Smart and m-Government in Korea

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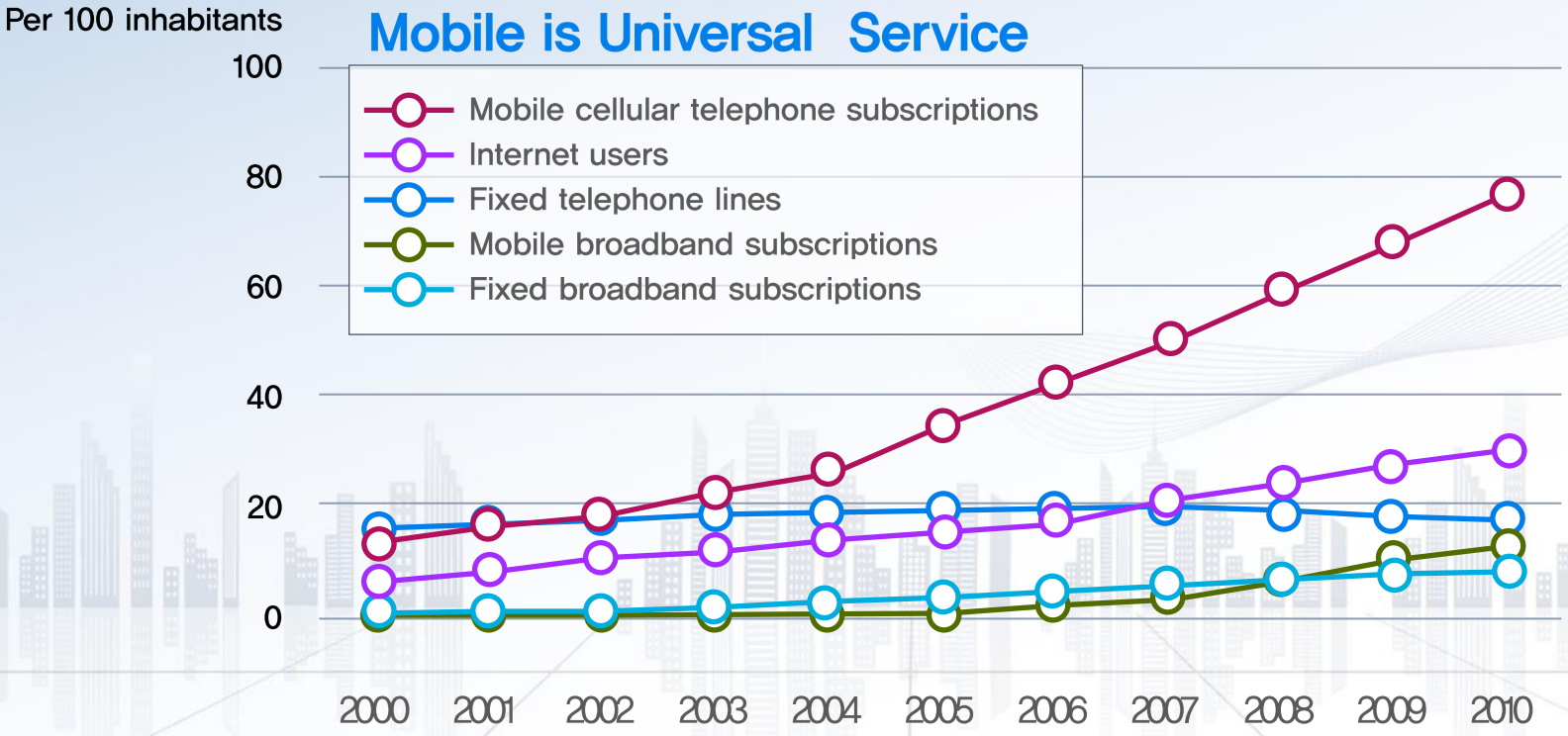
Ⅰ. Brief ICT Status in Korea

Why Mobile



Key Performance Metrics	1998	2008	2018 (Estimated)
Mobile Penetration - Global	5%	55%	96%
High GDP per capita Nations/Total Mobile Subscriber Base	75%	24%	15%

* Source : OECD E-Government Project, M-Government (2011.4)

Korea at a glance

- Over 80% of households subscribe the broadband Internet (2009)
- 78% of citizen use internet (May, 2010)

2010 Census (ended by 15 Nov. 2010)
39.7% of households(7.5 millions) participated the Census online
=〉 Reduce the budget($18 millions)

- 98% of citizen use cell phone (Sep. 2010)
- Despite late introduction of i-Phone (Nov. 2009)
- 10million(Mar.2011) -〉 30 million Smartphone users (Aug. 2012)

Very high demand for mobile services

II. Smart and Mobile
Government Policies

Paradigm Shift from e-Gov to m-Gov

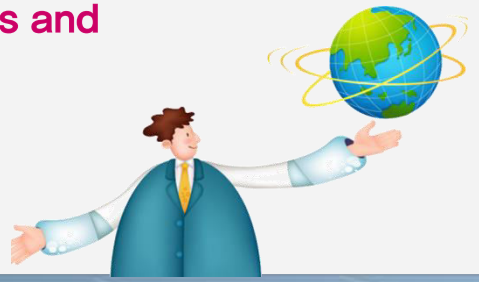
① Seamless connectivity to Government Services, anywhere anytime
② Communicate with citizens using SNS all the time
③ Innovations in working process

	(AS-IS)	M-GOV (TO-BE)
Terminal	PC based	Smartphone, Smartpad etc
Infra	Wired Network	Wireless Network
Service	PC based WEB	Seamless Service, mobile web/app
Users	PC users	Smartphone/pad, Smart TV Users
Place, Time	Restricted	Anywhere, Anytime
Direction	Unidirectional	Interactive (Open, Share)

Realization of a Smart Government

Smart Government

An advanced government promoting use of public services and active citizen participation, anytime, anywhere through integration of smart devices and government services



Via 'Smart e-Government 2015'

ICT

- mobile devices
- cloud computing
- machine-to-machine services

▶ active use of Smart ICT needed

Culture & Society

- evolving population
- changing values
- "network society"

▶ active response to social change needed

Environment & Energy

- global warming & atmospheric change
- energy crisis

▶ resolution needed

Towards a Smart Government

Vision

- Realize a world's best e-Government in tune with the people

Goals

- Global e-Government Leader
- World's best e-Government services

Strategy

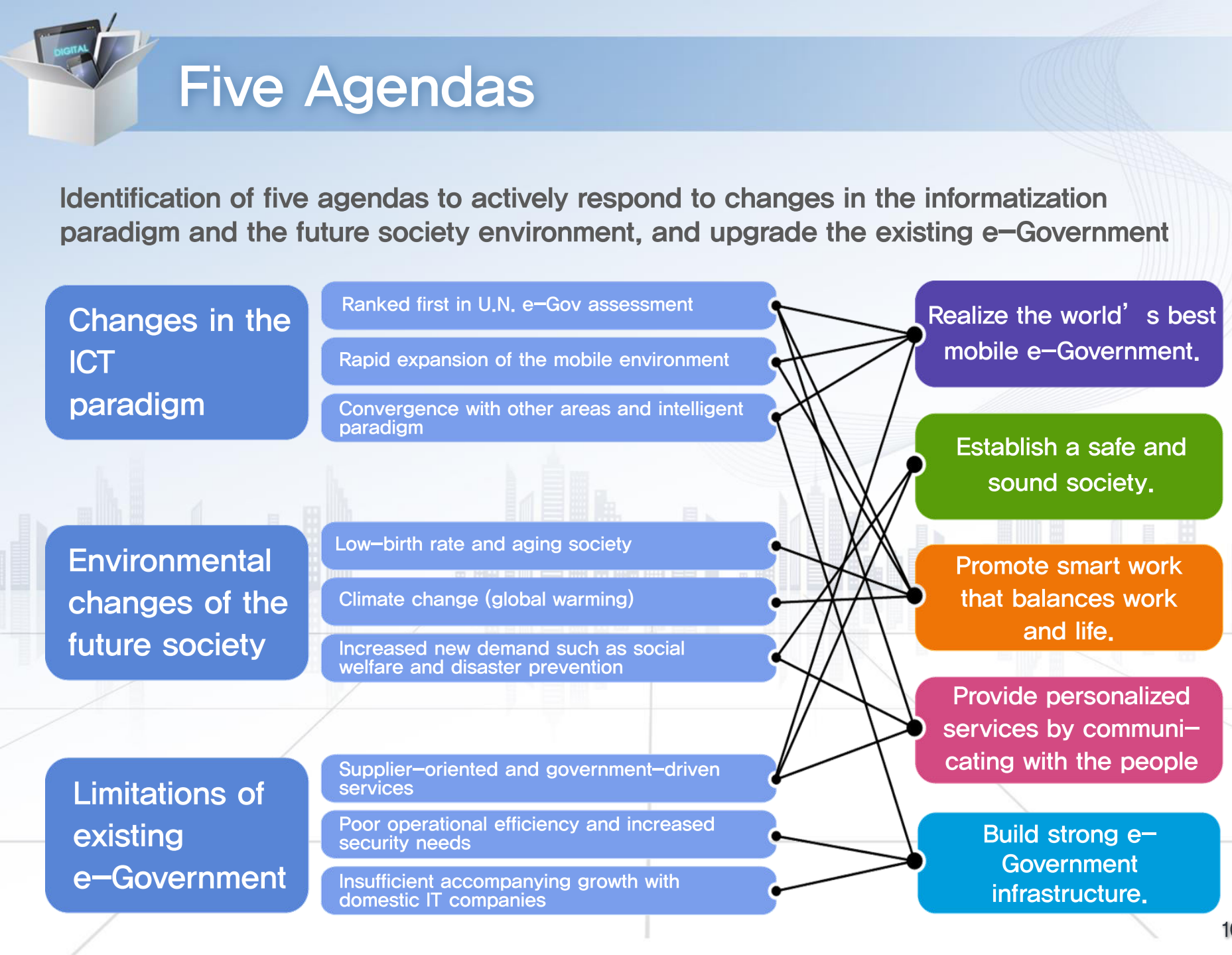
- Openness
- Integration
- Collaboration
- Sustainable Green growth

Agenda

- Realize a world's best mobile e-Government
- Establish a safe and warm society
- Promote smart work that balances work and life
- Provide personalized services by communicating with citizens
- Build a strong e-Government infrastructure

Five Agendas

Identification of five agendas to actively respond to changes in the informatization paradigm and the future society environment, and upgrade the existing e-Government



Prospects for the implementation of smart e-Gov

Indivi-duals	Uses the desired customized service at any time and place
Enter-prises	Improves enterprise competitiveness using customized services
Society	Lives a safe and protected life
Public servant	Smart-work whereby work is harmonized with life

User-oriented multiple channel integration service

Smart-work business environment


Business space

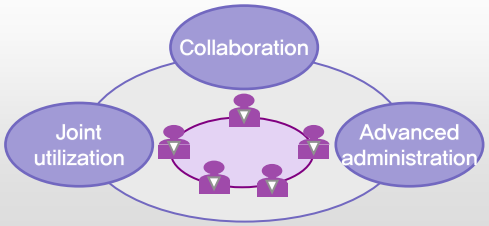

Group remote conference (major hubs)


Nurturing service

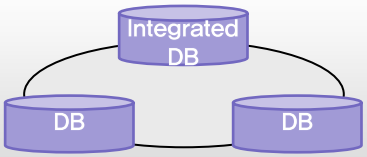

Personal remote conference


Offline meeting (major traffic point)


Remote training



e-Government Infrastructure



- Integrated security system
- Integrated authentication system
- Sharing service
- National Computing & Information Agency
- Integrated computing center of autonomous bodies
- Pan-governmental architecture (EA)
- Cloud computing basis

Collaboration/ Information sharing

Link with the related agencies

- Administrative agencies 
- Public agencies 
- Medical care, welfare, education, employment agency 
- Enterprises 

Brief Status on m-Gov

Feature-phone services

- SMS, MMS services based on integrated SMS/MMS gateway
  ※ 190 organizations, more than 335 services

Smartphone Services ; Mobile Web, App, Hybrid Type

- More than 737 Services (for Citizen)
- Some applications are downloaded more than millions times

Social media services

- (SNS) More than 100 organizations use SNS , Twitter, Facebook, metoday(by NAVER), etc
- For exchanging opinion with citizens and making a policy decision

Strategies for Mobile Service

1. Expansion of mobile service close to citizens' life

- Provide service related to disaster, life, welfare using LBS
- Enhance nation's convenience by expanding civil services

2. Settlement of mobile work process system

- Construct mobile office for efficient administrative work
- Find service model to support local gov.'s administrative work

3. Prevention of overlapped constructing and disordered developing of mobile service

- Establish road map for mobile service including laws/institutions and security
- Develop/deliver mobile-based common component and prepare common infra such as developing environment in a integrated form

4. Strengthening of two-way communication by activating SNS

- Provide e-Gov.'s service for all citizens who can participate in and communicate develop/use guideline which and be used by all public organizations

Plan for Mobile Government

Mobile civil service for citizen's convenience

- Select mobile services after completing the analysis and evaluation of the existing services
  - Minwon24, On-nara, Home tax payment, Korea e-Gov. Potal etc
- Find new services which can be applied to new technoloy

Mobile administrative service for efficient work

- Review to mobilize internal administrative work
  - Reporting by massage, integrated e-mailing service for officials, etc
  - Internal administrative services native to each department
- Review to mobilize field administrative work
  - Field supervision, spot inspection, etc

Evaluation of Priority

Establish Road Map for Pan-Governmental Mobile Service (2011~2015)

- Select 917 e-Gov. services by evaluating feasibility of mobile services
- Prepare mid/long term plan step by step (consider priority and security - 2011-15)

Preparation of Common Infra for Pan-Governmental Services

Preparation of common mobile infra and counter plan of security to minimize the duplicative investment

- Prepare security counter plan for pan-governmental mobile services (for citizens and government)
- Prepare common infra such as MDM, VPN for safe mobile administrative service

Release mobile government framework and guideline for providing efficient service

- Provide mobile framework and common components (140) to help implementing m-government service
- Offer guideline on the construction of mobile government which will be useful in service planning, constructing, operating
  - Civil service, guideline on the construction of administrative service, security, common infra, guideline for using std. framework, guide on UI/UX, guideline on registration/management of mobile service, etc…

Preparation of verification system of mobile government service for providing services with high reliability

- Prepare verification sysem for mobile gov. service in public sector
  -verify mobile apps which are developed/released by central gov., local gov., public agencies and govern app. Store for internal administrative service, et.

Guidelines for the Construction of Mobile Services

Guideline for mobile Services	Key Issues
Guideline on the registration and management of m-gov. services	• The way of registration, verification and distribution of mobile government service
Guideline of UI/UX of mobile government services	• Providing UI/UX template which can be used in mobile environment
Guideline of the construction of mobile civil services	• Reference of the conversion/construction of national mobile service • The implementing way of Web/App, Hybrid App on each service
Guideline on the construction of mobile administrative services	• Considerations for building mobile administrative service (internal/field) • Reference points in each step of life cycle on planning, constructing, operating and abandoning of mobile services
Guideline on the security of mobile gov. services	• Security requisite for planning and constructing mobile service (internal/civil)
Guideline on the use of mobile gov. framework	• Guideline on the use of common components std. framework etc.
Guideline on the use of mobile gov. service common infrastructure	• Guideline on the use of common infra such as relay server, MDM, VPN, etc.
Guideline of the pan-governmental use of SNS	• The way for activating Governmental organizations' SNS such as Twitter, Facebook etc.

Laws/Institutions and Governance System for Activating Services

Improvement of Laws/Institutions for Activating Services

- Revise laws/institutions for giving the authority on promoting m-gov. and activating mobile services
- Improve institutions to make use of mobile-based document, application form for civil service
- Discover hindrance factors like copyrights, LBS, etc. and suggest improvement measure

Mobile Gov. Governance for Reasonable Cooperation and Control

- Prepare collaborative system at the pan-Governmental level for preventing duplicative investment and giving a smooth linkage between gov. services
- Construct feedback system which cooperation/mutual agreement and evaluation of performance in each step of project can be reflected on

Impact of m-Gov

M-government is expected to have a great influence on different areas of society:

- Provides opportunities for the government to save costs, improve communication, adjust data, extend services and achieve digital equality;
- Citizens are better able to use government services and interact with the government;
- Businesses can reduce costs and improve productivity by using mobile services & tech

Impacts of m-Gov on Gov

- Info access provided to more of the population
- Infra available to citizens regardless of time and space
- Use LBS to provide customized services to people
- Cost savings
- Gov officials can manage financial and human resources with mobile tech
- Gov receives general and mainstream opinions – better reflect in policy-making
- Transparency, efficiency – up

Impacts of m-Gov on Citizens

- Better access to gov services
- Can use e-payment for various gov services (taxes, info, etc.)
- Mobile financial services (deposits, remittances, loans)
- Healthcare and emergency medical services to remote areas that are not covered with existing services
- LBS via GPS can improve capacity to respond to crimes and emergencies
- Education via mobile platform

Impacts of m-Gov on Businesses

- Economic opportunities provided - recruiting, real-time support, data access, product ordering, etc. all improved
- Weather and market info to farmers and fishermen can improve productivity
- Workers can better provide customized services by checking customer info
- Reduce energy consumption through remote/mobile field services

Ⅲ. Examples of m-Gov Services

Local Government Services

Local Government Services for citizens : Seoul

- Subway/Bus info
- Traffic info
- Road navigation
- Employment info
- Various information for women (Job, Children, etc)

m-Gov Service: Transportation

ROAD PLUS

- **Highway Traffic Information**
  - Real-time CCTV, Traffic MAP, News, Traffic Broadcasting, Gas-Station, Etc.

GLORY

- **Real time Train reservation with Smartphone Ticket**
  - Schedule, Reservation, Issuing Ticket, Store Mobile Ticket

m-Gov: Healthcare

Hospital Information

– Location, Doctors, Abuse of antibiotics, CT/MRI Equipment, Surgery Specialty, etc.

Vaccine Information

– Offering vaccine information for babies and children

– Vaccine schedule management

Volunteer work

– Volunteer recruit information

– Social service organizations

Health Information

– Hospital location, telephone number, patent's room, hospital assessment info, etc.

Health Statistics

– Various statistics regarding disease and hospital

Expectations of Korea's m-Gov

1. **Enhance citizen's convenience** by providing user-oriented services by communicating with the people
2. **Strengthen the reliability and the transparency in Government** via delivering policies and communicating with the people at a real time
3. **Save cost and enhance the efficiency and productivity of administrative work process** by conducting business at any time and place
4. **Cut budget through preventing duplicative investment** by constructing pan-governmental mobile infra and establishing standart platform and guideline
5. **Expect the improvement of national competitiveness** with overall growth of IT industries by the leading investment of Government

Ⅳ. Recommendations

Recommendations for Policy-makers [1]

- Approach m-government from strategic viewpoints that reiterate mobile services are not sets of initiatives but are strategies for government to carry out its businesses in a comprehensive and systematic way
- Since government workers may be passive or even fear adopting mobile services due to security, budget and other issues, it is important for policy makers to share information on mobile technology, minimize fear through education and training in order to improve mobile capacity building
- Investment into mobile technology should be approached from the perspectives of increased efficiency, prevention of redundant investment, increased service levels, increased user convenience and acceptance of future requirements rather than purely from the ROI perspective
- As the mobile service platform evolves through the public-private cooperation as well as collaboration among industry, research institutions, government institutions, non-profit organizations and service users, it is required to establish a cooperative framework incorporating them and business models for each stakeholder
- As mobile services expand, security and privacy protection issues are raised, therefore it is required to place security and privacy protection as one of the top priorities
- In order to facilitate citizen engagement, diverse platforms and communication channels should be developed and provided

Recommendations for Policy-makers [2]

- By applying sophisticated mobile technologies used in the private sector (real-time communication, fast data access), public sector services can also be provided more promptly, so it is necessary to establish a strategy for establishing the public and private cooperation (PPP) framework that would transfer the know-how and expertise of the private sector to the public sector

- Since the mobile industry consists of device manufacturers, infrastructure providers and application developers;

  - Device manufacturers should consider the size, quality, appearance, functionality and synchronization of mobile devices when developing them to meet the demands from citizens
  - Infrastructure providers should make efforts to develop low-cost and high-efficient networks
  - Application developers who develop applications that serve as an interface between mobile devices and network or hardware should focus on the efficiency, personalization and synchronization of the mobile Internet

Thank you.

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