

REVIEW OF THE CURRENT STATUS OF COMPUTERISATION IN CRIMINAL JUSTICE IN THE REPUBLIC OF KOREA

1. Introduction

This section discusses the model for the way information technology is introduced in the criminal justice system of the Republic of Korea. Progress over the last 3 years and plans for the future are described.

In September 1994, the Supreme Public Prosecutor's Office launched its information technology plan "New Direction in Information Technology and Communication Policy". This plan laid down a coordinated long-term strategy for the introduction of computerisation in the Public Prosecution Service of the Republic of Korea for the years 1995 to 2005.

As part of this plan, the Supreme Public Prosecutor's Office has established the following:

- I. The Public Prosecutor's Office Internet Home Page;
- I. The Criminal Prosecution Image Information System;
- I. The Comprehensive Criminal Justice Database System.

These three developments will be discussed below.

Established in June 1984, the Bureau of Computer System Management at the Supreme Public Prosecutor's Office has a mandate for the realisation of the information technology policy.

2. The Public Prosecutor's Office Internet Home Page

Figure 1
Here SPPO Home Page Logo

On 17 January 1996, the Supreme Public Prosecutor's Office of the Republic of Korea established its World Wide Web Site, called "Criminal Prosecution System in Korea"¹, initially aimed at increasing the effectiveness and efficiency of the criminal justice system in order to cope with the changing level of criminality. Crimes are becoming more intelligent and more sophisticated as well as more cross-regional in today's rapidly changing social structure.

Further, this initiative is aiming at promoting a better understanding by the public for the functioning of the public prosecutor's office by means of publishing information brochures on the Prosecution Service through the Internet. It is recognised that the citizens' demand for information from the Prosecution Service has increased as the information technology has developed.

Finally, the World Wide Web site enables the prosecutor's office to gather information in a more varied manner to promote efficiency in the criminal investigation process and broaden the scope of legal service support for the public.

¹ The Internet address of the Supreme Public Prosecutor's Office is: <http://www.sppo.go.kr>.

2.1 Resource Materials in the World Wide Web Page

The Supreme Public Prosecutor's Office World Wide Web Page contains the following resource materials, information and facilities:

- I. Introduction to the traditional criminal justice systems of Korea by eras from the early history of the nation (since the Kochosun Era) to the Chosun Dynasty and the establishment of the internationally recognised present Public Prosecutor's Office of the Republic of Korea through a historical overview of its development.
- I. Introduction to the structure and functions of the Supreme Public Prosecutor's Office and the Regional Prosecutor's Offices.
- I. Introduction to the traditional functions of the Public Prosecutor's Office including criminal investigation and other projects including rehabilitation and protective services, juvenile guidance and protection, designation of crime-free towns, law in daily life campaign, legal education and counseling.
- I. Introduction to criminal and civil proceedings and related legal information with pictures.
- I. Colour maps and directories of the Public Prosecutor's Office: phone numbers for public assistance and documentation for the convenience of the public for services available. Further, a "Voice of the People"- section for the public to register comments and opinions about the Public Prosecutor's office.
- I. Introduction to Internet web sites from countries around the world to easily find and utilise the information about legislation, precedents and other relevant information from other countries necessary for investigation.
- I. E-mail facility for transmitting and receiving information to and from domestic and foreign investigative agencies as well as to and from other government agencies.
- I. Open resource centre to easily obtain related programs and data of the rapidly developing information technology.
- I. All bulletins within the Public Prosecutor's Office are simultaneously posted through the communication system providing various services including an electronic bulletin board for the organisations of employees in the Public Prosecutor's Office throughout the Republic of Korea.

2.2 The Goal of the Project:

The legal circles, which are known as being conservative in the improvement of procedures, are conducting their duties in a prudent and progressive manner in line with the globalisation and computerisation effort of the Government by embracing the up-to-date information and communication technology. The above project is significantly symbolic in that the Prosecution Service is taking an important step closer to the public, and preparing itself for the twenty-first century.

2.3 Expected Results of the Project

2.3.1 Improving Efficiency of Investigative Work

The expected substantive result of the above project is improving the effectiveness and efficiency of criminal investigation in the following ways:

- I. The project will enable efficient and systematic transmission of the vast amount of information available for government agencies and offices to simplify office work and establish a system of inter-agency cooperation.
- I. It will support the system of cooperation among the private sector, governmental agencies, schools, and research institutions through the communication technology.

- I. It will enhance the cooperation with foreign criminal investigation agencies and improve the international information gathering ability.
- I. It will contribute to the establishment of a systematic criminal justice system.
- I. It will help to gather and analyse foreign and domestic information collected through the network as the primary investigative material.
- I. It will promote public's understanding of the Public Prosecutor's Office by posting various domestic and foreign information regarding the Public Prosecutor's Office to be reflected in policies.

2.3.2 Providing Quality Public Assistance Service

Additional results expected of the project is the provision of quality public assistance service:

- I. The public can easily review information open to them without visiting the prosecutor's office by using appropriate communication equipment.
- I. The public will be able to present their problems or grievances to the prosecutor's office by utilising the network as a forum.
- I. Employees can work more efficiently by learning the information and communication technologies.
- I. It will increase the computer literacy of the Public Prosecutor's Office members of staff, and , as a result of that, enhance their international investigative capability.
- I. The use of the network as an E-mail system will improve the efficiency of the work.

2.4 Background of the Establishment of the Project

Domestic and international sharing and utilisation of information became a necessity as computers were linked in a network through the improvement of the communication technology. As society becomes more information oriented, crimes have become more intelligent and more sophisticated as well as cross-regional. The public prosecutor's office as the primary investigative agency needs to maintain a cooperative system with the domestic criminal justice agencies as well as international investigative agencies by using the information technology communication infrastructure. Further, there is a need for the prosecutor's office to maintain an avenue of dialogue to meet the rising demand of the public in the atmosphere of civilian government. Also, the necessity for preventive education against crime using computers became evident.

2.5 Purpose of the Establishment of the Project

Various public announcements and press releases by the Public Prosecutor's Office were made available electronically to disseminate information within and without the country. The Internet is used as a channel of information exchange between the Public Prosecutor's Office and various government agencies to simplify office work. In addition, it serves as a tool to enhance the cooperative system among the private sector, educational, research and governmental organisations for efficient and systematic investigation. The new avenue of dialogue provided will increase the convenience of the public. It will improve the effect of preventive education with various educational materials developed for the media. It will enable rapid gathering of domestic and international information to be actively used in investigation.

2.6 Improvement of the Public Prosecutor's Office Internet Home Page

On 22 January 1997, the Supreme Public Prosecutor's Office has comprehensively up-dated the Internet Home Page, as described below. The first reason for this up-date was to more actively respond to the increase of more intellectual, sophisticated and cross-regional crimes in the society that is rapidly becoming information oriented. The second reason was to strengthen also the exchange of information among the domestic and international criminal justice agencies and public information campaign. Through these measures, the Public

Prosecutor's Office Internet Home Page becomes one of the best Internet sites world-wide in its volume and quality.

2.6.1 Section "Operations of Crime Prosecution"

A section "Operations of Crime Prosecution System" was added. This is a public information section on special activities of the public prosecutor's office such as narcotics controls, intellectual property enforcement, privacy infringement enforcement, international investigative cooperation. Further, this section publishes statistics on these activities, to advertise the public prosecutor as the servant of the public, as well as to increase the effect of prevention through various educational material.

2.6.2 Section "Fugitives Abroad"

With the updated "Fugitives Abroad" section mugshots of suspects and criminals, and their records are available on the Internet to draw international attention toward them. This section will assist the cooperation with international criminal investigation agencies such as Interpol and the United States Federal Bureau of Investigation.

Posting this type of personal data implicates, however, a variety of legal problems such as, inter-alia, privacy infringement and legal ethics. These legal problems need to be clarified before this section is widely used.

2.6.3 Linkage to the Computer Crime Division

As the Internet Home Page representing the nation's Public Prosecutor's Office, it will be linked with other home pages of specialised investigation agencies throughout the country. In its first step, it will be linked with the Computer Crime Division of the Supreme Public Prosecutor's Office. The page introduces the efforts of the Computer Crime Division to prevent and combat computer crimes which are unwanted side-effects of the information age.

2.6.4 English Home Page

The up-date of the Public Prosecutor's Office Internet Home Page with the English Home Page shows the Korean effort in preventing and combating narcotics related crimes. Also, international cooperation is established with the Interpol through the use of the "Fugitives Abroad" section, showing the operations of the Korean criminal prosecution system to the world.

2.6.5 Friendlier Page Layout

The Public Prosecutor's Office seal on the Home Page screen gives the public a good impression of the active role of the Public Prosecutor's Office in the administration of justice and law enforcement. The public relations section "Voice of the People" is easier to reach for the citizens than ever, allowing greater participation of the public in commenting or voicing opinions to the Public Prosecutor's Office.

2.6.6 Public Prosecutor's Office Internet Association

The Public Prosecutor's Office Internet Association has established a page accessible only to the members of staff of the Public Prosecutor's Office, which serves as an arena to exchange work related information in order to contribute to the gathering and analysis of information and improve the international investigation ability in the information age.

The Public Prosecutor's Office of the Republic of Korea informs about its activities internationally through the Internet. The Internet fosters international cooperation in investigative work and becomes an efficient real-time cooperative system among criminal justice agencies. It has become a model of efficiency in international cooperation of criminal investigation of the twenty-first Century.

3. The Criminal Prosecution Image Information System

3.1 Background of the Image Information System

With the advent of the information age, crimes are becoming more intelligent, sophisticated, and cross-regional. As the principal law enforcement agency, the Public Prosecutor's Office needs to be in line with the information age and to conduct criminal investigations more efficiently and systematically. Partly because there are various data that are not appropriate for being converted to the text database and partly because it would costs

a huge amount of money and manpower, it is indispensable to employ the imaging system as part of the prosecution database.

3.2 Purpose of the Image Information System

The Image Information System is designed to support criminal investigation by producing the most relevant information in the least time out of an information source. By connecting on-line all the image systems of the prosecutor's offices nation-wide, image information, investigation records, court judgements, decisions and orders are available without physical restrictions. In addition, the judgements, decisions and orders will be available to the public at any prosecutor's office by copies of these documents, thereby raising the level of service provided by the Public Prosecutor's Office.

3.2.1 Image Information on Criminal Investigation

New images and image information stored in the image server under a Local Area Network-environment and an existing database will be linked to integrate the host and the Local Area Network-environment:

- I. Newly arising image database will be stored in a Local Area Network image server and the host will download it to use. It will help decentralise workload from the host computer.
- I. Through the use of picture images, such repeated criminals as narcotics and felony offenders can be more easily apprehended.
- I. Computerisation of the major criminal investigations is realised.
- I. Integration of information in the Public Prosecutor's Office is realised through the link to the court decision image processing system.

3.2.2 Court Decision Image Processing System

- I. Judgements, decisions and orders of the court are accessible in copies of the original form. Therefore, any prosecutor's office nation-wide can review and issue official copies to the public.
- I. By using the database of the image server, major keys and indices are made into the database to enable different methods of retrieval, allowing for rapid review of information.
- I. During the review and inquiry of the needed cases, the information is displayed on the screen through the link to the case database stored in the host.
- I. An on-line issuing service system is implemented at all prosecutor's offices nation-wide for national public service.
- I. Access to the case files stored in the host is provided on link.
- I. Integrated operation of the entire Public Prosecutor's Office's data can be achieved through the system, where it allows linking of major crime information card images and some investigation record images.

4. Development of a Comprehensive Criminal Justice Database

It is necessary to establish an integrated information and communication network between the Courts, the prosecutor's office and other criminal justice agencies in the information age of the twenty-first Century for the following reasons:

- I. Improving efficiency and accuracy of criminal justice system procedures.
- I. Contributing to an efficient policy making process.

I. Minimising errors in the criminal records.

I. Providing quality service to the public.

4.1 Improving the Efficiency and Accuracy of Criminal Justice System Procedures

The criminal justice system involves investigations by the investigating agencies, prosecution by the public prosecutor, trial procedures of the court and enforcement of the sentence by the correctional agencies. This requires the duplication of many documents, and the transfer of many documents between the agencies. In spite of this, the courts and the Public prosecutor's office had their own computer systems, and the interagency process was manually performed. But as the criminal justice system network is becoming operational, a necessary document originates from one agency, and other agencies can use the document without duplication of documents. It therefore enables effective and efficient work environment. It would also allow immediate processing of documents through the network between the courts and the prosecutor's offices, facilitating a more efficient, functioning of the entire criminal justice system and preventing errors that may arise from manual operation. It will contribute to the efficiency and accuracy of the nation's justice administration.

4.2 Contributing to an Efficient Policy Making Process

In the past, primary crime statistics used for the policy for criminal justice system were gathered after the prosecutor's office received the records of the court proceedings. With the establishment of the criminal justice system network, primary crime statistics are automatically available through the network as soon as the court decision is rendered. This contributes to improving the efficiency of the criminal justice policy making process.

4.3 Minimising Errors in Criminal Records

As the investigation processes and the court proceedings are conducted electronically and in correlation, and especially as the court records are immediately transferred to the prosecutor's office through the network, incorrect or delayed recording of previous convictions can be minimised.

4.4. Providing Quality Service to the Public

In the past, the citizens had to visit different criminal justice agencies in order to get information about lawsuits, prosecution and progress of a case. With the support of the comprehensive criminal justice database system any agency is in a position to provide all information about the progress of the investigation or the court proceedings. Also, it is possible to review necessary information by accessing the criminal justice system's database by using proper computer communication tools. All records issued from the system in the prosecutor's office can be obtained in standard and simplified format according to the standards of the electronic media.

A public information service that distributes information regarding the regulations and the system promotes the public's understanding of the activities of the Public prosecutor's office. Therefore, healthy public opinion can be collected to be reflected in the policy making.

5. Computer Crime Division

5.1 Purpose

Computer crime or information crime is a white-collar crime that requires specialised knowledge, inter-alia, in the field of information technology. It is prerequisite for the Public prosecutor's office to develop the investigation of this kind of crime as a specialised field.

Computer crimes or information crimes such as hacking are rapidly expanding into being an international crime through the progress of information science and enlargement of international computer information networks. Cooperation and interaction with foreign information crime investigation agencies is necessary.

Preventive measures like computer security and the investigation of information crime are like the two sides of a coin. Therefore, cooperation and interaction with the computer security industry is prerequisite.

Since computer crime or information crime is a major crime against the national well-being in this information age, the capacity to investigate information crime at the highest level of the Public prosecutor's office is needed.

5.2 Activities Planned by the Computer Crime Division

The Computer Crime Division will serve as a computer crime investigation information centre, as the Public prosecutor's office Internet access centre and computer crime reporting centre. Further, the division will assist the regional computer crime offices.

5.2.1 Investigation of Information Crime

The objective of the Computer Crime Division is to investigate crimes related to the state-of-the-art information and communication technology. The investigation areas are:

- I. Crimes of infiltrating the security system and destroying the computer networks such as the national computer network infrastructure and research computer network by hackers.
- I. Crimes of releasing personal information such as banking and personal records.
- I. Crimes of releasing computerised business information or illegal operation of computer networks or terminals.
- I. Crimes of creating and disseminating harmful computer viruses.
- I. Crimes of illegally duplicating and selling computer programs.
- I. Crimes of fraud or libel through the computer communications.

5.2.2 Operation of the Prosecutor's Office Internet Access Centre

In order to investigate hacking and other computer network infiltration crime, it is necessary to provide a specialised education on the operation system of computer networks such as the Internet, and typical issues such as methodologies of data collecting.

At the Computer Crime Division, Internet access dedicated lines and a server will be installed to provide education, inter-alia, on computer network operation systems, and on how to gather and manage information on new criminal methods, as well as on computerisation of criminal justice information. Up to about 10 dedicated communication lines will be open to prosecutors in the country to assist them in easily gathering and using up-to-date foreign information. It will perform its role as the Public prosecutor's office Internet Access Centre.

6. Conclusion: Future Development

The Supreme Public Prosecutor's Office maintains keen interest in the development of information technology and its impact in the management of the criminal system. Promoting the introduction of state-of-the-art information technology is prerequisite in the management of the criminal justice system. To improve the effectiveness and efficiency of the criminal justice system, state-of-the-art information technology is indispensable.

Under this firm belief, the Supreme Public Prosecutor's Office of the Republic of Korea mobilises all available resources for the further computerisation of the public prosecutor's office and for the re-engineering of its infrastructure. In the near future, the public prosecutor's office is aiming at a modern, renovated and re-engineered criminal justice system built upon emerging information technology. The trials and errors experienced will be shared with other countries.