II. The Development Process of the OPEN System
1. Overview of the System

The Online Procedures ENhancement for Civil Applications (OPEN) System refers to a system that discloses the administrative procedures, that are susceptible to improprieties, and allows the citizens to monitor the status of their applications on the Internet. For example, a citizen who applies for a construction permit no longer needs to meet or call the official assigned to the case but can check each step of the procedure and the outcome with real time information at home or at work on the computer.

Those who are not familiar with computers or have limited access to the Internet can look up the information at the local “Dong” or ward office with the assistance of office personnel.

Until now, other similar systems in use domestically and overseas only provided final decisions through the Internet. The OPEN System, however, is a dynamic system that makes available real time information on the status of an application, tracking its progress until its finalization.

The approval dates and contents of the investigation by the chief clerk, the section chief, and the director as well as the schedule timetable, and detailed descriptions for returned documents or incomplete documents are made available to the applicant as the decisions occur.
2. Step-by-Step Development Procedures

1) Announcement of the OPEN System Plan

Mayor Goh, Kun announced that Seoul Metropolitan Government was introducing simultaneous measure of attacking corruption at its source by eliminating inconsistent regulations and the Zone Assignment System as well as a system of postcards reporting on corruption, addressed directly to the Mayor. The latter acts as a deterrent to corruption by stressing that all corrupt acts will be punished without exception.

In addition to these two pillars, on 25 January 1999, the Mayor also proposed the development of a system that has the dual effect of preventing corruption and fulfilling the citizens’ right to information by ensuring transparency through a disclosure of administrative procedures. He announced that real time information on the status of an application for licenses would be made available to applicants on the Internet.

2) The Selection of the Office in Charge

The Seoul Metropolitan Government Audit & Inspection Bureau was originally appointed as the main office to administer the OPEN System. However, due to the short time frame for its development and the need for an office in charge with sufficient authority and planning skills to oversee the cooperation and assistance of more than 100 major departments within City Hall as well as related offices including local governments and businesses, the organization adopted a dual system. The Audits & Inspection Bureau was put in charge of the overall development process and the Information System Planning Bureau was to support the informatics system development.
One of the major obstacles facing office computerization is the uncooperative attitude of employees in the clerical offices and their silent resistance against computerization. The OPEN System, in particular, which aims at providing real time information on administrative procedures to all citizens was not wholeheartedly welcomed by officials since it would reduce their discretionary power and increase the workload caused by extra hours of inputting data into the OPEN System.

The uncooperative attitudes of the officials uncovered during interviews needed for task analysis confirmed this trend. Moreover, information submissions by departments were often delayed during the system development phase. The strong commitment of the Mayor and the Audit & Inspection Bureau, however, overcame such obstacles and the system was completed in a short time.

The development of a system such as the OPEN System which makes information available to the public requires powerful leadership at the top and perseverance by the implementing administrative unit.

Assigned Departmental Tasks

- **Audit & Inspection Bureau**
  - Development process oversight, selection of the type of information to be made open to the public, collection and analysis of data on task operation, meetings and workshops related to systems development, input data selection, checks on input data, and process monitoring.

- **Information System Planning Bureau**
  - Task analysis, systems development, systems introduction, program development (joint development between outside services and city personnel), personnel training, and system maintenance.

- **Departments of Files for Disclosure (City Hall Departments)**
  - Standard input format establishment, task analysis information, interviews with assigned personnel during task analysis, etc.
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3) Selection of Services for the OPEN System

Under the Director of Audit & Inspection, an investigation team was formed in February 1999 for the selection of areas for which information was to be disclosed. Studies on task titles, administrative procedures, susceptibility to potential corruption, and types of improprieties were conducted on all services provided by the city. Services that had a history of corruption scandals, complicated services that inconvenienced the citizens, and services predisposed to receiving solicitation for special favors were selected for making processing information available to applicants. In a policy meeting presided by the Mayor, the first phase of disclosure was launched which included 26 services.

4) Analysis of Services for the OPEN System and Program Development

A development team was formed with three task analysts from the Audit & Inspection Bureau who were well informed about city services, two members of the Information System Planning Bureau, and eight private computer programming specialists. The computer program development was conducted by the computer specialist team of a private company through a service contract with the Seoul Metropolitan Government. The conference schedule for the 26 services was set where an assigned official would present all related documents and give an overview of the service, and explain the content of the documents at each step of the service procedure. The task analysts then decided on which information to disclose at which stage of the service and determined a standard model. The computer system design by the contracted computer company was developed as soon as each analysis on the 26 services was completed. A strategic flow chart of each service was designed and a standard input model was developed to facilitate the input process for the city government employees, assigned to input the data.

Search categories by the “Gu” offices, businesses, or case names were established for the benefit of citizens making inquiries through the OPEN System. In addition, a menu of services including the method and contents of service procedures, required documents, related regulations on each of the 26 services were also included in the system in order to provide citizens with sufficient information. Information such as the department, name, phone number, and e-mail address of the official responsible were also registered in advance.
5) Training the Personnel

Towards the end of the development of the OPEN System, training workshops on system development and data input were held for 4,000 employees from 485 departments whose information on the administrative procedures was to be disclosed. Personnel from related departments completed input practice sessions that simulated real life situations in conference rooms equipped with computers. ID’s and passwords for the OPEN System were provided for the personnel assigned to the task, enabling them to input the data on the services underway.

6) Data Input

City officials assigned to the input task select the operator page and log their ID and password in the data registration window. Notices for the input personnel appear and the personnel selects the task in the task menu.

The appropriate service open to the public is selected and the list for the detailed types of services appears. In order to input new applications, application registration at the lower screen is selected. To input information on an application underway, the case name is selected.

As to the remaining procedures, document registration is done with the selection of the administrative procedure, document title, and the official responsible for the final decision. Each document contains information on the current status of the application, decision date for the specific procedure, processing procedures, and attached documents.
II. The Developmental Process of the OPEN System

The development of the system continued from February to March 1999 followed by an internal test operation in early April. The system was opened to the public for the first time on 15 April 1999. The City of Seoul's key ingredient for the success of completing such an extensive task in two-and-a-half months was the commitment demonstrated by all parties involved in the implementation. Mayor Goh, Kun demonstrated strong commitment to make available all relevant information to the public by encouraging government officials who are traditionally reluctant to disclose information, checking every step of the system's development phase as well as encouraging the efforts shown by the project team. The staff from the Audit & Inspection Division, Information Development Division and the private sector showed their dedication by sacrificing even their holidays to work on the project.

7) System Operation and Disclosure of Service to the Public

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8) System Development Schedule and Human Resources

Without the kind of dedication shown by the project personnel who worked overtime and even during weekends, the length of time required for the development of such a system might ordinarily be twice the length of time that it took for Seoul.

- **Time spent on system development : 10 Weeks**
  - Task Analysis : 3 weeks
  - Systems Design & DB Design : 1 week
  - Program Development : 4 weeks
  - Training & Data Input : 1 week
  - Test Operation : 1 week

9) Development Costs

- **Program development : 56,900,000 won ($45,520), service provided by the private sector**
- **Equipment purchase : 365,000,000 won ($292,000) for host computer, includes system software**
3. Directions for Using the System

Citizens who submit an application for authorization/license at the City Hall or the “Gu” office and would like to check its status or look up the services open to the public can visit the City of Seoul homepage (http://www.metro.seoul.kr) and select ‘OPEN System’ or go directly to http://www.open.metro.seoul.kr. They can select the type of service from the list of services open to the public. Citizens unfamiliar with computers or the Internet can visit the nearest “Dong” or “Gu” office and ask for assistance.

All input data include information on the due date of the next procedure, which allows the applicants to check on the status of their applications and confirm the information. Daily notifications to the offices responsible for data input are made regarding delays in processing, requiring immediate input of the reasons for such delays. Each stage of processing appears with approval dates signed by officials, assistant directors, and directors, indicating the exact date and time of approval. Input delays automatically indicate the number of days delayed. Ongoing application procedures are automatically listed as “in process”, preventing further improper delays.
4. Online Operation and Registration

Since its inception on 15 April 1999, citizens who have visited the OPEN System site number 1.324 million. And there are 63,000 business registrations, 343,000 document registrations, and 1.938 million searches as of February 2001. Daily visitors to the site increased from about 1,000 at the beginning of its operation to 2,500, indicating growing interest among the citizens. A total of 8,200 officials in 770 departments are busy with data input at this very hour.

Since the start of its operation, the OPEN System added 15 more services beginning March 2000 and another 13 services in July 2000 to the initial 26 services accessible to the public - a total of 54 services, including nearly all services that are prone to improprieties. Details of the services accessible to the public are as follows.
## Services Accessible to the Public

### Transportation
- Traffic impact assessment
- Taxi fare adjustments
- New route development and adjustment for local area bus operations
- Route adjustments for city bus operations
- Bus terminal operation authorization for express/long-distance bus
- Operation registration for freight trucks
- Administrative procedures for business operation vehicles
- Authorization of business license transfers for private taxis
- Administrative procedures for moving companies
- Registration and administrative procedures for automobile management businesses
- Establishment of bus fare standards and rate schedule

### Housing/Building
- Urban restructuring projects
- Review and permission of building projects
- Housing redevelopment projects
- Housing construction projects
- Residential environment improvement projects
- Administrative procedures for registered architects
- Authorization of outdoor billboards

### Environment
- Purchase of park sites
- Authorization of waste disposal license and contract agent
- Installation permission and administrative procedures for facilities emitting air pollutants
- Licensing and administrative procedures for sewage waste
- Registration and administrative procedures for vehicle inspection agents
- Pre-registration and administrative procedures for arsenic acid producing facilities
- Registration and administrative procedures for business treated toxic materials
- Authorization and administrative procedures for installing noise / vibration emission facilities

### Urban Planning
- Permission of land-use change
- Decision and change of urban planning
- Permission of land-use change within the ‘Development Restriction Zone’
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