Resident Registration Policy and Applications in Korea:
Policy Agenda, e-Government Portal,
Customized Citizen Service Development Initiative

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1. Resident Registration System and structure (1)

- Resident Registration Initiative associated with UN SDG’s and Korea

- UN Sustainable Development Goals (SDGs): By 2030, provide legal identity for all, including birth registration.

- Legal identity is associated with the right generally requires documentation that demonstrates or provides proof of one’s identity.

- In many contexts such documentary proof is necessary to access basic social services such as education, health care and social welfare benefits, etc.

- Korea enacted Resident Registration Act in 1962 and strongly has pursued deploying resident registration policy and systems in Korea
1. Resident Registration System and structure (2)

- National ID as a core of e-government

- 01. All electronic document handling processes
- 02. Comprehensive informatization of central and local finance
- 03. Implementation of local e-government
- 04. Implementation of an electronic audit system
- 05. Implementation of e-congress
- 06. Implementation of a comprehensive criminal law system
- 07. Comprehensive informatization of HR and administration
- 08. Informatization of diplomacy and trading
- 09. Real time management of national tasks
- 10. Expanded sharing of admin information
- 11. Development of a government function interconnection model
- 12. Implementation of internet civil appeal service
- 13. Comprehensive national safety management
- 14. Implementation and interconnection of architecture/land/registration
- 15. Comprehensive national tax service
- 16. Comprehensive national welfare information service
- 17. Comprehensive food/drug information service
- 18. Comprehensive hiring/job information service
- 19. Admin court internet service
- 20. Unified company application account service
- 21. Comprehensive logistic information service
- 22. e-trading/tariff service
- 23. Comprehensive foreigner support service
- 24. Support for e-government’s oversea exploration
- 25. Expanded online citizen participation
- 26. Implementation of the integrated government computer system
- 27. Advancement of the e-government communication network
- 28. Application of the government’s IT architecture
- 29. Implementation of an information protection system
- 30. IT manpower and operation organization strengthened and repaired
- 31. Implementation of e-government ant system and foundation
- 32. e-procurement
- 33. (NEIS) National Education Information System
- 34. Police IT System
- 35. ITS, BIS (Transportation)
1. Resident Registration System and structure (3)

Resident registration information management system

Central Information Management System

229 Si/Gun/Gu resident registration info. management system

3,560 systems in Eup/ Myeon/Dong nationwide

Public orgs.

- National Tax Service
- National Police Agency
- Ministry of Health and Welfare
- National Election Commission
- Education Office

Public service

- Public civil service portal
- Automated civil service machine
- ARS 1382

Supports dual governance structure between local and central government
2. Resident Registration and Card Issuance Processes

- Fingerprint
- Photograph
- Signature

Registration Authority

- Entry PC
- Digital Camera
- Input Fingerprint

City/County/District

- RAID Disk
- HA
- Router
- VPN

Resident Registration Server

Information Center (MoIS)

- Main Server
- Resident Registration DB
- Shared Server
- Summary DB

KOMSCO (Korea Minting & Security Printing Corporation)

Issuing Authority

Online Batch

Citizen Data

Network

Post Office
Demonstration of e-Government Portal

3. Citizen e-Government Portal – Citizen Online Services (1)
3. Citizen e-Government Portal – Citizen Online Services (2)

- SSO based citizen portal with digital certificates.
- Resident Registration System has been the basis of citizen portal services.
- Now citizen portal (Minwon24) offers 42 types of “Daily-life Information Service” which is an extended services of customized citizen services based on the integration of agency data.
- Family/health, Taxation, Pension, Military Services, Penalty information, Vehicles, Finance Support, Housing/welfare are the major categories of Daily-life information service.
- Without strong resident registration service over ESB structure, these services are not available.
4. Public Information Sharing Center in Korea (3)

- Before and After of PISC service

Before: Applicants walk in to different agencies

- Too much papers!!
- Hard to visit agencies!!

After: Applicants don’t need to visit in person

- No need to visit every agencies!!

443 Million paper certificates needed for transactions per year

<table>
<thead>
<tr>
<th>Certificate Type</th>
<th>Number</th>
<th>Description</th>
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<tbody>
<tr>
<td>Personal Cert.</td>
<td>222 Million</td>
<td>Resident Registration, Registered Stamp, Family Registration, etc.</td>
</tr>
<tr>
<td>Real-estate Cert.</td>
<td>190 Million</td>
<td>Real-estate registration</td>
</tr>
<tr>
<td>Vehicle Cert.</td>
<td>26 Million</td>
<td>Vehicle registration, motorcycle registration, etc.</td>
</tr>
<tr>
<td>Etc. Cert.</td>
<td>5 Million</td>
<td>Bidding, company registration, etc.</td>
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</tbody>
</table>
• An ESB’s primary function is to provide the connections between communicating applications – acting much like a router to control the data.

• It is commonly used in enterprise application integration (EAI) or service-oriented architecture (SOA) principles.

• ESB as an infrastructure software service-oriented model works as a managed message system that provides routing, data transformation, translation upon a client’s request and event-interpretation.

• It is often needed to transform messages into a format that the application can interpret. ESB is also used to change data content or execute services via a rule engine.

• SOA is way of building the next generation of applications from ‘Lego Blocks’ called Services whereas ESB is a piece of infrastructure software that provides APIs for developers to create services and send messages between services.
PISC in Korea is based on ESB integration

- Simple structure
- System maintenance cost increases with increasing number of systems
- Flexibility/extensibilities are low

- By middleware, business logic is used to integrated applications
- 1:N structure
- Vendor specific
- Central hub system is the single point of failure
- New application adoption is easy by same vendor

- By middleware, service oriented integration
- EAI+SOA concept
- Web service, XML based standardized integration environment
- Mutli-protocol supports
- BUS structure
- Reusable components
- High cost for initial investment
4. Public Information Sharing Center in Korea (6)

- PISC features and Searching Cost

\[ \frac{N(N-1)}{2} = \frac{6 \times 5}{2} = 15 \]

\[ N = 5 \]

- Compared to Point-to-Point integration, ESB has much lower level of searching cost.
4. Public Information Sharing Center in Korea (7)

- PISC case in Pension Service

PISC case in Pension Service

Resident Registration Information System

- Move-in
- Change of name
- Death

Sharing Administrative Information Center

- Join objective, check qualified recipient,
  Send out notice, bill etc.

National Pension Service

- Interoperability Server

Extract changed resident registration information for a day
SOA difference in System Architecture
Thank You!
Questions and comments:

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