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CHOSEN BASIC LEGAL AND ORGANIZATIONAL ASPECTS OF ELECTRONIC DOCUMENTS ARCHIVING IN PUBLIC INSTITUTIONS

Abstract: The article presents chosen legal and organizational aspects of the archiving of electronic documents in public institutions in Poland. Section 2 of the study concentrates on the key terminology. Section 3 describes short profile of the most important legal acts. Section 4 of the article shows one exemplary organizational and technical solution for archival documents management.

1. Introduction

The main objective of the article is to introduce a few aspects concerning the use of modern information technologies, which certainly comprises Electronic Document Management Systems in national public institutions. Modern technological possibilities referring to knowledge management support in an organization comprise mainly software which supports groupware, software used for workflow management, intranets and corporal portals, tools for remote learning, data warehouse and electronic documents management systems. The latter of the mentioned information technologies currently seems to be one of the most crucial structural foundations of knowledge management systems which have been developing rapidly over recent years.

The intention of the article was to limit the description to organizations which are of public nature. It results mainly from current intensive work focusing on organizational and implementational character, which aims at adjusting Polish public administration to the requirements stated in, for instance, European Commission documents which were reflected in the Cabinet regulation concerning The State Informatization Plan for the Years 2007-2010 [Regulation 2007]. It is the most important instrument in IT-based actions planned in Poland between 2006 and 2010. It has to be highlighted that also private enterprises are increasingly interested in the subject of electronic documents management, which results in the increased number of proposed IT solutions supporting the described area.

2. Key terminology

This part of the article presents some key terms in the electronic records and documents management area. The definitions are based on the updated and extended Model Requirements for the Management of Electronic Records (MoReq2) which was prepared for the European Commission by Serco Consulting in 2008[1].

Table 1. Key terms and definitions according to MoReq2

Term	Definition
1	2
Capture	The act of recording or saving a particular instantiation of a digital object.
Case file	A file relating to one or more transactions performed totally or partly in a structured or partly-structured way, as a result of a concrete process or activity.
Class	The portion of a hierarchy represented by a line running from any point in the classification scheme hierarchy to all the files below it.
Classification	In records management, the systematic identification and arrangement of business activities and/or *records* into categories according to logically structured conventions, methods, and procedural rules represented in a classification system.
Classification scheme	A hierarchic arrangement of classes, files, sub-files, volumes and records.
Component	A distinct bit stream that, alone or with other bit streams, makes up a record or document. The phrase "distinct bit stream" is used to describe what is usually called a "file" in information technology; the word "file" is avoided here to prevent confusion with the records management meaning of "file". The key concept is that a "component" is an integral part of the content of a record, despite the fact that it can be handled and managed separately.
Document	Recorded information or object which can be treated as a unit. A document may be on paper, microform, magnetic or any other electronic medium. It may include any combination of text, data, graphics, sound, moving pictures or any other forms of information. A single document may consist of one or several components. Documents differ from records in several important respects. MoReq2 uses the term "document" to mean information that has not been captured as a record, i.e. classified, registered and locked against change.
Electronic record	A record which is in electronic form. It can be in electronic form as a result of having been created by application software or as a result of digitisation, e.g. by scanning.
Electronic Records Management System (ERMS)	An ERMS is primarily an application for managing electronic records, though it may also be used to manage physical records. An ERMS is often closely integrated with an Electronic Document Management System (EDMS) or a business application. Technically, an ERMS manages records, while an EDMS manages documents (which are not records).

[1] The specification is available in electronic form at the following url: http://www.moreq2.eu.

Table 1, cont.

1	2
File	An organised unit of records grouped together because they relate to the same subject, activity or transaction.
Metadata	Data describing context, content and structure of records and their management through time.
Record	Information created, received, and maintained as evidence and information by an organisation or person, in pursuance of legal obligations or in the transaction of business. A record may incorporate one or several documents (for instance when one document has attachments), and may be on any medium in any format. As a consequence, it may be made up of one or more components. In addition to the content of the document(s), a record should include contextual information and, if applicable, structural information (for instance information which describes the components of the record). A key feature of a record is that it cannot be changed.
Sub-file	Intellectual subdivision of a file. Sub-files are often used in case file management environments. Typically, each sub-file is named, and each sub-file is used to store a specified kind or kinds of records for one instance of a case, such as "invoices", "assessments" or "correspondence". They can, however, also be used, in a similar fashion, in non-case file environments.
Volume	A subdivision of a *sub-file*. The subdivisions are created to improve manageability of the sub-file contents by creating units which are not too large to manage successfully. The subdivisions are mechanical (for instance, based on number of records or ranges of numbers or time spans) rather than intellectual.

Source: own study based on [*Model Requirements*... 2008, pp. 10-19].

Next part of the article presents main legal regulations for electronic documents and records management, which are obligatory since last few years in Polish public institutions.

3. Polish main legal regulations for electronic documents management

In Polish regulations referring to the area of our interest, the Act of 17 February 2005 which concerns **informatization of activity of entities realizing public goals** should be noted. It concerns all government administration organs, state control and law protection authorities, prosecution organizational units, and also units of local governments and their organs. Additionally the Act's regulations are implied in: budgetary units, budgetary enterprises and auxiliary enterprises of budgetary units, special purpose funds, and independent public health care centres, Social Insurance Company, Agricultural Social Insurance Fund, National Health Fund, state or local government legal persons formed on the basis of separate acts in order to realize public tasks. That Act enables: introduction of common notions and definitions,

State Informatization Plan implementation, creation of cross-sector information projects, sector projects creation, definition of foundation criteria for cross-sector and sector information projects, subsidizing of IT projects of public use, common use software and actions supporting information society, creation of State Register of Teleinformatic Systems and Public Registries. Additionally, the Act introduces: necessities of minimum requirements execution by systems which realize public tasks, clear criteria for creating electronic version of public registers and rules of making the contained information accessible to entities realizing public tasks, and number of changes in other acts, for example, enabling a secure use of electronic signature in practice.

The described Act contains a crucial definition for the concerned subject matter, namely it precisely describes what an electronic document is[2]. **Electronic document** is "a collection of data, as a separate significative entity, ordered in a defined internal structure and recorded on a data carrier [Act 2005].

Precise legal acts regarding dealing with electronic documentation, currently functioning in Poland, concern public entities. There are three regulations issued on the basis of the delegation incorporated in the Act of national archival resources and archives of 14 July 1983: Ministry of Interior and Administration of the Republic of Poland (MSWiA) Regulation of 30 October 2006 concerning indispensable elements of electronic documents structure [Regulation 2006a], MSWiA Regulation of 30 October 2006 concerning detailed procedure referring to electronic documentation [Regulation 2006b] and MSWiA Regulation of 2 November 2006 concerning technical requirements of recording format and IT data carriers used to record archival materials transferred to national archives [Regulation 2006c].

We shall proceed now with demonstrating a synthetic description of the most important assumptions and conclusions resulting from the abovementioned regulations.

The regulation concerning **indispensable elements of electronic documents structure** indicates that indispensable elements of electronic documents are only some metadata, i.e. a set of logically systematized information related to an electronic document and describing that document, which facilitates its retrieval, control, comprehension and long-term storage and management. The regulation limits the number of necessary metadata to 14, whereas only 7 of them are obligatory. They are:

1) identifier – the unequivocal document marker in a given set of documents, which enables its identification,

2) author – the entity responsible for the document content, with a stated role in the document creation or acceptation process,

3) title – the name given to a document,

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[2] Before the passing of the Act, it used to be an unspecified concept, defined in various ways in Polish legal acts.

4) date – the date of an event connected with the document creation,

5) format – the name of data format used for the document creation,

6) access – establishing who, on what basis and to what extent can access the document,

7) type – establishing the basic document type (for example, text, sound, picture, moving picture, collection) based on Dublin Core Metadata Initiative type list and its possible further description (for example, presentation, invoice, act, memorandum, regulation, letter).

The remaining seven elements are:

1) relation – establishing a direct connection with another document, and the type of that connection,

2) recipient – the entity which is the document's recipient,

3) grouping – indicating the affinity to a set of documents,

4) qualification – the archival category of the document ,

5) language – natural language code according to ISO-639-2 norm or other language definition if it not included in the norm,

6) description – a summary, table of contents or short description of the document content,

7) rights – pointing the entity entitled to administer the document.

The described regulation also establishes that electronic documents prepared to be sent via electronic means of communication should be made in XML format.

MSWiA Regulation concerning detailed procedure referring to electronic documentations is aimed at ensuring secure storing of electronic documentation showing the activity of state organs and state organizational units, local government units and local government organizational units. Until now law regulations, regarding the procedure with documentation in the abovementioned entities, issued on the basis of the Act of national archival resources and archives referred to file documentation generated in a traditional (paper) way and could not be applied directly to the procedure concerning electronic documents. In case when a given entity wants the saved electronic documents (recorded electronic documents) to indicate its activity, the regulation imposes the requirement that an IT system dedicated to that purpose should be used to deal with those documents. In this way the regulation excludes the possibility of scattered storing of electronic documents which are the evidence of an institution's activity. The requirement aims at protecting important electronic documents from the loss resulting from the aging process occurring in isolated, kept in harmful conditions data carriers and technologies used for reading those carriers.

The concern about ensuring proper storage of recorded electronic documents is expressed in the described regulation also through the necessity of introducing proper procedures of long-term storing, which complies with the current knowledge and technology state, and also document migration to new data carriers in case there is such a need. Those regulations indirectly point out that in case of planning to replace

a part of traditional (paper) documentation with electronic documents, not only current expenses should be taken into account but also those connected with storing and ensuring continuous access to the electronic documents generated earlier.

The Regulation concerning technical requirements of recording format and IT data carriers used to record archival materials transferred to national archives does not apply to such institutions as: the President, Parliament (the Sejm), Senate, Cabinet, organs and units subordinate to the Ministry of National Defense (MON), Internal Security Agency (ABW), Foreign Intelligence Agency (AW), Central Anticorruption Bureau (CBA) and Institute of National Remembrance (IPN). The subject domain of the regulation is restricted only to data carriers which are used to transfer data to national archives. The key element of the Regulation is the annex which clearly states the way of recording metadata in the form of XML language notions. XML is the format appointed by the Cabinet Regulation of 11 October 2005 concerning the minimum requirements for teleinformatic systems as the format appropriate for "defining information arrangement through describing information elements and relations between them" [Regulation 2005].

Summing up this part of the article, it is worth noting that private entities regulate issues concerning documentation procedures (also in an electronic form) on their own. However, the directives and formats included in the regulations described above can be useful also for organizations of non-public character which want to introduce an effective management system of documents, especially archival documents.

4. Exemplary organizational and technical solution for archival documents management in a public entity

In this part of the article we shall introduce the way which can help to realize in practice the establishing of the legal acts described above. It was based on the description of the first attempt of the establishing implementation by local government bodies in Poland.

At the turn of 2006/2007 three institutions (Chorzów Municipality Office, Częstochowa Municipality Office and The Supreme Directorate of National Archives – NDAP), which are already equipped with systems for document circulation and apply them in daily proceedings, prepared data export from those systems in the accordance to the Ministry of Interior and Administration of the Republic of Poland (MSWiA) Regulation of 2 November 2006 concerning technical requirements of recording format and IT data carriers used to record archival materials transferred to national achieves. Tests were carried on the basis of the ready-made prototype of information system prepared to receive those data. The exported data constituted so called archival packages which were uncompressed file consisting of three folders: "Documents", "Metadata", "Affairs".

On the basis of the system tests, it was concluded that the entities creating electronic documentation in the process of dealing with daily affairs should apply a certain procedure which would allow to transfer the archival electronic documents to the national archives. The procedure looks as follows [Schmidt 2007, pp. 20-32]:

Preliminary actions

So called technical archive establishes two accounts in the system for the national archives:

– administrative accounts (in order to create accounts for public entities wishing to transfer archival materials),
– essential accounts (for metadata editing and data search).

It also establishes the account for The Supreme Director of National Archives which enables reports from all national archives viewing and archival materials search in all public entities.

The entity (public institution mentioned in the regulation) submits an application to a proper national archive requesting archival materials transfer. The application does not have to be in the form of an electronic document. However, the enclosed delivery and acceptance protocol has to be an electronic document.

The national archive establishes four accounts in the system via administrative account for the public institution:

– an account to transfer a delivery and acceptance protocol and checksum of an archival package (so called super account),
– an account to edit metadata (if there is such a need),
– two accounts to search for the transferred documents (unlimited access).

Step 1 – transferring a delivery and acceptance protocol

After logging into the super account it is possible to transfer a delivery and acceptance protocol through the system.

Step 2 – accepting a delivery and acceptance protocol and checksum input

After transferring a delivery and acceptance protocol by a public institution, the protocol has to be accepted by a proper national archive. Using the essential account enables such acceptance. It concerns the content-related check up if the protocol does not contain, for instance, matters which should not be transferred to the archive as, according to a file register, they are not archival materials. Technical correctness of the protocol structure will be checked by the system automatically. After accepting the delivery and acceptance protocol, the elaborate procedure requires making a step by the public institution which transfers those materials. The checksum for an archival package which is going to be transferred to the national archive needs to be put in. The checksum has to be related to the archival package which exactly responds to the already transferred and accepted delivery and acceptance protocol.

Step 3 – sending an archival package

A public institution can prepare a carrier with a recorded archival package and send it to the proper national archive (or directly to the technical archive, if it is pointed out by NDAP).

Step 4 – archival package input by the technical archive

The technical archive, after receiving the carrier with archival materials, puts the archival package content into the system, however they do not do that immediately, but after the quarantine period for electronic documents. The quarantine is needed due to a strong possibility of avoiding a "vicious" software intrusion to the archive.

Step 5 – the archival package content checkup done by the national archive

After the archival package is put into the system, the national archive is automatically informed about that fact. However, also at that stage the archival package can be rejected for content-related reasons. Structural correctness of the archival package, and its accordance to the delivery and acceptance protocol and checksum can be automatically checked. At the moment, however, it cannot be checked if, for instance, the titles given to documents in fact relate to those documents content, types of documents are correctly described, or classifying passwords complies with the file register. It is going to be the subject matter of the further development work[3].

5. Summary

Attitude to archival documentation management in contemporary organizations is probably going to change with the popularization of the idea of wider documents digitalization. Processes of that kind are being currently observed in the world (for example, the Google News Archive project). Nevertheless, Polish institutions are at the beginning of the process leading to a wider understanding of the electronic documents significance for enlarging socio-historic knowledge resources. To sum up the described considerations it should be highlighted that information society should intensively support all actions leading to possibly the fastest replacement of paper documents in public institutions with digital documents accessibility of which will enable all citizens to have a real and fast access to public information.

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[3] More information about the Electronic Document Archive system created for the Supreme Directorate of National Archives can be found at http://ndap-bazawiedzy.nask.pl/doku.php.

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