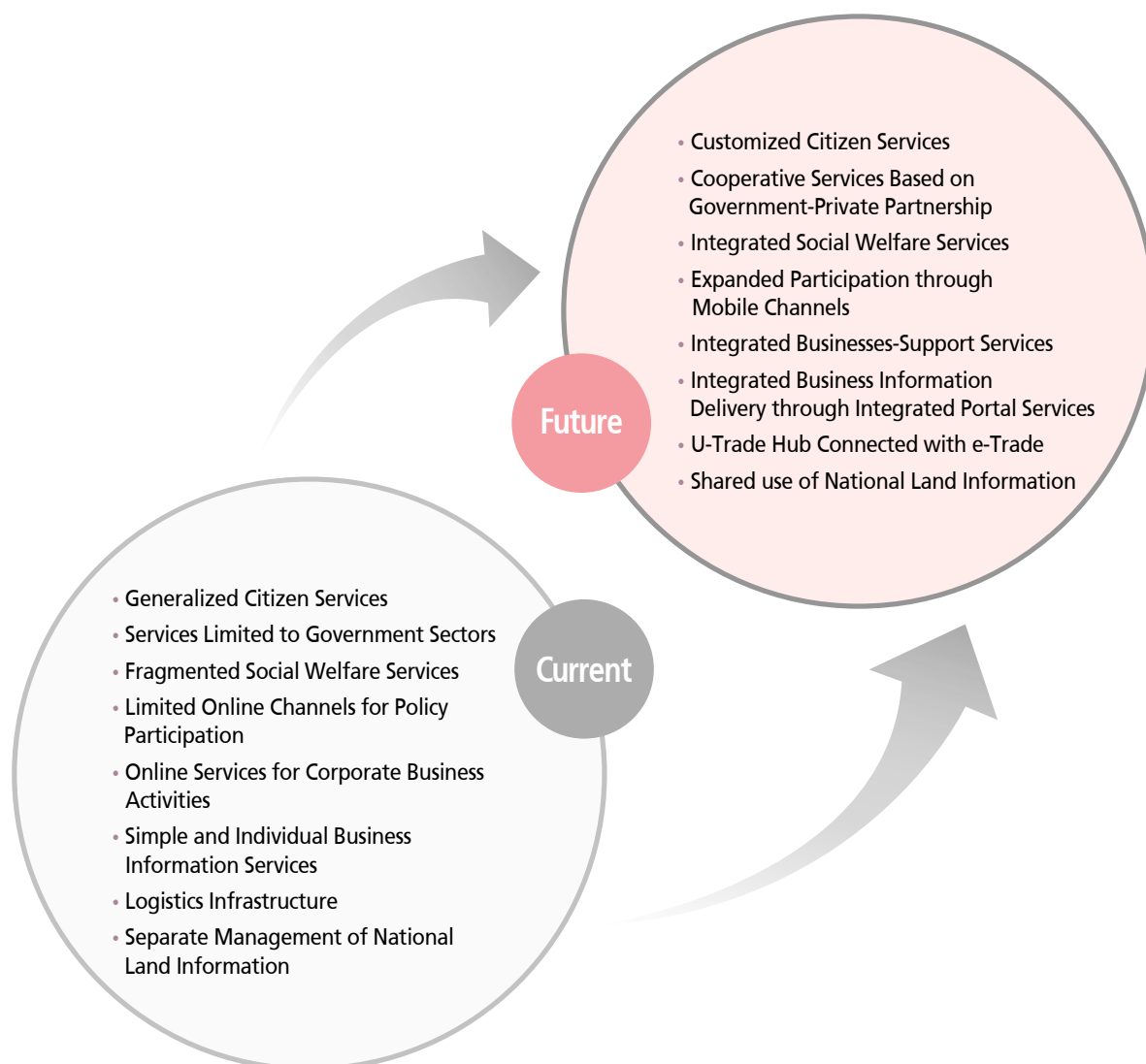
## Key Tasks

1. Service Integration Based on the Needs of Citizens and Businesses
2. Intelligent Administration Service System
3. Real-time Public Safety Information Network
4. Strengthened e-Government Basic Infrastructure

# Key Tasks

## 1. Service Integration Based on the Needs of Citizens and Businesses

By providing customized services that meet the needs of citizens, the goal is to improve convenience for citizens and support business activities.



## 1.1. Integration of Government Service Channels for Enhanced Public Convenience

Efficiency in service delivery and benefit to the lives of citizens mean providing integrated services through a single delivery portal and developing government services truly needed in the life of citizens, by providing personalized services, social welfare services and diverse participatory channels

### Integrated Service Channels

#### Integrated Information System for Civil Life Support

Providing citizens with services they truly need in the most efficient way begins with consolidating the various service delivery systems. A 'Single Window' portal will aggregate citizens' life related services provided from central, local governments and other private and civil organizations. This will involve linking the standard administrative information systems of local governments with a resident service support portal. In addition, the usage of ubiquitous technologies is expected to bring services even closer to the everyday lives of citizens.

Also, information on supply and demand of manpower as well as the education market will be shared among the industry, academia, and research institutes. The Qualification Verifying Information Network that manages national qualification exams for technical experts and provides qualification information will be linked with the labor market network and job training networks. The Integrated Cultural and Tourism Content Service will provide real-time cultural information service at the national level by consolidating all cultural and tourism information including tourist attractions and cultural events. All laws and ordinances information will be customized to fit the needs of each user, and all statute information currently scattered among the different legal entities (Legislation Agency, Supreme Court, National Assembly, etc.) will be consolidated.

#### Provision of Customized Services (My e-Gov) for Citizens

"My e-Gov" aims to provide services tailored to the needs of individual citizens. A government service map will be developed that classifies and maps customers by various groups based upon analysis of current government services for business and private citizens. This will then be used to create customized administrative services for e-Government users.

In practical terms, all the electronic service windows of all the ministries at the business process level need to be consolidated. Services provided by various portals that were previously designed with a specific task or purpose in mind will be rebuilt based on demands from citizens. At the same time, linkages with other private portals will be provided. Integrated tax portal linking national and local tax, and health care services for individuals throughout their life cycles are just some of the personalized services that would be possible under My e-Gov. To further enhance convenience for citizens, information portals concerning national affairs and policies are also being targeted for consolidation and linkage with other public and private portals. Electronic civil affair services will also be enhanced by improving cross-ministry business processes as well as linkage with e-civil affair portals and government call centers.

### Customized Social Welfare Services

#### Intelligent System for Delivery of Medical Information to the Public

ICT integration in health care will be further developed by standardizing electronic medical records, developing core common modules, and strengthening security, etc. Innovations in the medical information delivery systems such as linking the schedules of public medical institutes, and telemedicine are also being applied. An emergency treatment system linked with U-119 (119 is the emergency call number in Korea) for disadvantaged groups such as the elderly and the disabled will also be established. In addition, an emergency information transmission system will be set up to quickly exchange information and take response measures in preparation for domestic and foreign health care emergency situations such as disease outbreaks.

#### Integrated System for the 4 Major Social Insurance Services

The systems will provide a one-stop service integrating the different applications and collecting schemes of the 4 Social Insurances Programs. This will consolidate information about the 4 Social Insurance systems and provide relevant information to the people on a real-time basis.

### **Eligibility Verification System for Social Services**

A system will be set up to certify those receiving social services such as unemployment check, long-term care for the elderly, earned income tax credit, etc. This will also be linked with related infrastructures for measuring income levels.

### **Expanded Citizen Participation Channels**

#### **Online Social Consensus System for Building an Integrated Society**

Active e-Democracy will be ensured by providing venues for cyber discussion, real-time public opinion gathering, etc., allowing stakeholders to resolve their disagreements in a democratic process. Databases of disentangled cases for complicated social matters will be created and utilized to arbitrate similar cases in the future.

#### **E-Voting and e-Election using Ubiquitous Technology**

Under this system, all voter registration databases will be consolidated, creating the basis for people to vote from anywhere across the nation. In order to raise the voting rate and improve convenience for citizens, electronic voting systems linked to the Internet or kiosks will be developed.

### **Enhanced Service Delivery for Foreigners**

#### **Open Management of National Borders and Integrated Information System for Foreigners**

All procedures for foreigners entering into Korea from visa issuance to departure will be improved significantly through enhanced cooperation among relevant agencies and real-time linkages with overseas diplomatic offices. Automatic immigration system utilizing advanced biometric technologies and potential threat evaluation and tracking system based on information on passengers, foreigners living in Korea, and lost passports will be put in place.

Open border management also applies to the border separating South and North Korea. Diverse transportation systems to move people between the North and South will be built. Information on North-South transit, customs, and logistics will be shared, while a joint working environment to facilitate cross-agency operations will be created. G4F civil affair services and the Integrated Foreigner Service Centers will be linked to provide fully functional on/off-line services.

## **1-2. Integration of Information Service Channels to Support Corporate Business Activities**

Strengthening the competitiveness of the business sector will require improving the services that support business activities. These include comprehensive civil affairs processing for businesses, providing information for industry activities, and establishing an environment to promote global e-trade and logistics.

### **Integrated Information Service for Business Support**

#### **Integrated Business Information Delivery System**

To efficiently support business activities, the delivery systems for business information services will be consolidated. This entails continued development of the single channel for business support services (G2B) such as preparing the means to enable comprehensive civil affairs processing, and automation of information collection and distribution to reduce the administrative burden for businesses. Customized high value-added information tailored to the needs of each business, including information on strategic commodities, industry movement, and overseas investment opportunities, will be provided. In addition, a collaboration network "SPI-1357" connecting the central government, local autonomies, and local SME support agencies will continue to be improved upon.

#### **Consolidated National Defense Industry Information Service**

The service will create a collaboration network where information can be shared between stakeholders in the defense industry including relevant agencies, industry players, and research institutes. To support the development of domestic defense industries, public relations websites showcasing prominent new technologies will be built, while initiatives to expand foreign export markets will also be supported. In addition, integrated support system which makes use of simulation techniques is also being planned.

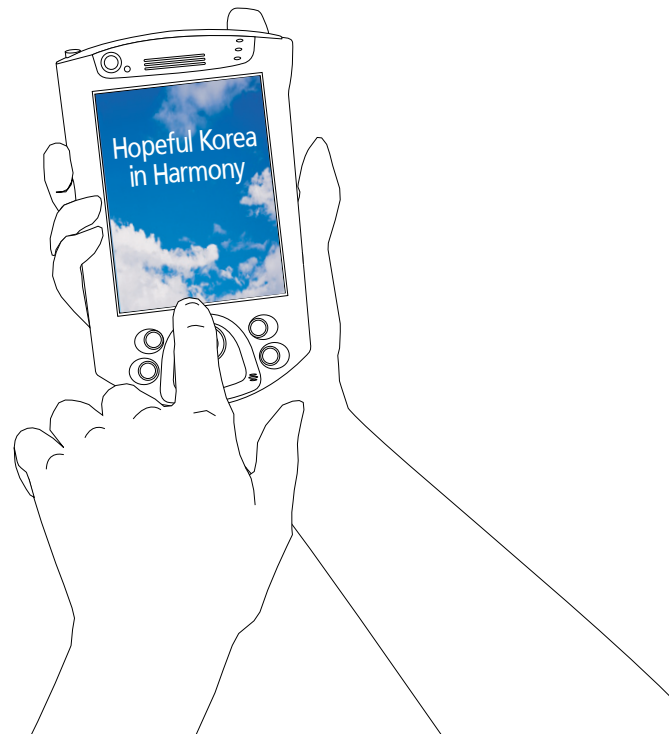
### **Global Electronic Logistics System**

One of the major initiatives for the sustainable economic growth of Korea involves positioning itself as the Northeast Asia Trade Hub. To achieve this goal, the service will provide an integrated global logistics information network. Also, an Integrated Supply Chain Management (ISCM) System based on the World Customs Organization (WCO) standard model will be established to support safe and smooth trade activities. And various logistics systems including shipping, air freight, railway, etc. will be consolidated into an intelligent logistics system. Finally, cross-border linkages of e-Trade infrastructures will need to be implemented to support the global u-Trade Hub Network.

### **Intelligent SOC (Social Overhead Capital) Management System**

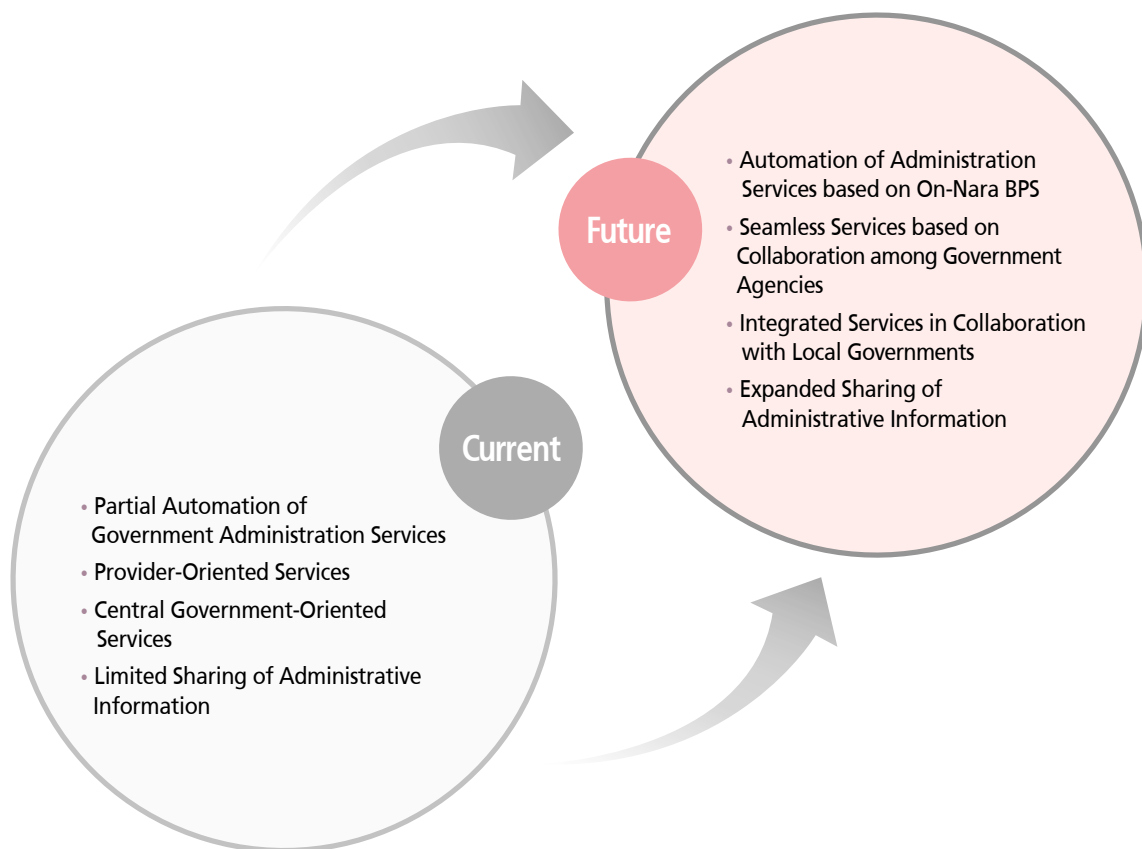
As part of this system, an Integrated Land Information Management System will be built that allows for inter-linkages and shared use of various land information from 7 ministries. In order to integrate and link the different data, code standards, system linkage standard models, and interfaces will be developed. In addition, business processes that can support the distribution and utilization of these integrated land information DB as well as portals and supporting systems will be created.

Another important aspect of SOC management is energy. To that end, an integrated national energy information network will be constructed. A pan-governmental energy demand management system will be built to efficiently manage energy information scattered among different energy agencies. To facilitate the process, a Resource & Energy Risk Management System at the national level and a multi-dimensional prediction and analysis system are also being planned for development.



## 2. Intelligent Administration Service System

By enhancing the seamless flow of businesses by linking the administrative systems of government agencies, the system aims to support the delivery of seamless cross-agency services. Horizontal integration will be improved through initiatives such as the government collaboration network based on the On-Nara Business Processing System, expanded utilization of spatial administrative information and on-site information, and strengthened policy making support mechanisms by administrative information sharing.



## 2.1. Digital Information Network for Administration Services

A seamless business processing environment between administrative agencies will be created by building a collaborative government business process network based on the On-Nara BPS, and an integrated administrative information management system with a focus on on-site administration.

### Collaborative State Affairs Management Systems based on the “On-Nara” System

#### Digital Neural Network for Government Business Process

The On-Nara System will be used as a basis for integrating and linking various stand-alone systems, such as e-Audit systems and public relations systems. The On-Nara System will be deployed down to the city, province, and county levels. In order to ensure that sensitive content is not compromised, a national classified document distribution management system will be created and integrated into the On-Nara system. Mechanisms such as real-time disclosure of information held by administrative agencies and performance results, and automated performance evaluation by information systems, will ensure transparent administrative support. To efficiently manage these processes, a government business process management system will be set up to streamline typical business processes based on Business Process Reengineering (BPR) and consolidate processes to eliminate duplications.

#### Integrated Administrative Business Network from Disseminated Government Agencies

The government of Korea is planning to relocate its ministries and public agencies to different regions in Korea and build a Multifunctional Administrative City. An advanced working environment will be created to overcome geographical limitation by utilizing telework, mobile administrative portals and administrative messengers, etc. Remote video conferencing will be expanded to support the disseminated working environment. And a government specific ubiquitous network will be constructed to connect and interlink metropolitan areas, the Multifunctional Administrative City, and other relocated areas.

## Advanced Local e-Government

### Advanced Local e-Government and Integrated Local IT Network

This involves the development of standardized administrative information system for municipal cities, provinces, and local districts, to support ubiquitous based information assistance for residents and provide public/private converged services, etc. A shared system standard for local autonomies will be built and customized according to the needs of each local government. Integrated IT networks will be created to consolidate and share information resources among local governments in the region, which will then be utilized to consolidate management of local facilities, civil petition call centers, disaster relief centers, and security control centers, etc. To facilitate interconnections and standardization among the regions, a common platform for information systems will be deployed. A ubiquitous based local administrative network will be constructed and interlinked with the e-government integrated network to provide control and management of local information resources, services, and local facility status monitoring.

### Administrative Business Process Support System Using Geographical Information

A pan-governmental GIS usage system will be created, by establishing interoperability standards between the various administrative information and GIS, building a GIS portal, and providing application services. Standard interface and common infrastructure will need to be developed to enable the shared usage of GIS for various administrative information systems (central government, city/province, district/county, etc.) Map services for citizens will be provided linked with other useful information including relevant statistical data.



## 2-2. Support for Transparent Policy-Making and Expanded Administrative Information Sharing

The goal is to create value-added information by utilizing government agency databases and providing customized services to administrative/public entities by developing an advanced administrative information sharing system.

### Scientific Government Policy Decision Making Support System

#### Integrated Policy Information Service System

The system will be set up to support policy decision making of administrative agencies by providing high-quality value-added information tailored to meet the demands of policy makers. To efficiently manage knowledge and information scattered in various home pages and portals, an integrated policy information management system will be developed.

#### Electronic Personnel Policy Support System

The system will provide comprehensive analysis and decision-making support on personnel information of central and local governments.

#### e-Court

e-Court will provide judicial administrative civil affairs services such as electronic filing of law suits. It also entails the creation of a shared usage system of litigation documents for the National Assembly, Supreme Court, Public Prosecution Office, Ministry of Government and Home Affairs, etc.

### Expansion of Administrative Information Sharing for Creating Value Added Information

#### Customized Administrative Information Sharing Service

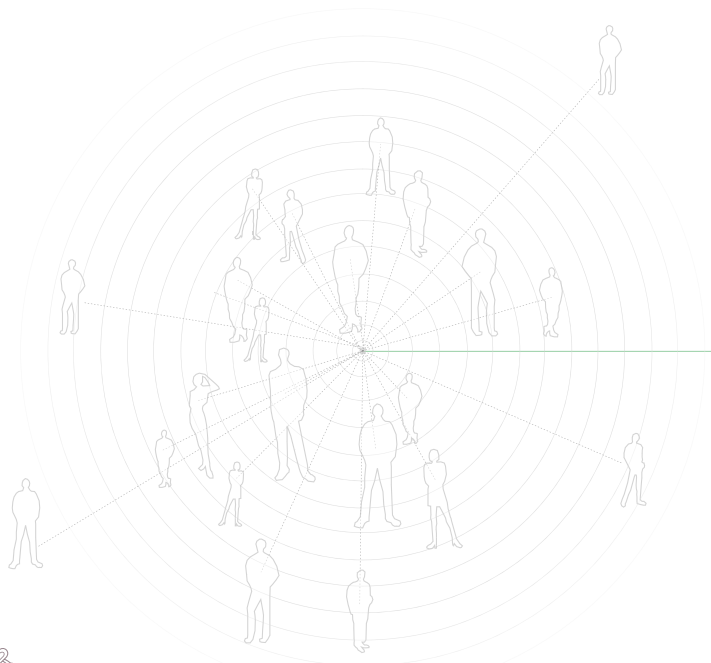
The service will create administrative information clusters sorted and classified by subject matter and services from government agencies' DBs, such as ID information, vehicle registration, real estate, etc. Expansion of administrative information DBs and document reduction plans will expedite the digitalization of paper registers. Management of administrative information

lifecycle, from creation, distribution, and expiration, will be carried, out by the "Digital Administrative Information Identification and Standard Management System." These initiatives will form the basis for providing customized services that meet the demands of administrative agencies, public entities, and financial institutions, etc. through the expansion for administrative information sharing and creation of application information.

### National Future Strategy Management System to Monitor Vision2030 Projects

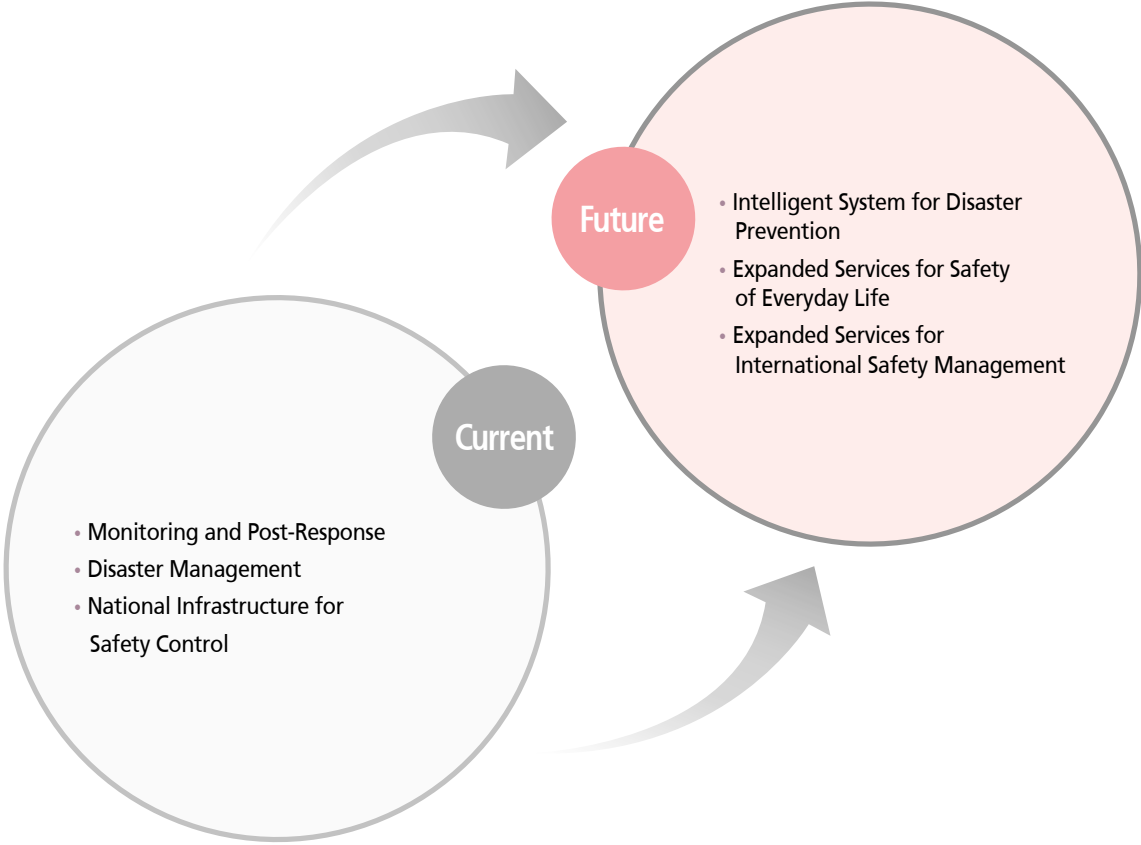
#### Integrated National Future Strategy Management System

The system is designed to enable comprehensive management of information for making future predictions in the fields of population, society, economy, technology, and monitoring. In addition, the system supports strategy planning, performance, and budget management of the Vision 2030 strategy. Information on such matters as policy status of the 50 key initiatives, progress of project implementation, and case studies of inter-ministry conflicts will be shared and linked to the state affairs management system.



### 3. Real-time Public Safety Information Network

The Network is aimed at ensuring the safety of citizens from various social dangers and making sure citizens can live in a safe and comfortable environment.



### **3-1. Advanced Services for National Security and Safety Control**

The goal is to create value-added information by utilizing government agency databases and providing customized services to administrative/public entities by developing an advanced administrative information sharing system.

#### **Expanded National Safety Management System for Strengthened Diplomatic and National Emergency Management Capacities**

##### **Shared use of Diplomatic and Trade Information**

A diplomatic and trade information sharing network will be created to distribute information among related ministries to facilitate diplomatic and trade negotiations.

##### **Electronic National Defense Response System**

The system will digitalize emergency response systems using national emergency management guide manuals as basis, and provide linkages with public safety information networks (disaster, environment, food, public sector, etc.). In addition, a collaborative network between security agencies will be built to share and circulate various national security related information scattered in different agencies (immigration data, terrorist data, information on nationals living in North Korea, etc.)

#### **Integrated National Disaster Management System to Ensure Fast and Proper Response**

##### **Real-time Disaster Prevention Management System**

Real-time distribution of up-to-date information of affected areas to line ministries will be made possible by utilizing advanced technologies such as 3D satellite imagery and GPS. The system of preventive/response measures will be strengthened by sharing disaster related information among related organizations, such as the National Emergency Management Agency, National Police Agency, Korea Meteorological Administration, Ministry of Maritime Affairs and Fisheries and other local autonomies, etc. which will allow the prediction of calamities and preparation of contingency measures. A global common response system is also being designed to share information on international prediction information, including unusual weather patterns or tsunamis, with international emergency management organizations.

#### **Integrated Environmental Information Management System for a Safer Living Environment**

##### **Integrated Intelligent Environmental Information Monitoring System**

A shared system will be established for measurement information on environment, weather, water resources, ecology, etc. Various environmental pollutants in the atmosphere, water resources, and land, etc. will be monitored real-time utilizing sensing technology. At the same time, information services such as environment evaluation reports on land development and unwanted facilities like nuclear reactors and garbage disposal fields will be made readily available to the people. A real-time environmental management system will be created and city/district/county administrative information systems will be linked.

##### **Integrated Management and Prevention System for Environmental Disease Information**

The system is designed to monitor the status of potential threat areas and warn citizens of environmental disease outbreaks, such as allergies originating from environmental pollutants. An online collaborative network between health care organizations and environmental agencies will also be set up to facilitate decision making on responses to potential hazards stemming from rare or new environmental diseases.

#### **Strengthened Monitoring System for Consumer Safety Information Management**

##### **Integrated Consumer Safety Information System**

A consumer safety information shared usage system will be set up to provide various consumer safety information on consumer threats, scams, consumer counseling, etc. In the past, food safety management was dependent on reports from citizens. With this system, food related accidents and investigation information can be shared among relevant agencies, allowing prevention mechanisms to be prepared. In addition, consumer information will be sorted by sector and type, and provided through the Internet.

### **Real-time Food and Pharmaceutical Distribution Management System**

This system will utilize RFID and barcodes to provide extensive information food and pharmaceuticals for strengthened monitoring of distribution channels. In terms of the supply chain on the food industry, food history information from various companies and agencies will be consolidated. Information on distribution channels gathered by utilizing various sensing technologies as well as extensive information on pharmaceuticals such as side-effects, warning notices, and primary effects will be provided to consumers.

## **3-2. Intelligent System for Public Order Management**

The system aims to ensure social safety by deploying advanced public security services such as traffic patrols and crime prevention through the sharing of public security and investigation information as well as establishing a scientific investigation management system.

### **Integrated On-site Public Security and Crime Prevention Information Service**

#### **On-site Public Security Information System**

This system will utilize mobile devices to create a system for crime reporting, crime site identification, and awareness raising.

The use of RFID technologies will be utilized to set up missing child and kidnapping prevention systems by tracking the movement of children and notifying when criminals leave monitored zones. In addition, integrated traffic information, including accident information, and demonstrations through mobile devices to facilitate smooth flow of traffic, will be established.

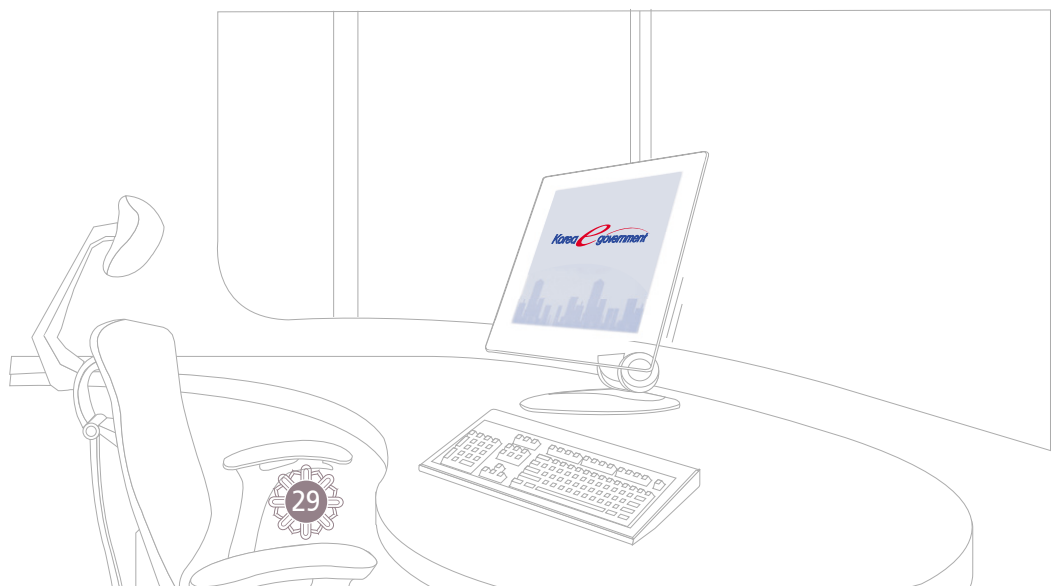
### **Advanced Scientific Investigation System to Protect Civil Lives and Properties**

#### **Scientific Crime Prevention and Crime Analysis System**

Criminal investigation response will be improved by deploying state-of-the-art investigative tools in the field, including integrated analysis of criminal laws, simulation, and analysis equipment. In addition, a crime analysis information sharing network between relevant agencies, such as the National Institute of Scientific Investigation, National Police Agency, and Prosecutor's Office, will be set up to be utilized in formulating measures for crime prevention.

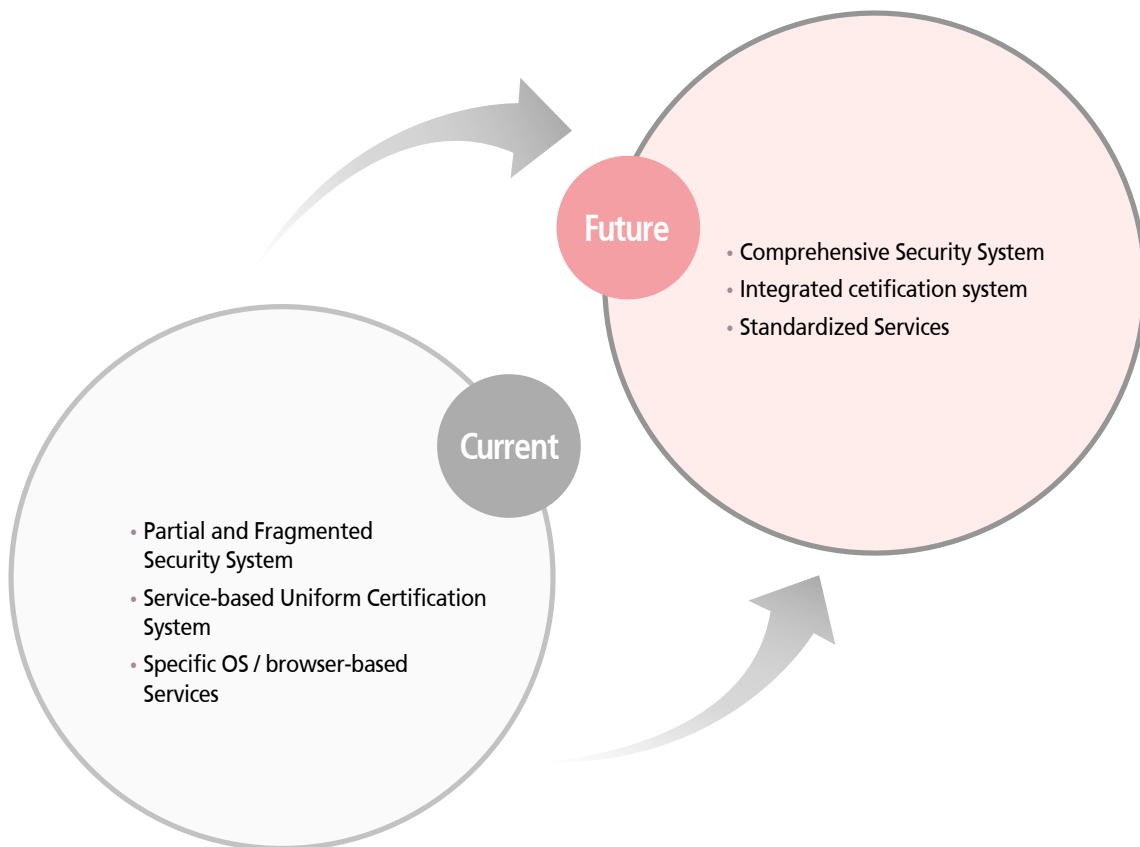
#### **International Investigation Cooperation System**

The system is to be used to combat crimes that are global in nature by expanding the scope of shared investigation information, such as out-of-country movement with Interpol, foreign government investigation agencies, etc.



## 4. Strengthened e-Government Basic Infrastructure

Advancing e-government infrastructure is essential to the continued development of e-government. This will involve creating the foundation for trust in e-government by strengthening security and privacy protection, promoting the shared usage of information resources, and building shared infrastructures.



## 4-1. Protection of Personal Information and Strengthened Information Security

Trust in e-government is an important precondition for service expansion. By enhancing the protection of privacy and information security, an environment where citizens can safely use e-government services will be created.

### Protection of Personal Information and Strengthened Information Security

#### Advanced Personal Information Protection through around-the-clock monitoring

A privacy protection system concentrating on prevention mechanisms such as the analysis of potential privacy risks during the planning of an ICT project will be established. Furthermore, objective indices to measure the level of privacy protection activities of public agencies and improve protective measures will be developed and distributed. In addition, analysis and consulting for privacy protection activities of public agencies will be strengthened.

### Integrated Security Management System for Improving e-Government Safety

#### Integrated e-Authentication System

Integrated management system for identity verification and rights management, and user management system enabling safe and convenient access to various e-government services through linkage with future identity management systems and administrative e-signature will be established. Multi-level authentication systems for each service security level will be deployed, and diverse authentication methods will be developed to take advantage of the flexibility of the ubiquitous environment.

#### Advanced e-Government Service Security Infrastructure

Security management at every phase of an e-government project, including issuing security clearance according to the importance and impact for information resources, and continuous analysis/evaluation of security levels of e-government services, will be strengthened. In order to prevent information leakage over the Internet and improve the Internet usage environment for civil servants, the government business process network and the private Internet network will be separated. At the same time, security control over the consolidated

e-government network will continue to be improved upon. As administrative agencies are relocated to local districts and work at field offices are expanded, government remote access centers will be upgraded and information leakage prevention systems improved to provide support infrastructure for work on business trips and tele-working.

#### Strengthened Collaboration and Joint Response System for Security Related Agencies

The system will create a foundation for conducting systematic security activities within the government by consolidating the access point for information security business processes into a single information security portal. Activities of the Government Computer Emergency Response Team (G-CERT) will be strengthened through cooperation among central administrative agencies and local autonomies, and collaborative activities between related private institutions will also be expanded. The "e-Government Service Security Committee" will be the focal point for development of comprehensive security tools and response measures to security breaches.

## 4-2. Ubiquitous e-Government Services

The aim is to create a user-friendly environment where any citizen regardless of access environment can enjoy the benefits of e-government services.

### Universal Service Framework for Inclusive e-Government

#### Improved e-Government Compliance with Web Standardization

Open development methods such as using Open APIs will be applied to encourage the use of government developed modules by the private sector in deploying Web 2.0 services. "e-Government Web Standardization Guideline" that comply with standard guidelines set by W3C will be developed and used to evaluate web accessibility. The existing interfaces of e-government services will be upgraded to allow access through different web browsers (ex: FireFox, Mozilla) of diverse operating systems that comply with W3C guidelines. (This will be implemented gradually with consideration for service stability, impact, feasibility, budget constraints, etc.)

#### **Universal e-Government Service and Usage Promotion**

An "Open S/W Deployment and Operation Guideline" specific to e-government projects will be created and implemented. Field manuals will also be developed. The deployment of Open S/W will be carried out as pilot projects focusing on common services and will be gradually implemented and expanded. Support for public-private partnership forums, seminars, and international cooperation initiatives will be increased to promote open S/W usage as well as enhance Korea's global presence.

To raise awareness and promote usage of e-government services, various public relationship activities and events such as road shows and exhibitions are being planned. Service satisfaction surveys for each e-government service and user groups will be conducted. In addition, exhibition halls where citizens will be able to experience e-government will be created. In order to extend the benefits of administrative services to the information deprived groups such as rural residents and the elderly, online and offline services will need to be integrated through citizen call centers through citizen call centers.

In order to promote global governance, e-government services will need to follow international standards and receive international certification. Benchmarking of best practices in e-government will also be shared with the world, and cooperation with international organization and partner countries will be expanded.

### **4-3. Advanced Information Resources Sharing System**

In order to promote the shared usage of information resources, information resource management system based on the enterprise architecture (EA) will be applied and e-government standard management systems will be established.

#### **Advanced Information Resources Management based on Enterprise Architecture**

EA adoption in public agencies will be promoted by developing and distributing EA standard models for central administrative agencies and local autonomies. Pan-governmental EA based common information resource management systems will be used to identify and disseminate information resources that can

be commonly shared. In addition, laws and legal institutions will be reorganized to establish an information resource management system that follows the master plan for administrative information sharing management, and promote the shared usage of information resources.

#### **Development of Infrastructure for Shared Services**

Services that need be provided as shared services (i.e statistics information) will be identified, and processes for identifying such services will be established. In order to prevent duplicate investments in e-government services and facilitate maintenance, an "e-government Development Framework" that can be applied to each project will be developed. Common base management system for e-government that includes registration, usage, and suggestions for common services through the creation of a single portal, common service usage statistics survey, etc. will be deployed.

#### **Establishment of Standard Management System**

A management system for standards in areas of data, code, system, service, technology, etc. for enhancing interoperability and accessibility of e-government services as well as common standards will be established. Participation in e-government international standardization activities will continue to be supported.

#### **The National Computing & Information Resources Administration (NCIRA)**

The first step in preparing for NCIRA, consists of consolidating H/W equipment, such as shared storage, backup, security, and communication equipments, that have high integration effect. This will be followed by the integration of system S/W (OS, DBMS, etc.), which will then be expanded to common services (components) after consultation with the relevant ministries. In addition, risk management will be strengthened through improved H/W, S/W, N/W, and DB security management, integrated disaster recovery system operation, etc.

#### **Ubiquitous e-Government Infrastructure**

Common usage platform such as mobile services and IPTV services will be built to diversify e-government access channels. The ubiquitous network infrastructure will imbue intelligence to objects, expand personalized services utilizing IPv6, RFID, USN, etc.

## Project Selection Criteria

The 24 key initiatives of the Master Plan for Next Generation e-Government were selected from 396 candidate tasks, based on research for selecting future e-government initiatives, survey results from all government agencies, analysis of the 50 key initiatives of VISION 2030, and identification of new e-government initiatives. These 24 key initiatives support the integrated infrastructure for sharing administrative information among government agencies and share the common goal of stimulating continual innovation in the public sector. Thus, the promotion of innovation was one of the main selection criteria. At the same time, weight was placed on candidate initiatives that were high on the agenda in terms of need for informatization and impact outcome, but those that were not able to be implemented due to barriers to initiation.

### Selection Criteria of Key Initiatives

Criteria	Sub Criteria	Detailed Criteria
Conformity to Strategy	Conformity to higher strategic goals at national level	- Conformity to the highest national goals (VISION 2030)
		- Conformity to goals of the Next Generation e-Government in Korea
Adequacy of Initiative	Interoperability and integration	- Level of linkage among government agencies and utilization of shared information
Effectiveness	Improvement of administrative efficiency and national competitiveness	- Level of contribution to service improvement, including increased project performance, service targets, and service areas
		- Societal, economical, and technological impact, including improved quality of civil life, advanced business competitiveness, and promotion of IT industry
Others	External environment (legal and institutional systems)	- Level of legal and institutional reform for facilitating e-government projects
		- Level of contribution for resolving social issues / conflicts and meeting future demands
	Capacity to implement projects	- Performance evaluation result on past e-government projects



## Selection Process

