

**Judicial Electronic Data Interchange in European Civil Proceedings and Criminal Matters:  
Application, Policies and Trends**

**Norway**

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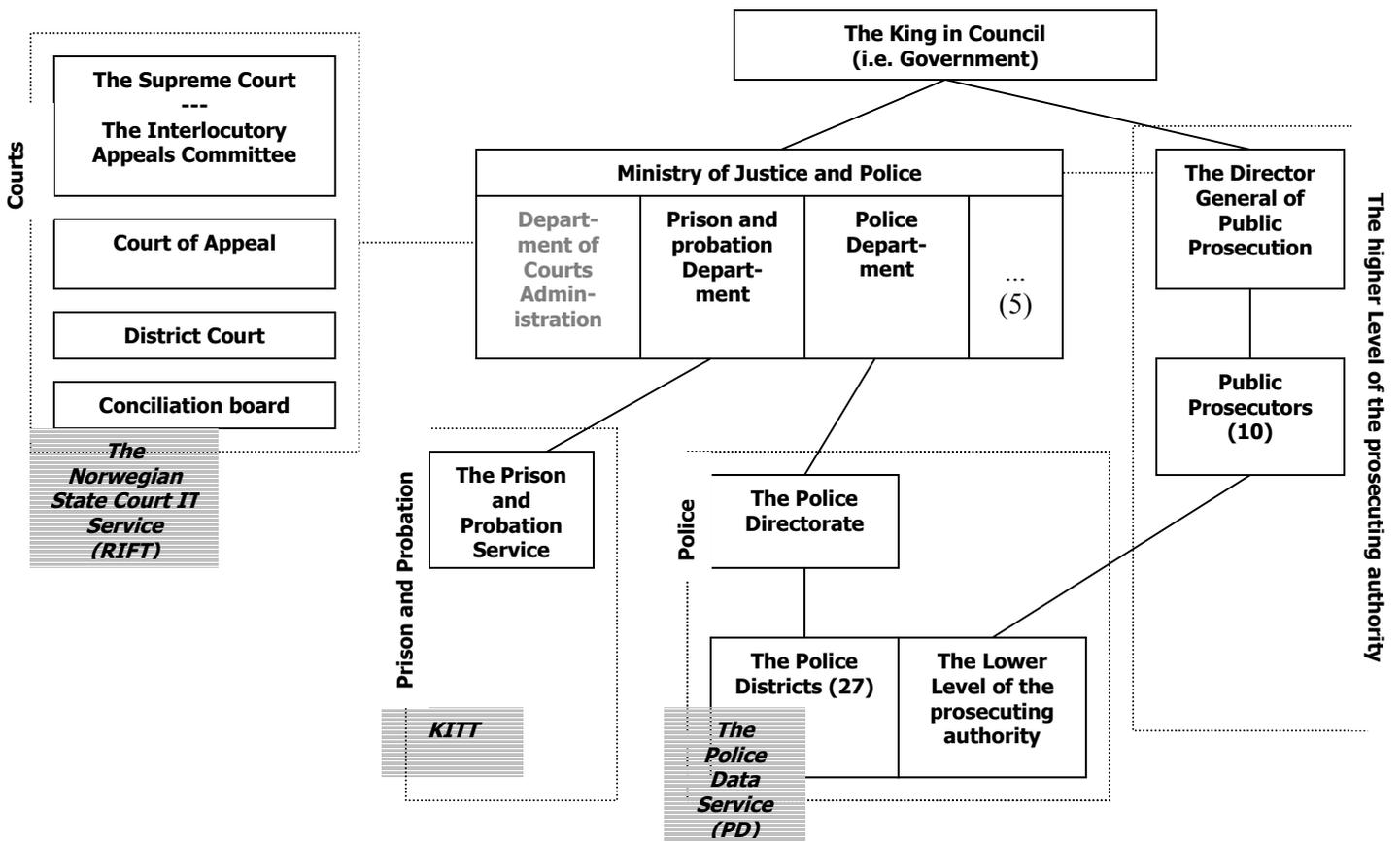
## Section 0. Presentation

### 0.1. Authors

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### 0.2. The Norwegian Judicial system



In the above figure, we have tried to present the bodies that are normally thought of as being part of the justice sector. We grouped the bodies into four main roles; the courts, the prison and probation service, the police and the prosecuting authority. These are also the same four roles that constitute the "penal chain", see section 4.

These are all public bodies. The private sector, with law offices and the general public, is of course of great relevance, but they are left out of the illustration in order to avoid additional complexity. Moreover, the private bodies are independent, and therefore no organisational links could be shown.

In this introductory section, we will give some details of the organisation and tasks of the bodies in the justice sector. We have also included a short presentation of some of the most important public registers of

<sup>1</sup> <http://www.patentstyret.no/english/>

<sup>2</sup> <http://www.jus.uio.no/iri/english/index.html>

<sup>3</sup> <http://www.afin.uio.no/> (in Norwegian)

rights in Norway, as some of these are both widely used by the courts, and updated in accordance with court rulings, i.e. Register of Bankruptcy with decisions from the Probate Court. Electronic data interchange between the courts and these registers is under development, see section 4.

## **Police**

There is one police force in Norway, and the organisational model has recently been changed: the number of police districts has been reduced from 52 to 27. As described in section 1.1 all police offices in Norway are inter-connected in closed data network. The Police Data Service<sup>4</sup> (PD) is responsible for ICT<sup>5</sup> for the police, and is represented with a grey box in the figure above. PD was established in 1982, as a special body at a national level directly subordinated the Ministry of Justice, and is responsible for the development and maintenance of information systems of the police. In 1999 the budget of PD was € 14.75 million<sup>6</sup>, and there were 86 employees.

In addition to this, each police district has its own ICT service unit. The division of responsibility between these local units and the central body is not always clear, as the local units also are involved in development of information systems used by the police. The strategy document for the judicial sector<sup>7</sup>, though, does not mention these local units at all.

## **Prosecuting authority**

The prosecuting authority is a three-tier organisation headed by the Director General of Public Prosecution, who is responsible for public prosecutors; the latter, in turn, are responsible for the police prosecuting authorities. The Director General of Public Prosecution reports hierarchically to the King in Council (Government), and cannot be instructed by the Ministry of Justice in prosecution matters. However, the Director General is subordinate to the Ministry of Justice in administrative affairs<sup>8</sup>.

At the bottom of the prosecuting authority is the district Commissioners of Police, with their subordinate police officers and prosecutors. These district commissioners thus fill two roles, one as the head of the district police forces and another as part of the prosecuting authority. For a number of offences, it is the police prosecutors who prefer charges before the court. In more serious cases, however, the public prosecutor or the Director General of Public Prosecution will usually prefer charges.

We denote the Director General of Public Prosecution and the public prosecutors as the *higher level* of the prosecuting authority, and the police prosecuting authorities as the *lower level* of the prosecuting authority.

In 2001 the budget of the higher level of the prosecuting authority<sup>9</sup> was € 4.11 million<sup>10</sup> and there were 74<sup>11</sup> employees.

The Criminal Procedure Act<sup>12</sup> regulates which criminal cases that can be handled by the lower level, and which cases that must be escalated to the higher level of the prosecuting authority.

As shown in the above figure, the lower level of the prosecuting authority is part of the police organisation. This means that they share the ICT infrastructure, and the ICT support unit (The Police Data Service) with the police.

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<sup>4</sup> "Politiets datatjeneste"

<sup>5</sup> To be more accurate, PD is only responsible for parts of the "C" in ICT, i.e. the data network. Politiets Materielltjeneste is responsible for the police' telephony services. In this report we will not distinguish between the acronyms "IT" and "ICT".

<sup>6</sup> NOK 118 million. We have used the exchange rate € 1 = NOK 8 for all conversions.

<sup>7</sup> "IT-strategi for justissektoren", see section 5.

<sup>8</sup> This is illustrated with the dotted line in the above figure.

<sup>9</sup> Included The National Authority for Investigation and Prosecution of Economic and Environmental Crime ("ØKOKRIM")

<sup>10</sup> NOK 32.9 million.

<sup>11</sup> <http://odin.dep.no/odin/html/statskalenderen/2001/DenborgerligeADpEtalemyndighet627.html> (in Norwegian)

<sup>12</sup> Chapter 7.

Until January 1<sup>st</sup> 1996, the responsibility for both the prosecuting authority and the courts was located in one department within the Ministry of Justice. The Norwegian State Court IT Service (RIFT), which is now the ICT support unit for the courts, was then also involved in the prosecuting authority through the development of a CMS (“PÅSAK”) for the higher level of the prosecuting authorities. Today the higher level of the prosecuting authority does not have a dedicated ICT support unit.

## **Courts**

The Courts of Justice in Norway are separate from the legislative power (The National Assembly) and the executive power (The Government). This is a consequence of applying the principle of division of powers. While the constitution makes no direct reference to such a division or separation of powers, the founders of the Norwegian Constitution shared the principle. The National Assembly unanimously ratified the constitution on the May 17<sup>th</sup> 1814, at Eidsvoll.

The main courts of justice in Norway are: the Supreme Court, the Interlocutory Appeals Committee of the Supreme Court, the Courts of appeal, and the District Courts. All these courts can rule on both civil and criminal cases. In addition there are certain courts of law that have limited areas of competence. Examples of so-called special courts are: Severance Courts (Land Disputes) and the Industrial Tribunal in Oslo (cases pertaining to labour legislation).

The *Supreme Court* is the nation's highest court of justice and the instance of appeal for judgments by courts of a lower level. The Supreme Court is situated in Oslo. The decisions made here are final and cannot be appealed or complained against. The one special exception is for cases that can be brought before the Court for Human Rights in Strasbourg. Three of the Supreme Court judges form the Interlocutory Appeals Committee, which has the power to prevent appeals from being heard by the Supreme Court, and have to agree that a case can be brought before the Supreme Court. The Committee can make final decisions in a number of cases. Supreme Court judges serve in succession on this committee.

There are six *Courts of Appeal* situated in different areas of Norway. Therefore, the country is divided into six appellate regions. Each Court of Appeal has several appellate judges and is headed by a senior judge president.

The *District Courts* are the first instance of the Courts of Justice. Today there are 92 District Courts, but there are plans to reduce this number to 65. The first two courts will be merged January 1<sup>st</sup> 2003, and next merger will take place in 2004.

There are *special courts* that hear or process issues not covered by the District Courts. Two of the most important special courts are The Industrial Disputes Tribunal and The Land Consolidation Courts. Special Courts typically rely on a high proportion of lay judges.

The Industrial Disputes Tribunal deals with cases pertaining to labour legislation, for example wage disputes. The Tribunal deals with disputes for the whole nation. The Tribunal is headed by a lawyer.

The main task of the Land Consolidation Courts is to find acceptable solutions for ownership disputes and issues concerning correct land usage. The Land Consolidation Courts and the Land Consolidation High Courts cover the whole nation but each single court is allocated authority over a limited area. The Land Consolidation Courts are administered centrally by The Department of Agriculture. Judges for The Land Consolidation Courts are drawn from Norway's Agricultural College.

A *Court of Conciliation*<sup>13</sup> is allocated to each municipality. Courts of Conciliation are to mediate between disputing parties and are widely authorised to pronounce a judgment. Between 100,000 and 120,000 cases are processed each year by Courts of Conciliation. In fact, the majority of civil disputes are resolved by the Courts of Conciliation. Courts of Conciliation are staffed with laymen, and do not hear criminal cases

As a result of the principle of the division of power, the courts are not directly subordinate to the Ministry of Justice, but rather because it lacks an administrative body of its own, the Ministry can play a co-ordinating role through its Department of Courts Administration. This will change, however, November 1<sup>st</sup> this year,

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<sup>13</sup> This is also referred to as “Conciliation Board”.

when a new, separate body called The Court Administration<sup>14</sup>, takes over most of the responsibility and tasks currently assigned to the Ministry. This includes many of the issues mentioned in this report, like for instance co-ordinating the information from the court to the public through the portal [www.domstol.no](http://www.domstol.no).

The new agency will have six organizational units (ICT, Human Resource Management, Estate & Account, Judicial, Information)<sup>15</sup>. The location of this new agency will be in Trondheim, which is the fourth biggest city in Norway. Trondheim is situated approximately 450 km outside Oslo. All six departments/units will be situated here, except – interesting enough – the ICT-unit. The technology that makes it possible to overcome the obstacles of “time and space” is very space-dependant itself.

As from January 1<sup>st</sup> 1995 a dedicated ICT support unit for the courts was established; The Norwegian State Court IT-service ("Rettsvesenets IT og fagtjeneste", RIFT).

In 2001 the budget of RIFT<sup>16</sup> was approximately € 8 million<sup>17</sup>, and there were 34 employees.

RIFT is represented with a grey box in the figure above. Currently, RIFT is divided in four departments, and these will be integrated in the new Courts Administration mentioned above. The system development department and the operation and administration department will constitute the ICT department in the new organisation, while the accounts department and the in-service training department will be merged into the new organisation. In section 5.2 we will discuss the possible impacts this organisational change might have on the development of JEDI in Norway.

### **Prison and Probation**

The prison and probation service is divided into six regional administrative units. KITT, which is the ICT support unit for the prison and probation service, is represented with a grey box in the figure above. A goal for the Prison and Probation Department of the Ministry of Justice is that the expiation of the sentence can start 3 months after the sentence is final. Another aim is to reduce the risk of relapse.

Norway has five facilities for long-term prisoners, 32 district and auxiliary prisons and six open prisons. In 1999 the daily mean number of inmates in the prison service's institutions was 2,700, of which 114 were women.

The Probation and After Care Service<sup>18</sup> has a total of 21 head offices, generally one per county, 26 branch offices and four residential blocks. The function of the offices is to implement penal forms such as community service or supervision orders and investigate individuals prior to criminal cases. They also provide support for inmates of prisons and mediate contact between convicts and other social support agencies.

In 2001 the budget of KITT was € 4.5 million<sup>19</sup>, and there were 16 employees. The budget for the whole prison and probation service was € 194 million<sup>20</sup>, and there were 2,958<sup>21</sup> employees.

### **Public registers of rights<sup>22</sup>**

The Brønnøysund Register Centre, called after the town in the Nordland county where it is situated, operates a number of public registers. The Register of Mortgaged and Moveable Property is a central register for mortgages and other rights in chattels, including motor vehicles. Other central registers in Brønnøysund are the Register of Business Enterprises, the Register of Bankruptcy and Liquidation, the Register of Company

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<sup>14</sup> “Domstolsadministrasjonen”

<sup>15</sup> These are not the official English names of the units.

<sup>16</sup> <http://odin.dep.no/odin/html/statskalenderen/2001/RettsvesenetsITDogfagtjenesteRIFT622.html> (in Norwegian)

<sup>17</sup> NOK 60-70 million.

<sup>18</sup> ”Kriminalomsorg i frihet”

<sup>19</sup> NOK 36 million.

<sup>20</sup> NOK 1,549 million.

<sup>21</sup> <http://odin.dep.no/odin/html/statskalenderen/2001/Kriminalomsorgen637.html> (in Norwegian)

<sup>22</sup> Norwegian Courts and the administration of justice, <http://odin.dep.no/odin/engelsk/norway/system/032001-990374/index-dok000-b-n-a.html>. The Norwegian names of the registers are: Brønnøysund-registrene, Løsøreregisteret, Foretaksregisteret, Konkursregisteret, Regnskapsregisteret, Ektepaktregisteret, Enhetsregisteret

Accounts for annual reports, the Register of Marriage Settlements etc. The centre is undergoing constant development, and in 1995 a new Central Co-ordinating Register of Legal Entities was established to simplify public information on companies and organisations. Most of the information in these registers is available to the public by telephone, fax or online.

Several of these registers contain updated information that is relevant both in civil and criminal cases, and is therefore an important part of the case handling. In section 4 we give a presentation of the integration project for the penal chain. Integration with the public registers of rights is one of the ambitions of this project, as well as integration with a number of other registers, such as the Registry of Trade Marks, which is managed by the Norwegian Patent Office. Today, the different parts of the justice sector have individual arrangements with the different registers. The project aims at establishing an information-/service bus, which will imply a common interface to all the relevant registers, thus replacing the individual agreements and interfaces.

## **Section 1. Introduction**

### **ICT Infrastructures and Rules for Judicial Electronic Data Interchange**

#### **1.1. ICT Infrastructures**

In this section we will give an overview of the existing infrastructures in the judicial sector, and a brief description of the rules of civil and criminal procedure. First, we will say some words about the co-ordinating level.

##### **Co-ordinating level**

As seen in section 0.2 The Ministry of Justice is, although to a varying degree, involved in the administration of all the public agencies in the judicial sector; the police, the prosecutors, the courts<sup>23</sup> and the prison and probation service. Thus the Ministry is considered as the centre for co-ordination of ICT in the judicial sector. In 1994, the Ministry published its first set of guidelines concerning investments in and use of ICT in the judicial sector.<sup>24</sup> The first version was considered to be a draft or an outline of guidelines, and in 1996 a more complete version was finalised. It included guidelines for standardisation of hardware and software, for standardisation of terminology (through an information model for criminal cases), and standardisation of work practice for system development.

The guidelines also include a section regarding organisation and management of ICT in the judicial sector. The essence is that the three largest bodies (the police, the courts and the prison and probation) should have their own ICT support unit, to emphasise each body's responsibility for its own development and use of ICT. In order to ensure co-operation and co-ordination, the bodies were co-located in Oslo. Today, though, only the police' ICT service remains in the original location. At the same time, the *Administrative Affairs Department* of the Ministry of Justice, which was responsible for the guidelines, was assigned the responsibility for sector-wide development and use, and co-ordination of the activities in each body.

##### **The Courts**

The first phase of introduction of ICT in the Norwegian Courts took place in the period 1988-1993. It has repeatedly been pointed out that the early introduction of ICT in the Norwegian courts was due to the fact that the courts were responsible for the Land Registry. The time-consuming procedures of updating paper-sheets for each property were replaced by an IT-solution developed by a private enterprise. In return this enterprise was given monopoly on the sale of land registry information. The solution included UNIX servers in each court and terminals for user access. The local database in each court was replicated with the central and official land registry database every evening. In addition to the land registry, the solution also included a word processor (Word Perfect). Since the only exchange of data was between the local and the central database, it did not result in a new way of communicating across the different courts, or with external parties.

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<sup>23</sup> As mentioned in section 0.2, the responsibility for the courts will be taken over by the new, independent body "Domstolsadministrasjonen" from November 1<sup>st</sup> 2002.

<sup>24</sup> "Retningslinjer for IT i justissektoren versjon 3.0", Ministry of Justice, Administration Affairs Departement, april 1998.

It is anyway interesting to note that the first installation of ICT in the courts was based on local servers accessed through thin clients (“dumb terminals”), and the use of X.25 data communication for the transferring of updated information to the central database. Although this communication facility was used only in limited periods due to the costs of the communication lines, it made it possible to perform troubleshooting without being at the location, which produced great savings. This happened despite the fact that computers were becoming increasingly synonymous with individual PCs for word-processing and spreadsheets.

Since the introduction of ICT in the end of the 80-ies/beginning of the 90-ies, some courts have obtained PCs, and the courts in Oslo<sup>25</sup> also invested in new servers (Novell). As a solution to the millennium bug problem, these latter courts invested in a solution based on the Windows Terminal Server, which combines the advantages of thin clients with limited complexity, with the popularity of Microsoft Windows. Later this solution, which includes access to Microsoft Word and Internet (both web and external e-mail) was chosen as the standard platform for all courts<sup>26</sup>, and is currently being rolled out. All servers will be located in two different data centres in Oslo, and the Citrix clients in all district and appeal courts will be able to access these through the Court network (se below). As of June 2002, the new platform has been introduced to 17 courts.

In April, the Ministry of Justice granted NOK 8 million in lieu of 2003, to RIFT. This will be enough to continue the installation of the new platform in new courts for the rest of 2002. If this granted 8 million is renewed next year, all courts will have the new infrastructure by summer 2003, according to RIFTs updated plans. Unless the courts have special desires, the change of platform will not result in any additional costs. RIFT is also responsible for the training of the employees in the courts on the new platform. Courses will be held in the regions, using a mobile “course room” that includes all necessary equipment.

As a result of changing to a new accountancy system<sup>27</sup>, all the courts already have at least one computer running the new terminal solution, and at least two persons in each court have user-accounts on the system. Although the use is limited, and although there are differences in the configuration of these “temporary” installations and the complete new platform, it is still likely to believe that the migration to the new platform will be easier. Firstly, it has resulted in a minimum of experience with the new concept, and Windows, in all courts. Secondly, it has ensured a long term testing of the nationwide data network of the courts (the Court Net) and the servers at the central data centres in Oslo. With only thin clients/dumb terminals left in the courts, the users will be totally dependent on the well functioning of the network and the servers.

A prerequisite for the introduction of the new platform was the establishing of a nationwide data network for the court (Court Net). As mentioned above, the solution introduced by Land Registry Data included the use of a nationwide data network to update the central land registry database every night. In May 1998 a court network based on Internet-technology replaced the use of the X.25 communication lines. Originally it was a closed network, and the updating of the land registry database was the main application. Since 2001, as a result of the ICT-Highway project, see section 4.1, the court network has been inter-connected with the two other nationwide networks in the judicial sector, i.e. the police network, administrated by the Police IT Service (PD), and the network of the prison and probation, administrated by KITT. As the first of these three networks, the court network is also connected to the Internet.

With the new solution, all employees in the court will have access to the Internet and to send and receive e-mail. One certain limitation still exists. Attachments are not allowed when sending e-mail outside the courts<sup>28</sup>. It is also important to point out that e-mail cannot be used in any formal communication with the courts, for instance for sending writs. Nevertheless, much of the existing communication, while not being directly relevant to the main tasks of the judges, is still relevant for other parts of their work.

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<sup>25</sup> Borgarting Court of Appeal, Oslo District Court, the Court for Probate and Bankruptcy Cases and Property registration (“Oslo Skifterett og Byskriverembete”), and the Court for Execution Cases (“Oslo Byfogdembete”)

<sup>26</sup> The standard solution that is being rolled out uses Citrix MetaFrame XP.

<sup>27</sup> Running since 1999 and in use by all courts at the end of 2001.

<sup>28</sup> I.e. outside the “ICT Highway”, see section 4.1.

### **CMS in the courts**

A Case Management System (CMS) called SAKS, with limited functionality, was developed for the infrastructure brought in by Land Registry Data, and is still in use today. The system was implemented in the period from 1990 to 1992. The system is mainly used by office staff and has, to some degree, freed them from manual tasks. Typically it is used to record the writ of summons and subsequently writs from all cases handled by the courts. Relevant information is also used to produce statistics on the courts functioning. Each court system is autonomous, and there is no transfer of data between the different courts. The system does not give good support for actual case handling.

Despite its limited functionality, this project obtained its goals. As with the Land Registry Data, whose economic incentives was related to the possibility to sell land registry information, this project also had its economic incentives. Prior to the project the courts performed a calculation of how much time (and personnel) they could save with a CMS-system. Instead of getting their budgets reduced equivalently, they came to an agreement with the Government<sup>29</sup> that let them keep 50% of the savings. The Supreme Court has a CMS called HØYRETT, which has been operational since January 2000. The principal users of the CMS were thought to be the clerks and administrative staff, so the Supreme Court decided at an early stage that the judges should have the option of not using the system. The case-flow in the Supreme Court is the basis of the system, which includes mandatory and non-mandatory tasks to be undertaken at each stage of the process of handling the case. The mandatory tasks are those necessary for the next task, either according to the Criminal Procedure Act or the Dispute Act, or because the Supreme Court decided that the task should be mandatory during the development of the CMS. The latter category is based on internal procedures of the Court. The basic case-flow in the Supreme Court is rather simple, and the system is somewhat strict, as it is supposed to handle all cases in the defined case flow.

There is no communication between HØYRETT and other systems, except from the integration with Lawdata, see section 2.1. Access to the Lawdata-databases of acts and jurisprudence is an integrated part of the system. More important, the procedure for sending a ruling from the Supreme Court to Lawdata is built into the system. This way, Lawdata gets nearly 100% of the rulings from the Supreme Court (and the Supreme Court gets a nearly 100% complete knowledge base), in contrast to what it receives from the lower courts.<sup>30</sup>

HØYRETT can be considered as a “working prototype”<sup>31</sup> for the development of a new CMS for the other courts, without the extra complexity that communication with external parties leads to. The main difference between the Supreme Court and the subordinate courts is the number of different procedural regulations that apply. The development project of this new CMS for the courts – as a replacement for the above-mentioned system SAKS, is called LOVISA. This work has now reached the implementation phase, and the first delivery is due in 2003.

In addition to the functionality implemented in the CMS for the Supreme Court, these features will be added in LOVISA:

- System-to-system communication between all courts (i.e. the sharing of a common database makes it possible for the appeal court to get access to the case files from the court of first instance)
- System-to-system communication with external parties (e.g. Lawdata, and penal chain project – see section 2.1 and 4.1)
- Integration with accounting software

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<sup>29</sup> Ministry of Labour and Government Administration and/or Ministry of Finance

<sup>30</sup> This does not mean that they end up with incomplete databases. There are several ways Lawdata later will discover that a ruling is missing, for instance when making references from an appeal to the original (and missing) case, or when contacted by frustrated customers.

<sup>31</sup> Of course, this does not mean that we disregard the system and consider it incomplete, but that it serves as possibility to get valuable hands-on experience with a product – before it is made. This is also in accordance with the idea that the best designer of improvements is a *user* who knows both what he needs, and what technology can bring him.

According to a recent White Paper<sup>32</sup> it is the ambition that the new CMS will provide all relevant and updated information related to a case, and include a list of all relevant documents in the case. Furthermore it is important that the system clearly shows the different closing dates/deadlines relating to a case. Norway is one of the few jurisdictions where the central court administration has developed time standards for the court, and the new CMS will help the courts in keeping these standards. The same White Paper also states that it expects the CMS to be of great importance for the public's access to information concerning a case or information concerning questions in general.

### **Police and Lower Level of the Prosecuting Authority**

The police have a dedicated data network that connects all police-offices throughout the country. They use an X.400-based e-mail system called G-mail. The network is not connected to the Internet, but as a result of the ICT Highway-project it is inter-connected with the courts network and the network of the prison and probation service. The responsible body for the ICT is The Police Data Processing Service (PD).

In 1996, a new CMS for the police and the police prosecutors, called "BL", that included archiving of digital versions of documents became operational. This system makes it possible to access a certain case and its documents from all police-offices in Norway. Both police investigators and prosecutors have access to the system, and all documents produced by either of them are added to the electronic case file.

As a result of being in the same organisation, police investigators and prosecutors typically work in the same building, and they have long traditions for co-ordinating their work through a paper-file. The case file "travels" from office to office, where a new task is performed, which typically results in a new document that is added to the file. This work-process has not been changed with the new system; the paper file still exists and still serves as a co-ordinating artefact. The digital file is a supplement that has its strength when there is need for conferring with earlier/similar cases (search and retrieval facilities), or, more generally, when any other person than the person currently holding the paper-file, needs information about the case.

The CMS mentioned above, with its electronic case file, is one of the four systems involved in the first pilot that implements "judicial electronic data interchange" with the courts and the prisons and probations.<sup>33</sup> See more about this in section 4.1.

As mentioned, the police data network is not connected to the Internet in any way, as this has been considered to represent a security threat. However, the use of thin-client technology, like the one now being used in the courts, is being considered as a possibly adequate safeguard to this threat.

### **Higher Level of the Prosecuting Authority**

The public prosecutors are connected to the same nation wide data network as the police, and they also use the same X.400-based e-mail system G-Mail. Accordingly, the public prosecutors do not have access to the Internet yet. The higher level of the prosecuting authority uses a CMS called "PÅSAK". This system was developed by the Norwegian State Court IT Service (RIFT), and was based on the CMS developed for the courts (SAKS).

### **The Prison and Probation Service**

The prison and probation service has a dedicated data network that connects all offices, prisons and residential block, and it has an X.400-based e-mail system. Since September 2001 the network has been connected to the other data networks in the justice sector as part of the ICT Highway-project. The responsible body for the ICT is the Prison and Probation Service ICT Service (KITT).<sup>34</sup>

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<sup>32</sup> "Straight to the point". See section 1.2.

<sup>33</sup> As a result of the organising of the police and the lower level of the prosecuting authorities, one can say that BL already implements electronic interchange between the police and (parts of) the prosecutors, as they share the same system.

<sup>34</sup> "Kriminalomsorgens IT-tjeneste"

A case management system for the prison and probation service, KOMPIS<sup>35</sup>, was developed in the late 80-ies and implemented in the beginning of the 90-ies. In 1996 all 43 institutions used the system. The architecture is similar to the CMS of the courts; all institutions have a local database containing information about their inmates. Every day, text files containing all information that has been altered during the last 24 hours, are sent by X.25 communication lines to the districts central database. Periodically, the districts send management information to a central database in the Ministry of Justice, by the same means.

Since the information only flows from a local to a central database, all updating of information must be done at the local databases. Therefore, every decision concerning an inmate that has been taken by a central body, is sent by fax to the inmate's institution where it is entered manually into the KOMPIS-system. KOMPIS is one of the four systems involved in the first pilot that implements JEDI in the penal chain (see section 4.1)

## **Summary**

As shown above the different services in the justice sector all have their own infrastructure, and none of the case management systems are yet prepared for exchanging information with systems in the other services. Four different services uses three different e-mail systems. This has happened despite the fact that the Ministry of Justice has focused on the need for standardisation and integration since the beginning of the 90-ies. In section 5.1 we give a short overview of the strategy documents from these years, as well as a description of two evaluation reports concerning the ICT work in the justice system.

The implementation of the ICT Highway, which has been running since September 2001, is an important step towards more electronic data interchange. The three originally closed data networks are now inter-connected, and the local installation of the different e-mail systems are gradually being updated to enable sending and receiving of e-mail across the whole justice sector. See section 4.1 for more details about the ICT Highway.

### **1.2. Rules of civil and criminal procedure**

The Government has expressed: "...electronic communication and the use of the net as an infrastructure for communication shall be as accepted, be trustful and shall have the same juridical tenability as traditional written communication and documentation." (Green Paper number 41).

In this respect the Government has asked all the ministries to go through their respective acts and regulations to uncover and change the rules that are obstacles for electronic communication. The project is called the e-rule project and was started in 1999. The acts and regulations for the Justice Sector were not in the scope of this project. The communication with the courts is said to require practical and legal solutions that had to be considered separately. The Department for Courts Administration (of the Royal Ministry of Justice) and the Norwegian State Court IT Service have the responsibility to facilitate for electronic communication in the courts. The responsibility consists of both legal and technical aspects and solutions.

The courts have different tasks. We will, however, in this chapter concentrate on the rules, which are to be changed in order to develop judicial electronic transaction for the criminal and civil procedures. The changes apply to the rules concerning preparation of cases for the court and the use of judicial remedies.

## **Criminal Procedure**

The Administrative Affairs Department of the Royal Ministry of Justice has the overall responsibility for the ongoing work with electronic interchange in the penal chain. See more about this project in section 4.1. The use of new technology has an impact on the legislation. The Criminal Procedure Act, May 22<sup>nd</sup> 1981, has rules about the case management for the courts in criminal cases. The Act is not facilitated for electronic communication. The Department of Court Administration under the Royal Ministry of Justice has identified those sections in the law, which might be an obstacle for electronic data interchange with and within the Courts.<sup>36</sup> The Department of Court Administration has considered the various motives for the different

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<sup>35</sup> The acronym means "buddy" in English.

<sup>36</sup> In September 2001 the Department of Court Administration sent a hearing proposal concerning: "Facilitating for electronic communication with the courts - proposal for changes in the acts regulating the administration of justice".

requirements in the law. These motives will vary either we speak about a paper based communication system or an electronic based communication system. See more about this under section 3.3. Discussed areas have been the sending of indictments and summary of evidence from the Prosecutors Office to the Court. These documents have to be signed with a handwritten signature before the transmission takes place. The conclusion of the Department of Court Administration is nevertheless that an electronic signature will satisfy the requirements in the law. The same apply to the sending of judicial remedies. See more about the newly adopted Electronic Signature Act under section 3.3

Instead of changing different sections in the Criminal Procedure Act the Department of Court Administration has proposed to add a new section to the Court Act. The section will open for electronic communication with the courts. The Proposal for a new Court Act s. 234 a<sup>37</sup> "Written communication with and within the courts can be electronic, if the courts has facilitated for it. A demand for handwritten signature is not an obstacle for electronic communication".

The proposal also suggests that further regulation concerning electronic communication is to be given by the King (i.e. the Government). It is still many unclear and unsolved questions concerning electronic communication, which might prevent the citizens from using it, and it is therefore better to state clear rules in the form of regulations when the society is better facilitated for electronic communication.

Furthermore the Proposal contains a supplement to the Court Act s. 146 (1)(2) which regulates when a time limit is considered to be interrupted: "In those cases a serving of the writ can be handled electronically, the time limit is interrupted when the document is received at the right address."

There has been some criticism of the proposal, as it implies that the sender will have the responsibility in cases where the technology fails.<sup>38</sup> This is in contrast to the existing paragraph, where the time limit is interrupted at the time the document is handed to the postal service. It would be more natural to consider the time limit to be interrupted at the time when the message is sent, as long as the sender makes sure the electronic address is correct. Otherwise the rule might be a barrier for the use of electronic communication.

### **Civil Procedure**

Civil procedure act from August 13<sup>th</sup> 1915 gives the ruling concerning case handling in civil procedures. A new Civil Procedure act is needed since the Norwegian Society has changed enormously since the beginning of the 19th century. The committee for the Dispute Act is considering the use of electronic communication in civil procedures. The caseload has increased considerably. Adopting an international perspective confirms the need for a new statute. Abroad, as in Norway, civil dispute resolution has been characterised by expensive and lengthy proceedings, and by major groups in society having experienced difficulties in obtaining access to the court system. Based on this, a white paper was produced entitled "Straight to the point", and delivered to the Legislation Department of the Ministry of Justice on December 20<sup>th</sup> 2001. The proposal suggests that the new Dispute Act be adapted to meet modern information and communication technology (ICT). It has been an explicit objective of the Government that electronic communication, and the use of networks as infrastructure for interaction, shall become as accepted as traditional written communications and documentation.

Civil cases will be facilitated for electronic communication in the stage of preparation of the case. This will include communication of procedural writing between attorneys and the court. In the white paper the following is proposed concerning the sending of written pleadings:

*S. 16(3)(1) Writs with enclosures is to be sent electronically to the court. In case of a temporary technical lapse the writs can be sent by other means of communication, but must be forwarded electronically as soon as possible.*

The proposal makes it obligatory for the lawyers to scan documents that do not exist electronically. The law proposal has many advantages. It will be easier to implement pleas and claims into a given judgment. Furthermore it will make more information available for the public. A party not represented by a lawyer, may send the written pleading in paper.

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<sup>37</sup> Subject to change in the proposal for the parliament, both text and number.

<sup>38</sup> For instance from the Norwegian State Court IT Service (RIFT).

The section also state that if documents concerning evidence will loose its proof of evidence by electronic communication it might be filed to the court by other means of communication. For physical objects, such as a knife or a hammer, the rule is of course that they have to be presented to the court "as is".

The new Dispute Act is not expected to enter into force before January 2005. Meanwhile, an amendment to the existing Dispute act has been proposed. The new section will make it possible to send written pleadings electronically and directly to the opposite party at the same time as it is sent to the Court. A similar section is proposed in the white paper for the new dispute Act.

### **Publicity in the judicial sector**

The Regulation of June 6<sup>th</sup> 2001 number 757, deal with publicity in the judicial sector<sup>39</sup>. The regulation will facilitate for easier access of information for the public. Decisions and relevant information for the public will be made accessible from the Internet.

According to the regulation s. 6 the calendar of hearings will be made available from open web sites for the public and from closed web sites for the press. The press will get access after making an agreement with the court. The information will not, as a main rule, be anonymous, and the press will therefore enter the system with the use of a username and a password. On web sites, accessible for the public, privacy is protected by anonymising the names of the parties, by using the letters "A" and "B" etc.

S. 11 in the regulation states that the court can make the court rulings available on open web sites for the public and on closed web sites for the press. Other groups/individuals may get access to the closed web sites if special reasons make it necessary (i.e. other courts, university employees, prosecutors office). Open web sites has the following limitations concerning the rulings:

- a) In criminal cases where the offender is not commonly known, the ruling shall be made anonymous as long as it is necessary to prevent identification of the offender. Information that might lead to identification of the offended party can only be made available to the public if it is not precarious to do so.
- b) Civil cases with relations of a special sensitive character can only be made available in an anonymised version.

Non-anonymised rulings shall be removed from the open and closed web sites within three months. Although, exceptions can be made for rulings in civil cases with no sensitive information.

### **The legislative power**

Usually the Government or a political party initiates a law reform. If it is a law of importance, a committee or commission is appointed to look into the need for new legislation, and to give recommendations on its contents. The reports from these committees are usually published as an NOU in a special publication series "*Norges offentlige utredninger*". When a committee has issued its report, the report is circulated among various bodies and institutions for their opinion (hearing). The responsible ministry then prepares a proposition with its underlying motives, which the Government presents to the National Assembly as a bill. This bill is called an "*Odelstingsproposisjon*" (proposition to the *Odelsting*, abbreviated: Ot.prp.) and is the basis for further discussions in the National Assembly.

As a main rule the acts are to be changed by the National Assembly. The Courts of Justice exert a control function regarding new acts and changes to existing acts that are proposed by the National Assembly. If an act is against the Constitution by, for example, violating the constitutional rights of one or more citizens, a court may set aside the act in any trial where such rights are deemed to have been violated. In a case brought before the Supreme Court where two or more judges deem that a specific act violates the constitution the case is settled in a plenary meeting of the Supreme Court. This may result in the Supreme Court setting aside the law in question in the settlement of the case. This implies that the Supreme Court through its rulings can control or limit the legislative power of the National Assembly. This control or limitation by the Supreme Court has only occurred on very rare occasions.

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<sup>39</sup> Given with legal basis in the Court Act s. 122, Dispute act s. 135 and the Criminal Procedure Act s. 28

## Section 2.

### Downloading of Data and Information by the Public from Courts and other Judicial Agencies

#### 2.1. Access to general judicial information (info on-line)

A general introduction to the Norwegian judicial system can be found on the portal to the official Norway, <http://norge.no>. In this section we will present the new, common web site for the courts, [www.domstol.no](http://www.domstol.no). Some of the courts, like the Supreme Court, have established their own web sites, and we will also give a short description of what can be found on their pages. Finally, we will present the most important legal information service in Norway, the Lawdata.

#### A Common Web Site for the Courts

The general public and the attorneys will retrieve information concerning the courts through [www.domstol.no](http://www.domstol.no). This is a web site with information about the courts in general, which has been planned since April 1998. The establishing of this page is part of the courts information policy. This policy is based on five main principles:

- *Entirety*: This principle is built on the thought that information from the judicial system shall be coordinated and be presented in its entirety for the receiving party.
- *Communication*: The information must suit the need of the receiving party, and be easy to understand for those with no knowledge of the judicial system.
- *Information as a leader task*: The persons in charge of the information are responsible for the correctness of the information. They must establish routines for making sure that the information is up-to-date and of high quality.
- *The principle of "line"*: Every court is responsible for information pertaining to its own affairs.
- *The principle of active information*: The courts shall actively try to present information to those individuals who are affected by the courts' decisions.

In accordance with the above-mentioned principles, the web site [www.domstol.no](http://www.domstol.no) provides general information about the judicial system, the court and the proceedings. There is also an educational section with illustrative drawings, on how the proceedings take place. Furthermore, there is a legal dictionary, and a section with extensive information about the citizen's right to access to court hearings and case documents, with references to legal sources. Finally there are links to all the courts that have established a web site of their own.

#### Individual web sites

Today the Supreme Court, three Appeal Courts and nine District Courts have their own home pages on the Internet.

[www.hoyesterett.no](http://www.hoyesterett.no) is the home page for the Supreme Court, containing some general information about the Supreme Court. Furthermore, there is a list of upcoming cases, which includes details such as who is representing the parties, who will be judging the case, how much time is reserved for the case, and a short case description. The parties are anonymous and are called "A" and "B". Similar anonymising is done for the summaries of the latest decisions. These are also available for free on the Supreme Courts home pages, and there are links to the Lawdata service. On their website decisions are made available for free for a limited period (about two months), in full text, including links to relevant statutory material.

On the website of the Supreme Court, there is also a service of summaries in English of decisions. Unfortunately the last update of this page was in January 2002.

Finally the website contains articles and speeches given by Supreme Court judges, and announcements of available jobs at the Supreme Court.

The home pages of the Appeal Courts and the District Courts include much of the same type of information as those of the Supreme Court. One difference is that statistics of filed and settled cases is presented, and illustrated with graphs showing the development over the last ten years.

### Lawdata<sup>40</sup>

Lawdata was established on July 1st, 1981, as a private foundation by the Ministry of Justice and the Faculty of Law at the University of Oslo. The purpose was to establish and operate a legal information system on a non-profit basis. Lawdata does not receive any subsidies. It has its income from the users of its pay-based legal information services (2/3) and from the sale of texts to publishing houses for printing of paper based material (1/3). In addition, Lawdata has developed software for management of large databases, as well as systems for information retrieval. The profit from these services is used to establish new databases of legally relevant material.

Today Lawdata has over 100 different databases, and Lawdata makes a lot of this legal information available for free on their web site. This includes all acts and regulations, and recent rulings from the Supreme Court and the appeal courts. The free material does not have the same level of cross-references as the pay based service, but it is continually consolidated, just as up to date as the pay based service. Lawdata now serves as a “law writers office” that has the responsibility for publishing new statutes and regulations through ‘The Legal Gazette’.

Lawdata is constantly extending its co-operation with the courts. For several years, the Supreme Court has sent their rulings to Lawdata to have them published. Co-operation with the six appeal courts led to a high rate of published rulings from these courts, and recently Lawdata has come to a similar agreement with Oslo District Court, as the first of the district courts. The fact that the new CMS for the courts will include a module for transferring the ruling to Lawdata, is a good indication of the status Lawdata has as the most important legal information service in Norway.

Since April 2001, the pay based service has been available through a regular web browser, instead of the dedicated client that was necessary earlier. The pricing model has also been changed the last year, and instead of the combination of monthly charge *and* a pay-per-minute, there is now only the monthly charge (currently € 80, -<sup>41</sup>). As mentioned this service gives access to the same material as the free service, but with much more extensive cross-referencing between jurisprudence and relevant acts, and between acts and preparatory work. In addition there are extra material, such as Supreme Court decisions (from 1836), appeal court decisions (from 1993), treaties and CELEX. Everything is available in full text.<sup>42</sup>

A service that was released in May 2002 is the possibility to be alerted whenever there are made changes to an act or a regulation, or a set of acts and regulations within a domain. This will surely make it easier for everyone to stay up-to-date on the rules relevant for their work.

With the long experience with text databases and web publishing, Lawdata was chosen by the Norwegian Parliament to have the responsibility for their web site, and the publishing of all committee recommendations, parliamentary resolutions, private propositions and question and interpellations.

The system is characterized by hyper-links for all document references as well as links for all names of the members of parliament. The system is available at [www.stortinget.no](http://www.stortinget.no).

As mentioned, Lawdata concentrates on publishing authentic material and does not consider itself in position to do “intelligent” commenting or referencing. One service that offers commented versions of the most

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<sup>40</sup> “Lovdata”, <http://www.lovddata.no/info/lawdata.html>

<sup>41</sup> NOK 630

<sup>42</sup> Supreme court decisions from 1836; Appellate court decisions from 1993; Selected lower court decisions from about 1880; Nordic court decision concerning maritime law from 1952; Court decisions on all levels concerning employment contracts; Decisions by the Employment court (from 1916); All statutes in force and all historical versions from 1998; All regulations in force, central and local. All historical versions of central regulations from 1998; Treaties since 1992; Bibliographic references to legal literature; Opinions by the Civil Ombudsman (from 1963); Opinions by special boards dealing with complaints from private customers of banks and insurance companies.

important statutes, is “Gyldendal Rettsdata” (<http://www.rettsdata.no/>). This service is also available on paper.

## **2.2. Access to electronic records**

As mentioned in the above section, there are some courts that have established their own web sites, for instance the Supreme Court. Information about forthcoming cases – with a short description of what the case is about and who is representing the parties – is one element that is common to several of these courts’ web sites. There are no restrictions on the access to this information, and the privacy is protected by anonymising the names of the parties, hence they are called “A” and “B”. See more about this issue under “Publicity in the judicial sector” section 1.2.

Today, Oslo District Court and Borgarting Court of Appeal has implemented a solution whereby the press has access to unanonymised files directly on the web site, if they have acquired username and password from the court.

## **Section 3.**

### **Exchange of Data and Information between the Public and the Courts or other Judicial Agencies**

#### **3.1. Electronic communication from the public to the courts**

The strategy document for the courts<sup>43</sup>, express that the courts shall offer electronic self-service solutions, which implies that the public shall be able to communicate with the courts 24 hours a day. This is in accordance with the former eNorway plans, and their plans for a 24/7 government.

These services will include access to information and electronic versions of official forms, and the possibility to make requests, through e-mail, to the courts. It will later be possible to perform legally binding actions electronically, for instance notifications of marriages and death.

The above mentioned strategy document also mentions land registry data. Even though this is a task that will be transferred from the courts to the State Map Office, the strategy document states that this information should be made freely and electronically available. The information is, in principle, freely available today, but for the non-professional users – i.e. those who do not have direct access to the database – the time of response is so long that the information is often irrelevant when the citizen is notified.

Today, e-mail is widely used for informal communication between attorneys and their clients. There are also indications that e-mail is used for the exchange of documents containing sensitive information about clients. This is probably due to lack of awareness of the risks when sending such material on the Internet. An example was revealed in the case of “kvaerner.com” last august. A person had registered this domain name, and received e-mail containing confidential information about the enterprise Kvaerner. The sender, an investment bank working with a new strategy for the enterprise, had mixed the “e” and the “a” in “kvaerner.com”.

A regulation on the use of electronic means for communicating with the public administration<sup>44</sup> came into force in July 2002. Although these rules are not directly applicable for the courts, they express some principles that will probably be repeated in later regulation of other areas. One interesting principle that is introduced in s. 20, is the principle of making the public body responsible in situations where a citizen sends sensitive personal information without using adequate encryption technologies. If the public body was the sender, it is clear that this would be a violation of the principle of secrecy, but there might be good reasons to give the public administration responsibility for what they receive, also. If, for instance, the Child Welfare Service sets up a web site where children can fill out a form to ask questions, and it is likely that someone will use the service to reveal sensitive information about themselves, it is quite obvious that the Child Welfare Service would have a responsibility for securing the communication.

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<sup>43</sup> ICT strategy for the courts 2002-2005, Ministry of Justice.

<sup>44</sup> <http://www.lovddata.no/ltavd1/lt2002/t2002-1-07-17.html>

### 3.2. E-filing

It would be very useful if the parties logged themselves in to the case handling system of the Courts and registered information such as name, address, attorney, kind of case etc. This is called E-filing or electronic filing. In the strategy document<sup>45</sup>, e-filing is mentioned as a means for communicating with the courts in civil proceedings. Currently there are no such services available, but LOVISA (the new CMS for the courts) is prepared for an extension that will make it possible to fill out forms electronically on the web. The information will be automatically transferred to the LOVISA-database, from there, it will be immediately available for the rest of the LOVISA system.

The State Court IT Service has performed a cost-benefit analysis for such a module. One of the tasks performed by the courts, is the registration of deceased persons, and the analysis is based on this task alone. If it takes five minutes to register manually each of the 20.000 deceased persons that is likely to be registered through the electronic form, while it only takes one minute to control the information registered by the district police, there is a potential of a € 650,000 saving in ten years. The cost for the module is estimated to be € 150,000.

It is interesting that the strategy document also mentions the need to have these forms available in different languages, so that they can be understood and used by different ethnic minorities. Unfortunately, traditionally such needs have been neglected in Norway. Even though the lapps, or Samis, have had an official status for many years, in 1989 they even got their own parliament<sup>46</sup>, legal material in their language is nearly non-existent.

### 3.3. Electronic signature and digital signature

Today, neither electronic signature nor digital signatures are used in the exchange of information between the public and the courts. On the other hand, the acts and regulations have recently entered into force. In this part we will give a short description of one important section in the act.

According to the newly adopted Electronic Signature Act<sup>47</sup>, s. 6 states that a qualified electronic signature is equal to a handwritten signature. The act does not give a general right to use electronic means to communicate, but will come into force when the remaining legislation open for it. According to the Act a qualified electronic signature is; “An advanced electronic signatures which are based on a qualified certificate *and* created by a secure-signature-creation device”. A qualified electronic signature will satisfy the legal requirements of a signature in relation to data in electronic form in the same manner as a handwritten signature satisfies those requirement in relation to paper-based data. Furthermore the qualified electronic signatures are admissible as evidence in legal proceedings. If a signature is not so called “qualified” this might influence the weight as evidence. In the preliminary work of the Act it is pointed out that the Norwegian legal system has free assessment of the evidence presented. This will be of importance in the individual case.

The ICT Highway project, see section 4.1, came to the conclusion that it would not be necessary to include a system for digital signatures, or PKI, when inter-connecting the three existing data networks in the justice system. In an evaluation performed after a pilot project where they sent electronically available documents as e-mail attachments, in addition to the ordinary paper based communication, in the penal chain, the question is brought up again. Since the ICT Highway constitutes an inter-connection of three secure and closed data networks, the resulting network can still be considered a closed network where it is possible to identify the sender and the receiver. Therefore, there is no<sup>48</sup> need for technologies to identify the communicating parties. As the evaluation revealed, however, there is a need for some of the other functionality a PKI can provide. In this specific case the lack of return receipts when a received e-mail had been read, lead to the need for confirming through phone calls. The resulting extra work reduced the value of the tested system.

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<sup>45</sup> ICT strategy for the courts 2002-2005, Ministry of Justice.

<sup>46</sup> The Sámediggi plenary, <http://www.samediggi.no/default.asp?selNodeID=94&lang=no&docID=1423>

<sup>47</sup> The Norwegian Electronic Signature Act is from 1.7.2001. The Act is built on Directive 1999/193/EC concerning Electronic Signatures.

<sup>48</sup> Or at least only a limited need.

### 3.4. XML standards

In section 4.1 we describe the Penal Chain Project, a project that aims at facilitating for electronic data interchange between existing systems with the agencies involved in the penal chain. In a pilot for testing the exchange of information between the police CMS (BL) and the new courts CMS (LOVISA), XML and XML Schema has been chosen as the “technology” for marking and defining the structure of the data.

One other planned implementation of XML is related to the exchange of judgments from the courts to the Lawdata legal information service. In its first version, LOVISA will include the same functionality for sending rulings to Lawdata as the CMS for the Supreme Court. This will probably increase the number of judgments from the appeal courts (and the district courts) that are available through Lawdata. In the next version of LOVISA, there will be a solution that uses XML to exchange “fixed” information, such as information about the parties, and the summaries. In the courts of appeal, the judges themselves write the summaries, and the new XML-solution is partly justified by the need for Lawdata to automatically recognise these summaries.

It is a bit concerning that the use of XML is restricted to the exchange of formalised information, to be automatically processed by a receiving system, while “free text”, e.g. the sentence of the court, is still to be exchanged as “word- or rtf-documents”. Documents saved in the Microsoft Word internal formats (\*.doc) are only readable through the Word application, thus making the court dependent on this specific software.

### 3.5. Electronic means for notification and communication to attorneys and parties

As mentioned under section 3.1, e-mail is widely used for informal communication between attorneys and their clients. For the time being attorneys do not receive or exchange notifications and legal communications from the Courts. However, as described in section 1.2 the courts will facilitate for the sending and the reception of notifications and legal communications. This applies both in criminal and civil cases.

A curiosity that might be mentioned here is the plan to have a fully automated system for fining drivers that has been caught speeding. In 1988 the first automatic traffic surveillance box was set up in Norway. It consists of radar that measures the speed, and a camera that takes a picture of the approaching vehicle if the speed is too high. Today they use digital cameras, and some of the cameras sends the picture instantly to a central database, so as to reduce the risk of someone destroying the camera – and thus the evidence of their speeding. Now, however, plans exist to use OCR software to analyze and “read” the license plate of the car, look up the license number in the central car registry in Norway, and send the appropriate fine to the owner of the car – without human interference.

### 3.6. On line payments

At the moment, no service exists, and no service is planned, for online payments in any part of the judicial sector. This is maybe due to the fact that there is a well-functioning system for paying by giro. All payments are effectuated through a central, BBS<sup>49</sup>. This central is owned by all the Norwegian banks, and they offer electronic listings of all incoming payments to an organisation, including KID (Customer Identification) at a low price. The listings are easy to import into the accounting systems. This solution is independent of whether the customer pays his bills using Internet, telephone, traditional mail or physically enters his bank.

Traditionally, the invoice is paper-based, but a new standard called e-Invoice<sup>50</sup>, offers integration with some of the existing Internet banks. With e-Invoice, the customer no longer needs to enter any information on him- or herself. An acceptance of the payment-order is all that is needed. Unfortunately, the owners – BBS is amongst them – of this new standard seems to be too greedy. There are reports that the price per e-Invoice is between one and two euros, while BBS only charges 1/8 euro for the handling of a transaction. Today, only 16 organisations offer e-Invoice to their customers.

Some organisations have chosen a simpler solution. By sending all the necessary information (account number, address, price and KID) via traditional e-mail, their costs are drastically reduced, while they keep the same convenient way of registering the payment, through the import of lists from BBS.

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<sup>49</sup> ”Bankenes Betalingsentral”

<sup>50</sup> “eFaktura” – [http://www.efaktura.no/efaktura/efaktura\\_velkommen.htm](http://www.efaktura.no/efaktura/efaktura_velkommen.htm) (in Norwegian)

#### **Section 4. Exchange of Data and Information among the Courts, between the Courts and other Judicial Agencies, and among other Judicial Agencies**

When focusing on criminal matters, the judicial system can be divided in four services; the police, the prosecuting authorities, the courts and the prison and probation. We have already referred to this as being the “penal chain”. If we consider this chain to be a value-chain, the product that is exchanged between the services, is *information* concerning a case (e.g. the results of an investigation, the bill of indictment, the court ruling, etc.). The exchange is bi-directional. For instance, the results of the investigations are passed from the police through the public prosecutor and to the court, while the court ruling is passed back to the prosecutors and the police, for them to decide whether to accept it or appeal it, and to update the fine- and punishment registry. Although the information can be digitally processed and archived in the different case management system(s) (CMSs) within each service, the communication between the services is paper based.

Much of the information needed in the different stages of the penal chain, is accessible in different registries. This information is independent of the case handling, i.e. the registers are *not* updated with case information, and these registers are therefore labelled “fixed”<sup>51</sup>. The registries are sometimes used to retrieve relevant facts about a case and sometimes to ensure the quality of already registered information.

Some of these registries contain information that is only relevant to (parts of) the justice system, and these are called *internal* registries. An example of one such register is the one containing names and addresses of all the units in the justice system. The police, the courts and the prison and probation service have at least one list or register each with (approximately) the same information. This redundancy implies extra work with the maintenance, as well as an increased risk of having discrepancy in the information. In order to reduce the maintenance cost and increase the quality, a solution would be to have one judicial agency being responsible for the content of a certain registry, and for making it accessible to the other agencies.

Some registries are of general public interest, like for instance the Registry of Mortgages and Moveable Property. In section 0.2 we have mentioned some of the registries that are publicly available through the Public Registry of Rights. These registries, referred to as *external* registries, can be integrated with a case management system in the same manner as the internal registries<sup>52</sup>, which will give instant access to updated information at the stage when the information is needed, and accordingly increase the quality and efficiency of the case handling. A problem when integrating a CMS with different registries is that it increases the complexity of the system. A possible solution could be to make a standardised gateway through which all relevant registries can be accessed, i.e. an information-/service bus.

In this section we will present some of the projects aimed at establishing system-to-system communication (or Judicial Electronic Data Interchange) as a replacement or supplement to paper based communication. This includes information resulting from the case handling, and information stored in fixed registries. There are few existing solutions, and as shown in section 5.1 it has been difficult to make the judicial agencies (and their ICT units) give priority to common projects. In order to improve this, an ICT strategy for the whole justice sector was made. In this strategy, finished in 1999, electronic information exchange in the penal chain was one of the eight areas of special importance for the justice sector in the strategy period. The overall strategy was followed by a specific strategy for the information exchange in the penal chain. Later in this section, we will give a presentation of the ambitions and planned activities in this strategy document. Some of the activities have already been completed and evaluated, while others are about to be started.

We have also found this section to be the right place for a discussion on some of the security issues that arises when information about persons is exchanged electronically, especially in relation to the need for ensuring the quality of such information.

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<sup>51</sup> The police has 16, the courts 13 and the prison and probations has 11 such registries according to the strategy document for the integration in the penal chain.

<sup>52</sup> For the new CMS for the courts, LOVISA, there are plans to integrate access to ten such registries. Two registries, The Central Person Registry and The Register of Business Enterprises, will be integrated in the first version.

## **Security aspects – and the quality of personal information**

In the judicial sector in general and particularly when dealing with criminal matters there is a need for data subject protection. All information concerning the handling or results of a case that can be related to a physical person should be treated as personal data. The Act dealing with these issues is the new Personal Data Registers Act. The Act turned into force January 1<sup>st</sup> 2001, and is based on the EC Directive 95/46 of October 24<sup>th</sup> 1995. The need for the revision of the Personal Data Register Act was due to technological development, which has made it far more easy and far more cheap to collect, process, and (mis)use personal information.

Section 13 in the Norwegian Personal Data Register Act points out the need for information security. Two important security aspects are *confidentiality*, i.e. that the information will be protected against unauthorised access<sup>53</sup> and *integrity*, in particular that the information will be protected against unauthorised alteration.<sup>54</sup> Both aspects are important to ensure the *quality* of the information, in the same way as the accuracy needed when registering the information in the first place. The importance of having high quality on personal information in criminal procedures, should be obvious considering this information typically will constitute the basis for later (legally binding) decisions, and that erroneous information will normally lead to incorrect decisions.

In 1997 it was revealed that the name and address of a person could be re-entered manually as many as 12 times in different systems during the case handling in the penal chain. In this context it is obvious that electronic exchange of such information system-to-system reduces the risk of mistyping and thus ensures a higher quality on the information. The positive effect on the quality of the information must be balanced with a possible increase in the risk for unauthorised access to the information. The latter might be a result if the security in the data networks is not adequate.

Another issue that arises with more use of system-to-system communication is the increased importance of a quality check at the first (and only) entering of the information into the system. Otherwise, incorrect information will “spread out” to all connected systems, and it will persist since no new quality check is performed. A challenge will be to allocate the resources freed as a result of the reduced number of information-entering, into one quality check that must be performed with a high level of accuracy. Quality checking is tedious work and it is not obvious for the person performing the control, why it is of such importance.

It is also important to be aware of the possibility of misunderstanding information. Research has revealed that a simple information unit such as “income” has had more than twenty different meanings within the public administration of Sweden<sup>55</sup>. Therefore, the harmonisation of information categories and definitions is needed before enabling automatic updating of information between different CMSs or registries through the use of EDI.

### **4.1. Systems integration and interoperability**

#### **ICT Highway**

In the autumn 2001 the infrastructure of the ICT Highway was established. This concluded the first phase of the establishing of electronic interaction in the justice sector, in accordance with the strategy of 1999. With the ICT Highway, the three originally closed, nationwide data networks of the police, the courts and the prison and probation service, were inter-connected. The common part of the infrastructure is based on

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<sup>53</sup> Article 16: Confidentiality of processing: Any person acting under the authority of the controller or of the processor, including the processor himself, who has access to personal data must not process them except on instructions from the controller, unless he is required to do so by law.

<sup>54</sup> Article 17: Security of processing: Member States shall provide that the controller must implement appropriate technical and organizational measures to protect personal data against accidental or unlawful destruction or accidental loss, alteration, unauthorized disclosure or access, in particular where the processing involves the transmission of data over a network, and against all other unlawful forms of processing.

<sup>55</sup> Lee A. Bygrave, *Ensuring Right Information on the Right Person(s): Legal Controls of the Quality of Personal Information*, 1996. [http://www.afin.uio.no/annet/ftp/notater/4\\_96.pdf](http://www.afin.uio.no/annet/ftp/notater/4_96.pdf)

Internet technology, i.e. the Internet Protocol, and the traffic on the communication lines connecting the existing networks, is encrypted.

As described in the section 1.1, the existing data networks were not connected to the Internet, except for the Courts Network. Furthermore they all had different e-mail systems. Therefore, the inter-connection of the networks did not immediately make it possible for a policeman to send e-mail to a judge, or vice-versa.

In the winter 2002, a pilot project, also named "ICT Highway", tested the infrastructure through the use of e-mail. An evaluation report that includes comments from the four involved parties – a district court, a police office, a public prosecutors office and the local prison – has been written. Although the technological ambitions for the project were quite modest, i.e. to send electronically available documents as attachments to e-mails as a supplement to the ordinary paper based communication, it resulted in valuable experience.

First, it revealed some technical problems with the sending and receiving of e-mail amongst some of the involved parties. This was in relation to the conversion of e-mail between the two standards X.400 and SMTP. The problem was overcome, so that e-mails could be sent, but in contrast to what the involved parties were used to from their use of e-mail in their own organisation, some functionality was lacking. Especially important was the lack of receipts confirming that the e-mail had been successfully received and read by the addressee. As a result of this, a routine for confirming important messages by telephone was established. This routine caused extra work for the sender, which was unfortunate considering that he or she would not benefit from the e-mail being sent. Instead, the sending of e-mail was already causing extra work, as it could not replace the sending of the paper documents.

The disharmony between efforts and advantages was most apparent with the police. On the other side were the public prosecutors that normally would re-type much of the information from the police before they forward a case to the district court. The possibility to cut-and-paste saved them a lot of work. The same advantages through simplified reuse of information was also apparent with the judges, but they expect more gains when they start using the new CMS, LOVISA, as this will integrate with the e-mail and word processing software.

A consequence that was emphasised by all the involved parties, was that the cooperation in the project had brought the organisations closer, and increased the knowledge of what tasks are being performed by the other parts of the penal chain. This knowledge makes it easier to see what needs the other judicial agencies have, and is important in order to identify possible areas where the use of electronic interaction can lead to efficiency gains or other ameliorations.

The general impression is that the advantages of exchanging electronic versions of documents will increase when new systems that support receipts replace the systems of today, and when the electronic versions can replace the paper based documents – reducing the need for doing everything twice.<sup>56</sup> In the next section we will give a presentation of the strategy for the next phase in the development towards electronic interchange of information in the judicial system.

### **The Integration Strategy for the systems in the Penal Chain**

In September 2001 The Royal Ministry of Justice published the integration strategy for the systems in the penal chain<sup>57</sup>. The main purpose of the strategy is to establish interaction in the penal chain through the use of e-mail and EDI. The work is thought organised through several smaller projects. Both the courts and the police are in the phase of developing new systems, and the specifications of these systems will affect the chance to successfully establish more Judicial Electronic Data Interchange in the next decade. Therefore, there is a need to have a high level of co-operation and co-ordination of the different parts of the judicial sector to make sure the chances are increased.

A motive for The Royal Ministry of Justice to start this project was the need to increase the speed of the handling of criminal cases, as this is a crucial factor for the public's trust in the judicial system. Two independent working groups pointed out that ICT is of great importance for efficient case handling in the

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<sup>56</sup> The term *data*, which has been synonymous with computer systems in Norway, has a popular expansion that can illustrate this; "Dobbelt Arbeid Til Alle", which means "twice as much work for everyone".

<sup>57</sup> "Integrasjonsstrategi for systemer i straffesaksjeden"

penal chain. The main goal of the Penal Chain Project (PCP) is to establish electronic interaction through the use of e-mail and electronic data interchange between the different CMSs. The Ministry expects improvement through *reduced* expenditure of time and other resources, and *increased* quality and accessibility of information.

#### **EDI – ambitions**

For the interchange of information between different systems, the strategy presents four levels of ambitions, labelled A-D. The first ambition, A, represents the current situation; paper documents are distributed amongst the different judicial agencies in the justice system, supported by the use of fax and telephone.

The next ambition, B, prescribes a situation where electronic versions of the paper documents are sent as attachment to e-mail, as a supplement to the paper documents.

In ambition level C the interchange is extended to also include structured information directly between the different CMSs in the justice sector, JEDI. This will typically reduce the need for retyping information. The exchange of information is still a supplement to the paper based communication.

In level D, finally, the paper-based communication is obsolete as the electronic information is legally binding. This does not imply that paper documents will not be produced or used, but they are not necessary for a lawful case handling.

The strategy recommends that ambition level D will be the long-term goal for the integration work, but that ambition level C is acceptable for the systems that is be put into production during the strategy period (2001-2003). Nevertheless, necessary preparations needed to implement level D must be done in parallel. It is clear that level D is very ambitious, but the strategy points out the need for something to help navigate the different projects, and this ambition is thought to serve as lighthouse, guiding the evolution.

#### **Access to registries – ambitions**

For access to internal registries, the document describes three different ambition levels. Like for the ambitions presented above, the lowest level describes the situation today, where more or less fixed registries, that are updated on a more or less regular basis, is part of the system. It is likely that the information is not an accurate copy of the original, and that there are several similar registries in the whole justice sector. At the next ambition level, the registries are updated, through replication, at regular intervals. Only the original needs to be updated directly. Similar registries can use the original registry as basis for the replication.

The most ambitious level is based on the use of an information-/service bus. A common gateway gives access to *all* available registries. This intermediary system will reduce the complexity, as there will no longer be many-to-many relations between the different systems and registries.

Akin to the aforementioned ambitions has been described for the use of external registries. Here, still, the lowest level describes today's situation. As the external registries are, by definition, the "originals", there is no question of updating or replication. Instead, each level represents different methods of accessing the information. Today each registry has its own interface, either a certain terminal or a web page. To use the information in such a registry, it must be copied or retyped into the CMS. The next ambition level implies an integration where the registries are available through the interface of the CMS. For quality purpose, it might be adequate to "wash" the locally entered information by comparing it with the external registry.

From the user's point of view, the most ambitious level does not differ from the level presented above. As with the most ambitious level for the internal registries, it is based on the use of an information-/service bus, in order to avoid the complexity that will soon be the result if several CMSs are to be integrated with several external registries.

For the strategy period (2001-2003), the strategy document recommends that, as a minimum, ambition level two shall be implemented for both internal and external registries. In addition, preparation should be done to realise an information-/service bus, to be the default solution for all systems that will be implemented after 2003.

#### **Other recommended activities**

As mentioned, the need for co-ordination of the activities in the different part of the justice system, is especially important in order to avoid a development in different directions. The strategy points out four

additional co-ordinating activities that it prescribes as necessary to accomplish the goal of fully electronic case flow in the penal chain, i.e. ambition level D or “the lighthouse”.

The security aspects need to be considered, in order to know what method of communication should be used. For instance, sensitive information about persons can not be sent on a data network, unless the sender has *physically* control of the communication lines, or unless the communication is encrypted, according to the Norwegian Data Inspectorate.

To increase the advantages of electronic data interchange, the information exchanged should be structured so that the information items which are susceptible automatically processing, can be recognized by the receiving system.

To decrease the dependencies, the strategy recommends the use of gateways with persistent interfaces for the communication between systems. This way, a CMS can be altered, or replaced, without having to alter all the systems it communicates with. In addition, if the interfaces are standardised, the complexity caused by the many-to-many relationship, will be reduced.

Finally, the strategy points out the need for revising the existing working procedures, in order to identify possible ways to ameliorate the case handling and increase the efficiency through the introduction of fully electronic case flow.

### **Gains**

The strategy document has a small section focusing on the immediate gains that can be realized through the integration of the systems in the penal chain. The development towards electronic data interchange is presumed to result in both qualitative and quantitative improvements. In the LOVISA-project, it is estimated that the electronic interchange of information can lead to a reduction of the number of employees with 14 persons. Some of the identified gains are:

- The transport time for documents/information can be drastically reduced;
- Through the re-use of information, time spent on manually entering information will be reduced;
- Reduced need for quality check when entering information, as this is done only once; and
- By reducing the number of times the same information is entered manually, the quality of the information will increase.

It is suggested that the latter is maybe of highest importance, as inaccurate information increases the risk for incorrect decisions.

### **Pilot projects**

There are two pilot projects based on the strategy that are close to realization at this stage. The first is a pilot that will demonstrate exchange of messages directly between four of the CMSs in the penal chain. This pilot is supposed to have completed at the end of 2002. The CMSs that will exchange information in this pilot are two systems belonging to the police – the BL which is the police’ CMS, and SSP which is the central registry of fines and convictions. Furthermore the CMS for the prison and probation service, KOMPIS, and a pilot installation of the new CMS for the courts, LOVISA, will also be part of this project.

The communication will be asynchronous, and based on the exchange of XML-documents. Each CMS needs to be equipped with a module for exporting information to an XML-document and place it into dedicated export-folders in the local file system. There is one such export-folder for each recipient. In the same manner, each system must have module for importing similar XML-documents from import-folders, also located in the local file system.

For the transport of the documents the pilot will use Multikom, which is a simple system that uses a general SMTP-server for sending e-mails with attachments, and a general POP-server (with a dedicated Multikom e-mail account) for receiving e-mail, from which it extracts the attached documents and place them in the right import-folder according to the sender. The system constantly checks for new documents in the export-folders and sends them to the right receiver, after placing a copy of the document in a sent-archive.

The second pilot project will demonstrate sharing of internal registries amongst some CMSs, and is expected to continue into 2003.

In the project directive there is a section focusing on the risks that might cause problems for the implementation of these pilots, and thereby also for the further development of JEDI. The identified risks are:

- Ownership: Lack of ownership can lead to unclear responsibility and lack of interest for the project. This in turn, can lead to a situation where important decisions are not made in time. As a result the project might be delayed, facing problems reaching the goals or, in worst case, the project will be cancelled;
- Organizational complexity: The handling of criminal matters includes a number of different parties, e.g. police, prosecutors, courts and the prison and probation service. In addition, there have recently been changes in the internal organization of these services;
- Interface with other projects/dependencies: The level of interfaces with other systems increases the complexity and the dependencies;
- Human resources: This always a crucial factor, and especially for this project, since cross-sector activities have traditionally not had a very high priority in Norway. In addition there is a need for relevant skills; and
- Technological complexity: The dimension of data interchange involves a new sort of technological complexity that the organizations have no experience in handling. The success of the project depends on the ability for the ICT service units to seek external experience. Furthermore they must make sure that there is a sufficient transfer of knowledge from the external participants to the judicial sector.

#### **Electrification of manual case handling**

The presentation above has showed how the justice sector in Norway is moving towards Judicial Electronic Data Interchange; small add-ons that implement well defined functionality, where the gains are easy to identify and sometimes also easy to quantify. On the other hand, this is a strategy that might lead to a lack of totality-thinking; the system evolves as a construction based on many small changes. The result can be a high level of complexity. As the focus is on easing or replacing small parts of the current work processes, the processes themselves are not evaluated and optimised. This is also shown in the strategy document: “The new technology can [...] be used to simplify/change the working processes. Such optimisation of processes is, however, beyond the scope of this project”.

The result might be what has been called “electrification of old forms”.

#### **Civil procedures**

This section has focused on the JEDI plans and activities in relation to criminal procedures, which mostly is limited to the public agencies that constitute the penal chain. This is due to the fact that these projects represent the primary focus for the greater part of the justice system in Norway for the time being. At the same time, many of the experiences gained in these projects will be of relevance for similar work within civil procedures. Some of the challenges will be of another magnitude, for instance the number of involved parties. Although public bodies sometimes act as though they have no common interest with other public bodies, their funding always originate from the same place – the Parliament. On the other hand, although independent, it will probably be easier for the normally smaller private bodies to adapt to changes.

One issue that deserves a mention, however, is the upcoming “information crisis” which is forcing the courts, together with the Register of Bankruptcy, to consider electronic data interchange. As a result of an amendment of the Public Limited Liability Companies Act, all companies shall have at least € 12,500<sup>58</sup> in compulsory equity by January 1<sup>st</sup> 2004. It is expected that about 20,000 companies will *not* increase their equity in time, and as a result of this, the courts will probably receive four times the normal, annual number of bankruptcy cases at the end of 2004/beginning of 2005. This has led to the planning of a module for electronic interchange of information between the new CMS for the courts, LOVISA, and the Register of Bankruptcy.

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<sup>58</sup> NOK 100,000

## **Section 5. Concluding Remarks**

### **The Development of Electronic Data Interchange**

#### **5.1. Strategy and policies for electronic data interchange**

As early as 1982, a White Paper<sup>59</sup> to the Parliament highlighted the importance of co-ordinating the investments in, and the development of, ICT in public administration. To accomplish an increase in quality and efficiency through the use of ICT, the management and the employees in the public bodies must be willing to co-operate across the institutional borders.

The advantages of co-operation and co-ordination were pointed out again in a Green Paper in 1988<sup>60</sup> proposing an ICT policy for the public administration. In accordance with this, the Ministry of Justice has, in the National Budgets throughout the 90-ies, emphasized their focus on co-ordinating the ICT-investments in the justice sector, and in the penal chain in particular.

In order to achieve the ambition of information sharing across the justice sector, a new ICT-organization was set up from January 1<sup>st</sup> 1995. The State Court IT Service (RIFT) and the ICT support unit of the Prison and Probation sector (KITT) were established, and co-located with a re-organized version of the Police Data Service (PD). In addition, a specialized unit dedicated to working with the co-ordination between the sectors, was created. This unit, called Jus-IT, was responsible for continuing the work with the Information Model for the Penal Chain (IMS), and for standardization through the “Guidelines for ICT in the justice sector”.

The information model was supposed to be a detailed flow chart describing all activities and all communication that were likely to appear in a criminal case, from the minute the crime was reported until the offender eventually was released from prison after serving his or her time. The model was thought to be used as a basis for the analysis that is normally performed at the beginning of a system development project. Due to it being a model of the complete penal chain, it would also remind the project group that the planned system would become part of a whole, and that steps should be taken to ensure integration with external systems.

In 1997 the Ministry of Justice<sup>61</sup> performed an evaluation of the work with ICT investments and development. The findings were disappointing. As a result of signals being vague and proposed projects being unsatisfactory, the ICT units had given common projects low priority, and instead focused on their own projects. Furthermore the report emphasized the need for more ambitious and interesting goals for the co-ordination, and a stronger focus on the importance of co-operating for the benefit of the whole sector. In order to accomplish this, it would be necessary to allocate more resources to work with common projects, and give the responsibility to a part of the organization that had the authority to carry out these projects. The unit responsible for the co-ordination, Jus-IT, had focused its resources on completing the Information Model for the Penal Chain and revising the guidelines for ICT in the justice sector. When the State Court IT Service started working with LOVISA, they soon discarded the information model, and did the whole analysis from scratch. The model was incomplete and lacked enough details about the tasks performed by the courts.

On January 1<sup>st</sup> 1998 Jus-IT ceased its operations, and its resources and tasks was split between the Police Data Service and the Administrative Affairs Department of the Ministry of Justice.

A new evaluation performed by the Office of the Auditor General<sup>62</sup> in 1998, revealed many of the same disappointing problems as the Ministry had come to a year earlier. They emphasized the need for specifying what returns that could be expected from the ICT investments, together with a plan for making sure the freed resources were re-allocated to core activities. An example of such Plans for Realizing and Re-allocating Returns on ICT investments (RRR-plans), is the ambition that the CMS for the police should lead to a certain

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<sup>59</sup> St meld nr 12 (1982-83)

<sup>60</sup> NOU 1988:40

<sup>61</sup> The evaluation was done by Considium Consulting Group

<sup>62</sup> The Office of the Auditor General of Norway is the controlling agency of the Norwegian Parliament.

“Riksrevisjonens undersøkelse vedrørende styring og samordning av IT-virksomheten i justissektoren (Dokument nr 3:5 1998-99)”, <http://www.riksrevisjonen.no/pdf/64281862.pdf> (in Norwegian)

reduction in the time spent on administrative work, and that the freed resources should result in more police out in the streets.

In accordance with the recommendations from the two evaluations, the first common ICT strategy for the whole justice sector was made in 1999<sup>63</sup>. The document focuses strongly on the advantages of co-ordinating the ICT investments in the sector, and on electronic data interchange as one of the most important activities. The latter was made subject to a new strategy document that was finished in 2001, "A Strategy for the Integration of Systems in the Penal Chain". In section 4.1 we have described the penal chain project and its different level of ambitions. The highest level of ambition implies substituting the paper-based case handling with an all-electronic system where structured information is sent 'automagically' between the different CMSs, and all common information is held in shared registries accessible through a standardized interface. This ambition is considered to be a "lighthouse" which hopefully can ensure that all ICT initiatives within the justice sector serves as steps in the same direction.

The impact of the focus on inter-communication is also easy to identify in the strategies of the different bodies. As shown below, in the presentation of the ICT strategies of the courts, integration with the other parts of the justice sector is not an area of importance in the strategy from 1997, in contrast to the one from 2001.

### **A summary of strategies**

In 1997 the Justice and Police Department published a strategy document called "ICT strategy for the courts 1997-2001". The document had its focus on the following fields:

- Easier access to information in the case handling process;
- Better organizing of the resources in the court;
- Further development of a Land Registration system; and
- Better utilization of ICT.

In November 2000, a workshop was arranged to discuss IT strategy in the Court. Twenty people from the Ministry of Justice, the Norwegian State Court IT Service and the Courts participated. The aim of the workshop was to clarify the status of ICT in the Courts and examine the conditions for new technological developments. Furthermore it was important to identify the superior perspectives for the future. The group concluded after the seminar that a new strategy document was needed.

Due to the lack of progression in certain fields it was not possible to accomplish all the initiatives put forward in the strategy document for 1997-2001. Parts of the ICT strategy for 1997-2001 is therefore integrated in the new strategy document called "ICT strategy for the courts 2002-2005".

The project in charge of the strategy document 2002-2005 consisted of a standing committee, a project group and a reference group. In these groups there were judges, representative from the Norwegian State Court IT Service, representatives from the Ministry of Justice and a professor from the University of Oslo.

The strategy document has been made in accordance with the principles put forward in the following documents:

- "Renewal program from the Government": Improve information and service towards the public through the use of ICT;
- "Common goals for the justice sector" (Ministry of Justice, 2000);
- "IT strategy for the Justice sector 1999-2003" and "IT action plan for the Justice sector in 2002-2004": Increased efficiency in the in penal chain through EDI (Ministry of Justice, 1999); and
- "Integration strategy for the systems in the penal chain" (Ministry of Justice, 2001):
  - Enable EDI between the systems in the penal chain;

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<sup>63</sup> "IT-strategi for justissektoren 1999-2003"

- Changes in those Acts and Regulations which are an obstacle for the use of EDI, e.g. remove the requirement for hand written signature; and
- Changes in the working procedure and responsibilities between the bodies in the penal chain;

Based on the documents above the main strategies for the period 2002-2005 are the following:

- Effective EDI and CMS in the courts. With focus on the new case handling system- LOVISA, the use of Intranet, mobile office solutions and the possibility for video conferences and distance hearings. See section 1 and 4;
- Effective EDI with other parts of the Justice sector. Exchange of information in civil and criminal proceedings. See section 3 and 4;
- Better organizing of the resources in the court. This issue is not dealt with in this report;
- Better information and service for the users. See Section 2.1; and
- Better and more effective training of the staff in the Courts. This issue is has been omitted from this report.

The strategy document gives the following vision of the situation in 2005:

- The Courts have a modern ICT-infrastructure all over the country and all employees have access to the same office-applications;
- The information technology in the courts are updated and modernised in the same pace as the ICT development in the rest of the society;
- The hardware is changed before it is out of date;
- Electronic case management is an ordinary and accepted working method;
- All employees in the court have access to Internet, including e-mail;
- The court can provide several 24h services and user friendly information to the public via Internet;
- Employees in the court have access to all legal information services over the Internet; and
- The working situation for the employees in the court is characterised by flexible and mobile office solutions.

### **Budgetary approval**

The Parliament distributes public funds each year over the national budget, based on proposals from the different Ministries. It is within the power of each Ministry to divide the funding. In Norway four different Ministries work with different aspects of ICT.

The Ministry of Trade and Industry and the Ministry of Labour and Government Administration are responsible for ICT in the public sector.

The Ministry of Transports and Communications is responsible for the regulation of the infrastructure and the Ministry of Justice and the Police is responsible for the ICT in the judicial sector.

The Norwegian Court Administration will independent of the Ministry of Justice and the Police and will now be instructed in administrative matters by the King (government).

As we can see there are many different actors involved with ICT aspects in the judicial sector. They are getting their funding from various sources. The question is whether this is an obstacle for horizontal integration concerning ICT infrastructure?

Another issue concerning the funding of ICT is the conflict between finding the optimal scope of projects. On one hand, projects must be of a certain size to get dedicated funding, or else it is considered to be ordinary maintenance of the system. At the same time, development through iterations, gradually evolving existing systems, have shown to increase the probability of reaching the goals for the project within time and within budget, as these projects does not get as complex and as difficult to manage. This has led some public

bodies to separate the presentation from the actual organising and carrying out of their ICT-projects. In order to get the necessary funding from the parliament, they present one “grand design” project with little emphasis on possible risks, while they actually organise the work as a continuing amelioration and enhancement of their existing system, through smaller projects.<sup>64</sup>

## 5.2. Barriers to the development of electronic data interchange

In the following section we will give an overview of what we consider to be the most important barriers, or challenges, in the development of electronic data interchange. Some of the issues are of a general nature, i.e. they are relevant to development of EDI in other areas than the judicial system and to system development in general.

One of the most important issues in literature on system development is the handling of risks. This includes identification of possible risks, analysis of what the risk might lead to, and the preparation of back-up plans. All the barriers mentioned below constitutes risks that need to be considered. One risk that is constantly present in the context of Judicial Electronic Data Interchange is due to the fact that there are always at least two parts involved, e.g. the parts in the penal chain. This dependency makes the projects vulnerable if one of the systems involved is delayed or fails completely.

Since the justice system involves independent bodies, it is difficult to have one part – with executive power - controlling the work of the other involved parties. Therefore trust is an essential factor in order to obtain the best result. The evaluation report from the Office of the Auditor General shows that the different ICT service units in the justice system, especially the Police Data Service, did not give priority to common projects, but concentrated on the activities in their part of the sector. For the success of JEDI in the future, it is to hope that there is a stronger commitment towards common projects.

The importance of trust also applies to the relationship between the judicial body as a customer, and the software developer as a supplier. Through a long period of close and successful co-operation, a trustful relationship has been established, which reduces the need for control. This might, however, be in conflict with the EC rules concerning fair competition.

For the development of the new CMS for the courts, LOVISA, the Norwegian State Court IT Service has chosen the software company that developed the CMS for the Supreme Court, the HØYSAK. The external developers are co-located with the in-house participants in the project. This way of reducing both the physical and mental distance will probably increase the loyalty towards the project, and hence the trust.

It is essential to evaluate the scope of the project. On the one hand, if the planned system is complex it might be a good solution to start with smaller parts of the system and through iterations reach the final goal. This is the best way to take into consideration the important experiences that are made through the implementation stage<sup>65</sup>. On the other hand, working with small parts of a system increases the risk of fragmentation. Therefore it is important to have a clear view of the totality, so that the different parts of the system are compatible and constitutes steps in the same direction.<sup>66</sup> One way to ensure this is by having a thorough and updated strategy.

In section 5.1 we have described some of the most important strategy documents for the justice system. The ambitious goal of having a completely electronic case handling throughout the penal chain, which is the final stage of the integration strategy, serves as a “lighthouse”. This makes it more likely that a system such as the new CMS for the courts, LOVISA, will be well prepared for such integration.

In order for the strategy to serve as such a “lighthouse”, it is probably of importance that the recommended activities are accomplished within the given time frame. This will keep the people involved in the development projects motivated and enthusiastic. If the motivation fails, the risk for losing key personnel

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<sup>64</sup> Statskonsults report on managing public ICT projects, 1998, page 14, <http://www.statskonsult.no/publik/publikasjoner/1998-6/r-1998-6.pdf> (in Norwegian)

<sup>65</sup> Statskonsults report on managing public ICT projects

<sup>66</sup> See Boehm, B. M., *A Spiral Model of Software Development and Enhancement* (1988) for a discussion of how to achieve the advantages of evolutionary design without risking fragmented and incompatible (smaller) systems that constraints evolution.

increases. Nonetheless, there is always a risk that people in key positions must leave the project, and in those cases it is crucial that their knowledge is transferred to other fellow-workers.

Another way of upholding the motivation is by the identification of the profit that can be gained by the implementation of new ICT solutions. With profit we do not primarily think of money, but of effects such as reduced time spent on working procedures and reduced time of transport, as well as increased quality. It is very important to focus on the profit from the start. This will be a motivating factor for finding new solutions to existing and/or new tasks. It will also be of importance to ensure the funding of the project.

In section 5.1 we mention the evaluation performed by the Office of the Auditor General. An important part of their criticism was the lack of plans for realizing and relocating returns from the ICT investments. In the strategy documents that have been made after this evaluation, all recommended activities are followed by a listing of the expected gains.

A report evaluating the use of e-mail for sending electronic documents in the penal chain is another example of the awareness of this issue. This pilot included the police office, the public prosecutor, the district court and the local prison in a county. As a supplement to the ordinary paper communication, electronically available documents were sent as attachments to e-mail. The list of identified gains in the report includes reduced time in various steps of the working procedures, and that the involved parties came to a better understanding of what the other parts of the penal chain were doing. The latter was an unexpected result, but nevertheless an important one.

A barrier that has to be dealt with is the identification of which tasks that can be successfully solved through the use of ICT. It is important to get an overview of the tasks the sector is carrying out. When the tasks are lined up an assessment is needed to get an overview of which of these tasks that can be performed with the use of ICT. The tasks that already have been performed with the use of ICT (if any) have to be evaluated. Questions that can be raised are: Did the use of ICT make the work more efficient? Did the end user find the solution user friendly? What can be handled differently with future development to achieve a better result? Could the working process have been executed differently? All these questions will make it easier to analyze the future need and new development of ICT.

A constant challenge in system development is the “gap of knowledge”. Normally the developer lack knowledge about the working procedures and routines and the customer has not always the understanding of the technical possibilities and limitations. Therefore to succeed in obtaining a common understanding the exchange of knowledge through communication is crucial. Morten Hagedal had the following statement in his report last year about the Supreme Court's CMS system "It is my opinion that a majority of the problems encountered were due in part to lack of knowledge during the development process, computer illiteracy in the Supreme Court and in part because the input from the Supreme court was not sufficiently considered and questioned during the software design."

Finding the right means of communicating across the knowledge-gap is not easy. The existence of a system might sometimes serve as a “common denominator”, or as a point of reference. This is another reason why prototypes and pilots are valuable. The development of the CMS for the Supreme Court has given RIFT experiences that are valuable for the successful development of the new CMS for the courts, LOVISA.

It is important to be aware of the different contracts that might be used in connection with different types of deliveries. A question that can be asked when dealing with contractual issues is: Can the tasks be performed with the use of standard hardware and software or must the system be based on new developments and/or integration work? If the system is to be based on new developments and individual solutions it is important that the contract with appendixes describe in detail the specification of requirements, the detailed system design, the responsibility of the customer and the developer, a project plan, a test and approval appendix, a price and warranty appendix, quality procedures etc.

The need for unambiguous contracts that clearly states the responsibility of the supplier is partly in conflict with the above mentioned gap of knowledge, and the recommendation of using development through iterations. Often it is not until the project reaches its implementation stage that it becomes clear what is lacking in the specification of requirements.

Statskonsult<sup>67</sup> is responsible for a standard contract for system development projects in the public administration. The State Court IT Service has used a revised version of this contract when they signed the agreement for the LOVISA-project. The contract prescribes a moderated version of an iterative system development model.

Regardless of which development model is used, it is important with awareness on the way the specification of requirements is described. Is the specification described through a rattling off various components and/or is it described with the glance on important functionality in the system, e.g. time of response and how the system will cope with several users on the application at the same time? Both aspects are undoubtedly of significant importance.

### **Organizational challenge**

One particular issue that is relevant to the diffusion of JEDI in Norway in the near future is the reorganization of the court administration. From November 1<sup>st</sup> this year a new separate body called The Norwegian Court Administration will take over the responsibility and tasks currently assigned to the Department of Courts Administration in the Ministry of Justice. The State Court IT Service (RIFT) will be merged into the new body, as the ICT department. The new body will be located in Trondheim, but it has been decided that RIFT will stay in Oslo, at least until the LOVISA project has completed, in 2004.

A result of the reorganisation, and the localisation outside Oslo, is that nearly none of the people currently involved in the administration of the courts, will be part of the new organisation. Thus, it is likely that it will take some time before the new body has the needed knowledge about the courts. This might give the ICT department, i.e. RIFT, more influence on the decisions than earlier<sup>68</sup> – at least in the short term. In addition, the distance might result in a gap between the handling of organisational and technological issues.

We also like to point out that the new organisation might be less committed to co-operate with the other bodies in the justice sector – and vice versa. Greater distance will normally lead to less communication, which in turn might reduce the knowledge about what the others are doing. As shown in section 5.1 the unwillingness to prioritise common projects was apparent until the late 90-ies. It is to hope that this unwillingness does not return.

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<sup>67</sup> Statskonsult is a directorate placed under the Ministry of Labour and Government Administration. “Statskonsult shall assist the government administration in solving the foremost task of administrative policy - translating the needs for renewal, efficiency and management into desired changes in the government agencies.” From the Statskonsult web site, <http://www.statskonsult.no/english/index.htm>

<sup>68</sup> This does not mean that RIFT has been without influence earlier.