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**15th COLLOQUY ON INFORMATION TECHNOLOGY AND LAW IN EUROPE
“E-JUSTICE: INTEROPERABILITY OF SYSTEMS”**

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National Report of Norway

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1. Interoperability of IT systems in the criminal justice chain

It is of great importance to the public's trust in the justice sector that criminal cases are handled swiftly through all parts of the justice sector, and this has for years been given priority from the Ministry of Justice.

The importance of efficient IT-systems is highly recognised and understood, but the scope of efficiency has up to now been the single part of the criminal justice chain. The different parts of the Justice sector; the police, the Prosecution Authority, the Courts and the Probation Authority use common information in the criminal justice chain. The different parts have different case management systems for handling information. These systems don't talk together today. This has led to redundant information, overlapping information and information not properly harmonised.

The overall goal now is to ensure that (re)new(ed) systems are able to communicate electronically. A program covering several projects started in 2000 to:

- establish infrastructure (including e-mail) to cover communication between the parties
- develop an integration strategy to ensure electronic communication between (re)new(ed) systems
- ensure harmonisation of information to the extent needed
- ensure establishment of common internal information registers
- ensure establishment of common solution for use of external information registers (to assure quality of data)

Policy issues

Co-ordination of IT has been on the agenda in the justice sector since 1992. The first years the approach was wide and the ambitions were huge, but the concrete results were absent. A new IT-organisation was established in 1995 to work specific on these questions,. After two years the activities were incorporated in the Ministry of Justice. The office of the General Auditor -the controlling organisation of the Norwegian Parliament was quite negative about the fragmented IT-solutions in the Justice sector in their report to the Parliament in 1998 and the lack of results in the Ministry's efforts to co-ordinate IT-activities.

IT-strategy for the justice sector

In 1999 the Ministry finished its first common IT-strategy for the justice sector. The strategy was followed by an action plan emphasising electronic co-action in the criminal justice chain as the most important IT-challenge. The main objective for "electronic co-action in the criminal justice chain" is to establish co-action through the use of e-mail and electronic exchange of information between individual business-systems.

The communication today is based on exchange of physical formal documents and the use of fax and phone. Today's IT-systems support internal procedures in one part of the chain – not electronic co-action between the different parts. The systems in the different parts of sector are developed in different time periods on the basis of different technology.

Our goal is to realise the main objective through different projects within a common program based on the common action plan for the justice sector. The program is managed by a steering committee headed by the Secretary General and the Director Generals in the involved departments in the Ministry. The program co-ordinators are from the Ministry, but the resources taking part in the different projects are mainly from the user-organisations; the police, the courts etc and their IT-organisations.

- Top management attention is important to achieve progress
- The resources in all sectors must involve and be a part of the project.

The idea is to develop the solution in different phases. In the first phase the objective is to develop a concept - and implement electronic connection - an Information-highway - between the different systems and different networks in the criminal justice chain. An electronic communication is a

precondition for a rational and fast production line through out the system. The use is still quite simple and the capacity is only generally 64 kbps in each part of the sector and 128 kbps between the different parts. The capacity will be improved when the use gets more complex.

Some time will pass before system-to-system exchange of information is realised. E-mail is the first example of electronic co-action between the different parts of the sector.

The sector registers and uses sensitive personal data. Sufficient IT-security and personal data protection is a precondition for the use electronic communication. A "Guidance in Technical and Non-technical Security for the justice sector" was published last year. This will be applied when implementing proposed solutions.

The guidance describes an IT-security model accepted by the Norwegian Data Inspectorate. All involved parts of the sector must meet the obligations in this model before the Inspectorate accept electronic communication of personal data between the justice sector organisations.

Full-scale implementation of the information network with new mail systems in all parts of the justice sector is expected to be finished early 2003.

In the project "methods for data exchange and production of management information" there has been developed an integration strategy for systems in the criminal justice chain.

The strategy is an introduction to concepts and methods for electronic co-action. The strategy recommend a n-tier architecture as state of the art for system development. In this architecture the databases (legacy systems), the business logic and the presentation of information are separated. N-tier architecture and object oriented system development based on a framework as Java beans etc is suitable for electronic exchange of information and may reduce the expenses and the complexity when there are new needs for exchange of information between business systems.

In the justice sector a lot of actors must be able to communicate also between public and private sector. We have a situation with many – many relations. The strategy suggest to communicate through a net centric solution. In this concept there will be a message central converting messages received on one format to another format. In this centre the strategy suggest an information/ service bus giving the different organisations access to information through a single interface and for converting request from different clients. This architecture may be used for access to public external register and for giving access to internal registers in the justice sector even if the register is a part of one of the business applications used in sector. It will reduce the problem with replication of data.

A central service provider will be established to give access to common internal register information (like addresses, etc.) and to external register information for all the participants in the criminal justice chain.

The strategy emphasises that the messages must be in a standardised format. The messages will be in some sort of XML format. XML is a promising and growing standard. DTD (Data Type Definitions) will define the document structure but all elements are understood as text strings. The introduction of so called schemas to this technology will make it possible to define a XML-based format where the different elements in the format (schema) represent a set data type.

MIME (Multipurpose Internet Mail Extension) is recommended to bundle documents in a larger document folder.

A lot of standardisation must be done in the legal area as in other areas using XML. This standardisation must be done in co-operation with and inside standardisation organisations. Legal XML is an interesting initiative..

The requirements in the integration strategy are expected to be met in all development/renewal of case handling systems. The first system that will use the new requirements is the system developed for the courts. This solution will even enable us to establish communication between some (not all) of the existing systems, even if they are based on old technology.

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The strategy says that implementation of PKI (Public Key infrastructure) is a precondition for giving electronic documents the same judicial value as paper based documents.

The strategy defines four levels of ambitions on the road to complete electronic data exchange. In the first step both electronic documents and messages will be exchanged. In the final step only the messages will remain.

1. Today's level – distribution of paper based documents between the organisations
2. Electronic exchange of electronic versions of paper documents
3. Electronic exchange of structured electronic support information between the sender and the receivers case management system.
4. Electronic exchange of judicial valid structured electronic messages.

The fourth level is a beacon for the work with interoperability in the future.

The first effort to use XML will be in a pilot project that will make it possible to exchange electronic information between the police and the courts case management systems.

In parallel to the technological project a project work with the standardisation of information used in the criminal justice chain. There has been a lot of discussion around the definition of what is a case. The definition varies between the different parts of the chain. We think we now have a solution that will make it possible to identify a case across the chain.

In parallel we have also started on reviewing the process design not at least to figure out the limits and possibilities in today's law and regulations. If the electronic communication shall lead to efficiency gains it is necessary to substitute the papers based procedures and avoid that the electronic procedures end only as a supplement. Until now there has not been recognisable changes in the procedures due to the introduction of electronic communication. During 2002 we will start to elaborate the use of PKI in electronic communication in the criminal justice chain.

The proposed solution will be further specified and implemented from beginning of 2002.

2. Interoperability of IT systems in the Brønnøysund Register Centre

The Central Co-ordinating Register of Legal Entities (CCR) establishes the unique identification of legal entities. The register has been in operation since March 1995. This is a prerequisite for safe exchange of information about legal entities and is very well established in the Norwegian society. This ID-code is used in all contexts where information on legal entities is exchanged.

BRC is now working on the next phase of creating the basis for interoperability between the entities and the authorities. The objective of the work is to create a database of data definitions and to facilitate easy creation of XML message structures- on the basis of the data definitions. The data definitions may be used as a basis for the creation of forms for submitting information. The Register of Reporting Obligations of Enterprises had to establish a data definition database for the purpose of finding duplicates in reported information from the business community to the authorities. All governmental bodies are obliged by law to report their collection of data from the business community. The national data definition database is an extension of this data definition database.