Preliminary Study Report on
e-Court Development and Implementation:
Lessons Learned from Korean e-Court Experience

by

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Submitted in fulfillment of the deliverables of the Foreign Expert
Residency Program

to

Korea Advanced Institute of Science and Technology (KAIST)
The Information and Telecommunication Technology Program (ITTP)
Daejeon, South Korea

December 2014
Acknowledgement

I am truly appreciative of the people who have made it possible the foreign expert residency program and this preliminary study. First, I want to express my gratitude to Professor Jae Jeung Rho, Program Director of the Global Information and Communication Technology Program (ITTP) at Korea Advanced Institute of Science and Technology (KAIST), and Professor Young Sik Kim for this opportunity, their continued support during my residency, and excellent advice on the study, as well as the introduction to places around Daejeon and Seoul. I also am very grateful to the National IT Industry Promotion Agency (NIPA) for their sponsorship for the residency program. It also goes without saying that all the ITTP staffers, particularly Ms. Hyejin Chung, and Ms. Hye-Song Jeong, also play an important role in accommodating my stay and study, and I need to thank them for their wonderful job.

I also appreciate the time and efforts the judges and court clerks at the Supreme Court of Korea and the Judicial IT Bureau, the Patent Court, and Seoul Administrative Court have kindly given me for the information and explanation needed for my study, and extensive demonstration of the e-Court system despite their busy schedules. Particularly, these following judges:

1. Judge Taewoong Lee of the Supreme Court of Korea
2. Judge Eun Sang Rhee of the Supreme Court of Korea
3. Judge BooGyu Kwak of the Patent Court
4. Judge Jung Hoon Park of the Patent Court, and
5. Judge Seunghyuk Jang of Seoul Administrative Court

I would also like to thank Dr. Song Cheong Goon and his staff from the Supreme Court of Korea Judicial IT Bureau, Mr. Sung-Eun Kim, and Mr. Phillip Choi at LG CNS for the information and insights about the e-Court system development and implementation. Finally, I am grateful to Dr. Soo-Bong Kim for his excellent advice for the preliminary study. I am very delighted to learn that he has accepted to be the Korea Senior Expert for the Office of the Administrative Courts during 2015 through
the World Friends Korea (WFK) Advisor Program. My colleagues and I are looking forward to working with him for this upcoming year.

Kamsahamnida

Any errors are mine.
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Chapter 1
Introduction

The delegation from the Office of the Administrative Courts of Thailand visited Korea for a week-long study visit on e-Court system implementation and use in September 2014. The delegation, led by the Deputy Secretary General, has visited the Supreme Court of Korea, the Patent Court, and Seoul Administrative Court. During the study, the judges and court staffs explained the electronic trial procedure, and demonstrated how to use the e-Court system for the judicial services, the Judge Support System, and e-Courtrooms. Furthermore, the staff from Thailand has learned about the Supreme Court’s central data center and e-Court Experience Exhibition at the Supreme Court IT Center in the city of Bundang.

The study visit has expanded the delegation’s knowledge and vision of the e-Court system design and development. The 12 delegates, including myself, from Thailand were very impressed by how the Korean judiciary has sophisticatedly transformed and integrated the entire case procedure into one master plan and subsequently one single system. In addition, the development and implementation of such system in the Korean judiciary has well exemplified the cooperation between the public and private sectors, and the promotion of local ICT industry in the country.

Besides the Korean judicial branches, the staff also visited the National Computing and Information Agency (NCIA) being briefed about the highly advanced data center facility serving government agencies, and various e-Government services provided and delivered by the NCIA. Yet again, the visit at the NCIA reemphasized the importance of the public-private collaboration on ICT projects. The Administrative Court delegation also visited LG CNS’s highly secured data center and their innovative technology solutions for government, healthcare, transport, and green city. The Thai representatives, lastly, also learned about software development approaches developed and incorporated by the National IT Industry Promotion (NIPA) to strategically help small and medium software vendors reduce software development cost in order to compete with large incumbent firms in the market.
Following the study visit, Korea Advanced Institute of Science and Technology (KAIST), the Global IT Technology Program (ITTP) has offered me to attend the foreign expert residency program to conduct a preliminary study on the e-Court system development and implementation for two weeks in Seoul and Daejeon. Sponsored by NIPA, the residency program provides me with an opportunity to gain a deep understanding about the e-Court system and its implementation process through semi-structured interviews in details with the judges and court clerks at the Supreme Court, Seoul Administrative Court, and the Patent Court, and the IT personnel at the Supreme Court IT Center in Bundang. The LG CNS staffers as the developer of the Supreme Court’s e-Court system, additionally, give me useful information about the development and deployment of the system. This enables me to learn about the philosophies underlying the system design and the implementation process. Finally, I review information available online and on paper regarding this particular topic.

The purpose of this preliminary study is to learn about the e-Court system development best practice – the Korean Judiciary’s experience. In a nutshell, the preliminary study report serves two purposes. On the one hand, it provides the Thai audience with a detailed examination of the Korean Supreme Court’s e-Court and its implementation and functions. For the Korean audience, on the other hand, the report first introduces the Administrative Court of Thailand and the Office of the Administrative Courts. Then, it explains the major difference between Administrative Court procedure and the procedure applied in the Court of Justice. Such difference subsequently yields distinctive information systems having been implemented at the Administrative Court.

The report compares the current status of the e-Court system of the Administrative Court of Thailand with the Korean system in order to identify the gap between the system as is and the system the Thai Administrative Court ultimately wants to achieve. Lastly, it proposes collaboration projects between Korea and Thailand on e-Court system development at both individual and organizational levels. As a product of the two-week preliminary study on the Korean e-Court system and its implementation, this report is to be submitted to the Office of the Administrative Courts of Thailand in the hope that it will give the Administrative Court judges and the Administrative Case
Officials in Thailand an understanding about e-Court through the Korean experience as one of the best practice recommendations for e-Court system design and development. For the IT personnel in Thailand, the report reveals and recommends relevant information infrastructures and featured technologies incorporated into the system, such as identity verification and authentication, e-Payment, and e-Document security, etc. Furthermore, people involved in the system development and implementation from different aspects can have a glimpse of required changes in case proceedings, trial procedures, business process, laws, and work practices around the new electronic system throughout the process.

This report also introduces the potential organizational, structural, and technological challenges facing the system implementation efforts. Learning from the Korea’s success story, therefore, the Thai Administrative Court will be able to learn about, and potentially avoid those complex tensions and challenges that might be unforeseen by inexperienced developers and the IT staff.

In return, the study report may be useful to the Korean judiciary to understand the legal system and judiciary background of Thailand, which is distinctly different from that of Korea. It also explains the role and jurisdiction of the Administrative Court of Thailand and its Office. This report illustrates the current status of the ICT infrastructure development and use for judicial services and organizational management at the Administrative Courts including the Case Management and Tracking Systems, law and court decision databases, and various organization management support systems. Korean IT experts, software companies, and technology providers may find ample opportunities to assist the Administrative Court (and possibly other government agencies) with technological improvements.

More importantly, the NIPA-sponsored residency program at KAIST ITTP has allowed me to initiate a long-term relation and collaboration between Korea and Thailand. The residency program has enabled me, in a less obvious yet invaluable way, to be connected to many ITTP PhD and master students and alumni who are highly promising government officials in their countries. Along the same line, I have met experts from Nepal and Moldova with whom I share the e-Government
development ideas. The opportunity to meet and connect with them has expanded my global government-oriented networks to the next level; such connections will be useful along the way of my and their career in the government locally and internationally.
Chapter 2
ICT Development at the Administrative Court of Thailand

Thailand is based on civil law system, but is also influenced by common law. According to the Constitution of the Kingdom of Thailand B.E. 2550 (2007), The judiciary of Thailand is composed of three distinct courts: the Court of Justice, the Administrative Court, and the Constitutional Court.

1. The Administrative Court of Thailand

The Administrative Court of Thailand was established by virtue of the Constitution of the Kingdom of Thailand B.E. 2540 (1997), which is the first constitution expressly providing the Administrative Court into a dual-court system. The Administrative Court tries and adjudicates administrative disputes between the private sector and State organs concerning the issues of abuse of power and negligence by such State organs. The Act on Establishment of Administrative Courts and Administrative Court Procedure, B.E. 2542 (1999) regulates that the Administrative Court has jurisdictions (areas which are within the competence of the Administrative Court to try and adjudicate) and competence to try and adjudicate cases or competence of the Administrative Court (the power of the Administrative Court to try and adjudicate administrative cases under the law).

For almost one year since the Act on Establishment of Administrative Court and Administrative Court Procedure, B.E. 2542 (1999) was enacted, the first set of the Supreme Administrative Court Judges was granted a royal audience to make a solemn declaration before taking office in June B.E. 2543 (2000). The Supreme Administrative Court, and the Central Administrative Court were inaugurated on the 9th of March B.E. 2544 (2001).

The Administrative Court is divided into 2 levels: the Supreme Administrative Court and the Administrative Courts of First Instance. Currently, there are the Central Administrative Court and nine Regional Administrative Courts, namely, the Chiang Mai Administrative Court, the Songkhla Administrative Court, the Nakhon
Ratchasima Administrative Court, the Khon Kaen Administrative Court, the Phitsanulok Administrative Court, the Rayong Administrative Court, the Nakhon Si Thammarat Administrative Court, the Udornthani Administrative Court, and the Ubonratchathani Administrative Court. And the Petchaburi Administrative Court, the latest established Regional Administrative Court, will be opened in early 2015.

![Figure 1 Courtroom at the Administrative Court of Thailand](image)

The Administrative Court has competence to try and adjudicate administrative cases as prescribed in the 1997 Constitution section 276. The nature of administrative cases is divided into five types as follows:

1) The case involving a dispute arising from a unitary administrative act;

2) The case involving disputes arising from neglect of official duties or a performance of such duties with unreasonable delay;

3) The case involving a dispute arising from an administrative tort or other liability of an administrative agency or State official arising from the exercise of power under the law or a damage arising from the issuance of a by-law,
administrative order or other order, or from the neglect of official duties required by
the law to be performed of such duties with unreasonable delay;

4) The case of a dispute arising out of an administrative contract such as a
concession contract and a contract for the provision of public utilities; and

5) Other administrative disputes such as the case prescribed by law to be
submitted to the Court by an administrative agency or a State official for mandating a
person to carry out a particular act or to refrain therefrom.

There are 3 types of case that are prescribed by the law to be beyond the scope of the
jurisdiction of the Administrative Court: an action concerning military disciplines,
action of the Judicial Commission governing the judicial services, and the case within
the jurisdiction of the Specialized Courts under the Court of Justice, namely the
Juvenile and Family Courts, Labor Courts, Tax Court, Intellectual Property and
International Trade Court, Bankruptcy Courts or other Specialized Courts.

1.1 The Administrative Court Procedure¹

Administrative Court Procedures is significantly different from the Civil Procedure.
That is, Administrative Court Procedure is based on the inquisitorial system as
opposed to the accusatorial system used in the Civil Procedure applied in the Court
of Justice.

Under the Civil Procedure in the Justice Court, a judge does not play a key role in
court proceedings since the proceedings in the Court of Justice are mostly done by
litigants and their lawyers. And the trial and rulings of the judges are based on facts
and evidence submitted to the court by the parties concerned. Therefore, if any
pleading or submitted evidence is found to be incomplete, the judge shall
not interfere with the facts or evidence for the interference can be considered an unfair

¹ “The Administrative Court Proceedings,” The Administrative Court of Thailand. Retrieved
from http://www.admincourt.go.th/AMC_ENG/01-court/procedure/courtproceed.htm on
November 21, 2014.
or discriminatory action. It is so because the nature of cases in the Court of Justice is that of adversary trial between parties. Moreover, the most important part of the proceedings in the accusatorial system is the court hearing. The oral adversary trial is held in open court before the presiding judge and conducted by lawyers.

Conversely, Administrative Court Procedure has an important principle that is almost all administrative court proceedings shall be presented in writing, and trials are based on inquisitorial system. Furthermore, Administrative Court judges play their roles in both finding of facts and questions of law. In “fact finding” as prescribed in the Administrative Court proceedings, the judges are not limited to facts and evidence submitted to the court by the parties. The judge who conducts the fact-finding process is the judge-rapporteur, who is also one of the judges in the chamber for trial and adjudication of the case. The judge-rapporteur has a broad power in fact finding as he/she may think fit; he/she shall perform his/her duties in the interest of both parties and shall give both parties opportunities to review and present an objection of the facts and evidence discovered by the judge, before being compiled a part of the proceedings of the case. Thus, lawyers are not exactly required in general administrative cases, but in certain administrative cases, there might be a need for lawyers where the case is involved the payment of money or complicated administrative contracts.

The system of Administrative Court Procedure requires the system of checks and balances among Administrative Court judges in order to examine whether the facts are correct and complete. Principally, the judge-rapporteur has an important role in the finding of facts and shall present the facts to other Administrative Court judges of the chamber and to the judge-commissioner of justice, who is not included in the chamber for trial and adjudication. To adjudicate administrative cases, the judge-commissioner shall make a statement, which includes the examination of the issues of law and issues of facts and an opinion concerning case adjudication to the chamber before the judgment or order of the chamber. Even though only a decision of the chamber is considered a judgment, the system, which requires the judge-commissioner presents a statement to the chamber, would assist the chamber in adjudicating cases more rightfully. If the chamber disagrees with the statement, in
principle, the chamber has to present more sensible and convincing reason because the judgment made by the chamber for the statement of the judge-commissioner shall be compared for the law prescribes that judgments or orders of the chamber and opinions of the judge-commissioner shall be published together. In a nutshell, the Administrative Court Procedure makes a very substantial difference from the Justice Court procedure, thus the Case Management System and associated judicial information systems of the Administrative Court are distinctive from those of the Justice Court for the most part.

As of October 31, 2014, the number of cases in all Administrative Courts throughout the country is as follows:

Table 1 The number of cases in the Administrative Court of Thailand since the inauguration on March 9, 2001 to October 31, 2014

<table>
<thead>
<tr>
<th>Administrative Courts</th>
<th>Incoming Number</th>
<th>Incoming %</th>
<th>Outgoing Number</th>
<th>Outgoing %</th>
<th>Pending Number</th>
<th>Pending %</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Supreme Administrative Court</td>
<td>27,082</td>
<td></td>
<td>18,014</td>
<td>66.52</td>
<td>9,068</td>
<td>33.48</td>
</tr>
<tr>
<td>The Central Administrative Court</td>
<td>36,523</td>
<td></td>
<td>29,589</td>
<td>81.01</td>
<td>6,934</td>
<td>18.99</td>
</tr>
<tr>
<td>The Regional Administrative Courts</td>
<td>38,786</td>
<td></td>
<td>33,528</td>
<td>86.44</td>
<td>5,258</td>
<td>13.56</td>
</tr>
<tr>
<td>The Chiang Mai Administrative Court</td>
<td>5,293</td>
<td></td>
<td>4,762</td>
<td>89.97</td>
<td>531</td>
<td>10.03</td>
</tr>
<tr>
<td>The Songkhla Administrative Court</td>
<td>5,270</td>
<td></td>
<td>4,825</td>
<td>91.56</td>
<td>445</td>
<td>8.44</td>
</tr>
<tr>
<td>The Nakhon Ratchasima Administrative Court</td>
<td>6,022</td>
<td></td>
<td>5,606</td>
<td>93.09</td>
<td>416</td>
<td>6.91</td>
</tr>
<tr>
<td>The Khon Kaen Administrative Court</td>
<td>6,966</td>
<td></td>
<td>6,601</td>
<td>94.76</td>
<td>365</td>
<td>5.24</td>
</tr>
<tr>
<td>The Phitsanulok Administrative Court</td>
<td>4,150</td>
<td></td>
<td>3,738</td>
<td>90.07</td>
<td>412</td>
<td>9.93</td>
</tr>
<tr>
<td>The Rayong Administrative Court</td>
<td>3,158</td>
<td></td>
<td>2,624</td>
<td>83.09</td>
<td>534</td>
<td>16.91</td>
</tr>
<tr>
<td>The Nakhon Si Thammarat Administrative Court</td>
<td>3,537</td>
<td></td>
<td>2,976</td>
<td>84.14</td>
<td>561</td>
<td>15.86</td>
</tr>
<tr>
<td>The Udornthani Administrative Court</td>
<td>1,529</td>
<td></td>
<td>1,224</td>
<td>80.05</td>
<td>305</td>
<td>19.95</td>
</tr>
<tr>
<td>The Ubonratchathani Administrative Court</td>
<td>2,861</td>
<td></td>
<td>1,172</td>
<td>40.96</td>
<td>1,689</td>
<td>59.04</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>102,391</strong></td>
<td></td>
<td><strong>81,131</strong></td>
<td><strong>79.24</strong></td>
<td><strong>21,260</strong></td>
<td><strong>20.76</strong></td>
</tr>
</tbody>
</table>
2. The Office of the Administrative Court

The Office of the Administrative Courts (OAC) was set up earlier in October 2000 to prepare for the Administrative Court’s inauguration in March 2001. The Office of the Administrative Courts performs as a secretariat unit of the Administrative Courts to act in the capacity of a secretariat charged with the important role and function of providing support and aiding in the facilitation of justice delivered by the Administrative Court. In brief, the roles and functions of the Office of the Administrative Courts may be divided into three tasks: (1) Secretarial: routine work and all secretarial work of the Administrative Court; (2) Technical: studying and collecting documents and information which are beneficial to the Court’s work, analyzing causes of filing of administrative cases, publishing and disseminating judgments or orders made by the Administrative Court, and providing training programs to increase the efficiency of its officials; (3) Case: carrying out all judgments and orders of the Court.

The Act on Establishment of Administrative Courts and Administrative Court Procedure, B.E. 2542 (1999) prescribes that there shall be Secretary General of the Office of the Administrative Courts who shall be an official of the Office of the Administrative Courts directly reporting to the President of the Supreme Administrative Court, with the responsibility of general supervision of official affairs of the Office of the Administrative Courts, and shall be the superior of officials of the Office of the Administrative Courts. There shall be Deputy Secretary Generals of the Office of the Administrative Courts to assist the Secretary General in directing and performing official duties. The Office of the Administrative Courts shall have the powers and duties to support the Administrative Court affairs.

Offices under the superintendence of the Secretary General of the Office of the Administrative Courts include all offices of the Administrative Courts, and Supportive offices. Each office of the Administrative Courts shall be an administrative unit of the Court to which it is attached. Office of the Supreme Administrative Court, for instance, assists Supreme Administrative Court judges in trying and adjudicating cases. Similarly, Office of the Central Administrative Court is
tasked with assisting the Central Administrative Court judges in trying and adjudicating cases. In total, there are 11 offices of the Administrative Court, and 16 internal offices, bureaus, and institutes performing as Supportive offices, namely,

- Office of the President of the Supreme Administrative Court
- Office of the Chief Justice of the Administrative Court
- Bureau of Administrative Case Execution
- Bureau of Research and Legal Studies
- Bureau of Public Law Library
- Bureau of Public Relations
- Bureau of Foreign Affairs
- Bureau of Strategic Management
- Bureau of Human Resources Management
- Bureau of Information Technology
- Bureau of Finance and Accounting
- Bureau of Asset Management
- Bureau of General Services
- Bureau of Internal Audit
- Administrative Judge and Official Development Institute
- Bureau of Legal

Presently, the new permanent premises of the Administrative Court and the Office of the Administrative Courts are located on Chaengwattana Road in the area of the Government Complex, Bangkok.
Figure 2 The premises of the Supreme Administrative Court, the Central Administrative Court and the Office of the Administrative Courts in Bangkok

As of October 1, 2014, there are 209 Administrative Court judges, 20 of which are the Supreme Administrative Court judges, and 189 of which are the Administrative Courts of First Instance judges. Of all 2,647 staff members, there are 2,053 officials while the rest are contract and temporary employees.

Further information about the Administrative Court and the Office of the Administrative Courts can be obtained at [http://www.admincourt.go.th](http://www.admincourt.go.th)

3. ICT Development of the Administrative Court and its Office

Since the inauguration of the Office of the Administrative Courts in 2000, and that of the Administrative Court in 2001, the development of information and communication technologies (ICTs) has been central to the Administrative Court and the Office of the Administrative Courts’ strategic plans. Thanks to the executives’ vision and emphasis on the adoption and use of new ICTs, the Administrative Court has been employing many ICT tools to help increase the efficiency of the case procedures and work operations. As former and current Presidents of the Supreme
Administrative Court, Secretary Generals, and Deputy Secretary Generals have established the goal, the Administrative Court has been on a path to becoming an ICT-oriented organization through four main missions on ICT development as follows:

1. To increase the efficiency of the Administrative Court judges and the Administrative Case Officials’ performance regarding case procedures and case management, which are the major functions of the Administrative Court;

2. To provide supportive information systems that help the Office operate its functions as a secretariat unit for the Administrative Court;

3. To deploy appropriate information technologies and contents to communicate with and educate the public and other government agencies so that individuals understand their rights and the agencies can help protect them; and

4. To utilize the technology to increase competencies and efficiency of the Court personnel.

The Bureau of Information Technology takes charge of the development and deployment of information technology including information infrastructures, electronic and network devices, systems and applications to support the work of the Administrative Court judges and facilitate operations of the officials. There are, currently, 48 staffers in the Bureau of Information Technology; half of the staff is application developers and system administrators, whereas the other consists of technicians, and administrative operators.

3.1 Information infrastructures

The information and communication infrastructures have been implemented throughout the Administrative Court. The leased lines link each Regional Administrative Court to the main premises in Bangkok, where the central application and database servers are located (Figure 3). The networks allow data communication for applications, Intranet systems, and Internet access; voice and telecommunication
through Voice over IP (VoIP), and video conferencing system; and virtual private network (VPN) service for remote access. Recently, the Bureau of Information Technology has started its secure Wi-Fi service throughout the Court area for the judges and staff to access the Intranet and Internet on their mobile devices.

![Map displaying network connection among the Administrative Court locations](image)

Figure 3 Map displaying network connection among the Administrative Court locations

Since the establishment of the Administrative Court and its Office, the Office of the Administrative Courts has outsourced its application development projects to private software firms. Those applications include the first Case Management and Tracking Systems, e-Document Management System, email system, and communication systems such as video conferencing system. The oversight and maintenance of system and network equipment is also outsourced to system engineering vendors.
In the past decade, the number of cases and subsequent workload has drastically increased. New judges, case officials, and court support staff have been recruited. Consequently, the demands for computer equipment, and support systems have been increasing every year. However, the IT budget has not increased in proportion to such requirements; there have been management issues arising during the project outsourcing partly due to the software developers’ lack of experience of this field. Also, it is partly because the court proceedings, business process, and work practices at the Administrative Court and its Office have not yet settled, as the Administrative Court has not established long enough. The Court, thus, has repeatedly revised its work procedures.

As a result, the Bureau of Information Technology has to start developing some small applications in-house, such as the Intranet, and e-Meeting systems. At the same time, the Office of the Administrative Courts has adopted a few national centralized information systems, such as the Government Finance Management Information System (GFMIS), and the Departmental Personnel Information System (DPIS) for standardized financial and human resources information management with some latitude to tailor the system to its own organizational structures and practices.

The systems deployed during the first years since the Administrative Court’s inauguration are already outdated both technology-wise and work procedure-wise, or not supported by the product owners. Therefore, the systems need some updates and improvements. Thus, the Bureau of Information Technology has been developing new versions of existing systems; one of the major improved systems is the new Case Management and Tracking System, which is entirely redesigned to facilitate the new court proceedings.

3.2 Organization management support systems

The Office of the Administrative Courts implements applications to accommodate its management and staff’s operations (Figure 4). These information systems, of which the users are all the judges and officials, include email, Intranet system, e-Meeting system, e-Paycheck allowing the judges and officials to view their salary statements
online, e-Library, and e-Learning, to name a few. Another set of applications involves systems accommodating specific functions and operations, such as e-Document system facilitating the administrative staff for their documentation and document control work, Department Personnel Information System (DPIS) for human resources staff, Performance-based budgeting (PBB) and Government Financial Management Information System (GFMIS) for finance staff and accountants. There are systems for the Administrative Court’s publicity and information services, such as the Administrative Court website, and hotline phone; and for internal communication, such as video conferencing system, and Voice over Internet Protocol (VoIP). As discussed earlier, the implementation of such systems and tools is a mixture of in-house development, outsourcing projects, and government-mandatory adoption.

**Figure 4 Overview of the organization management support systems at the Office of the Administrative Courts**

Many of the organization management support systems have been implemented for over 10 years with little updates and improvements. Some systems have started to be obsoleted and can no longer use on new operating systems. The e-Document system, for instance, has been operated on a client-server base, which requires high maintenance and man-hour on system installation and updates. As the nature of collaboration in organizational settings has changed through time, many functions that support online collaborative work among the officials are missing in the existing
version of the e-Document system. The Bureau of Information Technology, thus, has been redesigning the system and plans to implement a new web-based system by 2016.

3.3 Case Management and Tracking System

In a similar vein to the e-Document system, the existing Case Management and Tracking System is developed on an old client/server architecture. The procedures and practices embedded in the system are not valid anymore. Further, the software development companies no longer support the system. The system developers in the Bureau of Information Technology have been working on the development of the new Administrative Case Management System (Figure 5) as a consequence.

Figure 5 The new Case Management/Tracking System to be launched in early 2015

The system is comprised of eight main sub-systems:

1) Case management system’s functions are similar to a workflow and document control application to allow the court users (judges and case officials) to enter the information about the plaintiffs, defendants, and the basis of the case (Figure 6). It
also records case assignment history including the judge chamber, the judge-rapporteur, and the judge-commissioner in each case.

The system also performs as a case docket control – the system registers and keeps track of litigation documents, records, and evidence submitted in each case, along with summons issued from the Administrative Court. The Case Management System does not support document digitization, hence acting merely as document flow control system while the physical litigation documents and records are processed manually. Nevertheless, these docket whereabouts updates reflect the case status in the case-tracking module;

Figure 6 The Case Management System

2) *Case Tracking System* allows the judges to plan their work on each case. The system provides recommended schedules and work plan on each of seven steps – 1) plaint examination; 2) fact inquiry; 3) plaint summarization; 4) fact inquiry termination notice; 5) statement preparation; 6) hearing, and; 7) judgment or order delivery – throughout the procedure. Though, the judges-rapporteur can design or adjust the schedules manually. In a given case as illustrated in Figure 7, for instance, it recommends that an examination of the plaint take about 10 days to determine
whether or not the Court accepts the plaint. The judge-rapporteur plans that the fact inquiry process should take 220 days; the plaint summarization process is supposed to be done in 140 days later. The forth step is to issue a notice to the termination date of fact inquiry within 40 days, followed by 70 more days for the judge-commissioner to prepare a statement, and fix the date of the first hearing. The hearing, where the judge-commissioner presents his oral statement, needs to be held within 30 days. Finally, the Court should deliver a judgment or an order within 40 days after the hearing.

Figure 7 Work planning module in the case tracking system
The system keeps track of the work schedule by comparing the planned schedule with the actual schedule according to the movement of the dockets previously mentioned, and displays status of the case (Figure 8). Thus, it can determine whether the judge is ahead of, behind, or right on schedule;

![Figure 8 Case Tracking System displays the status of each case with an indicator showing whether the case is proceeded according to plan.](image)

3) **Case Enforcement Management System** lets the case officials record the detail of enforcement ordered by the Court, and the result of each enforcement item. The judges and officials can track the updated process and result through the system (Figure 9);
Figure 9 Case Enforcement Management System
4) *Scheduling and calendaring (Case appointment) system* allows the judges and their case officials to view the appointments by month classified by the appointment types – hearing, trial, and judgment/order delivery (Figure 10). In the future, potentially, the users can schedule trial and hearing, and reserve the courtrooms through the system. However, this module is work in progress, as it requires a connection with the Court’s email and groupware system (Lotus Notes) in which the IT staff does not have such technical knowledge;
Figure 10 Case appointment system (prototype)
5) **Reminder and warning system** informs the judges of approaching trial/hearing appointments and case procedure deadlines according to the pre-arranged schedules (Figure 11). In a similar vein, this desired module is under slow development due to limited capability of the IT staff;

![Figure 11 Reminder and warning system (prototype)](image)

6) **Administrative Court judgment and order databases** offer the Administrative Courts’ decisions in PDF and Word formats through a full-text search engine (Figure 12). Besides the court decision databases shown in the Case Management System, the Court also provides its court users with another court decision system in the Intranet system. The Bureau of the President of Supreme Administrative Court selects key decisions and summarizes the main rulings and associated laws and regulations from those decisions and put them in the “Day-to-day” decisions databases to help establish decision and ruling standards among the judges and case officials;
Figure 12 The Administrative Court judgment and order databases
7) **Statistics and reports** provide the judges with necessary reports for court management and performance evaluation. The judges can view the statistics, on a text or graphical base, of the cases on their responsibility (Figure 13); and

![Figure 13 Relevant reports](image)

8) **User manuals** for system and user instructions and troubleshooting.

### 3.4 Public information services

The Administrative Court provides the public with case-related information, such as trial and hearing schedules (Figure 14), and court decisions (Figure 15) on its website: [www.admincourt.go.th](http://www.admincourt.go.th)
Figure 14 Trial and hearing schedules search categorized by court, date, case type, etc.
3.5 Challenges and limitations attending the Case Management System development

Throughout the development and implementation of the existing and new Case Management and Tracking Systems for over a decade, there have been organizational and technological challenges, issues, and resistance arising from the adoption and use of the systems, as well as other systems across all types of users – the judges, and case officials, as well as support staff. These issues may be classified as follows:

First, the implementation of the current Case Management System has encountered tensions and resistance. During the system design process, the potential users who provided work procedure and user requirements for the system analysts from the outsourcing firms were also new to the Administrative Court Procedure. Although they elaborately explained their work to the analysts, the work practice and procedure
were subject to change all the time. Thus, no one was able to explain a whole picture of the system and information needed for the trial and managerial control. The system analysts, therefore, ended up converting the users’ manual practice as being told into computerized practice with complicated details and subsequently numerous unfriendly-designed screens.

As a result of the first issue, second, the analysis and design of the Case Management Systems does not make the most of computerization. The computerized process merely imitates the fundamental manual case proceedings. Although the Case Management Systems have been introduced, the manual procedures are not terminated. On the contrary, the Systems do not redesign to eliminate unnecessary, duplicative processes and forms, or even attempt to automate work with electronic litigation documents. As a consequence, the manual procedures with physical documents remain primary practice among the case officials. In court, furthermore, physical litigation documents and forms are accepted and processed as official documents. The court procedure does not provide any means for digitization of those litigation documents. Therefore, the case officials have to maintain their manual practices while having to add electronic practices for managerial control into their routine. The case officials have found that computer-related work procedures and the associated practices create additional yet valueless tasks to the existing manual work.

Third, the very own IT officials in the Bureau of Information Technology lacks of experience and skills on system analysis and design. In their 30s, most of the IT staff started working for the Office of the Administrative Courts right after their graduation with their undergrad or graduate degrees. They do not have prior experience with any large-scale system development projects, particularly court-related systems. However, they have been assigned to be system analysts and designers, programmers, and system engineers of such big systems. Their analysis, design, and programming skills are varied by their background, and also far from those of the professions in the IT industry. Developed by unskillful and inexperienced IT staff, consequently, the in-house Case Management Systems lack standardized software engineering process, and miss some essential functions to accommodate the judges’ and case officials’ work routine. Even so, the users have found that some modules in the Systems, such
as the schedule planning in the Case Tracking System, unrealistic and unnecessarily create more tensions hence resistance to the Systems.

*Fourth*, the readiness for the systems regarding technological infrastructures, and financial resources challenge the system development. The Administrative Court has very limited financial resources for system development, as mentioned previously. Inevitably, in-house development is an optimal solution for the Court. However, the Presidents of the Supreme Administrative Court, and the executives of the Office of the Administrative Courts have emphasized the use of information technology at the Court and its Office. Of the total IT budget allocation, therefore, the employment of information infrastructures, specifically computers and hardware equipment, usually take priority.

Also, the readiness and attitude towards ICTs of the Administrative Court’s stakeholders, both internal and external, has become another major barrier to the system adoption. The judges and officials’ computer literacy is limited, subsequently leads to their unwillingness to adopt the Case Management Systems. The judges and senior case officials, specifically, are not familiar with electronic devices and computer-related work. They prefer information on physical documents to that in electronic format. To keep track of the case docket, for example, the case officials use their personal logbooks to record the docket’s whereabouts. Thus, the use of logbooks has de-emphasized the necessity of using the Case Tracking System to input identical information the case officials already has on hand. The case-related work, consequently, has remained a paper-dominant practice.

These challenges facing the development and adoption of Case Management Systems are applicable to the adoption of organizational management support systems, such as the e-Document system, as well.

The issues concerning technological readiness are perhaps the most crucial among the issues facing the implementation of not only the Case Management Systems, but also the prospective e-Court system. The social and technological constraints of the e-Court system development will be discussed in detail later in Chapter 4.
Administrative Court has sought best practices in e-Court system development and implementation from judiciaries in countries around the world to help identify the scope and the development of its own e-Court system. Korea’s e-Court experience best practice is thoroughly examined in the next chapter. Using the Korea’s best practice as a benchmark for the Administrative Court’s e-Court system development, the Administrative Court will be able to address the gap between what the Court wants its e-Court system to be, and what the Court needs to do to achieve that goal.
Chapter 3
The Supreme Court of Korea’s e-Court System

“Great challenge to the e-Court!
Giant leap for the public!”

2010 vision of the Judicial IT Bureau

There are three tiers of courts in Korea – the districts courts, including the family court and the administrative court, the courts of original jurisdiction; high courts, the intermediate appellate courts; and the Supreme Court, the highest court. The Supreme Court is comprised of the Chief Justice and 13 Justices, serving as the final and highest tribunal regarding civil, criminal, family, administrative and military cases.

The National Court Administration, headed by the Minister under the direction and supervision of the Chief Justice at the Supreme Court of Korea, is in charge of the administration of the judiciary including the organization, management, budgeting, and facilities. Under the supervision of the National Court Administration, the Judicial IT Bureau is tasked with the development and implementation of all information infrastructures and judicial information systems including the e-Court system to accommodate the Supreme Court’s judicial service delivery throughout the judicial branches.

1. Overview of the Judicial Information System development and integration efforts

The history of ICT introduction in the Korean judicial processes may date back to the late 1970s. The Supreme Court of Korea has been making great effort at computerizing its trial procedure and utilizing technologies to support the Court’s work. The automation process started with a simple tool to share information about cases among judges, then expanded to a case management system in 1986, and later

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to the current e-Court system, one of the world’s most advanced. The first client/server-based Case Management System and Judge Support System were developed and deployed during the late 1990s to the early 2000s. Ever since, updated versions of web-based Case Management System and associated computer and network systems have been established and become part of the Korean judicial information systems.

![Figure 16 The Supreme Court of Korea’s judicial information system development major milestones](image)

The efforts at achieving well-functioning e-Court have faced challenges technically and socially, such as system failure and unreliability, different infrastructure platforms for information exchange across the judicial branches and with other agencies, information and system security concerns, judges and officials lacking basic

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computer skills, and resistance from the users. Moreover, the existing laws did not regulate any electronic proceedings.

To implement the e-Court, therefore, the Korean Supreme Court addressed, and finally overcome such barriers and limitations. The Judicial IT Bureau implemented the use of electronic signatures, public key infrastructure (PKI), and digital certificates for security, while a nation-wide information network has been vastly improved. 5 Thanks to the modern infrastructures, the national data on court activities have become available. At the same time, the Supreme Court has reviewed and revised the court business processes through Business Process Reengineering-based Information Strategic Planning (BPR/ISP) to be aligned with the introduced information systems. As to the legal infrastructures, the Supreme Court of Korea has amended the relevant laws to shift the court procedure from paper-based to electronic approaches allowing electronic filing, submission, registration, payments and access to court documents.

2. e-Court system development and implementation

Initiating e-Court system development, the Supreme Court established the Electronic Case Filing System master plan in 2001, and subsequently developed the e-Filing system around 2004. Since then, the Supreme Court has gradually made a transition from paper-based procedure and documents to the current e-Court. The Act on the Application of Electronic Documents in the Civil Cases was passed by the National Assembly, and enacted in early 2010, establishing the legal ground for the electronic litigation system. Outsourcing its system development to LG CNS, the Supreme Court has streamlined its court proceedings incorporating functional modules – 1) Case Management System; 2) Judge Support System; 3) e-Courts system; and 4) Public

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6 “Overview of the Judicial Information System and e-Court of Korea,” The Supreme Court of Korea. Provided by LG CNS staff during the interview.

Information Service – into the e-Court to accommodate the judges and court clerks, and deliver judicial services to the public (Figure 18). The computerized processes have resulted in increasing transparency, speed, efficiency, and better accessibility, as well as public trust in the judiciary.

Figure 18 The integrated e-Court

In a nutshell, the **Case Management System** handles all kinds of case-related information, schedules, and records through several sub-systems, such as docket system, case allocation system, case filing system, calendaring system, and service system. The **Judge Support System** assists the judges by providing features including progression of litigation, to-do list and alarm, case workflow system, judgment drafting and sharing support system, groupware, and court decision and law search. The **e-Courts System** realizes paperless court through the judicial information systems. It is consisted of two key components – **Electronic Case Filing System (ECFS)** and **e-Courtrooms** – the functions of which range from accepting complaints and litigation documents online, delivering documents to litigation electronically, to

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recording and videotaping trial procedures in the e-Courtrooms. Finally, *Public Information Service* involves the Court website containing court-related news, announcement, and press releases. The website also provides information about cases, such as trial dates, progression of litigation. Other features in the Public Information Service include certificate issuance, law and legal information search, and Self Help Center to assist individuals who are not familiar with the e-Court system.

All elements together, the system promises to help the Korean judiciary deliver better justice and public judicial services through greater efficiency, transparency, and accessibility. The Patent Court in Daejeon is the first court to adopt the Electronic Case Filing System (ECFS) on April 26, 2010. The other courts have subsequently implemented the system in the civil and administrative cases. All cases (i.e., civil, administrative, family affairs, patent, and petition cases with the exception of criminal cases for privacy protection) will ultimately be tried through the e-Litigation system.
3. Core modules of the e-Court system

This study report summarizes the functions of the main modules in the Supreme Court of Korea’s e-Court that likely are of interest to the Administrative Court of Thailand. The components being investigated in the study are as follows (Figure 20):

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3.1 e-Litigation or ECFS procedure

e-Litigation or e-Case Filing System (ECFS) allows the plaintiffs and defendants to file complaints; submit litigation documents; receive notification about the case, services, orders, judgments, and appeal; and check the status of the case, court appointments and trial/hearing schedules. The litigants and lawyers can access, download, and print electronic records submitted by themselves and by their opponent, and issued by the court through the public portal service (Figure 21). Through the public portal service, further, the litigants can check the status of their case, and access all the documents in the case. The ECFS portal also offers general information about the court, court fees, and law search for general public. Yet, the service is currently not open to the public unless they are the parties to a specific lawsuit.

However, judgment/order search service on the portal website will be available for the public in the future under the condition that the names are anonymous.\textsuperscript{11}

The same information and features provided on the website, except for the e-Filing feature, are also offered on a mobile application for both Android and iOS with the same terms and conditions.

\begin{figure}
\centering
\includegraphics[width=\textwidth]{ECFS_procedure.png}
\caption{ECFS procedure from the litigants’ perspective\textsuperscript{12}}
\end{figure}

\textsuperscript{11} “What is Electronic Case Filing System (ECFS)?,” The Supreme Court of Korea. Retrieved from \url{http://ecfs.scourt.go.kr/ecf/ecfe00/ECFE10_1.jsp} on November 12, 2014.

On the ECFS portal website (Figure 22), plaintiffs and their lawyers may file complaints using their government-validated and verified ID with public key authentication (PKI). In a given complaint, the litigant or lawyer provides the information about the defendant(s), the basis of the case, and the detailed cause of action; and litigation documents; along with other materials needed for the suit. Once the complaint is submitted, the system will determine the court fees. The plaintiffs or the representatives have to pay the fees with their credit card or money transfer from their bank account. After the system accepts the complaint, it will automatically assign a case number and docket number. Furthermore, the system will determine which division/panel and judge(s) will be in charge of the particular case. Incorporating automation processes and functions, the ECFS provides the litigants and lawyers with electronic services that help them reduce the need to visit courthouse.

Figure 22 Homepage of the ECFS portal website

If additional information, such as detailed cause of action, and/or supplement litigation documents, is required, the presiding judge or the judges in charge of the
case will notify the plaintiffs and their attorneys to submit it. If the litigants fail to comply with the court order, the case may be dismissed.

The case falling outside of the Court jurisdiction may be transferred to another court, if allowed by law, which has the jurisdiction over the case unless the parties argue otherwise. The court clerks will transfer the case along with its electronic records through the ECFS to the destination court.

For private individuals or entities, the litigants have options to file a complaint, and submit and receive litigation documents – either electronically via the ECFS or physically through postal service and walk-ins. For public sector agencies, however, the ECFS procedure is mandatory rather than optional. If either private party chooses traditional procedure while the other party voluntarily or forcibly opts in the ECFS, the court bears the cost of converting the submitted documents into digital format. And if the opponent submits electronic documents, the court will print out those documents and send them to the litigants as well.

3.2 Case Management System

Hosting a various types of sub-systems, the Case Management System (CMS) allows the judges and court clerks to manage the cases through the automated system. In brief, the CMS includes case management, procedure management, record reviews and approval modules.13

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The court clerks allocate cases submitted by the litigants through the ECFS via the **Case Allocation System**, while the CMS **Payment and Deposit Systems** handle court fees. Through **Docket System, Case Filing System** (or **e-Records**), and **Case Files Archiving**, the clerks prepare litigation documents for trial by classifying, adding metadata, and managing the case-related information and documents.

The e-Records system imitates the use of traditional document logging system from the manual practice. The red and blue stamps at the bottom of each page with associated color tabs on the side had been used on physical documents submitted to the court to distinguish between the plaintiff’s and defendant’s documents. Such color representations are still electronically visible on the digitized documents. The red stamp means documents from the plaintiffs, whereas the blue refers to documents from the defendants (Figure 24). This practice, additionally, acts as a bridge for older generations who are familiar with their long-established practices with physical paper.

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to transition to the new system easily, hence reducing the learning curve and resistance.

Figure 24 On the e-Records, the red stamp at the bottom of the page and the red tap on the right side identifying the document is submitted by the plaintiff.

The clerks schedule trial dates and other court appointments through the Calendaring System. The CMS also allows the court officials to issue services, notices, and certificates through its Service System, and Certificate Issuance System. Meanwhile, the judges review complaints and relevant documents stored and cataloged electronically in the e-Records to make a decision on lawsuit approval, and draw judgments. For judgment drafting, the Judicial IT Bureau provides a specific tool in the Judge Support System to be used side by side with the e-Records, which will be discussed in the below section.
3.3 Judge Support System

Judge Support System provides the judges with several features, such as *Case Workflow System* to help the judges manage and share register trial calendar and schedules with their personal calendar (Figure 26), retrieve progression of litigation, and see their to-do lists. The judges can also keep track of the cases in their responsibility. As explained by a judge, the system shows the history and current status of the case through a *status indicator* starting from e-filing, document serving, presiding judge reviewing the litigation, the parties exchanging litigation documents, scheduling hearing date, hearing, and going on to judgment/order delivery (Figure 27).
On a **reporting module** dashboard, additionally, the system displays all the cases on hand of a given judge classified by the court procedure divided into six major steps and 19 minor steps. Based on an explanation of an interviewed judge, for instance, a
particular judge currently holds 59 ongoing cases. Among the 59 cases, one of which is newly filed (step A-1 in Figure 28); five of them are during the summons being issued and served (A-2); 24 cases are waiting for an answer from the defendants (A-4); five cases just received an answer from the defendants and the hearing will be scheduled soon after (C-1); 12 cases in the hearing scheduling (D-1); and 10 cases are in the judgment writing process (D-4), and so on.

Figure 28 Dashboard showing the status of cases on hand

When clicking on a number on the dashboard, the system will show the details of the case associated with that particular status (Figure 29). The user can drill down for even more information about the case by clicking on the case number.
Figure 29 Dashboard showing detailed information of cases belonging to a case status

The system summarizes and generates relevant statistical reports for each judge to view the cases on hand. Furthermore, senior and presiding judges can also view the performance summary of the junior or associate judges under their supervision for monitoring and management purpose. The judge users can specify various types of statistics and date ranges of the report they want to view (Figures 30 and 31).
Figure 30 Reporting module with specified date ranges and statistical types

Figure 31 An example of a statistical report on the number of cases a particular judge is in charge
In addition to the total number of cases, pending cases, and completed cases, interestingly, the reports also reveal the case statistics categorized by the decision results a given judge has made. For example, a report presents the number of completed cases that plaintiffs prevailed, the cases that the judge ruled for the defendants, and the cases that were withdrawn before the ruling.

*Judgment System* assists the judges in writing, registering, editing, and sharing judgments and orders among themselves and transferring the judgments to another court. Also, the system provides templates for judgments and orders. The Judge Support System, in addition, offers *Judicial Researcher System* containing Legal Information and Court Decision Databases and case-related information and statistics, in addition, through the *CourtNet* portal system (the Supreme Court’s Intranet).

Inside the *CourtNet* (Figure 32), the Legal Information and Court Decision Databases contain over 24,000 Supreme Court’s decisions, and over 12 million decisions in PDF format from all Korean judiciary. The judges can search and retrieve the decisions to help them study and compare previous decisions, and draft their own decisions (Figures 33 and 34). Thoroughly designed, the new integrated e-Court system has been working collaboratively and seamlessly among the individual modules and with the existing systems.
Figure 32 CourtNet Portal System

Figure 33 Court Decision Databases – search page choosing the judge’s name, case type, judicial branch/court, etc.
When litigants submit paper documents and physical evidence, court officials will scan the documents and convert the evidence into electronic form, and store in the CMS e-Records. The officials then will catalog the digitized records using pre-defined color codes and symbols as explained earlier, and create metadata of those records so that the judges can easily retrieve and view them. Working together with the Judgment System, the e-Records system provides viewing and editing tools for the judges to highlight, copy the content, e.g., text and images, on the electronic records (PDF format) (Figure 35), and paste it in a blank judgment or order template (Word format) automatically generated by the Judgment System.
The Judgment System also retrieves the information about the case, such as case number, docket number, and litigants’ name from the ECFS and CMS, and inserts it in the draft (Figure 36). Once the judge finishes writing the judgment or order, he/she will save the file, which is automatically stored back into the CMS and ECFS. New delivered judgments or orders will be uploaded from the ECFS back to the Court Decision Databases once the judgments are delivered.
At the early stage of the e-Court system implementation, according to one interview with a judge, the amount of paper did not decrease as much as anticipated. The Judicial IT Bureau found that computers and tools provided for the users, i.e., judges and court officials, do not accommodate the users’ behavior and practice with documents. That is because people, based on their old habits and long-established practices with physical artifacts prior to the computerization period, usually use separate media for different purposes. For example, they read a book while taking notes or writing on another medium (e.g., on a notebook, or a piece of paper). Similarly, the users usually prepare and type documents into a computer while reading or referring to many documents on paper. Therefore, the judges naturally print out case-related documents or relevant laws from electronic systems, and write a decision on a screen. As a consequence, the Judicial IT Bureau provides each judge with two monitors for reading and reviewing documents in the e-Records on one monitor, and for writing judgments and orders on the other simultaneously. It has been proved that the multiple-monitor solution has helped the judges rely much less on physical paper; thus the amount of paper used throughout the procedure has dramatically reduced.
The Judicial IT Bureau does not allow remote access to the e-Courts system. The judges may use the system only within the court premises on the court-provided desktop computers. However, the judges may download the electronic records, such as complaints, litigation documents, and evidence in PDF format stored in the CMS and Judge Support System to their local hard drives or flash drives (Figures 37 and 38). This way, the judges can review the documents and draft judgments or orders offline virtually anywhere. However, the system always keeps log as to the users who download, and the documents being downloaded with system timestamps to be able to trace back in case of a leak of documents.

Figure 37 Judges can download electronic records of any case to work offline
3.4 e-Courtrooms

The e-Courtrooms utilize computer and communication technologies (Figures 39 and 40) to assist the judges and litigants in trial procedures. The technologies installed in an e-Courtroom involve computers for the judges, court clerks to access and manage electronic records in the CMS and relevant information, and for the clerks to transcribe and summarize the trial procedures; computers for litigants, and witness to present electronic evidence; an object presentation for the litigants to present physical artifacts; a projector and projection screen to display images from the computers and object presentation so that the judges, litigants and attorneys, as well as the audience can view the evidence being investigated at the same time (Figure 41); CCTV cameras for surveillance and broadcasting proposes; and microphones and voice recording equipment to record trial procedures taking place in the courtroom.
Figure 39 Standardized e-Courtroom model that has been implemented throughout the Korean judicial branch\textsuperscript{15}

Figure 40 A mock-up of e-Courtroom displaying in the Supreme Court Museum shows various types of computer equipment installed in the courtroom.

Figure 41 Litigants and lawyers can present their evidence on the projection screen during the trial.
During the trial/hearing, the court clerks sitting in between the judge bench and the litigant desks transcribe the trial/hearing procedures, handle additional evidence and documents in the e-Records, and manage case scheduling (Figure 42).

Figure 42 Court clerks help the judges during the trial/hearing

All the equipment in an e-Courtroom is centrally controlled through a control panel application on the Judge’s computer on the bench.

3.5 Additional services

The Korean judiciary cleverly utilizes mobile phone technology and service, as mobile cellular subscription of Korea is considerably among the highest in the world (See Appendix 1). The Supreme Court deploys an integrated use of email technology and a short-message service (SMS) to increase the speed, reduce the communication costs, and enhance transparency in its procedure. Every time a case progresses to the next step, the system will automatically notify the plaintiffs and defendants and their attorneys via text messages and email. Similarly, when the case is scheduled for trial or hearing, the system will send a message to the litigants. In this way, the litigants receive all the updates about their case without having to contact the court. Also, they
will receive litigation documents that are submitted by their opponent through their emails registered with the court, as well as text messages for notification.\textsuperscript{16}

4. **Benefits of e-Court**

The e-Court system implementation has substantially improved the court procedure’s efficiency. The savings from the system implementation results from a reduction in the use of paper, time spent in court, the need for storage space, and easier archiving of documents and general streamlining of processes and services.\textsuperscript{17} A decreasing need of court visit, generally, e-Court can also help level the playing field between small and large law firms, especially because small firms have fewer staff and benefit more from not having to visit courthouses.\textsuperscript{18} e-Court also enhances transparency by making decisions available to the public online, and extending the availability of justice in terms of the time and convenience.

As mentioned earlier, all the Courts adopt the same system that is centrally designed and located at one location – the Supreme Court IT Center in Bundang. Besides the benefit of system management (e.g., oversight and maintenance) efficiency, this enables the Supreme Court to standardize associated practices in the judicial procedure as desirable practices are also embedded into the system. The e-Court has reformed the work method to minimize the time and human resources used in the trial procedure, reduce the workload, and increase the judicial service quality. This is also beneficial to the judges when they transfer to another court, as the systems, tools, and associated practices are almost identical throughout the judicial branch.

While the electronic filing and document submission is not compulsory, the number of cases filed electronically have been growing every year. Moreover, the judges and

\textsuperscript{16} Ibid. Retrieved from \url{http://ecfs.scourt.go.kr/ecf/ecfE00/ECFE10_1.jsp} on November 12, 2014.

\textsuperscript{17} Ibid. Retrieved from \url{www.doingbusiness.org/reports/case-studies/2013/improving-court-efficiency} on December 2, 2014.

court clerks prefer the electronic procedure to its traditional counterpart for its convenience and time saving. As a court clerk reports,

“I wish there were legislation amendments to make e-filing mandatory to everyone.”

(Court clerk #1, November 2014)

Practically, the e-Document transmission between the court and the parties results in favorably acceptance among the court clerks who previously have to deal with a large amount of paper. From the lawyers’ perspective, according to a judge at the Patent Court in Daejeon, the lawyers whose offices are based in Seoul hence formerly having to travel to Daejeon to file complaints or submit litigation documents by hand or by post, also willingly adopt the ECFS.

5. Challenges facing the e-Court system implementation

Like other system development in any agencies, the Supreme Court of Korea encountered technical, organizational, and financial challenges. One of the common challenges is anticipating the needs of users at the system design stage.\(^\text{19}\) As a judge states, the users are the heart of the judicial information system; the system developers have to do their best to satisfy the users’ want and need.\(^\text{20}\) To avoid user resistance to the system, the Supreme Court did not go paperless immediately. Rather, it took a step-by-step approach gradually implementing the system. The Court started with paper-on-demand to allow users to slowly adapt and then moved to a full paperless system.

Convincing both lawyers and court users to transition to e-Filing and associated e-Court systems requires some learning and adjustments on both sides of the new platform. The Supreme Court of Korea, therefore, provides training courses, user manuals, and IT Helpdesk service for the court users, and online self-learning programs for the lawyers. The Court also attracts more users by offering document


\(^{20}\) Ibid.
security guarantee with high-tech technologies, 24/7 access to registries and court documents, easier and faster access to information, and increased transparency as litigants can also access the system. To promote system adoption, in addition, the Supreme Court creates financial incentives by cutting court fees by 10% for lawyers who use e-Filing.

Additionally, the e-Court system relies on information and organizational infrastructures. Therefore, the information infrastructures need to be prepared to facilitate the development and use of e-Court system. The infrastructures ranges from basic yet crucial infrastructure, such as wired or wireless Internet access, to advanced network and system security; and from services and tools at local courthouses to nation-wide data infrastructures and national ID authentication. During an interview in this study, a senior judge regards the information infrastructures as the most crucial criterion of the Supreme Court of Korea’s e-Court implementation success.

Moreover, the work practices, business processes, and relevant laws, as the organizational and legal infrastructures, need to be reformed and amended so that they are aligned with the premises underlying the e-Court system. The Supreme Court, thus, carefully formulates an e-Court development master plan involving strategically reengineering business processes, and associated case procedures along with the e-Court system design.

To successfully formulate and implement the integrated e-Court system master plan in the Korean judiciary, clearly, the leaders play an important role. The implementation requires the leaders’ great vision, leadership, and commitment on pursuing the transition. The Judicial IT Bureau establishes an ambitious goal stating “great challenge to the e-Court! Giant leap for the public!” Although the transition has encountered major challenges and barriers, the benefits to the public will outweigh the court users’ costs of adopting and using the e-Court systems.

Last but not least, another challenge facing the Supreme Court’s e-Court is to secure funding to maintain and enhance the system. The Court invested about US$20 million
in developing the e-Court system, and about as much will be needed to integrate new features by 2015. Maintenance fees and data preservation costs around $30 million annually. In 2012, $180 million of the $1.8 billion budget for the Korean judiciary went to information and communication technology.

In the following chapter, I will discuss two topics: 1) the desirable e-Court modules under practical e-Court development approaches that the Administrative Court of Thailand can take focusing on the technological aspects given the country social and technological backgrounds; and 2) the gap between the achievable goals Thailand may pursue and the current state of the e-Court development benchmarking against the Korean e-Court development best practice.

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22 Ibid.
Chapter 4
The Gap between the e-Court Goals and Current Status

The Administrative Court has implemented its Case Management System and court information systems with functions to accommodate the judges and court users, and to provide the public with case-related information. Though, this is yet a small step towards e-Court. The Case Management System operates with very limited automating functions. The procedure, for the most part, is still based on traditional practice. The system cannot facilitate some case proceedings, such as case allocation, which is conducted manually through the judge chambers. Summons service issuance and delivery have to be done via personal delivery or postal service. Similarly, court fee payments and other financial transactions occur on a cash (or check) basis. Even so, litigation and court documents and evidence has remained the primary media under the court procedure. Thus, judges and court officials perform their work in a mixed paper-electronic ecology of procedure and practices. As a result, there have been issues concerning work practice standards and the case trial speed and efficiency. As explained earlier, additionally, the system is exclusively for the Administrative Court judges and case officials; the litigants or lawyers are not yet part of the system users. Thus, there is no connection to the public. The transparency of the court procedure is consequently in doubt.

More importantly, the system design of the court information systems and databases lacks function and information integration quality. The case and court information is rather scattered, duplicated, inconsistent, and missing. For instance, there are several law and court decision databases, each of which is the responsibility of different divisions in the Court. New judgments are not automatically transferred to the decision databases. The original Word processing files, therefore, are kept separately at the judges’ computer and eventually lost. Oftentimes, the divisions in charge of gathering judgments and orders cannot locate the files, hence needing to retype the decisions to be uploaded into the databases. Without specific decision-writing tool, furthermore, the judges use various templates of judgments and orders based on their personal preferences. The staff handling the decision databases has to reformat the files prior to the upload process.
Benchmarking it against the Supreme Court of Korea’s sophisticated e-Court system, the Administrative Court of Thailand’s judicial information systems at its present state are short of essential systems and services for integrated e-Court.

Nevertheless, this does not necessarily mean that Thailand should follow every step of the Korean e-Court path. Rather, the Administrative Court should carefully study the needs and wants of the litigants, lawyers, and the public, as well as the court personnel to identify what “e-Court” really is in the Administrative Court Procedure context, and what should and could be included in the e-Court given Thailand’s social and technological backgrounds.

1. **e-Administrative Court: Addressing the needs**

Considering the systems and services the Supreme Court of Korea provides for its court users, litigants, and lawyers, the Administrative Court should assess whether and how each of the following systems and services is necessary for its procedure and beneficial to its potential users:

1. **e-Litigation**: Prior to developing an e-Litigation or *Electronic Case Filing System (ECFS)*, the Administrative Court should take into account computer literacy skills and the Internet access of its potential users, particularly litigants. Act on Establishment of Administrative Courts and Administrative Court Procedure, B.E. 2542 (1999) prescribes that lawyers are not required in general administrative cases. Presently, the majority of litigants who are not well educated and do not have representatives may not appreciate the introduction of ECFS. ECFS procedure could even cause difficulties for them. Community lawyers or small law firms may not want to use electronic channel either, as it requires additional equipment and technical expertise that they currently do not have, and do not want to bear the cost. As shown in the Appendices 2 and 3, fixed broadband (and wireless) Internet access is very limited in Thailand.

   To weigh the cost against the benefits of ECFS to the litigants and lawyers, however, it requires a further study on the demographic of litigants to understand the nature of the stakeholders on their information technology access and use, then pin
point whether ECFS will be beneficial for them, hence worth the development. Thus, ECFS may not be needed, or take top priority at this moment even though the Court can make the ECFS procedure available optionally.

Though, other modules and features offered in the Korean Supreme Court ECFS may be useful and applicable to the Administrative Court Procedure and the Court stakeholders as a starting point. For instance, the Administrative Court could implement fundamental SMS and email services to keep the litigants updated on the status of the cases and relevant court appointments. As mobile phones and email have been commonly used throughout Thailand (See Appendix 1), the deployment of such technologies with user-friendly functions could be exceptionally useful and easily adopted.

2. **Case Management System:** The Supreme Court of Korea CMS provides various features ranging from case allocation, case management, procedure management, docket management, calendaring system, to electronic record viewer and approval, whereas the Thai counterpart provides only case management and tracking, as well as docket control for the most part. The Administrative Case Management System does not yet facilitate electronic records in the court procedure. The judges and Administrative Case Officials still rely on paper-based dockets. As a result, the physical dockets do not allow multiple concurrent-user access. In other words, dockets can serve only one judge or one case official at a time, hence creating a barrier to the court efficiency.

I would argue, therefore, that document digitization and e-Records management and archiving are necessary, or even crucial for the Administrative Court to enable multi-user access. This should substantially be able to help the Administrative Court expedite its fact finding and trial processes as the judge-rapporteur and the judge-commissioner along with their assistants can access and study the case documents and evidence simultaneously. Furthermore, computerized court systems make case file archives more secure. They minimize the risk of files being stolen, lost, or misfiled. e-Records system can improve file security and confidentiality with restrict access, encryption, and authorization. The e-Records
system will potentially enhance transparency and public trust, as the litigants can access and download the same case records as the court and their opponents can at any time from locations other than the courthouse. In addition, digitized documents will drastically reduce the use of paper and physical storage space, which presently is a huge challenge facing the Administrative Court.

3. **Judge Support System:** As demonstrated earlier in Chapter 3, the *judgment-drafting tool* in the Korean e-Court is greatly helpful to the judges. And the connection of the tool with CMS and court decision databases enables the Supreme Court to manage case information and process court decisions for search and retrieval very efficiently. The Administrative Court should have a similar tool and associated functions with integrated information as the Korea’s Judge Support System. The e-Records viewer equipped with advanced *document security features* is also necessary for case records offline access at the Administrative Court as mentioned previously. Such system will be beneficial all the internal and external stakeholders for its expedition and convenience. Moreover, the *report and statistics module* in the Judge Support System has shown an interesting and useful dashboard presenting case schedules and status with drill-down information in various dimensions. The information dashboard is a good example for the Administrative Court to follow for monitoring and performance evaluation.

4. **e-Courtrooms:** the utilization of computer technologies in courtrooms seems to help the judges, court clerks, and litigants during trial and hearing procedures. The e-Courtrooms features, such as *voice and video recording, e-Document and object presentation* on a projection screen, and *information access via the Internet* have proved to be useful in trial and hearing. Though, the Administrative Court Procedure is distinctly different from the Civil Procedure, which results in distinguish proceedings in the court trial and hearing. That is, as discussed previously, the accusatorial system used in the Civil Procedure emphasizes the court hearing proceedings. Evidence also plays an important role during the proceedings. Thus, computer and presentation equipment in the courtroom is necessary. Contrastingly, Administrative Court Procedure underlines the inquisitorial system on a written-argument basis. Therefore, a thorough examination and observation of trial and
hearing procedures taking place at the Administrative Court is required in order to
determine whether the court and litigants present any evidence in the trial, and so
presentation technologies should be installed in the courtrooms.

It should go without saying that to adopt and deploy the systems and modules
available in the Korean e-Court, the Administrative Court needs to carefully review
and customize them to best fit with its procedure and local requirements and
backgrounds. And besides these systems and services, the Administrative Court may
invent and tailor its own systems and services to exclusively serve the court users and
external stakeholders in the local context. In Thailand, where the public transportation
is not as advanced or convenient as in Korea, it costs a lot of time and money for
litigants living in a remote place to come to a trial. The use of video conferencing
system or a video-telephony technology for live streaming court trial or judgment
delivery may step in to mitigate the need for the litigants to visit courthouse.
Nonetheless, this requires a comprehensive study on laws and regulations, court
procedure, business process, and work practices of the court users, and relevant
stakeholders from the beginning to the end of the procedure, as well as on social,
financial and technological constraints and readiness of the country and its residents.
The results from the study will assist the Administrative Court in formulating an
attainable master plan for creating and implementing e-Administrative Court.

2. Addressing the gap

To achieve the e-Administrative Court implementation by 2018, the Administrative
Court of Thailand needs to identify the gap between its e-Court ambition and the
current state, then sort out its priorities to fulfill the gap. As technological feasibility
is central to this preliminary study, this section discusses the e-Court preparation
mostly regarding technological arrangements.

2.1 Infrastructure readiness and integration

The development and implementation of e-Court requires information infrastructures
on both ends – the Administrative Court and the external stakeholders. The
Administrative Court needs to prepare reliable computer servers and network
connections with top-notch document and system security technologies. Information infrastructures of the Administrative Court are considerably sufficient for the use of existing information systems and communication throughout the Courts nationwide. As for the e-Court implementation, however, the country critical infrastructures have been underdeveloped. For example, electronic payments and transfer, and national ID authentication require external infrastructures from other agencies and firms. While the national ID registration databases have been established by the Ministry of Interiors, there is no national-level secure user ID and password authentication available for the citizens and residents to access government portal websites and other services (cf. Korea’s Resident’s Registration Number (주민등록번호) or Singapore’s SingPass). Incorporating such national-level infrastructures, the Administrative Court requires assistance from and collaboration with other agencies, state enterprises, and private firms. These organizations involve the Ministry of ICT, E-Government Agency, and financial institutions, just to name a few. The Court needs help from these organizations on providing essential infrastructures such as broadband or wireless Internet access as an affordable or no cost throughout the country for e-Records access, and video-telephony; and trustworthy e-Payment instruments for instance. However, the integration efforts at the national level are one of the country drawbacks for many reasons, and require a great leadership from the government leaders to reform the traditional functional-silo approach, which seriously impedes efforts at government service and information integration.

2.2 Limited technological expertise

As to the technologies potentially employed in e-Court, the Administrative Court’s IT staff is not highly knowledgeable about specific aspects of technology and software development. Some techniques, for example, are more complicated than the in-house personnel can develop. The IT officials lack knowledge of identity verification and authentication features, digital signature, document digitization, and document security measures, as these techniques require advanced technological tools and proficiency to develop and implement.
With the limited system analysis and design skills, furthermore, the IT personnel tend to design systems that simply imitate traditional business process and procedure with only a few tweaks. Unlike the Korean judiciary that has reformed its business process and information use in its e-Court, the Administrative Court’s systems are unlikely to make a major breakthrough for innovation or efficiency achievement. Therefore, the Administrative Court definitely need to seek assistance from both local and international agencies, companies, and individuals in innovating its e-Court and incorporating these technological tools to its system.

2.3 Financial limitations

The Office of the Administrative Courts of Thailand is regarded as a small-sized state-independent agency compared to the Office of the Judiciary, which is a secretariat unit of the Court of Justice (Tables 2 and 3). Consequently, its budget allowance is quite small. Within the limited block grant budget, expenditure on building Regional Administrative Courts and subsequently hiring judges and court official as prescribed in the Constitution takes priority over acquiring new information systems.

Table 2 Annual budget of the 2013 - 2015 fiscal years²³²⁴

<table>
<thead>
<tr>
<th>Agency</th>
<th>2013 (baht)</th>
<th>2014 (baht)</th>
<th>2015 (baht)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office of the</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constitutional Court</td>
<td>176,982,100</td>
<td>195,526,400</td>
<td>235,102,200</td>
</tr>
<tr>
<td>Office of the</td>
<td>1,794,564,700</td>
<td>2,046,915,700</td>
<td>2,599,250,200</td>
</tr>
<tr>
<td>Administrative Courts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Office of the</td>
<td>14,473,820,300</td>
<td>14,590,818,200</td>
<td>17,188,055,200</td>
</tr>
<tr>
<td>Judiciary</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

²³ Thai government's fiscal year begins on October 1st of the previous calendar year and ends on September 30th of the next year. For example, the 2014 (B.E. 2557) fiscal year is from October 1, 2013 to September 30, 2014.

Table 3 Number of staff as of 2007

<table>
<thead>
<tr>
<th>Agency</th>
<th>Number of Staff (excluding judges)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office of the Constitutional Court</td>
<td>99</td>
</tr>
<tr>
<td>Office of the Administrative Courts</td>
<td>1,931</td>
</tr>
<tr>
<td>Office of the Judiciary</td>
<td>14,260</td>
</tr>
</tbody>
</table>

Of the 2,047 million baht (approximately $62.41 million) budget in 2013, nearly 80% goes to human resources management – judges and staff payrolls and perks (Table 4). Another 10% is for premises upkeep and maintenance. Therefore, the IT budget allowance is relatively low, and is only enough for hardware maintenance hence letting alone large-scale system development. Due to the combination of limited IT expertise and financial resources, the Administrative Court is faced challenges in developing sophisticated judicial information systems and e-Court.

Table 4 The Administrative Court budget expenditure on personnel of the 2012 - 2013 fiscal years

<table>
<thead>
<tr>
<th></th>
<th>2012 (million baht)</th>
<th>2013 (million baht)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total budget</td>
<td>Expenditure on personnel</td>
</tr>
<tr>
<td></td>
<td>1,843.89</td>
<td>1,396.37</td>
</tr>
</tbody>
</table>

2.4 Resource asymmetries

From the external user’s perspective, potential users in some parts of the country still have limited access to computer and the Internet. As mentioned previously, not all litigants and lawyers have technical competence or budget for additional IT


26 US$1 = approximately 32.8 baht (as of December 7, 2014)

equipment to participate in the court information systems or e-Court. Even in the public sector side, additionally, government agency litigants do not have an equal level of technological resources, including ICT personnel, funding, and technologies to adopt and use e-Court. Therefore, it is a formidable barrier against the promotion of e-Court implementation among the government agencies. To implement the e-Court, the Administrative Court may need to offer some financial incentives and technical assistance to the stakeholders with restricted resources.

In the final chapter, I offer some recommendations as to the e-Court development and implementation at the Administrative Court. Then, I propose prospective technical collaboration projects between the Administrative Court and individuals, firms, and agencies at the international level, specifically with Korean potential partners.
Chapter 5
Conclusion: Recommendations, and Proposed Collaboration Approaches

This chapter offers a few recommendations aiming at bridging the technological gap and implementing e-Administrative Court that will help speed up the case proceedings, accommodate the Court stakeholders, enhance transparency, and earn public trust. The chapter ends with proposed collaboration projects for technical assistance and sharing that should provide excellent opportunities for Korean IT experts, and technology solutions providers both in the public and private sectors, as well as their local counterparts to assist the Administrative Court in developing the e-Court. Moreover, these collaboration approaches between Korea and the Administrative Court are also applicable to other Thai government agencies. There are ample opportunities for Korean agencies and vendors to help Thailand and other government agencies prepare the country information infrastructures and carry out technological improvements.

1. Recommendations concerning e-Administrative Court development

Lessons learned from Korea’s e-Court implementation experience, the following is a set of practical recommendations to the Administrative Court for pursuing its e-Court path.

First and foremost, the focus on the e-Court development needs to shift from concentrating on the court users, particularly the judges, to a litigant-, lawyer-, and public-centric approach. While existing CMS and systems facilitate merely the judges and their work, the additional services and extended version of the current systems should satisfy the litigants and lawyers’ requirements in case proceedings as well. The system designers have to further the feasibility study in several litigation procedures to fully understand what and how ICT tools should be deployed to serve the litigants during the procedures. In this way, the Administrative Court will be able to creatively define its own unique e-Court that accommodates the court users and, at the same time, fulfill the litigants’ needs.
To do so, the IT personnel need to work closely with the judges and case officials through in-depth interviews with the internal users, and participant observation. The staff, further, should follow case records and court documents in order to apprehend the flow of relevant documents. The system developers should also observe activities of and interactions between the litigants (and lawyers) and the court officials at the courthouse. Examples of the observation include sitting in on trials and hearings, and engaging in case advisory and consulting services, to understand their practices and limitations technically and socially. Then, the developers should employ appropriate and user-friendly court and case tools for the litigants. The tools do not have to be state-of-the-art technologies. As previously emphasized, a mixed/integrated use of fundamental technologies like SMS, group texting, automated calling system, and email is rather a good example of how technologies can be appropriately employed given the citizens’ lack of computer literacy skills, and the country’s Internet access limitations.

Following the earlier suggestion, secondly, the Administrative Court needs to thoroughly investigate its court procedures, business process, and associated information needed in the procedure. As learned from the lesson on Korea success story, it is crucial to conduct Business Process Reengineering-based Information Strategic Planning (BPR/ISP) to reengineer trial procedures and individual work modules. Each individual module has to be able to operate separately, while integrating seamlessly at the same time. These tasks have to be carried out in parallel with the design of e-Court functions to ensure the alignment of the business process and the underlying premises of the new system. The business process reengineering (BPR) has to take great efforts at planning for the transitioning from paper- to electronic-based, amending laws and regulations, streamlining the court proceedings by cutting unnecessary processes and automating the proceedings as much as possible, and reducing the dependence on paper documents. Another crucial function in the BPR is redesigning information and document flows throughout the procedure.

Unavoidably, the implementation and change in the entire process and practice also will be faced tensions and resistance. To ease such tensions, the system developers
need to strategically plan for effective communication and education provision to the users and stakeholders.

Following the Korea’s path, thirdly, the implementation of e-Court should take a step-by-step approach to help the court users gradually adopt the system. The slow approach enables the users to progressively adapt and alter their long-established practices to desired routines, hence minimizing the resistance and tensions attending the system deployment. Across the four-year plan (2015 - 2018), the Administrative Court should lay out its master and operation plans for e-Court implementation; the plans should comprise with details on what systems and modules to be implemented, how they are implemented (e.g., whether they are to be in-house developed or outsourced), and when they are to be deployed.

The Court may start with services that make positive impacts on the litigants and the public with no or little technical or financial burden on them. It should go partial paperless reducing the use of paper within courthouse for example. Presently, the litigants are required to bring as many copies as the number of their opponents. The paperless court should be designed to reduce the number of copies to only one copy while the Court provides a mechanism to distribute the documents to all litigants; summons service may be done electronically as well. As the litigants and lawyers become familiar with the paperless court and technological readiness of the country is more matured, the Administrative Court may consider implementing new modules, such as e-Litigation or ECFS, and so on.

For the court users, the Administrative Court should start implementing paperless court automation by introducing electronic records management and archiving for internal use. Though, this may require some time to change the court users’ practices based on paper. However, one of the approaches that the Administrative Court should try to employ is to have a pilot project implemented in one of the Regional Administrative Courts because the deployment of new technologies and the introduction of new practices will be easier, as the number of incoming cases, judges and officials, litigants, and external stakeholders is less than those in the Central Administrative Court. After the implementation, the Court and IT Bureau should
evaluate the success, then adjust or improve the system and technologies before deploying to a new version to another Regional Administrative Court or to the entire Administrative Court.

Addressing the IT personnel’s technical expertise limitations, *fourthly*, the Administrative Court should consider seeking assistance from local and international experts, agencies, and solutions providers. The support arrangements have two folds – to increase technical potential of the IT officials, and to develop more sophisticated systems for judicial service delivery with the help from outside. The prospective assistance may involve:

1) Requesting knowledgeable and experienced consultants from other agencies and firms locally and internationally, such as IT experts, system designers, and judges who have a good understanding about the court proceedings as well as how an e-Court system should work, to give advice and share their experience on the design and development of the e-Court;

2) Sending out the in-house IT personnel to acquire new technical knowledge and skills through training programs in IT professional schools, short-term internship, and staff exchange programs with other agencies in Thailand and abroad; and

3) Cooperating with other government agencies, judiciaries, and private firms both locally and globally to share or co-develop common system modules used in the e-Court and other e-Government systems; and

4) Seeking sponsorship from international aid agencies (e.g., the World Bank, the Asian Development Bank, and Konrad-Adenauer, etc.), or other governments (e.g., Korea) to fully or partially fund the e-Court development and implementation projects.

2. Proposed collaboration projects between Thailand and Korea

Following through the recommendations mentioned above, I would like to propose a few ideas for collaboration arrangements with Korean organizations both in the
private and public sectors regarding e-Court development at the Thai Administrative Court. The collaboration efforts can be arranged in several aspects.

2.1 Human resources development

The Administrative Court of Thailand may invite Korean judges and/or law professors to give a talk to Administrative Court judges about an overview of the Korean judiciary and its e-Court system, and how the technology affects the judges’ work and the judicial process. The talk will enable the judges of both countries to exchange their experience and views about the use of e-Litigation, and other judicial information systems. During my preliminary study in Korea, I have brought up this idea to judge Seunghyuk Jang at Seoul Administrative Court, and judge Jung Hoon Park at the Patent Court, and they both willingly agreed.

The Administrative Court judges, in exchange, may request for a week-long study visit in Korea on the Korean judicial system, case proceedings, and how information technology plays an active role in the trial procedures.

As to technical knowledge development, the Bureau of Information Technology may request experienced advisors from Korea who are knowledgeable about specific topics related to the e-Court development, such as judicial information systems, system design, e-Government service delivery, and archiving, to give advice to the Court IT staff. In fact, the Office of the Administrative Courts has pursued this approach by applying for an MIS expert from Korea through the World Friends Korea (WFK) program. And Dr. Soo Bong Kim, MIS professor, has kindly accepted the request to be our Korean senior expert starting in early 2015. During his advisorship, the Administrative Court expects him to help the Court design and develop judicial information systems and infrastructures. His relations and connections with Korean individuals and organizations will enable the Bureau of Information Technology to utilize novel knowledge and innovative technologies from Korea to the Court.

Moreover, the Administrative Court would like to enhance skills and increase the long-term capacity of its IT officials through several training and educational
programs. For instance, the Administrative Court may send the officials to attend various advanced training programs and workshops offered by IT professional schools, universities, or government agencies. It will also be beneficial for the Court IT staff to intern in IT-related public or private agencies or perhaps IT division in judicial branches in Korea for 3-6 months. Besides the direct benefit from the training and internship, the staff will gain indirect benefits from learning about organizational culture, and living experience while in Korea. Therefore, the Administrative Court should be seeking assistance and cooperation from relevant organizations and individuals who can help make the training and internship possible.

The training and internship programs should be designed in collaboration between the Administrative Court and its collaboration parties, such as government agencies (e.g., the National IT Industry Promotion Agency (NIPA) or Korea International Cooperation Agency (KOICA)), the course/program providers (e.g., KAIST, and NIPA), the Supreme Court of Korea, as well as private companies (e.g., LG CNS). The tailored programs will fulfill the technical requirements of the Administrative Court.

2.2 Technical solutions

The Administrative Court may seek assistance from Korea in acquiring fundamental infrastructures and technical solutions for e-Court, such as technologies for document digitization, e-Records management and archiving, document security, e-Courtrooms, and live streaming or remote trials. Korean software vendors and technology solutions providers in the public and private sectors may also be interested in helping the Administrative Court (as well as the Court of Justice) to fully or partially fulfill the Thai Court(s)’ ambitions with their solutions. Thus, the Administrative Court may strategically collaborate with Korean solution providers, such as LG CNS, and other companies, along with their business partners in Thailand who might be interested in (co-)designing and (co-)developing the e-Administrative Court system, or providing some individual modules deployed in the system. The acquired technologies could be commercial, freeware, or open-source software. Most importantly, the solutions and
modules need to be customizable to fit the Court and local needs and constraints socially and technically.

2.3 Financial aids

Last but not least, the Administrative Court would like to request a sponsorship from the Korean government through NIPA and KOICA to fulfill its e-Court implementation goals through these proposed collaboration projects. The projects could be fully or partially funded. The Office of the Administrative Courts would also like to propose Memorandum of Understanding (MOU) initiatives between the Office and NIPA for long-term capacity building of our technical staff, and technical feasibility study and system development projects with support from NIPA and associated agencies and firms.

The Korea-provided technical and financial assistance, as well as collaboration efforts mentioned above can be conducted not only at the Administrative Court of Thailand, but also at the Court of Justice, and other government agencies that are developing e-Government services. Any of these arrangements and other endless possibilities of cooperation will definitely benefit Thailand in general, as they enable government agencies to enhance government efficiency and transparency.
Appendix

1. Mobile cellular subscription (per 100 people)\textsuperscript{28}

Table 5 Mobile cellular subscription (per 100 people)\textsuperscript{29}

<table>
<thead>
<tr>
<th>Country</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Korea</td>
<td>105</td>
<td>108</td>
<td>109</td>
<td>111</td>
</tr>
<tr>
<td>Thailand</td>
<td>108</td>
<td>116</td>
<td>127</td>
<td>138</td>
</tr>
</tbody>
</table>

Figure 43 Mobile cellular subscriptions (per 100 people)\textsuperscript{30}

\textsuperscript{28} Mobile cellular telephone subscriptions are subscriptions to a public mobile telephone service using cellular technology, which provide access to the public switched telephone network. Post-paid and prepaid subscriptions are included.


2. Internet users (per 100 people) with access to the worldwide network

Table 6 Internet users (per 100 people)

<table>
<thead>
<tr>
<th>Country</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Korea</td>
<td>83.7</td>
<td>83.8</td>
<td>84.1</td>
<td>84.8</td>
</tr>
<tr>
<td>Thailand</td>
<td>22.4</td>
<td>23.7</td>
<td>26.5</td>
<td>28.9</td>
</tr>
</tbody>
</table>

Figure 44 Internet users (per 100 people)


3. Fixed broadband Internet subscribers (per 100 users)$^{33}$

Table 7 Fixed broadband Internet subscribers (per 100 users) comparing Korea, Thailand, and the world$^{34}$

<table>
<thead>
<tr>
<th>Country</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Korea</td>
<td>35.48</td>
<td>36.65</td>
<td>37.25</td>
<td>38.04</td>
</tr>
<tr>
<td>Thailand</td>
<td>4.90</td>
<td>5.74</td>
<td>6.52</td>
<td>7.35</td>
</tr>
</tbody>
</table>

Figure 45 Fixed broadband Internet subscribers (per 100 users) comparing Korea, Thailand, and the world$^{35}$

$^{33}$ Fixed broadband Internet subscribers are the number of broadband subscribers with a digital subscriber line, cable modem, or other high-speed technology.


4. Secure Internet servers (per 1 million people)\textsuperscript{36}

Table 8 Secure Internet servers (per 1 million people)\textsuperscript{37}

<table>
<thead>
<tr>
<th>Country</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Korea</td>
<td>1,128</td>
<td>2,496</td>
<td>2,752</td>
<td>1,995</td>
</tr>
<tr>
<td>Thailand</td>
<td>14</td>
<td>17</td>
<td>20</td>
<td>18</td>
</tr>
</tbody>
</table>

Figure 46 Secure Internet servers (per 1 million people)\textsuperscript{38}

\textsuperscript{36} Secure servers are servers using encryption technology in Internet transactions.


## 5. Korean Network Information

<table>
<thead>
<tr>
<th>Organizations</th>
<th>Contact persons</th>
</tr>
</thead>
</table>
| 1. The Supreme Court, and the National Court Administration (서울대법원청사 및 분당정보센터) | • Judge Lee, Tae Woong (이태웅판사)  
02-3480-1231 (대법원 사무실),  
010-5751-0190 twlee74@scourt.go.kr |
| 2. The Judicial IT Bureau (Supreme Court IT Center) | • Judge Rhee Eun Song (Director of Judicial IT Bureau)  
• Dr. Song Choong Geun (Director of Judicial Information Support Division)  
02-3480-1235 gonfox@scpurt.go.kr |
| 3. Seoul Administrative Court (서울행정법원) | • Judge Jang, SeungHyuk  
장승혁 기획판사  
02-2055-8106 jangsh@scourt.go.kr |
| 4. The Patent Court of Korea (대전특허법원) | • Judge Kwak, BooGyu  
곽부규 기획판사  
042-480-1421 bgkwak@scourt.go.kr  
• Judge Jung Hoon Park  
042-480-1439 raindrop@scourt.go.kr |
| 5. The National IT Promotion Agency Software Engineering Center (NIPA SEC) (상암동 누리꿈) | • Dr. Lee Sang-Eun (President Software Engineering Center)  
이상은 센터장  
02-2132-1300 selee@nipa.kr |
| 6. The National Computing and Information Agency (NCIA) (대전 전산센터) | • Ms. Lee, Yoonyoung (이윤영 국제협력)  
042-250-5272, 010-2859-0964  
yyleencia@korea.kr |
| 7. LG CNS | • Mr. Kim, Sung-Eun  
seunkim@lgcns.com  
• Mr. Choi, Kyung-hwan (최경환과장)  
02-2099-2743 botton6@lgcns.com |